




Fact or Fiction

Safe Kids Worldwide
February 14, 2012

Objectives

- Dispel inaccurate information
- Reinforce accurate information
- Provide resources that support best practice




5110 p. 2

Fact or Fiction

As a certified technician, the best way to be sure that a child is properly restrained is to install the seat for the parent.

- A. Fact
- B. Fiction




5110 p. 3

Fiction

Certified technicians are “educators” not installers. It is important to understand the core principles of LEARN, PRACTICE, and EXPLAIN which applies to technicians, instructors and parents/caregivers.


LEARN the facts/skills/information
PRACTICE your new skills/information
EXPLAIN (teach) what you have learned

Pages 4-5



5110 . 4

Installation





5110 p. 5

Fact or Fiction

You must use 3 (or other odd number) of pool noodles. The pyramid must be taped on either side.

- A. Fact
- B. Fiction



5110 p. 6

Fiction

- There is no specific # or arrangement for pool noodles. Use as few as possible to achieve appropriate recline.



Page 134

Fact or Fiction

The only method to install a rear-facing seat with a seatbelt is to route the shoulder belt from the buckle directly to the retractor.

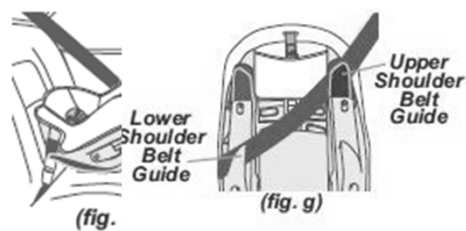
- A. Fact
- B. Fiction

Fiction

Some infant seats and some rear-facing convertible seats allow for the shoulder portion of the belt to be routed around the back shell of the seat. This method is commonly referred to as 'European Routing' simply because it is a common practice in European designs.

The rationale of the European method of placing the shoulder belt behind the seat back in a rear-facing position is that it allows for better ride-down during a crash. Most manufacturers that allow for this method do understand that it is not always practical, or even possible, so they will also provide a traditional buckle-to-retractor path as an option. Please check the owner's guide for seat belt routing options. The final routing choice should be made by the parent.

Routing



Fact or Fiction

You can always use a pool noodle or rolled towel when using an adjustable base of an infant seat.

- A. Fact
- B. Fiction

Fiction

- Some manufacturers may allow a noodle in addition to the foot of a base to attain a correct angle.
- Others require using one or the other, not both.

Page 134

Fact or Fiction

You can sometimes have an infant seat carrying handle in an upward position.

A. Fact
B. Fiction



Safe Kids WORLDWIDE. 5 1 10 p. 13

Fact

- Several RFO CRs allow the carrying handle to be in an upright position.

4.1 Adjusting Handle

- Press handle adjustment buttons on both sides of handle **1**.
- Rotate handle until it clicks into any of the 4 positions:
 Position A: **NEVER** be used when carrying by handle.
 Position B, C: are convenience positions.
 Position D: is the sitting position. **NEVER** use position B in the vehicle.
BOTH handle adjustment buttons must pop out to lock handle in place **2**.
- Push and pull on the handle to be sure it is locked firmly in position.

Handle position in auto

- Never have handle in position A when infant seat is installed in the automobile. Position B, C, D or E are acceptable use positions on the automobile.

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Safe Kids WORLDWIDE. 5 1 10 p. 14

Carry Handle Operation - Carry handle has four positions (fig. c):

A. Vehicle use position and carrying position
 B. Rocking position
 C. Rocking position
 D. Reclined seat position

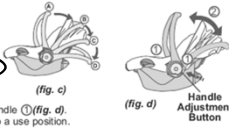
Each handle position can be used for vehicle positions depending on size of vehicle.

To change carrying handle position:

- Push in handle adjustment buttons on each side of handle **1** (fig. d).
- Rotate handle forward or backward **2** until it locks into a use position.

IMPORTANT: Check to be sure carry handle is locked before lifting car seat.

NOTE: Handle does not lock between position C and position B. Handle will move from position C into position B without pushing in handle adjustment buttons.



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Fact or Fiction


For a tight fit, the seat can move up to 1 inch from side to side or front to back when tested at the belt path.

A. Fact
B. Fiction

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Fact

- There is no need to get the seat in rock-solid. The restraint can move up to 1 inch at the belt path.



