

# EXPLAINING LATCH AND LABELING CURBSIDE

February 2015

# CEU SESSION SUMMARY

Technicians spend countless hours curbside educating parents and caregivers about the importance of properly using child restraints in their vehicles. But it isn't a simple discussion and there are no shortcuts to providing accurate information. While new car seat labels should make it easier for parents to know when to switch their child's restraint from lower anchors to seat belts, they still have plenty of questions. Hear from child restraint and vehicle manufacturers about how to best address parents' questions and concerns.

# SPEAKERS

This workshop was originally presented at the 2014 Lifesavers Conference. The following organizations presented at the Conference:

- NHTSA – Update on Child Weight Limit for Lower Anchor (LA) Use
- Child Restraint Manufacturers – Effect of the New Ruling on CR Labels
- Vehicle Manufacturers – Frequently Asked Questions About Vehicle Anchorages
- Safe Ride News – Putting It All Together in the Field

# ***Child Weight Limit for Lower Anchor Use***

Lifesavers Conference - Nashville, TN  
April 28, 2014



U.S. Department  
of Transportation



# ***Need for a Label Specifying Child Weight for Lower Anchor Use***

- **Consumers are confused by conflicting information and lack of information regarding LATCH use.**
- **Original assumptions underlying lower anchor strength requirements are being challenged due to:**
  - ❑ **CRSs getting heavier,**
  - ❑ **Vehicle crash pulses getting stiffer, and**
  - ❑ **CRSs with harness being marketed for older/heavier children.**
- **Lower anchor and CRS attachment strap/connector failures observed in sled tests and vehicle crash tests.**
  - ❑ **Indication of potential for real world problems.**



# ***Anchorage Loads and Failure in Vehicle Crash Tests***

- **Transport Canada conducted full frontal rigid barrier crash tests with 19 MY 2009-2010 vehicles at 30 - 35 mph.**
  - ❑ 18 CRS models with a 6-year-old Hybrid III (HIII-6C) or a 10-year-old Hybrid III dummy (HIII-10C) were installed in rear outboard seating positions.
  - ❑ Total anchorage loads ranged from 7.5 kN to 20.8 kN with the HIII-6C dummy, and from 13.3 kN to 20.4 kN with the HIII-10C dummy.
  - ❑ All vehicles tested met FMVSS No. 225, “Child restraint anchorage systems” requirements.
  - ❑ One lower anchor failure occurred in a 35 mph frontal crash test of a 2010 Kia Forte with the HIII-10C dummy restrained in a Safety 1st Apex 65 CRS.
    - Combined weight (child+CRS) = 90 lb
    - Peak vehicle acceleration = 46 G
    - Total maximum anchorage loads measured = 20,395 N
    - The inboard anchor, which was held in place by two bolts, pulled through the sheet metal resulting in a failure at the attachment point.



# ***Anchorage Loads and Failure in Vehicle Sled Tests***

- **NHTSA conducted 24 sled tests to measure the loads experienced by child restraint anchorages installed with lower anchors with and without tether in a simulated 35 mph frontal crash.**
  - ❑ **Vehicle Seats: 2010 Kia Forte and 2010 Ford Focus**
  - ❑ **CRSs: Safety 1st Apex 65, Sunshine Kids Radian 65 and Britax Frontier 85**
  - ❑ **Weighted HIII-6C dummy**
  - ❑ **Total anchorage loads ranged from 15.4 kN to 21.1kN**
- **Loads on the lower anchorages were 30-60% higher when the tether was not used to install the CRS than when the tether was used.**
- **Lower anchorage failure in Kia Forte (Safety 1<sup>st</sup> Apex 65, 79 lb combined weight):**
  - ❑ **CRS installed only with lower anchors**
  - ❑ **Total lower anchor loads = 14,992 N**



