

**The Future of LATCH**

Denise Donaldson,  
Safe Ride News  
2012 KIM Conference

1 The Future of LATCH, SRN Publications, 2012

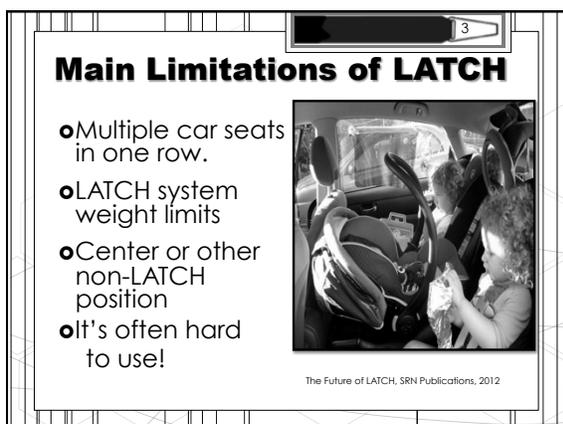


Thanks for having me back!

We have so much new LATCH stuff to talk about.



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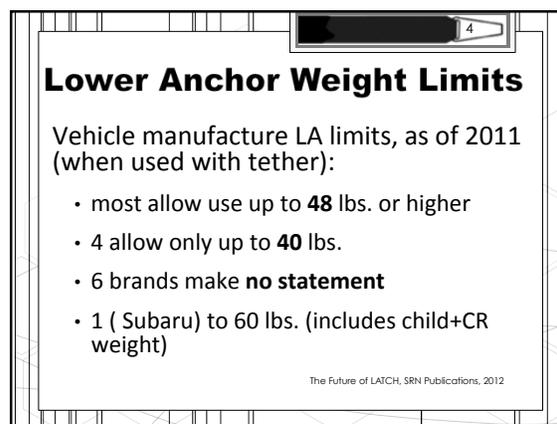


**Main Limitations of LATCH**

- o Multiple car seats in one row.
- o LATCH system weight limits
- o Center or other non-LATCH position
- o It's often hard to use!



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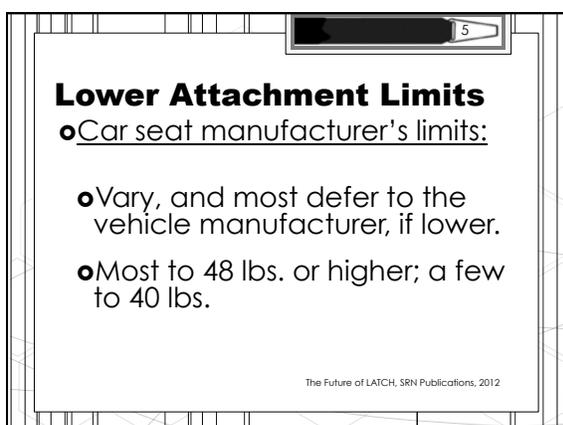


**Lower Anchor Weight Limits**

Vehicle manufacture LA limits, as of 2011 (when used with tether):

- most allow use up to **48 lbs.** or higher
- 4 allow only up to **40 lbs.**
- 6 brands make **no statement**
- 1 ( Subaru) to 60 lbs. (includes child+CR weight)

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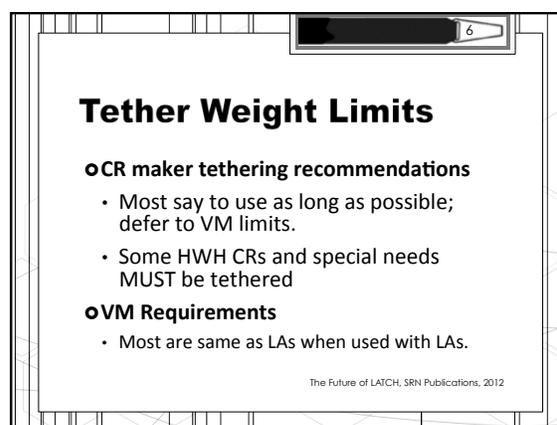


**Lower Attachment Limits**

o Car seat manufacturer's limits:

- o Vary, and most defer to the vehicle manufacturer, if lower.
- o Most to 48 lbs. or higher; a few to 40 lbs.