Safe Kids WORLDWIDE. 5 1 10 p. 17

Fact or Fiction

Level indicators on CRs are generally unreliable.

A. Fact
B. Fiction

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Fiction

- Level indicators help parents and caregivers identify the manufacturer's recommended correct angle for RF restraints.
- Each manufacturer's level indicator is designed through research, development and testing.
- Manufacturers may use various types of indicators such as a line, ball or bubble indicator.

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10 14 09 p. 19

Sample Angle Indicators



10 14 09 p. 20

Fact or Fiction

Car seats need to be 80% on the vehicle seat for a proper installation.

- A. Fact
- B. Fiction



10 14 09 p. 21

Fiction

It is very important to read and understand the instruction in the manual as every car seat is different.

- The Graco Nautilus Owner's Manual states on two (2) pages: (pg. 18) Front of child restraint must not hang over edge of vehicle seat and (pg. 45) The front of booster seat **MUST NOT** hang over front of vehicle seat.



10 14 09 p. 22

Fact or Fiction

A pool noodle or tightly rolled towel is not required to achieve the appropriate angle when tethering rear-facing, you can just use the tether to achieve the angle.

- A. Fact
- B. Fiction



5 1 10 p. 23


Fiction

It is important to read the user guide for each child restraint as they do vary. Read the instructions carefully for correct use of the tether per the CR manufacturer. For example, the current user guide of Britax convertibles indicates in the installation steps to achieve the appropriate angle before attaching the Versa-Tether. Once the angle is achieved by using a pool noodle or tightly rolled towel as necessary, attach the Versa-Tether and remove the slack from the webbing to stabilize your installation and reduce rebound. Do not over-tighten to pull the back of the child restraint into position.



5 1 10 p. 24

Check Up Event




5 1 10 p. 25

Fact or Fiction

Reducing liability concerns at check up events and inspection stations are met by providing accurate and current information and using a good checklist form.

A. Fact
B. Fiction




5 1 10 p. 26

Fact

Additional consideration in developing a liability prevention protocol also includes:

- Teaching correct installation and use of child restraint, including having the caregiver be an active participant in the checkup.
- Being consistent with all inspection procedures; including roles of the staff and a second set second set of eyes reviewing and approving each seat as well as the standardized checklist associated with that child.
- A clear written policy about replacement seats and disposing of old, damaged or recalled seats and their disposal, purchase or donation of a seat or a list of community resources that offer a safety seat for families in need.
- Safety should be a priority for everyone at event
- Consider several options for obtaining liability insurance

Read more at National CPS Certification Training Program Student Manual, page 318-320.




5 1 10 p. 27

Fact or Fiction

It is the responsibility of all technicians at a check up event to determine if an unsafe situation occurs to correct it before someone is hurt.

A. Fact
B. Fiction




5 1 10 p. 28

Fact

- It is a shared responsibility, including assistants and volunteers. If anyone recognizes an unsafe situation, it needs to be corrected immediately and the event coordinator put a temporary hold on the event until it is resolved and everyone is informed.

Appendix page 315-320
CPS Inspections and
Check Up Events





5 1 10 p. 29

Fact or Fiction

It is unsafe to use non-regulated devices.

A. Fact
B. Fiction

5 1 10 p. 30

Fact

- Unregulated products meet no federal standard and can compromise safety.
- Add-on products made by a manufacturer for use in or with their seat are permitted for use in that manufacturer's product.

Page 38



Example of MFG Product

The Bokoo Cover shown in the previous slide is approved by Chicco for the KeyFit and KeyFit 30 infant car seats. There is a label on the Bokoo cover stating this information. Chicco does not allow use of any accessories, pads, or other items not included with Chicco car seats, unless specifically approved by Chicco. Add-on products can interfere with the proper performance of the car seat. It is critical for your child's safety that add-on products manufactured by other companies not be used without approval from Chicco.

Fact or Fiction

The primary reason for having CR expiration dates is the breakdown of components like plastic.

- Fact
- Fiction

Fact and Fiction

There are two key components regarding expiration dates of a CR.

1. A UV additive within the resin used to mold a CR can affect the period of time before degradation of the CR shell might occur. Manufacturers perform accelerated tests in an environmental chamber during design and development to evaluate.
2. Updating with the most current technology that meets all current FMVSS Standards. CR owners should respect expiration dates.