# ***Kia Forte Lower Anchorage Failures***



**Vehicle Crash Test**



**Sled Test**



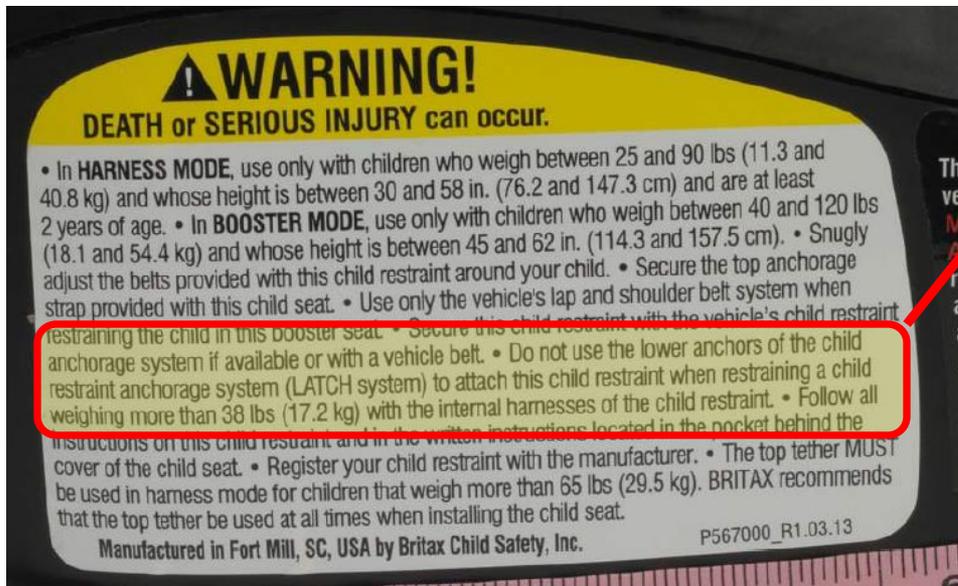
# ***Label Requirement***

- **A new label is required for CRSs with internal harnesses for which the combined weight of the CRS and the maximum recommended child weight exceeds 65 lb.**



# ***Label Option 1: From February 27, 2014 to February 26, 2015***

**\* Child weight limit (lb) = 65 – weight of CRS (lb)**



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 \* with the internal harnesses of the child restraint.

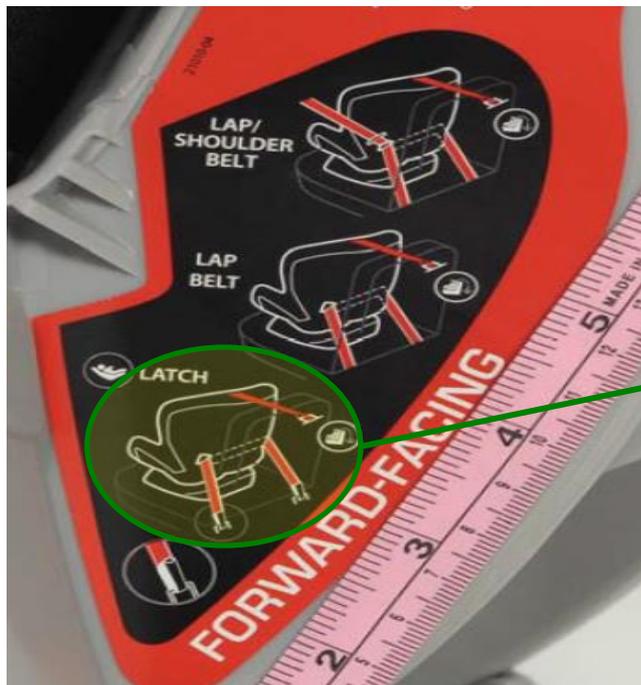


U.S. Department  
of Transportation

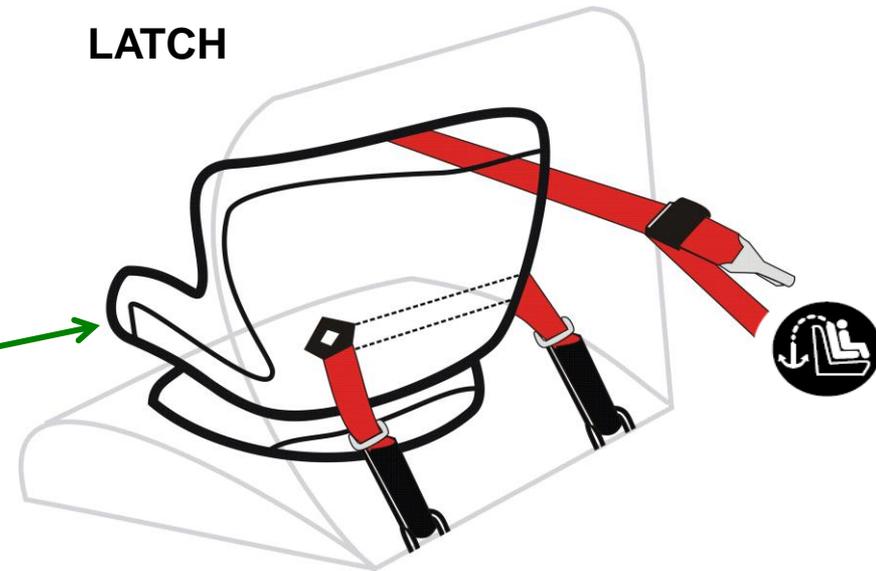


# ***Label Option 2 : After February 27, 2014***

- \* Child weight limit determined via look-up tables for forward facing and rear facing child restraints**