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**Tether Weight Limits**

- o **CR maker tethering recommendations**
  - Most say to use as long as possible; defer to VM limits.
  - Some HWH CRs and special needs **MUST** be tethered
- o **VM Requirements**
  - Most are same as LAs when used with LAs.

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### Tethers Used w/ Seat Belts

- o Vehicle TA maximums tend to be **higher** with seat belts rather than lower anchorage 
- o Vehicle TA maximums tend to be **lower** when anchor is retrofit versus factory-installed. 

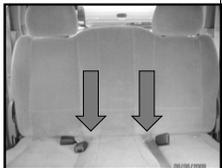
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### Non-Standard LATCH Positions

**Only use if:**

- Spacing 11 inches to 14-20 inches (280-400 mm), usually.
- Both CR and vehicle manufacturers allow use.
- LA use does not interfere with seat belt use in outboard positions.



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### Hardware Often Interferes



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### “High Bight” Problems



Called “bightline waterfalls” or “footsie rolls” in auto industry.

Cadillac CTS  
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### Main Limitations of LATCH

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### Main Limitations of LATCH Things to Work on to FIX LATCH

- o Multiple car seats in one row.
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## Catalysts for Change

- o Government
- o Commercial Pressure
- o Industry Efforts
- o Individual Efforts

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## Update to FMVSS 213 will affect future anchor weight limits

- o Goes into effect February 27, 2014
- o Petition for reconsideration filed.
- o [www.regulations.gov](http://www.regulations.gov),  
Docket # NHTSA-2011-0176

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## Addendum to 213

- o Expands scope to 80 lbs.
- o Adds 10-year-old dummy (77.6 lbs, 51")
- o Fulfills 2002 mandate of Anton's Law.
- o Testing with 10-year-old won't be done with LATCH, only seat belts.
- o Therefore, a new warning label is part of this update.

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## New Label Requirement—2014

- o "Do not use the lower anchors of the child restraint anchorage system (LATCH system) to attach this child restraint when restraining a child weighing more than X pounds (y kg) with the internal harnesses of the child restraint."
- o [where X = 65 lbs minus the weight of the car seat.]



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## It Ain't Heavy, It's My Car Seat

- o Infant seats will be unaffected.
- o Under 20-pound CRs: Evenflo Titan, Graco Comfort Sport, Cosco Scenera, Britax Marathon 70
- o Around 20-lbs: Britax Advocate, Safety First Complete Air, Graco Nautilus
- o The Big Boys: Combi Zeus (30#), Graco SmartSeat All-in-One (35#)

Note: Weights are estimates found online at Amazon.com for illustration purposes only.

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## Let's Do the Math!

- o Combi Example:

**Coccoro = A svelte 12 pounds**  
65 – 12 = 53 lb. limit for lower anchors

**Zeus 360 = A hearty 30-pounder**  
65 – 30 = 35 lb. limit for lower anchors

Note: Weights are estimates found online at Amazon.com for illustration purposes only.



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## Let's Do the Math!



- Graco Example:
  - MyRide 65 = 16 lbs.**  
65 – 16 = 49 lb. limit for lower anchors
  - Nautilus = 20 lbs.**  
65 – 20 = 45 lb. limit for lower anchors
  - SmartSeat All-in-One = 35 lbs.**  
65 – 35 = 30 lb. limit for lower anchors

Note: Weights are estimates found online at Amazon.com for illustration purposes only.

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## Let's Do the Math!



- Britax Example:
  - Frontier 85 = 20 pounds**  
65 – 20 = 45 lb. limit for lower anchors
  - Frontier 85 SICT = 26.5 pounds**  
65 – 26.5 = 38.5 lb. limit for lower anchors

Note: Weights are estimates found online at Amazon.com for illustration purposes only.

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## Let's Do the Math!



