

Child Occupant Protection Glossary

2-point seat belt: A lap belt.

3-point harness: Webbing on a car seat with three attachment points: two at the shoulder and one between the legs.

3-point seat belt: A seat belt with both a lap and a shoulder portion that has three attachment points (ones shoulder and two at the hips).

5-point harness: Webbing on a car seat with five attachment points: two at the shoulder, two at the hips, one between the legs.

Acceleration: The act of speeding up. This relates to both objects and people.

Air bag: A passive restraint system that automatically deploys during some crashes to create a broad surface on which to spread the forces of the crash, in order to reduce head and chest injury. It is considered a “supplementary” system to the lap and belt because it enhances their protective action in frontal collisions. Also known as SRS-supplemental restraint system; SIR-supplemental inflatable restraint; SIPS-side impact protection system; IC-inflatable curtain; SIAB - side impact air bag.

Automatic locking retractor (ALR):

A seat belt retractor that locks, maintaining a fixed length of seat belt webbing during installation of a car seat.

Belt anchor points: Fixed location where the safety belt is attached to the vehicle structure.

Belt path or route: The manufacturer’s required place where the vehicle seatbelt passes around or through the child restraint.

Belt-positioning booster seat (BPB):

A crash-tested device that raises the child so that the required lap and shoulder belts fit correctly. All BPBs act as pre-crash positioning devices and must be used with lap and shoulder belts. BPB models may have high backs, or be backless.

Belt shortening clip: A heavy duty locking clip intended for use to shorten lap belts around a child restraint. Not to be confused with the standard locking clip that comes with a child safety seat. Must be purchased or ordered from vehicle manufacturer.

Best practice: Suggested options that represent most acceptable ways to travel for a child of certain age, size, physical development, and behavioral needs. Best practice may vary given real world circumstances.

CPS: Child passenger safety.

Car seat: See Child Safety Seat.

Child restraint (CR), child restraint system (CRS), child restraint device (CRD): A crash-tested device or system that is specially designed to provide infant/child crash protection. General term for systems including child safety seats, vests or car beds that meet FMVSS 213.

Child safety seat (CSS) or car seat: A crash-tested device that is specially designed to provide child crash protection. General term for rear facing-only convertible, combination, 3 in 1 and all in one .

Children with special transportation needs: Children whose physical or behavioral conditions makes the use of particular, often specially designed, restraint systems necessary.

Combination seat: A type of forward-facing child restraint that is used with an internal harness system to secure a child and then, with removal of the internal harness, is used as a high back belt-positioning booster (BPB) seat.

Compliance tests: Rigorous crash tests done to assure that manufacturers meet required federal standards (in this case, FMVSS 213) established by NHTSA.

Free sliding loop lap and shoulder belt: A three-point belt that uses one continuous strip of webbing that slides through the latch plate. It is connected at one end to the vehicle at the anchor point and the other to a retractor system.

Convertible child safety seat: A child restraint that “converts” from rear-facing for infants to forward-facing for children.

Deceleration: The act of slowing down. This relates to both objects and people.

Ease-of-Use ratings: A set of ratings developed by NHTSA to rate CRSs based on their ease of use. Ratings are given at the A, B, or C level.

Emergency locking retractor (ELR): A retractor on a safety belt system that locks in response to rapid deceleration of the vehicle. ELRs respond to rapid movement of the belt or the sudden deceleration of the vehicle or both.

FAA approval: Certification that the child restraint meets the compliance test (within FMVSS 213) that is required for use on aircraft.

FMVSS 213: Federal Motor Vehicle Safety Standard that pertains to all restraint systems intended for use as crash protection in vehicles for children up to 80 pounds.

FMVSS 225: Federal Motor Vehicle Safety Standard that pertains to a method of car seat installation that is independent of the vehicle seat belts. Referred to as lower anchors and tether for children (LATCH). Used for CRS installation instead of the seat belt.

Forward-facing-only car seat: A child restraint that is intended for use only in the forward-facing position for a child who has outgrown his/her rear facing seat

Free-sliding latch plate: A latch plate that doesn't lock. Seat belt webbing freely slides through it.

Frontal collision/impact/crash: An impact at the front end of the vehicle, the most frequent type of collision.

Gross misuse: The most flagrant CR errors, those that completely negate the intended effect of the child restraint.

Harness retainer clip: A clasp that holds the shoulder straps close together over the child's chest at armpit level. Pre-crash positioning device intended to keep harness straps in position on the shoulders.