**LATCH**



**Do not install by this method for a child weighing more than \* lb**



U.S. Department  
of Transportation



# Look-Up Tables for Child Weight(CW) Limit

## Forward Facing CRS

CW = 65 – CRS Wt. (lb)	Child Weight Limit (lb)
$20 < CW \leq 25$	25
$25 < CW \leq 30$	30
$30 < CW \leq 35$	35
$35 < CW \leq 40$	40
$40 < CW \leq 45$	45
$45 < CW \leq 50$	50
$50 < CW \leq 55$	55
$55 < CW \leq 60$	60

## Rear Facing CRS

CW = 60 – CRS Wt. (lb)	Child Weight Limit (lb)
$15 < CW \leq 20$	20
$20 < CW \leq 25$	25
$25 < CW \leq 30$	30
$30 < CW \leq 35$	35
$35 < CW \leq 40$	40
$40 < CW \leq 45$	45
$45 < CW \leq 50$	50
$50 < CW \leq 55$	55



U.S. Department  
of Transportation



# ***How does new label affect use of current child restraints?***

- **The label will further expand the consumer use of lower anchors to install child restraints, and not restrict their use.**
  - ❑ **68% of CRS models would either have a child weight limit of 50 lb or higher; or would not require to specify a child weight limit for lower anchor use.**
    - **50 lb is about the weight of a 95<sup>th</sup> percentile 5-year-old child.**
  - ❑ **Only 3 % of CRS models would have a child weight limit less than 40 lb**
    - **40 lb is the weight of a 50<sup>th</sup> percentile 5-year-old child.**
- **Recent child restraint use survey (NCRUSS) shows:**
  - ❑ **93% of children in forward-facing CRSs weigh less than 40 lb.<sup>1</sup>**
  - ❑ **Only 1.5 % of children in forward-facing CRSs weigh more than 50 lb.**



# *Mitigating Misuse*

- **Public outreach through consumer education programs to raise awareness of the new label for lower anchor use.**
  - ❑ **Need help from the safety community, including CPSTs**



# CHILD RESTRAINT MANUFACTURERS

Effect of the  
New Ruling on  
CR Labels

# AMENDMENT TO FMVSS 213

- **New Labeling – FMVSS 213 - S5.5.2(g)(1)(ii)**
- **New Instructions – FMVSS 213 – S5.6.1.12**
- **Requirements apply to CRs that are:**
  - Equipped with an internal harnesses to restrain the child
  - Equipped with lower LATCH attachments
  - Combined weight of the CR + Maximum Child Weight is more than 65 pounds

# EXAMPLE LABELING CHANGE

## **⚠️ WARNING! DEATH or SERIOUS INJURY can occur.**

- Use only in a rear-facing position when using it with an infant weighing less than 10 kg (22 lbs).
- Use only with children who weigh between 2.3 and 29.4 kg (5 and 65 lbs) and whose height is between 48 and 137 cm (19 and 54 inches).
- Snugly adjust the belts provided with this child restraint around your child.
- Secure the top anchorage strap provided with this child restraint (forward-facing use only).
- Do not place this restraint in the front seat of a vehicle that has a passenger-side airbag.
- Secure this child restraint with the tether (forward-facing use only) and with the vehicle's child restraint anchorage system, if available, or with a vehicle belt.
- This child restraint must be used only in a forward-facing seating position equipped with a vehicle seat belt or a lower universal anchorage system.
- Follow all instructions on this child restraint and in the written instructions located behind the seat.
- Register your child restraint with the manufacturer.
- Never leave a child unattended.

