

CMVSR 208 — OCCUPANT RESTRAINT SYSTEMS IN FRONTAL IMPACT

revised: 2014-09-12

LEGEND

- ◆ FAS: Fully Automatic System
- ◆ A & LB: Automatic plus Lap Belt
- ◆ LB: Lap Belt
- ◆ LB & SB Lap Belt plus Shoulder Belt
- ◆ LSB: Lap Shoulder Belt
- ◆ DSP Designated seating position

1971

EFFECTIVE DATE

SOR 70-487, January 1, 1971

AMENDMENT SUMMARY

Motor Vehicle Safety Regulations includes:

- ◆ Standard 208—Seat Belt Installations
- ◆ Standard 209—Seat Belt Assemblies
- ◆ Standard 210—Seat Belt Anchorages

Passenger Cars	Convertibles Open bodies Walk-ins	Buses	MPVs and Trucks ≤ 4 536 kg	MPVs and Truck > 4 536 kg	Front Outboard DSPs	Rear Outboard DSPs	Center	Others
■					LB & SB	LB or LB & SB	LB or LB & SB	LB or LB & SB
	■				LB	LB	LB	LB
		Not Legislated	Not Legislated	Not Legislated				

1972, 1973

EFFECTIVE DATE

SOR 72-96, July 1, 1972

AMENDMENT SUMMARY

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|---|--|
| <ul style="list-style-type: none"> ◆ Mandates combined or detachable lap & shoulder belts with automatic or emergency locking retractors at front outboard seating positions of passenger cars. ◆ Passive seat belts included in the definition of “seat belt”. ◆ Seat belts introduced on buses at driver's location only. ◆ Seat belts introduced at designated seating positions on MVPs (both less than and greater than 4 536 kg). | <ul style="list-style-type: none"> ◆ Warning light and buzzer on passenger cars. ◆ Belts required to meet percentile size requirements. ◆ MVPs require bilingual label for seats not intended for occupancy while vehicle is in motion. |
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Passenger Cars	Convertibles Open bodies Walk-ins	Buses	MPVs and Trucks ≤ 4 536 kg	MPVs and Trucks > 4 536 kg	Front Outboard DSPs	Rear Outboard DSPs	Center	Others
■					LSB or LB & SB	LB or LB & SB	LB or LB & SB	LB or LB & SB
	■ Convertibles				LB	LB	LB	LB
	■ Walk-ins	■			LB at driver's DSP only			
			■		LB or LB & SB	LB or LB & SB	LB or LB & SB	LB or LB & SB
				■	LB or LB & SB	LB or LB & SB	LB or LB & SB	LB or LB & SB

1974, 1975

EFFECTIVE DATE

SOR 73-693, January 1, 1974, Introduction of Type II belts

SOR 74-421, July 8, 1974, Maintenance label

SOR 74-573, October 2, 1974, Passive Systems

SOR 75-73, January 30, 1975, Duration of buzzer

AMENDMENT SUMMARY

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| <ul style="list-style-type: none"> ◆ Option to use passive systems introduced. ◆ Seat belt assemblies with non-detachable upper torso portion required to be fitted at front outboard DSPs on passenger cars. ◆ Emergency locking retractors (ERLs) mandatory at upper torso at front outboard DSPs of passenger cars. ◆ Seat belts required to adjust to occupant size range. | <ul style="list-style-type: none"> ◆ Maintenance label required to be affixed to vehicles providing passive occupant protection. ◆ Duration of warning buzzer selected by manufacturer of vehicle. |
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Passenger Cars	Convertibles Open bodies Walk-ins	Buses	MPVs and Trucks ≤ 4 536 kg	MPVs and Trucks > 4 536 kg	Front Outboard DSPs	Rear Outboard DSPs	Center	Others
■					FAS, A & LB or LSB	FAS, A & LB, LB, or LB & SB	FAS, A & LB, LB, or LB & SB	FAS, A & LB, LB, or LB & SB
	■ Convertibles				LB or LB & SB	LB, or LB & SB	LB, or LB & SB	LB, or LB & SB
	■ Walk-ins	■			LB or LB & SB at driver's DSP only			
			■	■	FAS, A & LB, LB or LB & SB	FAS, A & LB, LB or LB & SB	FAS, A & LB, LB or LB & SB	FAS, A & LB, LB or LB & SB

