



NATIONAL  
**CHILD PASSENGER**  
**SAFETY** BOARD

# Fact or Fiction

Rev. March 2013

# What is Fact or Fiction?

- New technology requires us as Technicians to continuously learn and understand new child restraints and developments within the industry.
- Some changes have a big impact in our everyday CPS world.
- The latest CPS Student manual is available at [www.cpsboard.org](http://www.cpsboard.org).

# Fact or Fiction?

Child restraint manufacturers do not allow a tether to be used when installing a convertible seat rear-facing.

# Fiction

- Britax, Combi, and Diono are three of the manufacturers that currently allow tethering of a rear-facing convertible.
- Be sure to check the child restraint instructions and vehicle owner's manual to see if rear-facing tethering is allowed

# Fact or Fiction?

Belt positioner clips on a backless booster should be positioned at or above the shoulder of the child.

# Fact

- If the shoulder belt does not lay naturally across the child's shoulder and across the chest it may be necessary to use the vehicle or booster seat belt clip. Booster seat belt positioning clips may or may not be optional for backless boosters. Be sure to adjust the vehicle head restraint for the height of the child.
- Always read the vehicle owner's manual and child restraint instructions.

# Fact or Fiction?

A backless belt positioning booster can be used in all vehicles.



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# Fiction

- Backless booster seats are only to be used in vehicle seating positions that have head and neck support.
- BPBs cannot be used in older vehicles that have lap only seat belts.



# Fact or Fiction?

All high back booster seats can be used with a low vehicle seat back or no vehicle head restraint.

# Fiction

Always read the vehicle and child restraint instructions.

Example: Safety 1<sup>st</sup> Apex 65 owner's manual pg. 36

## Belt-Positioning Booster Installation



1 Place child restraint flush against the back of the vehicle seat.  
**NOTE:** Tuck the top anchorage strap's hook under the child restraint.  
 Place the child's bottom and back flat against the child restraint.

### WARNING

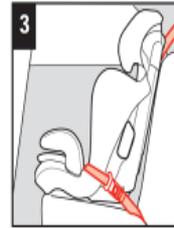


**Do not use this child restraint if the midpoint of your child's head is above the top of the vehicle seat back or headrest.**



2 Place lap belt across child's thighs. Lock buckle.

36



3 **NOTE:** Make sure the lap and shoulder belt are placed behind armrest as shown.

### WARNING

**Use only the vehicle's lap and shoulder belt system when restraining the child in this booster seat. Failure to do this can result in serious injury or death.**



4 Secure the shoulder belt behind the headrest. The belt should cross the base of the child's neck and lie across the chest (not the face or neck). Pull up on the shoulder belt to tighten. Check periodically to ensure that your child has not moved out of position and loosened the shoulder belt.

37 continued on next page.

Belt-Positioning Booster: Use: 40-100 lbs. (18.1-45.4 kg), 43-57" (110.1-144.8 cm), Over 1 year of age.

# Fact or Fiction?

Child Restraints can be used in RVs.



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[www.cpsboard.org](http://www.cpsboard.org) March 2013

rear-facing • forward-facing • booster seat • seat belts



# Fact

- Seatbelts and child restraints are to be used in an RV on vehicle seats that only face forward.
- Never use child restraints in side-facing seating positions.
- Always check the vehicle owner's manual and child restraint instructions.

# Fact or Fiction?

Some vehicle manuals warn that nothing should press against the back of the front passenger seat or be placed under that seat.

# Fact

- Pressure on the seatback may cause a false reading by the sensors that regulate the passenger-side advanced air bag system (AABS), possibly causing either the AABS to deploy in a crash when it is not needed or to be suppressed in a crash when it is needed.

Example: 2013 Toyota Rav4 owner's manual states, do not allow a child restraint installed on the rear seat to contact the front seatback

# Fact or Fiction?

Pool noodles are required to obtain an appropriate angle on rear facing child restraints.



# Fiction

- Noodles or towels should not be used unless absolutely necessary and allowed by CRS manufacturer to obtain the manufacturer's required recline angle (using the angle indicator on the restraint).
- Always check the child restraint instructions.

# Fact or Fiction?

Solid core pool noodles are better to use than regular pool noodles (with a hole in them) for an installation.



# Fiction

While pool noodles are noted in the curriculum as acceptable, there are no standards on pool noodles. Pool noodles vary in density whether they have a core or not. Car seat manufacturers' do not require solid core noodles and may recommend a tightly rolled towel, which may be more easily available. Techs need to understand a parent's point of view that car seat installations in general may be challenging and a tightly rolled towel might be easier for them to use. Keep in mind that some manufacturers, such as Chicco, do not allow pool noodles to be used with their infant bases or convertible car seats.