Fact or Fiction

High back belt positioning booster seats that convert to a backless belt positioning booster will have the same expiration date.

- Fact
- Fiction

Fiction

All Nautilus by Graco have two expiration dates:

- 5-pt Harness: 6+ years
- High-back Booster: 6+ years
- Backless Booster: 9+ years

The dates are different because in a Backless Booster crash loads are much lower than Harnessed and High-back Boosters.

Fact or Fiction

If allowed by the manufacturer, there is a limit to the number of times a CR cover can be washed.

- A. Fact
- B. Fiction



10 14 09 p. 37

Fiction

Generally, the flame retardant chemicals are water soluble and do break down over time with excessive machine washing. However, unless the manufacturer states otherwise, there is no limit on the number of times fabric is washed.

Manufacturers Alliance for Child Passenger Safety



10 14 09 p. 38

Fact or Fiction

Child restraints bought online still rely on the registration cards being sent in to manufacturer.

- A. Fact
- B. Fiction



5 1 10 p. 39

Fact

With online purchasing, the consumer gets an additional notice of recall from the e-retailer which encourages greater registration. Buying a restraint online does not register their product with the manufacturer so keep encouraging caregivers to send in those postage-paid cards or register them online.

For example: Amazon.com and Diapers.com send all their product purchasers notices of recalls which encourages greater registration and participation.



5 1 10 p. 40

Fact or Fiction

Sensors for advanced air bags (AAB) for the front passenger seat may be affected by weight or pressure on the back of the passenger front seat from a RF child restraint system or a FF child pushing his/her feet against the back of the seat

- A. Fact
- B. Fiction



5 1 10 p. 41

Fact


If something from the rear seat pushes on the back of the front passenger seat, the pressure may turn the AAB on when it should be off or off when it should be on. This would be a problem if a passenger is in the front seat. This is not a concern for the driver side, which does not have the same sensor system.

Some vehicle manuals do caution about not letting RF CRs press against the back of the front seat, but few advise how to measure how much pressure is too much. It is not likely that just "touching" the back of the seat would affect the sensor. Read the instructions and point out the issue to the family. For more information, see the January/February edition of [Safe Ride News](#).



5 1 10 p. 42

LATCH




5 1 10 p. 43

Fact or Fiction

It is fine to use the center seating position with LATCH anchors from the outboard positions.


- A. Fact
- B. Fiction




5 1 10 p. 44

Fiction

- Unless specifically approved by the vehicle manufacturer, you **can not** use the two inboard lower anchors .
- The vehicle and CRS manufacturer must both agree to this use of lower anchors.



Page 80-82




5 1 10 p. 45

Fact or Fiction

- It is okay for me to advise a parent to use a top tether beyond the manufacturer weight limits. I can tell her the pros and cons and let her choose.


- Fact
- Fiction



5 1 10 p. 46

Fiction

Manufacturer guidelines, including weight limits must be obeyed. This is not an example of a gray area or best practice. Child restraint and vehicle manufacturers do extensive testing and evaluation before defining limits. If no upper weight limit recommendation can be found, the tech should assume a 40 pound limit.




5 1 10 p. 47

Fact or Fiction

You can only use a tether when using the lower anchors.

- A. Fact
- B. Fiction

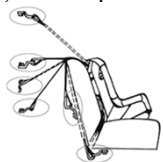


10 14 09 p. 48

Fiction

- Tethers reduce forward head movement and adds stability—use them! A tether should be used with a *seat belt or as part of the LATCH system*. A tether provides 3 points of attachment to the vehicle, which spreads the load to more anchors.

Page 163



Fact or Fiction

LATCH can never be used with a Belt Positioning Booster

- A. Fact
- B. Fiction

Fiction

Technology is always changing and CR manufacturers may develop innovations to add features.

There are some high back and backless BPB that currently have either rigid or flexible lower attachments.

Follow the directions!

Fact or Fiction

Most vehicle instructions state that if no interference exists between the lower anchors and seat belt, buckle the lap/shoulder seat belt behind a LATCH installed CR.