- Diono (Sunshine Kids):
  - Radian RXT = 26 pounds**  
65 – 26 = 39 lb. limit for lower anchors
  - Old Radian 65SL = around 22 pounds**  
65 – 22 = 43 lb. limit for lower anchors

Note: Illustration only. Labels won't actually apply to older or discontinued models.

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## What about Tethers?

- "Do not use the lower anchors of the child restraint anchorage system (LATCH system) to attach this child restraint when restraining a child weighing more than X with the internal harnesses of the child restraint."
- NHTSA declined to comment on tethers at this time.

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## Consequences: Intended

- Clarify limits ☺.
- Eventually one source of limit info.
- Prevent LATCH failure in every possible crash scenario.
- May spur design changes.

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## Consequences: Unintended

- Will caregivers mistrust LATCH?
- Will strong (heavy) materials be avoided? Are lighter materials expensive?
- What motivation will there be to innovate around LATCH?
- Will kids move to boosters sooner?
- WHAT ABOUT TETHERS?

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### Petition for Reconsideration

- o Filed by SRN, SBS USA, Traffic Safety Projects, Dr. Ben Hoffman.
- o Supported by letter from Juvenile Products Manufacturers Association

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### Main Limitations of LATCH Things to Work on to FIX LATCH

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### Research and Rulemaking Plan of Priority Projects, 2011-2013

- o LATCH improvements listed, but lower priority.
- o Says NHTSA is working on LATCH:
  - o In the center rear seat
  - o Tether anchorage locations
  - o Weight limit differences: CRs and anchors
  - o Labeling of anchorage locations

Says agency will decide in 2011— Oops!

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### NEW Transportation Act

- o MAP-21 = Moving Ahead for Progress in the 21<sup>st</sup> Century
- o Picks up where SAFETEA-LU leaves off.
- o Maintains transportation funding at consistent levels.

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### MAP-21 and CPS

- o Certain CPS requirements for funding
- o Mandates NHTSA actions, gives deadlines
- o Number of CPS-related issues

o Find info at  
Federal Transit Administration site:  
<http://fta.dot.gov/map21>

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## MAP-21 and LATCH

- Amend FMVSS 225
- Start rulemaking within 1 year
- Complete rulemaking within 3 years
- "Improve the ease of use for lower anchorages and tethers in all rear seat seating positions if such anchorages and tethers are feasible."

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## Catalysts for Change

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## Commercial Pressure

- NHTSA Ease-of-Use Rating
- NHTSA's proposed CR-Vehicle Compatibility program
- IIHS/UMTRI study of LATCH Ease of Use

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## "Keys to Better LATCH," 4/2012



- Joint Research IIHS/UMTRI
- Ease-of-Use Study
- Studied 98 Top-Selling 2010/11s

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## IIHS/UMTRI LATCH Ease-of-Use Study

3 Keys: Force, Clearance, Depth

- **F**orce: <40 pounds should be needed
- **A**ccess (Clearance): Nothing in the way.
- **D**epth: LAs should not be more than ¾" deep

Manufacturers, remember **F.A.D.!**



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## IIHS/UMTRI LATCH Ease-of-Use Study

3 Keys: Force, Access (Clearance), Depth

- Predictors of correct CR installation
- Vehicles meeting all three were **19 times** more likely to have correct LA use.



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### IIHS/UMTRI LATCH Ease-of-Use Study

Only 21 of 98 vehicles meet all three easy-installation criteria.

7 of them don't meet ANY of the easy-installation criteria – NOT ONE!

"Bummers" include SUVs, a popular minivan, and some cars touted for having multiple LATCH positions.



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### IIHS/UMTRI LATCH Ease-of-Use Study

On TETHERS:

Similar to what other studies have shown:

Tethers use, when available, under 50%

Only half of those used right.