Pre Feb 2014

## **⚠️ WARNING! DEATH or SERIOUS INJURY can occur.**

- Use only in a rear-facing position when using it with an infant weighing less than 10 kg (22 lbs).
- Use only with children who weigh between 2.3 and 29.4 kg (5 and 65 lbs) and whose height is between 48 and 137 cm (19 and 54 inches).
- Snugly adjust the belts provided with this child restraint around your child.
- Secure the top anchorage strap provided with this child restraint (forward-facing use only).
- Do not place this restraint in the front seat of a vehicle that has a passenger-side airbag.
- 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 22.7 kg (50 lbs) with the internal harnesses of the child restraint.
- Secure this child restraint with the tether (forward-facing use only) and with the vehicle's child restraint anchorage system, if available, or with a vehicle belt.
- This child restraint must be used only in a forward-facing seating position equipped with a vehicle seat belt or a lower universal anchorage system.
- Follow all instructions on this child restraint and in the written instructions located behind the seat.
- Register your child restraint with the manufacturer.
- Never leave a child unattended.

Post Feb 2014

# EXAMPLE LABELING – POST FEB 2014

Initially, some manufacturers provided exact weights based on 65lb formula:

## **WARNING!**

**DEATH or SERIOUS INJURY can occur.**

- In **HARNESSES MODE**, use only with children who weigh between 25 and 90 lbs (11.3 and 40.8 kg) and whose height is between 30 and 58 in. (76.2 and 147.3 cm) and are at least 2 years of age.
- In **BOOSTER MODE**, use only with children who weigh between 40 and 120 lbs (18.1 and 54.4 kg) and whose height is between 45 and 62 in. (114.3 and 157.5 cm).
- Snugly adjust the belts provided with this child restraint around your child.
- Secure the top anchorage strap provided with this child seat.
- Use only the vehicle's lap and shoulder belt system when restraining the child in this booster seat.
- Secure this child restraint with the vehicle's child restraint anchorage system if available or with a vehicle belt.
- 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 38 lbs (17.2 kg) with the internal harnesses of the child restraint.
- Follow all instructions on this child restraint and in the written instructions located in the pocket behind the cover of the child seat.
- Register your child restraint with the manufacturer.
- The top tether **MUST** be used in harness mode for children that weigh more than 65 lbs (29.5 kg). BRITAX recommends that the top tether be used at all times when installing the child seat.

**Manufactured in Fort Mill, SC, USA by Britax Child Safety, Inc.**

P567000\_R1.03.13

# EXAMPLE LABELING – POST FEB 2014

After clarification, NHTSA has allowed for rounding in 5lb increments:

## **WARNING!**

**DEATH or SERIOUS INJURY can occur.**

- In **HARNESSES MODE**, use only with children who weigh between 25 and 90 lbs (11.3 and 40.8 kg) and whose height is between 30 and 58 in. (76.2 and 147.3 cm) and are at least 2 years of age.
- In **BOOSTER MODE**, use only with children who weigh between 40 and 120 lbs (18.1 and 54.4 kg) and whose height is between 45 and 62 in. (114.3 and 157.5 cm).
- Snugly adjust the belts provided with this child restraint around your child.
- Secure the top anchorage strap provided with this child seat.
- Use only the vehicle's lap and shoulder belt system when restraining the child in this booster seat.
- Secure this child restraint with the vehicle's child restraint anchorage system if available or with a vehicle belt.
- 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 40 lbs (18.1 kg) with the internal harnesses of the child restraint.
- Follow all instructions on this child restraint and in the written instructions located in the pocket behind the cover of the child seat.
- Register your child restraint with the manufacturer.
- The top tether **MUST** be used in harness mode for children that weigh more than 65 lbs (29.5 kg). BRITAX recommends that the top tether be used at all times when installing the child seat.

Manufactured in Fort Mill, SC, USA by Britax Child Safety, Inc.

P554300\_R1.01.13

# EXAMPLE LABELING – POST FEB 2014

## OTHER AREAS



- When the combined weight of the CR + Maximum Child Weight is less than 65 pounds, the standard label language is not required.
- This toddler car seat is an example of this.
- This seat allows the lower anchors to be used up to the harness weight limit of 50 lbs.

# EXAMPLE INSTRUCTION – POST FEB 2014

- **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 18 kg (40 lbs) with the internal harnesses of the child restraint.
- Install this child restraint with a vehicle seat belt (**NOT** lower anchor connectors) when using the restraint's internal harnesses to secure a child who weighs more than 18 kg (40 lbs).