- A. Fact
- B. Fiction

Fact


An unintended consequence of using LATCH has been the danger of a child wrapping the unused seat around the neck. As a result of this potential danger, many of the vehicle instructions have addressed this issue. Some instructions may state that if the seat is FF then activate the lockable retractor and fasten the adjacent seat belt or if no interference between LAs and SB, buckle the L/S **behind** a latched CRS and lock the retractor.

Harness

Fact or Fiction

You must always use the top harness slot in a forward facing seat.

- A. Fact
- B. Fiction




10 14 09 p. 55

Fiction


- Follow manufacturer instructions.
- Use only approved slots required by the manufacturer.
- Forward facing only or combination seats have reinforced harness slots in every position.

Pages 155-156, 158



10 14 09 p. 56

Testing




5 1 10 p. 57

Fact or Fiction

Part of NHTSA's compliance testing of CRs includes a side impact CR test.


- A. Fact
- B. Fiction



10 14 09 p. 58

Fiction

- CR manufacturers voluntarily test products using the Australian standard or European guideline.




10 14 09 p. 59

Fact or Fiction

LATCH tests for vehicles are static, not dynamic (not crash tests).

- A. Fact
- B. Fiction



5 1 10 p. 60

Fact

- The LATCH test for vehicles is a pull test.

NHSTA

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Pre-Crash Locking

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WORLDWIDE

5 1 10 p. 62

Fact or fiction

A CR must be pre-crash locked at all times in a vehicle so that the CR is positioned prior to crash.

A. Fact
B. Fiction

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5 1 10 p. 63

Fact

Seat belts that do not provide pre-crash locking either in the latchplate or the retractor need to use one of the four approved additional steps to installing a CR:

1. Locking clip/lockoff
2. Belt-shortening clip
3. Flip the latchplate
4. Twist buckle stock

5. Chapter 5 in Student Manual

Safe Kids
WORLDWIDE

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Fact or Fiction

If a locking latchplate slips, first use a locking clip.

A. Fact
B. Fiction

Safe Kids
WORLDWIDE

12 28 10 p. 65

Fiction

- A seat belt routed as directed by the manufacturer may be out of position and slip (webbing and latchplate must be flat)
- Flip the latchplate over one time to shorten which changes the angle
- Twist the buckle stalk if it is flexible
- Never use a locking clip on a seat belt without a retractor.

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10 14 09 p. 66

Tilt **Flat**

Safe Kids WORLDWIDE

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Fact or Fiction

When using a lock-off on a CRS, it is generally advisable to switch the retractor to the ALR mode.

A. Fact
B. Fiction

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10 14 09 p. 68

Fiction

Teach parents to use the lock-off as directed by their CR manufacturer.

- CRs with built-in lock-offs have them on both sides of the CR or center for an infant seat base
- Read the CR instruction manual to understand lock-off instructions for that particular CR.
- They may even be used on seat belts that have pre-crash locking features.

Page 65

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10 14 09 p. 69

Fact or Fiction

It is okay to place the locking clip anywhere on the seat belt as long as it is between the latchplate and the retractor.

A. Fact
B. Fiction

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5 1 10 p. 70

Fiction

- A locking clip goes no more than 1" away from the latchplate.

Page 66-67

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5 1 10 p. 71

Fact or Fiction

Lock-offs are used like locking clips to pre-crash lock a lap and shoulder belt that have an emergency locking retractor and sliding latch plate by attaching to both the lap and shoulder portions of the webbing.

A. Fact
B. Fiction

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10-14-09 p. 72

Fiction

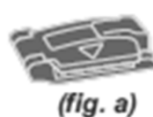
Although it is true that lock-offs perform the function of locking a seat belt pre-crash and may include the lap and shoulder belt, some lock-offs are intended for a single piece of webbing to be locked into place. One example is the unidirectional lock-off found on Combi products, where the lock-off is used on only the shoulder portion of the seat belt.

Carefully read all instructions with the consumer so they can replicate what they learned at the inspection.

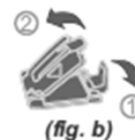


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Lock-offs



(fig. a)



(fig. b)



(fig. c)



10-14-09 p. 74

Fact or Fiction

A locking clip should always be used as a back up to a CR that has a built in lock-off.

- A. Fact
- B. Fiction



715 09 p. 75

Fiction

- It is not necessary or generally recommended to use a locking clip in addition to a lock-off.
- Manufacturers developed lock-offs to create pre-crashing locking easier for caregivers.