1976, 1977, 1978

EFFECTIVE DATE

SOR 75-654, April 1, 1976,

AMENDMENT SUMMARY

- ◆ Mandatory fitment of seat belt assemblies with non-detachable upper torso portion at front outboard DSPs of trucks and MPVs with a GVWR of 4 536 kg (10,000 lb) or less with the exception of:
 1. convertibles, open body type vehicles and walk-in van types and trucks
 2. forward control vehicles, motor homes and vehicles carrying chassis mounted campers.
- ◆ Camper may be fitted with LB or LB & SB, provided the windshield header is not within the head impact area.

Passenger Cars	Convertibles Open bodies Walk-ins	Buses	MPVs and Trucks ≤ 4 536 kg	MPVs and Trucks > 4 536 kg	Front Outboard DSPs	Rear Outboard DSPs	Center	Others
as 1974/5	as 1974/5	as 1974/5	■ 1, 2	as 1974/5	FAS, A & LB or LSB	FAS, A & LB, LB or LB & SB	FAS, A & LB, LB or LB & SB	FAS, A & LB, LB or LB & SB

1979

EFFECTIVE DATE

SOR 78-80, September 1, 1979

AMENDMENT SUMMARY

- ◆ Revokes part of SOR 75-564 which provides exemptions for forward control vehicles, motor homes and chassis mounted campers, regardless of windshield header location.
- ◆ Permits lap belts on cars, trucks, and MPVs that are convertible, open bodies, walk-in vans, and buses, trucks, MPVs with a GVWR of more than 4 536 kg (10,000 lb).
- ◆ All other vehicles to be fitted with type II belts or approved options.

Passenger Cars	Convertibles Open bodies Walk-ins	Bus	MPVs and Trucks ≤ 4 536 kg	MPVs and Trucks > 4 536 kg	Front Outboard DSPs	Rear Outboard DSPs	Center	Others
■					FAS, A & LB or LSB	LB or LSB	LB or LSB	LB or LSB
	■ Convertibles				LB	LB	LB	LB
	■ Walk-ins	■			LB or LSB at driver's DSP only			
			■		LSB	LB or LSB	LB or LSB	LB or LSB
				■	LB	LB	LB	LB

1980

EFFECTIVE DATE

SOR 80-782

AMENDMENT SUMMARY

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| <ul style="list-style-type: none">◆ Alters the number and location of ATDs used in compliance testing.◆ Increases allowable femur load.◆ Eliminates the requirement for retractors at the second seat of forward control vehicles. | <ul style="list-style-type: none">◆ Introduces a temporary optional restraint system which is phased out according to a specific timetable. |
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1987

EFFECTIVE DATE

SOR 87-578, September 1, 1987

AMENDMENT SUMMARY

Introduction of Vehicle Fuel Tank Capacity in “Interpretations” affected the Test Method. A change was necessary to reference the updated Test Method.

1990

EFFECTIVE DATE

SOR 90-387, September 1, 1991

AMENDMENT SUMMARY

“walk-in van-type truck” changed to “walk-in van type truck”

EFFECTIVE DATE

SOR 93-5, January 13, 1993

AMENDMENT SUMMARY

- ◆ Installation of combined lap and shoulder belts in the rear outboard seating positions of all passenger cars, trucks and MPVs with a GVWR of less than 4 535 kg (replacing the requirement permitting lap belts only).
- ◆ Installation of combined lap and shoulder belts in the front outboard seating positions of convertible passenger cars (replacing the requirement permitting lap belts only).
- ◆ Installation of ELRs or automatic locking retractors for the lap belt portions of seat belts in outboard seating positions of trucks, buses and MPVs with a GVWR of 4 546 kg or

more (replacing the requirement permitting manual adjusting retractors).