Head excursion: The distance from a reference point that the occupant's head travels forward during a frontal impact. A performance measure regulated by FMVSS 213.

Head injury criterion (HIC): A calculated value indicating the likelihood of serious head injury which may or may not include direct head impact. It is based on the magnitude and duration of measured dummy head acceleration during a crash test.

Incompatibility: The ways in which motor vehicle seats, seat belts, and other elements impede the correct use of child restraints and visa versa.

Infant-only safety seat: A child restraint designed for use only by a young child in a semi-reclined rear-facing position. Also referred to as rear-facing only car seat.

Integral (integrated) child seat: A child-sized forward-facing restraint and/or BPB built into a vehicle seat. Some have a full harness. Others are belt-positioning boosters for use with lap and shoulder belts.

Lap belt: A seat belt anchored at two points for use across a vehicle occupant's thighs/hips.

Lap and shoulder belt: A seat belt that is anchored at three points and restrains the vehicle occupant at the hips and across the chest and shoulder. Also referred to as a combination lap and shoulder belt.

LATCH: Lower Anchors and Tethers for CHildren. See FMVSS 225.

Latch plate: The part of the buckle mechanism that locks or connects into the buckle. May be the part that adjusts the length of the lap portion of the belt webbing.

Side impact: An impact into the side of a vehicle, usually the most severe/deadly collision.

Locking clip: A flat H-shaped metal item intended to clip belt webbing together at a free-sliding latch plate in order to prevent the webbing from sliding through. A pre-crash positioning device only. Not to be used as a belt shortening clip. See Belt Shortening Clip.

Locking latch plate: A latch plate that holds the lap belt snug after it has been adjusted.

Lower anchors/lower anchorage system: New method to affix CRSs to vehicles independent of the vehicle safety belts. See FMVSS 225.

National Highway Traffic Safety Administration (NHTSA): The federal agency that sets performance, design, and labeling standards and requirements for motor vehicles and items of motor vehicle equipment such as child restraints. It also promotes highway and transportation safety.

Passenger air bag: An air bag in the right front part of the passenger compartment. It is larger than the driver bag and may restrain either center or right front occupants or both.

Passive occupant protection: Features of the vehicle that lessens the injury to the occupant without any action taken by the occupant.

Pretensioners: Integrated in some lap and shoulder belt systems to remove excess slack from the belt instantaneously with the crash.

Rebound: Motion in the opposite direction after initial impact has occurred.

Recalls: Voluntary or required actions taken to correct problems or deficiencies once products have been distributed or sold. Manufacturers must offer free repairs or replacement for products recalled for violations of safety standards.

Retractor: A mechanism that rolls up the webbing of the seat belt when it is not in use and takes up slack around the user.

Retrofitted shoulder belt: A shoulder belt that is added to an existing vehicle belt system, most often in the rear seat outboard positions. Most manufacturers make kits for older model vehicles.

Seat bight: The intersection between the bottom vehicle seat cushion and the back cushion. The seat crack.

Sewn latch plate: A latch plate on a lap belt or a lap and shoulder belt that is permanently stitched in place on the belt webbing.

Shell: The molded plastic structure of the child restraint. In some models, the shell is attached to or reinforced by a metal frame.

Shoulder belt positioners or comfort guides: Devices (some built in and some add-ons) that can be used to reposition shoulder belts so they fit across the shoulder rather than across the neck.

Shoulder harness slots: Slots in the back of the child restraint through which shoulder straps are routed.

Sliding latch plate: A latch plate that doesn't lock. Safety belt webbing freely slides through it.

Structural integrity: The ability of a device to retain its structure and protective features under the stress of crash forces.

Submarining: The motion of a body during a crash under certain conditions. When the pelvis slides under the lap belt and the belt intrudes into the abdomen.

Switchable (ALR/ELR) retractor: A retractor that usually functions as an ELR and can be transformed into an ALR to secure a child restraint.

Tether anchor: The kit or installed hardware bracket used to secure the tether hook and strap at the designated anchor point in the vehicle. The tether strap and hook attach directly to the anchor bracket.

Tether strap: A piece of belt webbing that anchors the top of the CR to the vehicle structure. It keeps the restraint from tipping forward on impact and can provide an extra margin of protection. Can be optional or factory installed.

Vest: A child restraint system that has shoulder straps, hip straps, (and sometimes) a crotch strap. Used in conjunction with the vehicle seat belt system.

Webbing: The fabric of the safety belt that holds the occupant or a CRS in place.

Whiplash injury: An injury to the neck usually caused by sudden whipping of the head backward during a rear impact collision.