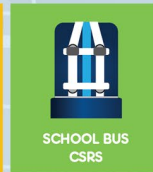


## Child Passenger Safety on School Buses



NATIONAL TRAINING



# Handout • Federal Motor Vehicle Safety Standards

## STATE AND LOCAL REQUIREMENTS

- Does your state, municipality, or district have requirements for seat belts on school buses, in addition to federal standards?
  - Visit the following link to state law information:
    - 🔗 [ncsl.org/transportation/school-bus-safety](https://ncsl.org/transportation/school-bus-safety)

## FMVSS RELATED TO SCHOOL BUSES AND CSRS

### Federal Motor Vehicle Safety Standards

Required by  
**FMVSS  
222**

School Bus Seating



Occupant  
Protection



Required by  
**FMVSS  
208**

Required by  
**FMVSS  
209**

Seat Belt  
Assemblies



Seat Belt  
Anchorage



Required by  
**FMVSS  
210**

Required by  
**FMVSS  
213**

Child Safety  
Restraint Systems



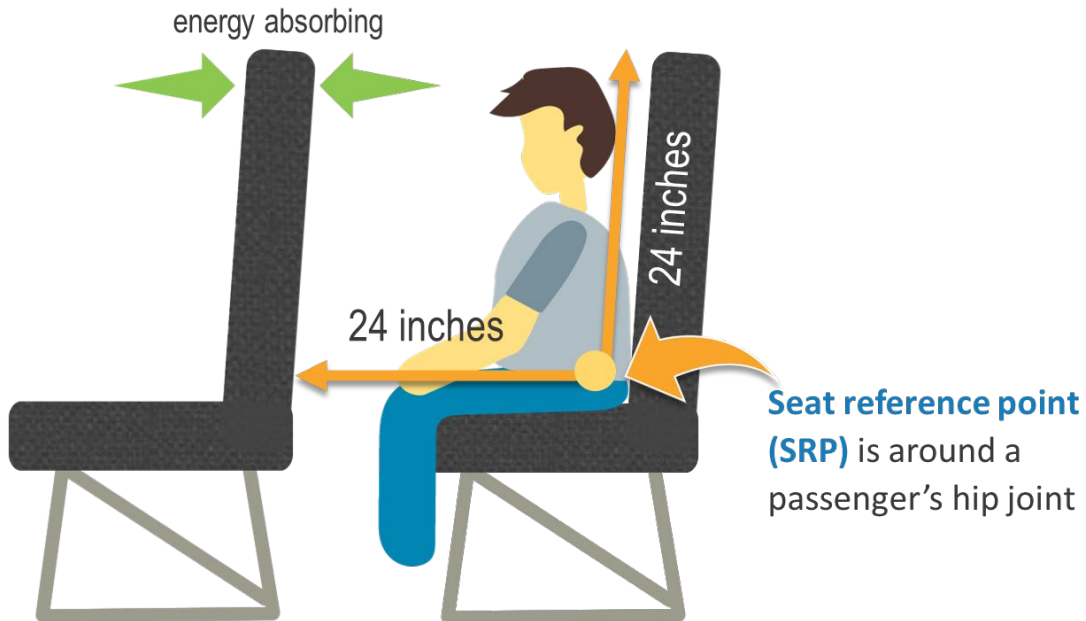
Child Restraint  
Anchorage



Required by  
**FMVSS  
225**

## COMPARTMENTALIZATION

- NHTSA requirements in FMVSS 222 make certain that school bus seating has the features needed for compartmentalization to provide protection in frontal or rear-end collisions.



### Compartmentalization: Row Spacing Options and Trade-Offs



**24 inches**

#### Maximum Allowed Spacing

Provides space for most CSRS and leg-room in between rows



**Less than 24 inches**

#### Maximum Capacity Spacing

Narrower seat spacing between rows allows for more rows on the school bus



### Row Spacing and Rear-Facing CSRS

- When rows are spaced close together it is challenging to find a rear-facing CSRS that will fit properly.
- Row spacing closer together than 24" may not accommodate rear-facing CSRS.

## SEAT BELTS ON SCHOOL BUSES

School buses with a GVWR of **10,000 lbs. or less must have** seat belts. Lap-and-shoulder belts have been the required type **since October 2011.**

Required by **FMVSS 208**

Occupant Protection

School buses with a GVWR of **greater than 10,000 lbs.** are not required to have seat belts, but they may be **optionally** equipped with lap belts or lap-and-shoulder belts.

**10,000 lbs.**

Gross Vehicle Weight Rating (GVWR)

## SEAT BELT ASSEMBLIES

FMVSS 209 regulates the component requirements for lap belts and lap-and-shoulder belts. Check that seat belts indicate compliance with FMVSS 209.



## REINFORCED SEATING

FMVSS 210 regulates occupant protection system anchorage points be adequately strong to withstand crash loads by using reinforced bus seat frames.



## SEAT BELT ASSEMBLIES—NON-COMPLIANT RETROFITTING

- Too frequently, school bus seat belts that have been installed through retrofit are non-compliant with FMVSS 209.
- It is important to check for compliance by lifting the bus seat cushion to see how the seat belts are attached.



Seat belt that loops around the bus frame



Seat belt knotted around the bus frame

## LATCH ON SCHOOL BUSES

Since 2003, school buses with a GVWR of **10,000 lbs. or less** **must have** a set of lower anchors for two of the bus's seating positions. Additional positions may optionally be equipped.



Gross Vehicle Weight Rating (GVWR)



Child Restraint Anchorages



School Buses with a GVWR of **greater than 10,000 lbs.** are not required to have lower anchors, but they may be **optionally** equipped with lower anchors and/or tether anchors.

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## REPLACEMENT—ENTIRE SCHOOL BUS SEAT

Though existing seating cannot be reinforced, new seating can sometimes be installed into the bus.

- The replacement seating must also meet all federal standards, and the bus's owner and the installer must also ensure that it has been installed according to all applicable FMVSS. Detailed records of these changes need to be kept.
- Replacing an FMVSS 222 school bus seat with one that meets FMVSS 210 is usually quite difficult and costly.



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## REPLACEMENT—INTERCHANGEABLE SEAT BACKS

A better alternative for pupil transportation providers who plan ahead and order reinforced seating is to purchase that which allows the seatback to be easily replaced with versions that have different features.

- For instance, when this type of reinforced seating is present, a plain seatback can be swapped out later with one that has seat belts and/or integrated CSRS.
- This process involves just a few bolts, so the value to pupil transportation providers is that they can easily make relatively inexpensive modifications if their needs change in the future.



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## PROGRESS CHECK

- Seating that meets FMVSS 222 provides \_\_\_\_\_ for the occupants, meaning it has regulated row spacing and seatback characteristics.
- FMVSS 213 regulates \_\_\_\_\_.
- Why must a seat with seat belts meet FMVSS 210?