- ◆ Requirements for automatic protection systems clarified.
- ◆ Definitions modified for motor home, 50th percentile adult male, 50th percentile 6-year old child, infant.
- ◆ Definitions added for front outboard designated seating position, rear outboard designated seating position.
- ◆ Definiton revoked for passive occupant protection.
- ◆ Definitions added for automatic occupant protection systems, convertible, motor home.

Passenger Cars	Convertibles Open bodies Walk-ins	Buses > 4 536 kg	MPVs, buses and Trucks ≤ 4 536 kg	MPVs and Trucks > 4 536 kg	Front Outboard DSPs	Rear Outboard DSPs	Center	Others
■			■		FAS, A & LB or LSB	LSB	LB or LSB	LB or LSB
	■ convertibles				LSB	LSB	LB or LSB	LB or LSB
				■	LB or LSB	LB or LSB	LB or LSB	LB or LSB
		■			FAS, LB or LSB Drivers position only			
	■ walk-ins				LB Drivers position only			

1997

EFFECTIVE DATE

SOR 97-447, January 1, 1998

Some requirements are phased-in over a period of several years.

IMPLEMENTATION SCHEDULE

Vehicle Class	Head Acceleration 80-g limit or, with airbag, HIC ₁₅ of 700	Chest Compression		
		65 mm	60 mm	50 mm
Passenger Cars	1998	1998 ¹		1999
Trucks, Buses, and MPVs with a GVWR ≤ 2 722 kg	1998	1998		2000
Trucks, Buses, and MPVs with a GVWR > 2 722 kg and ≤ 3 856 kg (UVW ≤ 2 495 kg)	1998	1998	2000	

AMENDMENT SUMMARY

- ◆ Section 2—Interpretation
- ◆ Schedule III
- ◆ Standard 201—Occupant Protection
- ◆ Standard 208—Occupant Restraint Systems in Frontal Impact
- ◆ Standard 209—Seat Belt Assemblies
- ◆ Standard 210—Seat Belt Anchorages
- ◆ Standard 213.1—Infant Seating and Restraint Systems

UNCHANGED

- ◆ Air-bag systems equipped with readiness indicator.
- ◆ Three-point seat belts required at front outboard DSP of all vehicles with a GVWR of 4 536 kg or less.
- ◆ Three-point seat belts with non-detachable shoulder belts required at the rear outboard seating positions.
- ◆ Seat belts to be equipped with emergency-locking retractors.
- ◆ Both the belt and its buckle ends to be accessible to the wearer.
- ◆ Fitment of air bags optional.

REMOVED

- ◆ HIC₃₆ of 1000 limit no longer acceptable.
- ◆ Chest acceleration no longer used as a criterion.
- ◆ The Hybrid II ATD can no longer be used in dynamic testing.
- ◆ Rollover and side-impact tests eliminated.
- ◆ Angled barrier impacts eliminated.
- ◆ Automatic seat belts no longer permitted.
- ◆ Requirements that applied to automatic seat belts deleted.

NEW REQUIREMENTS

- ◆ Manual seat belts must be used.

- ◆ Passenger cars and trucks and MPVs with a GVWR of ≤ 3 856 kg and with an UVW ≤ 2 495 kg subject to 48 km/h frontal barrier test.
 - Exception: vehicles manufactured for operation by persons with disabilities.
- ◆ Test conditions
 - Only the Hybrid III ATD may be used.
 - Angle of the collision barrier restricted to 90° ± 5° from the line of travel.
- ◆ Head protection criteria
 - Maximum resultant acceleration limited to 80 g.
 - Vehicles equipped with air bags may optionally use HIC₁₅ with a limit of 700.
- ◆ Chest protection evaluated in terms of chest compression .
 - 50 mm limit for passenger cars, and trucks and MPVs with a GVWR ≤ 2 722 kg .
 - 60 mm limit for trucks, buses, and MPVs with a GVWR > 2 722 kg and ≤ 3 856 kg, and with an UVW < 2 495 kg.
- ◆ Explicit permission for air bag cut-off switches in vehicles without rear seats and in vehicles where there is insufficient room in the rear seat to properly install a rearward-facing child or infant restraint system.
- ◆ Air bag labeling requirements introduced .
 - Warning
 - ◇ Not to install a rearward-facing child or infant restraint system at a seating position equipped with an air bag .
 - ◇ Not to sit too close to the air bag module.
 - ◇ Note: Where there is no air bag at the front passenger position, the caution against installing a rearward-facing infant restraint system is not required.
 - Where a vehicle is equipped with an air bag cut-off switch, the caution must warn against installing the restraint system without first deactivating the air bag.