# NEW LATCH WEIGHTS

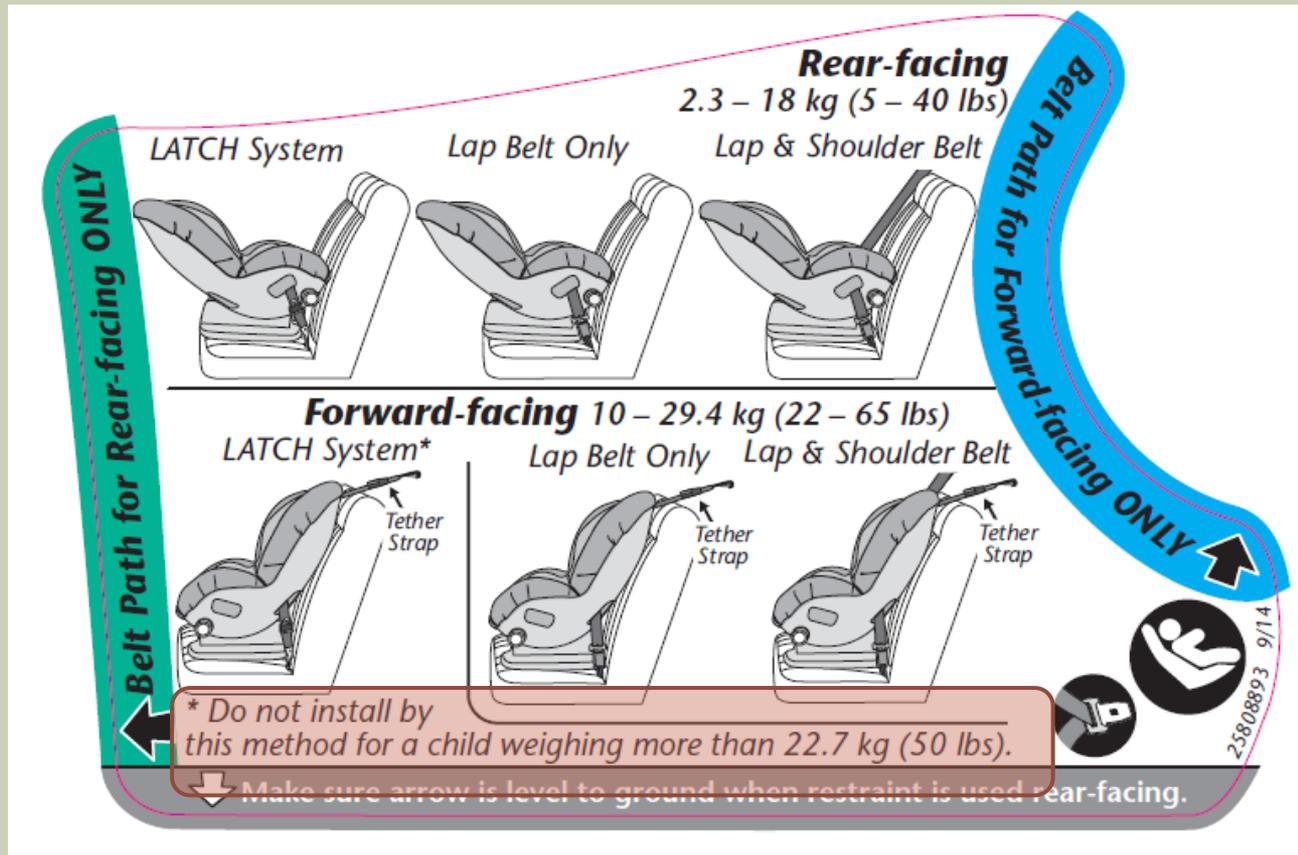
- Some CRS manufacturers are already rounding in 5lb increments:

Car Seat	Lower Anchor Weight Limit
Baby Trend Hybrid 3n1	50 lbs (Harness Limit)
Britax Roundabout	40 Lbs
Britax Marathon	40 Lbs
Britax Advocate	40 Lbs
Britax Frontier 90	40 Lbs
Britax Pinnacle 90	38 Lbs
Chicco NextFit	40 lbs
Evenflo Chase	40 lbs (Harness Limit)
Evenflo Maestro	50 lbs (Harness Limit)
Evenflo Secure Kid	50 Lbs
Evenflo SureRide	50 Lbs
Evenflo Symphony 65	40 Lbs
Evenflo Tribute	40 lbs (Harness Limit)
Evenflo Triumph 65	45 Lbs
Graco My Size	42 Lbs
Diono Radien	35 Lbs
Diono RXT	40 Lbs

# WHAT'S AHEAD?

- **Beginning February 2015:**
  - CRS manufacturers have the opportunity to round their lower anchor weight limits up to the nearest 5lb increment via a table of child/CRS weight limits.
  - Some companies have already started rounding their weights, but weight limits may be different beginning in 2/2015.
    - Ex: Evenflo Symphony manufactured after 2/2014 has lower anchor weight limit of 40 lbs. Evenflo Symphony manufactured after 2/2015 has lower anchor weight of 45 lbs.
  - Warning statement required to be placed near installation diagram.