# Continued.....

- If allowed by the child restraint manufacturer, use only what you need to achieve the appropriate angle. Be aware that the pool noodles may or may not be used with adjustable feet on RF only seats. With rear-facing child restraints offering recline adjusters with so much depth, noodles/towels are often not needed. Don't use them unless the in vehicle CR recline angle is insufficient to meet the manufacturers' angle requirements.
- Always read the manufacturers' instructions.

*Source: February 2013 CPS Express*

# Fact or Fiction?



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Booster seats should not be used on school buses, even if the bus is equipped with lap-shoulder belts.

# Fact

School bus seats are different than vehicle seats. They have shorter seat depth, so they are better scaled to allow a small child's legs to bend. Also, shoulder belts for buses are adjustable by height, so that the shoulder belt is able to fit shorter children. These factors make small children able to pass the 5-Step Test for Seat Belt Readiness at a much earlier age on a bus, as compared to a car.

# Fact or Fiction?

For a tight installation, I may use my knee in the seat.



# Fiction

- Advances in child restraint design and vehicle belt lockability make a knee in the seat a thing of the past! Even the smallest of technicians have found success not with how hard they pull on the shoulder belt to tighten the lap belt, but with *how* they do it.
- Many child restraint instructions direct you to push in the seating area with your hand.
- Always read the child restraint instructions.

# Fact or Fiction?

There are situations when it is acceptable to attach two top tether hooks to one tether anchor.



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# Fact

- Some pick-up trucks require the tether to be routed thru a loop for an outboard seating position and then cross over to attach to the loop behind the center position.
- Always read the vehicle and child restraint instructions.
- *Example: 2011 Chevrolet Silverado 2500*



# Fact or Fiction?

It is always okay to buckle the vehicle seat belt behind a LATCH installed child restraint to prevent the potential of strangulation.

# Fiction

- Not all vehicle manufacturers permit seat belts to be buckled and / or retractors to be locked / switched behind a LATCH installed child restraint.
- Always read the vehicle and child restraint instructions.

*Examples:*

*2011 Volkswagen Golf (see diagram to the right)*

*Ford inflatable seat belts are activated when buckled*

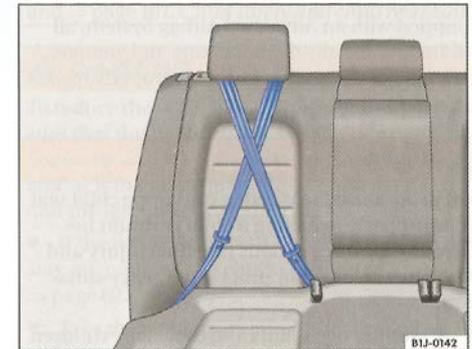


Fig. 65 Routing of unused center rear seat safety belts when installing a child restraint with the standard safety belt in an outboard seating position.

# Fact or Fiction?

When a child rides in a booster seat, but is a “wiggly worm” and cannot sit still for each and every ride, it is acceptable to lock the retractor to hold the child in position.

# Fiction

- Not all vehicle manufacturers permit retractors to be locked / switched to restrain a child seated in a BPB.
- Always read the vehicle owner's manual and child restraint instructions.
- Example: 2011 Nissan Altima

## Booster seat installation

### CAUTION

**Do not use the lap/shoulder belt in the Automatic Locking Retractor mode when using a booster seat with the seat belts.**

Refer to all Warnings and Cautions in the "Child Safety", "Child Restraint" and "Booster Seats" sections before installing a child restraint.

Follow these steps to install a booster seat in the rear seat or in the front passenger seat:

# Fact or Fiction

Recline indicators are sometimes used for forward-facing installations on convertibles or combination seats.

# Fact

- Some seats offer recline indicators or level indicators for forward-facing installations.
- Always read the vehicle and child restraint instructions.
- *Example: Dorel Rumi*



# Fact or Fiction?

When installing a child restraint in the front passenger seat of a vehicle equipped with a dynamic locking latchplate on a lap / shoulder belt with a switchable retractor, the retractor should stay in the ELR mode.



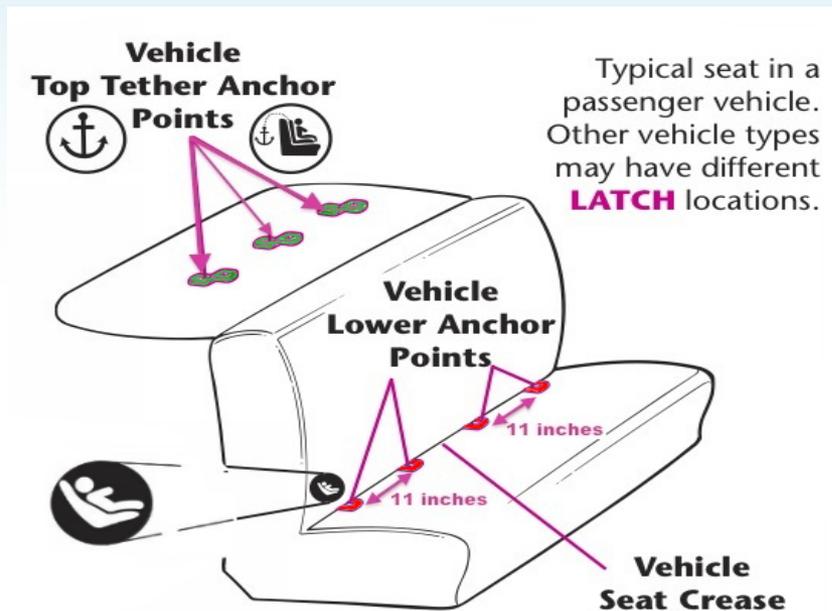
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# Fiction