¹ This requirement is effective January 1, 1998. The effective dates for the other requirements are September 1 of the year given.

- Must be in both English and French.
- Label(s) must be affixed on or near the sun visor (e.g.: near the windshield header).
- May use more than one label.
- Regulation stipulates content but not specific wording of warning labels .
 - ◊ This approach permits the use of labels that conform to U.S. requirements.
- ◆ Owner’s manual must contain
 - Same cautions as on labels.
 - Additional warning against placing objects on the air bag module or between the module and the occupant.
 - Information on how to operate an air bag cut-off switch.
 - ◊ A statement explaining when it should be used.
 - ◊ Warning about the consequences of misuse.
- ◆ Editorial changes
 - Text rewritten.
 - Title changed to “Occupant Restraint Systems in Frontal Impact” .
 - Related provisions grouped under separate headings.
- ◆ Section 208’s test method revised
 - Renamed: Test Method 208 — Occupant Restraint Systems in Frontal Impact (December 1996).
 - Section on Vehicle Loading updated to coincide with that of other TMs.
 - Added section “In-depth investigation of an Apparent non-Compliance for cases of apparent non-compliance” with chest criterion
 - Added method for determining whether there is insufficient room to install a rear-facing infant restraint in a rear seat.

OTHER ITEMS

DEFINITION

- ◆ “air bag” defined in subsection 2(1) « *sac gonflable* ».

- ◆ “special driver accommodation” and “vehicle manufactured for operation by persons with disabilities” added to subsection 2(1).
- ◆ Revised definition for “seating reference point”.
- ◆ “adjacent seat”, “normal occupants’ mass”, and “outboard designated seating position”, revised (masses presented in SI units).
- ◆ Definitions at the beginning of section 209, “Seat Belt Assemblies”, moved to subsection 2(1).

SEAT BELT ANCHORAGES

- ◆ Upper bound of lap belt angle decreased to 30°.
- ◆ Number of other minor technical changes.
- ◆ Added provisions for adjustable upper torso anchorages.
- ◆ Provisions related to automatic seat belts removed.
- ◆ Definitions at the beginning of section 210 eliminated.
- ◆ Definition of “anchorage” replaced by the newly defined term “seat belt anchorage”, included in subsection 2(1).
- ◆ Section rewritten and renamed “Seat Belt Anchorages”, and the material organized under separate headings.
- ◆ Testing requirements contained in section 210 have been extracted and a Test Method titled: Test Method 210 — Seat Belt Anchorages (December 1996) created.
- ◆ Note: Seat belt anchorages must meet the strength requirement at only one loading rate, rather than at all the rates in the specified range as specified by the U.S. regulation.

INFANT SEATING AND RESTRAINT SYSTEMS

- ◆ Added requirements for manufacturers to warn users against installing infant restraint systems in the front seat of vehicles equipped with air bags

Passenger Cars, 3 wheel vehicles, MPVs, and Trucks ≤ 4 536 kg	Enclosed motorcycles	Buses	Motorhome ≤ 4 536 kg	MPVs, motorhomes, Trucks, walk in vans > 4 536 kg	Walk in van ≤ 4536 kg	Front Outboard DSPs	Rear Outboard DSPs	Center / Others
■		■ non school buses ≤ 4536kg				LSB	LSB	LB or LSB
				■		LB or LSB	LB or LSB	LB or LSB
		■ all buses > 4536kg				LB or LSB Drivers position only		
	■					LSB	LSB	LSB
			■			LSB	LB or LSB	LB or LSB
					■	LB or LSB Drivers position LSB - Passenger position	LSB	LB or LSB
		■ School bus ≤ 4536 kg				LSB Drivers position only		