# EXAMPLE LABELING – POST FEB 2015



Notice the warning only applies to the forward-facing installation.

# EXAMPLE LABELING – POST FEB 2015

Always use detachable base when rear-facing



Lap-Shoulder Belt



Lap Belt



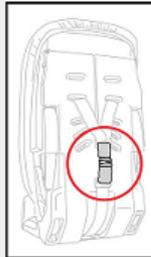
LATCH\*

\*Do not install by this method for a child weighing more than 35 lbs.



Booster belt route for child.

## ! WARNING



Always use Safestop™ with forward-facing child under 40 lbs (18.5 kgs).

Do not use Safestop™ with any other installation or configuration.

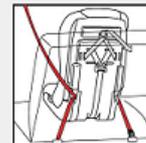
Belt routes for forward-facing child.



Lap belt



LATCH\*



Lap-shoulder belt

\*Do not install by this method for a child weighing more than 40 lbs.

Note: For this car seat there is a different weight limit for lower anchors in the rear-facing installation (left label) than for the forward-facing installation (right label).

This is because there are different maximum weight rounding limits for rear- and forward-facing car seats.

(See NHTSA slide #12)

# TAKE AWAYS

- Inform the caregiver about the new LATCH rules.
- Rear Facing Only Seats will not have this new sentence on the warning labels.
- Some newer seats that are very light and have a lower harness weight limit may not have this label.
  - Meaning you can safely assume if the harness limit of the CR is 40lbs you can use the seat with Lower Anchors until 40lbs.
- If the seat was manufactured prior to Feb. 2014, check the labels and instructions for that car seat and the vehicle to determine lower anchor weight limits.

# TAKE AWAYS

- Use your judgment on what would be best to teach caregiver.
  - Are they more comfortable with LATCH?
  - Are they more comfortable with the seat belt?
- Remember we are teaching best practice and current recommendations but the caregiver is ultimately responsible for making the final decision.
- Do not try to memorize lower anchor weight limits – always check the labels and instructions.
- As always, follow the vehicle and CRS instruction manuals.

# VEHICLE MANUFACTURERS

Frequently  
Asked  
Questions  
about Vehicle  
Anchorages

# WHY DO LATCH ANCHORAGES HAVE WEIGHT LIMITS?

- Every safety device has usage limits – size, weight, speed, etc.
- LATCH anchorages are designed for a specific purpose – to anchor child restraints to the vehicle.
- LATCH anchorages are designed to meet the strength requirements of FMVSS 225, which were developed to complement the requirements of FMVSS 213.
- Vehicle LATCH anchorages are not designed to be used to secure cargo nor are they intended to restrain larger occupants such as adults.



# WHY DO LATCH ANCHORAGES HAVE WEIGHT LIMITS?

Just as you would never recommend using a child restraint beyond its weight limit, LATCH anchorages should not be used beyond their weight limits or for uses other than securing child restraints.

# WHERE DID THE 65 POUND WEIGHT LIMIT COME FROM?

- The LATCH system is designed to anchor both the child and the child restraint system.
- FMVSS 225 was developed in the late 1990s and was based on CRs that were commonly in use at that time.
  - Most had a maximum child weight limit of 40 pounds or less.
  - Most CRs weighed less than 20 pounds.
- Based on this, the strength tests in FMVSS 225 assumed a total weight (child + CR) of 65 pounds.
- CRs that accommodate children who weigh more than 40 pounds fall outside the original scope of FMVSS 225.



Car seats, circa 1991

# WHY DO SOME VEHICLE MANUFACTURERS STATE THEIR WEIGHT LIMIT IN CHILD WEIGHT, BUT OTHERS STATE IT AS A COMBINED WEIGHT?

## Original Weight Limit for Vehicle Anchors: 40-48 pounds

- When FMVSS 225 was developed, the weight limit for restrained children in FF-CRs was 40 pounds – which left 25 pounds for the CR.