- Starting with model year 2011, some vehicles are equipped with “dynamic locking” latchplates in the front driver and passenger seats. These are different from the more familiar locking latchplates that are used for child restraint installation. Dynamic locking latchplates are designed to lock during a crash but they will not lock the seat belt under normal driving conditions.
- **If a child restraint must be installed in the front passenger seat, the switchable retractor must be locked, even when there is a dynamic locking latchplate present.**
- Always check the vehicle owner's manual and child restraint instructions for proper installation in the front passenger seat.

# Fact or Fiction?

A top tether can only be used with the lower anchors.



# Fiction

- Top Tethers can be used with lower anchors or with the seat belt system.
- Always read the vehicle owner's manual and child restraint instructions.

# Fact or Fiction?

Weight limits for lower anchors do not apply if the seat installed is a belt positioning booster with rigid lower anchors.



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# Fact

- The lower anchors only see the load of the weight of the CRS. The vehicle seat belt restrains the load of the child's weight.

# Fact or Fiction?

It is never safe to use non-regulated or aftermarket products with a car seat.

# Fiction

- Some CR manufacturers sell non-regulated products to be used with car seats that are sold separately.

*Examples: Britax seat protector, Chicco allows BoKoo covers.*



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Engineered, Non-slip material offers best-in-class car seat crash performance while keeping your vehicle seat clean and protected.

Crash tested and approved for use with BRITAX car seats.

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# Fact or Fiction?

Inflatable seat belts on a lap-shoulder belt system can be used to install a child restraint.

# Fiction

- Few car seat manufacturers allow their car seats to be installed with an Inflatable seat belt.
- Be sure to read both the vehicle owner's manual and child restrain instructions.
- Resources: CPS Express [June 1, 2012](#) - NOTE: [Revised CR and Inflatable Belt Policy - 6/5/2012](#)

# Fact or Fiction?

Any car seat that is checked as luggage should be considered a “crashed” seat; no longer used and should be disposed of.

# Fiction

Car Seats Gate-Checked or Checked as Luggage Car seats are designed to withstand most motor vehicle crash forces. In general, the MACPS does not consider a gate-checked car seat or a car seat that is checked as luggage to be one that has experienced forces equivalent to a motor vehicle crash. Once the destination is reached, it is recommended to inspect the car seat to make sure no visual damage has occurred and all aspects of the car seat function properly.

*Source: MANUFACTURERS ALLIANCE FOR CHILD PASSENGER SAFETY*

# Fact or Fiction?

When installing a rear-facing CRS utilizing the angle indicator provided and the recline angle does not read 45 degrees on an inclinometer (or folding the 45 degree angle in a piece of paper) you should ignore the angle indicator provided by the CRS manufacturer.



# Fiction

Recline indicators on child restraints are set by the individual manufacturer based on protection of the child and performance of the CRS in crash testing. The recline indicator on a child restraint should always be followed. If there is a compatibility issue with the recline indicator, the specific CR manufacturer should be contacted. Never go against the recline indicator without written permission from the CR manufacturer.

*Source: MANUFACTURERS ALLIANCE FOR CHILD PASSENGER SAFETY*

# Fact or Fiction?

It is okay to place a locking clip on the opposite side of a child restraint from the latchplate.



# Fiction

- Unless instructed otherwise by the manufacturer, place the locking clip no more than 1 inch from the buckle.
- If the locking clip binds against the lip of the frame or shell of the CR and it cannot be moved closer to the latchplate, move the clip just far enough away from the latchplate so that it rests just inside the frame or shell.
- The lap-shoulder belt must be a continuous loop with non-locking latchplate system.

# Fact or Fiction?

NHTSA must certify that every child restraint meets FMVSS 213 before it can be sold in stores.

# Fiction

- NHTSA does not certify CRs before they go to market
- CR manufacturers self-certify their products as meeting NHTSA performance standards
- NHTSA conducts random compliance tests



# Fact or Fiction?

An unused BPB should be secured in the vehicle at all times.



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# Fact

- Belt Positioning Boosters should be secured in the vehicle when not being used for transport.
- When not buckled, the booster seat may become a projectile (an object that can be thrown around in the vehicle) causing injury to the vehicle occupants during a crash or sudden stop.

# Take the Quiz:

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