EFFECTIVE DATE

SOR 2013-9, February 13, 2013

Transitional provision September 1, 2015

AMENDMENT SUMMARY

- ◆ Section 2—Interpretation
- ◆ Standard 208—Occupant Restraint Systems in Frontal Impact

Section 2—Interpretation

- ◆ repealed the definition of “vehicle manufactured for operation by persons with disabilities”
- ◆ created a new definition for “disabled persons”

Section 18 — Owner’s manual

- ◆ New section to the regulations
- ◆ every vehicle must be provided with an owner’s manual that contains the specified information relating to the operation of the vehicle;
- ◆ the owner’s manual must be available in English and French; and
- ◆ if the owner’s manual is not provided in paper copy, then the owner’s manual must be accessible in the vehicle occupant compartment with a device that is installed in or accompanies the vehicle.

MVSR 208

Seat belts

New Requirements

- ◆ Three-point seat belts with non-detachable shoulder belts required at the rear seating positions of all vehicles with a GVWR of 4 536 kg or less.
- ◆ Allows for detachable or automatic seat belts in front outboard seating positions for a disabled person,
- ◆ Allowable detachable seat belts in certain rear seating configurations
 - ◆ Detachable from anchor only - the interior position of a folding seat, at a removable seat, and at a seat adjacent to an aisle way
 - ◆ Detachable from lap belt – a seat can be adjusted to face multiple directions (swivel seat)
- ◆ Walk-in van GVWR of 4 536 kg or less exceptions for drivers seat belts
- ◆ Motorhome specific seat belt requirements

TSD 208

New Requirements from previous MVSR 208

- ◆ Passenger cars and trucks and MPVs with a GVWR of $\leq 3\,856$ kg and with an UVW $\leq 2\,495$ kg subject to 56 km/h frontal barrier test.
 - Exception: vehicles manufactured for operation by persons with disabilities.
- ◆ Test conditions
 - Only the Hybrid III ATD may be used.
 - Angle of the collision barrier restricted to $90^\circ \pm 5^\circ$ from the line of travel.
- ◆ Head protection criteria
- ◆ Chest protection evaluated in terms of chest compression .
 - 55 mm limit (50th adult male), 45mm (5th female) for vehicles with a GVWR $> 2\,722$ kg and $\leq 3\,856$ kg, and with an UVW $< 2\,495$ kg.
- ◆ Passenger cars and trucks and MPVs with a GVWR of $\leq 3\,856$ kg and with an UVW $\leq 2\,495$ kg subject to 40 km/h offset frontal barrier test.
 - Exception: vehicles manufactured for operation by persons with disabilities.
- ◆ Test conditions
 - Only the Hybrid III ATD may be used.
 - Angle of the collision barrier restricted to $90^\circ \pm 5^\circ$ from the line of travel.
- ◆ Head protection criteria
- ◆ Chest protection evaluated in terms of chest compression .
 - 55 mm limit (50th adult male), 45mm (5th female) for vehicles with a GVWR $> 2\,722$ kg and $\leq 3\,856$ kg, and with an UVW $< 2\,495$ kg.

DEVIATIONS FROM TSD 208

- Allows for a front driver or front passenger position that is intended for a disabled person to be exempted from the crash test requirements of Canadian safety standard 208, as long as the vehicle clearly displays a specified label stating that the position does not conform to the crash test requirements.

Passenger Cars, 3 wheel vehicles, MPVs, and Trucks ≤ 4 536 kg	Enclosed motorcycles	Buses	Vehicles except buses > 4 536 kg	Front Outboard DSPs	Rear DSPs	Center / Others
■		■ non school buses ≤ 4536kg		LSB	LSB	LB or LSB
			■	LB or LSB	LB or LSB	LB or LSB
		■ all buses > 4536kg		LB or LSB Drivers position only		
	■			LSB	LSB	LSB
		■ School bus ≤ 4536 kg		LSB Drivers position only		