Page 65



10 14 09 p. 76

Fact or Fiction

Belt positioning boosters generally require the caregiver to pre-crash lock the seat belt.

- A. Fact
- B. Fiction



10 14 09 p. 77

Fiction

- BPBs may or may not allow for a pre-crash locked seat belt. They are designed to raise the child so that the lap and shoulder belt fits like it does an adult.
- Consult instructions to see if the manufacturer mentions a fix for a wiggly child.



10 14 09 p. 78

Fact or Fiction

The lock-off is always used nearest the latch plate just like a locking clip.

- A. Fact
- B. Fiction



10 14 09 p. 79

Fiction


- A lock-off generally on convertible seats is nearer the retractor currently.
- This may change with a design during research, development and testing.
- Follow manufacturer instructions with all CR types.

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Continued next slide



10 14 09 p. 80

Forward Facing Installation

- 4 Press the lock-off to open (Fig. D).
 - Only use lock-off farthest from where the vehicle belt is buckled.
- 5 Kneel on the child restraint with full weight to force it into the vehicle seat while pulling the shoulder portion of the vehicle belt tightly through the lock-off to remove slack.
 
- 6 Hold the shoulder belt tight, then rotate the lock-off into the belt until it clicks in place.
 - Lock-off is not engaged and vehicle belt is not secured until a click is heard.
- 7 Verify that the vehicle belt is tight and the child restraint is secure.
 - See Checking Buckle Position on Page 26.

Removal

Open lock-offs, then unbuckle and remove vehicle belt from belt path. Disconnect Versa-Tether®, if attached.



10 14 09 p. 81

Recertification



5 1 10 p. 82

Fact or Fiction

A BPB can be used to meet your LATCH seat check requirement for recertification.

- A. Fact
- B. Fiction



5 1 10 p. 83

Fiction

- The LATCH seat check requires use of a harnessed CR.
- A RF CR secured correctly will most likely require only lower anchors.
- A tether must be used if it is required for a correct LATCH installation.



5 1 10 p. 84

Fact or Fiction

The primary purpose of an instructor observing a seat check required for re-certification during a check up event is to make sure the technician knows how to install a seat.

- A. Fact
- B. Fiction



12 28 10 p. 85

Fiction

- The primary purpose of instructor verification of the seat check activity required for re-certification is *observation of a technician's interaction with parents and children*.
- This enables the instructor or proxy to provide additional support to the technician who may not have the appropriate words to explain a process to the consumer.
- Remember the mantra: Learn, Practice, EXPLAIN



12 28 10 p. 86

School Transportation



5 1 10 p. 87

Fact or Fiction

A CRS may be used in any seating position on the school bus provided the bus seat is regulated under FMVSS 210.

- A. Fact
- B. Fiction



5 1 10 p. 88

Fiction

The national recommendation is to install a CRS in the more-forward seating positions of the bus to make it easier and quicker for the driver or aide to access the child in an emergency, as well as to provide supervision.



5 1 10 p. 89

Fact or Fiction

Installing a CRS next to the aisle if other unrestrained occupants share the bus seat makes it easier for a driver or aide to get the occupant out in an evacuation situation.

- A. Fact
- B. Fiction



5 1 10 p. 90

Fiction

The national recommendation is that a CRS should be installed next to the window if other unrestrained occupants share the bus seat.

This is similar to FAA regulations for CR use on an airplane.



5 1 10 p. 91

Fact or Fiction

A CRS should not be installed in an emergency exit row.

- A. Fact
- B. Fiction



5 1 10 p. 92

Fact

National recommendations state that you should not install a CRS in an emergency exit row, including emergency window exits.



5 1 10 p. 93

Fact or Fiction

Correct use of lower anchors in a school bus is basically the same as in a family vehicle.

- A. Fact
- B. Fiction



5 1 10 p. 94

Fact

Although not all conventional CRSs are compatible with a bus seat, installation of a CRS is basically the same as in a family vehicle. Instructions do not generally address installation on a school bus. School bus -specific tethering notes are provided by some CRS manufacturers.



5 1 10 p. 95

Fact or Fiction

A 13 month old child weighs 22 lbs. The car seat is rated to 30 lbs. rear facing and 50 lbs. forward facing. Is it OK for the parents to turn their child forward facing?



5 1 10 p. 96