- Most vehicle manufacturers stated 40 pounds as their weight limit.
- Since then, Canada changed the weight limit for FF-CRs to 48 pounds. But it was still assumed that the CR would weigh less than 20 pounds, so the 65 pound “combined” weight would not be exceeded.
- Most VMs adopted the 48 pound child weight limit. Some stated this in their printed Owner’s Manuals; others only stated it in the LATCH Manual.

# WHY DO SOME VEHICLE MANUFACTURERS STATE THEIR WEIGHT LIMIT IN CHILD WEIGHT, BUT OTHERS STATE IT AS A COMBINED WEIGHT?

## Recent Changes in VM Weight Limits

- CRs have increased in weight.
  - Some now weigh more than 30 pounds.
- CR weight limits have increased.
  - Many FF-CRs now have child weight limits of 65 pounds or greater.



Most vehicle manufacturers have selected one of the following approaches in response to this change in the market:

- Manufacturers who printed weight limits in their owner's manuals have generally maintained that stated weight limit for prior model years. For newer models, some have switched to the "combined" weight limit.
- Manufacturers who did not provide printed weight limits in their owner's manuals have generally switched to the "combined" weight limit to align with FMVSS 213.
- Some manufacturers state "Follow CR Instructions" to harmonize with the new CR LATCH weight limit labeling.

# IF I DON'T HAVE A LATCH MANUAL AND THE VEHICLE MANUAL DOESN'T LIST A WEIGHT LIMIT FOR THE ANCHORAGES, WHAT WEIGHT LIMIT SHOULD I ASSUME?

Some Vehicle Manufacturers may have made retroactive changes to their weight limits – so the latest information may supersede printed materials:

1. Check the CPSBoard Website “Links for Techs” – Vehicle LATCH and Tether Weight Limits
2. Check the most recent LATCH Manual
3. Check the vehicle owner’s manual
4. If there is no weight limit listed in any of these resources, then the default child weight limit to be used is “65 pounds minus the CR weight.”
5. When published weights for the vehicle and the CR are in conflict, use the more conservative (lower) weight limit.
6. When in doubt, use the safety belts to install the CR.

# LINKS FOR TECHS

<http://cpsboard.org/links-for-techs/> ← Bookmark this link!

The screenshot shows the website for the National Child Passenger Safety Board. The main heading is "Links for Techs" with a sub-heading "Quick Links for Techs" in red. A list of links is provided on the left side of the page, including "Child Restraint Manufacturers", "Car Seat Recall List", "Car Seat Installation Videos", "Vehicle Manufacturers", "Vehicle LATCH and Tether Weight Limits", "Crash Test Videos", "Job Aids for Techs", "Less Common Situations", "Key CPST Reminders", and "CPS Terms Translation (English/Spanish)". On the right side, there is a "Quick Links for Techs" sidebar with a list of links: "Curriculum Resources", "Links for Techs", "Policy Statements", "Learn Vital Information about Progress on Child Passenger Safety", "AAP News: July 2014 - Hospitals Encouraged to Provide CPS Training Resources", and "CHA Checklist for Hospital Discharge Recommendations for Safe Transportation of Children". An orange arrow points from the "Links for Techs" link in the sidebar to the "Vehicle LATCH and Tether Weight Limits" link in the main list, which is highlighted with a red box.

# VEHICLE LATCH WEIGHT LIMITS CHART

## Vehicle Child Restraint Anchor Weight Limits All weights listed are child weights in pounds.

For Vehicle Manufacturers not listed here, see the current LATCH Manual or contact the Manufacturer for information.

Brand	Lower Anchorage with or without a Tether	Tether Anchorage when used with a seatbelt
Acura	65 minus CR weight	65 minus CR weight
Audi	65 minus CR weight	Follow CR Instructions
Buick	65 minus CR weight	65 minus CR weight
Cadillac	65 minus CR weight	65 minus CR weight
Chevrolet	65 minus CR weight	65 minus CR weight
Chrysler	65 minus CR weight	See Chrysler Model List
Daewoo	65 minus CR weight	65 minus CR weight
Dodge	65 minus CR weight	See Dodge Model List
Eagle	65 minus CR weight	65 minus CR weight
Fiat	65 minus CR weight	Weight Limit of the CR
Ford	MY13 and older = 48 MY14 and newer = 65 minus CR weight	Weight Limit of the CR
Geo	65 minus CR weight	65 minus CR weight
GMC	65 minus CR weight	65 minus CR weight
Honda	65 minus CR weight	65 minus CR weight