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### Catalysts for Change

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### Industry/Individual Efforts

- o ISO, Society of Automotive Engineers
- o Chrysler Announcement Example
- o Other manufacturer-driven changes
- o CPS advocates at large

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### New Chrysler Group LLC LOWER ANCHOR Limits

- o LA limited to child-plus-CR weight of 65 lbs.
- o Now, before FMVSS 213 change and new LM.
- o Retroactive
- o Chrysler, Dodge, Jeep, Ram, Fiat



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### New Chrysler Group LLC TETHER ANCHOR Limits

- o Certain vehicles and model years, TA can be used to CR limit, IF USING SEAT BELT.
- o In all other cases, TA limited to child-plus-CR weight of 65 lbs.
- o Retroactive

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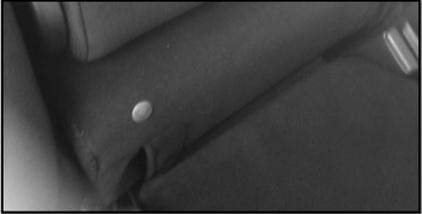
## Manufacturer Improvements

- o It happens! Examples:
  - oPorsche Cayenne tether notch.
  - oNew Honda Odyssey center position that grows.
  - o2012 Honda CR-V.

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## 2012 Honda CR-V example



My new favorite LATCH system!  
What's yours? Vote at the SRN booth.

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## Catalysts for Change

- oGovernment
- oCommercial Pressure
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## Outlook: How Can CPSTs Help?

- oParticipate in Community Events
- oPublicize Safety Messaging
- oFile Petitions for Improvements
- oRespond to Calls for Public Comments on Notices of Proposed Rulemaking

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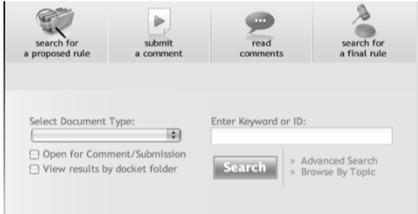
## Go to [www.regulations.gov](http://www.regulations.gov)

- oSearch for a regulation
- oSubmit a comment
- oSubmit an application, petition or adjudication document
- oSign up for e-mail alerts about a specific regulation
- oSubscribe to RSS feeds by agency of newly posted FR notices

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## Home Page Easy to Navigate



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## RSS Feed Puts New Info Up Front

iGoogle

Google Search    I'm Feeling Lucky

**Federal Register: National Highway Traffic Safety Administration**

- ⊞ Federal Interagency Committee on Emergency Medical Service (FICEMS) Teleconference Meeting
- ⊞ National Emergency Medical Services Advisory Council (NEMSAC) Notice of Federal Advisory Committee Meeting
- ⊞ Goodyear, Tire and Rubber Company, Receipt of Petition for Decision of Inconsequential Noncompliance

**Federal Register: Transportation Department**

- ⊞ Commercial Space Transportation Grants Program
- ⊞ Goodyear, Tire and Rubber Company, Receipt of Petition for Decision of Inconsequential Noncompliance
- ⊞ Amendment of Class E Airspace, Newport, VT

**Top Stories**

- Japan seeks to cool strained trade pact
- ABC Online - @ 200906 related a
- Obama Tells Gadhafi to Stop Attacks on Innocent Citizens
- Voice of America - all 10564 related a
- Amid Protests, Saudi King Raises Benefits but Strengthens Security
- New York Times - @ 693 related a

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## SRN LATCH Update Page

- Available at SRN website [www.saferidenews.com](http://www.saferidenews.com)
- Check regularly to keep LM up to date.

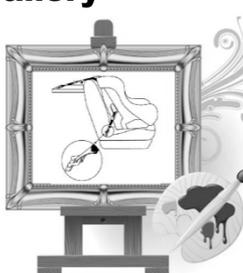


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## “The LATCH Gallery”

- Now offered at SRN website [www.saferidenews.com](http://www.saferidenews.com)
- Share interesting LA and TA situations.
- A picture is worth a thousand words!



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## Contact Us:

- Safe Ride News: 800-403-1424
- [info@saferidenews.com](mailto:info@saferidenews.com)
- Find recent articles, LATCH updates, order forms, and much more at: [www.saferidenews.com](http://www.saferidenews.com)



Thank you for your comments! They help us evaluate our products for future improvements.

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