**Weight Limits in this chart are stated in terms of “child weight.”  
When the weight limit on the anchorage is 65 pounds, the manufacturer states the weight limit in this table as “65 minus CR weight.”**

Jeep

65 minus CR weight

See Jeep Model List

# WHY DO SOME TETHER ANCHORAGES, WHEN USED WITH THE SAFETY BELT, HAVE A HIGHER WEIGHT LIMIT THAN THE LOWER ANCHORAGES IN THE SAME VEHICLE?

- FMVSS 225 does not have a standard test to determine whether a tether anchorage, used with a safety belt to secure a CR, can secure over 65 pounds in a crash.
  - While most of the crash forces will be managed by the safety belt, there is no standard test to determine what the load on the tether anchorage will be for high weight CRs.
- Tether anchorage loading is affected by the location of the anchorage (for example – shelf vs. back of seat).
- These are some of the reasons why some vehicle manufacturers have not increased the weight limits on their tether anchorages.
  - Research into this is ongoing and may support future revisions to tether anchor weight limits.



# WHY DO SOME TETHER ANCHORAGES, WHEN USED WITH THE SAFETY BELT, HAVE A HIGHER WEIGHT LIMIT THAN THE LOWER ANCHORAGES IN THE SAME VEHICLE?

## Vehicle Manufacturer Proprietary Testing:

- Some vehicle manufacturers may have conducted proprietary testing to evaluate their tether anchor designs. These manufacturers may allow the tether anchorage to be used whenever a CR is installed with a safety belt.
  - Sometimes this recommendation applies only to specific vehicle models and/or Model Years
- Since not all manufacturers allow this, it is very important to check the LATCH manual or the online vehicle manufacturers' weight limit list to confirm tether anchor weight limits.

# WE'VE NEVER HEARD OF ANY FAILURES OF TETHER ANCHORAGES IN THE FIELD, SO WHY CAN'T WE USE THEM ABOVE 65 POUNDS?

- Evidence about the performance of vehicles in the field is not the same as engineering testing.
- The real-world field events confirm that vehicles meet or exceed current regulatory requirements. But crashes on the road cannot be used to predict how a system will work in another crash or with a different design requirement such as a higher weight limit.
- There are too few crashes of this type to draw any firm conclusions about “all vehicles”.
- If a tether anchorage releases in a crash, the tether hook can become a projectile in the vehicle which could injure the child or other occupants.

# WHAT SHOULD I TELL A PARENT WHO HAS A CHILD IN A HIGH WEIGHT CHILD RESTRAINT THAT MAY EXCEED THE VEHICLE MANUFACTURER'S LATCH ANCHORAGE WEIGHT LIMITS?

- Always resort to your training when counseling parents about choosing the right CR. The best CR is the one that:
  - fits their child,
  - ***fits their vehicle,***
  - and that they will use correctly every trip.
- ***Fits their vehicle*** includes following both the vehicle and CR manufacturer instructions, such as the LATCH weight limits.
- Sometimes CPS Techs have to tell caregivers that the CR they selected is not compatible with their vehicle.
- If there is a conflict with the weight limits, have the parent switch to the safety belt for installation of the CR.



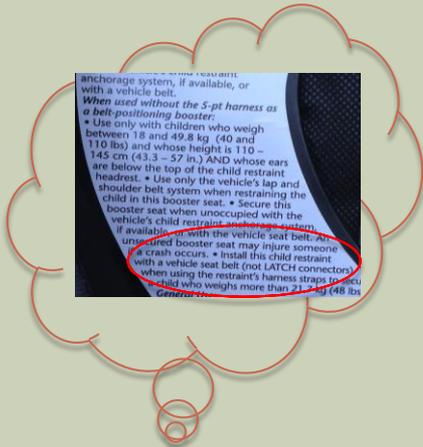


**NEW  
LOWER ANCHOR  
WEIGHT LIMIT  
LABELS:**

**A step  
forward for  
LATCH**

**Denise Donaldson,  
Safe Ride News**

# STEP 1: Find the Lower Anchor Weight Limits



Does CR  
have a wt.  
label with  
the text?

YES

Follow the  
label limit.

Note: CRs that can be installed with the lower attachments at ALL harness-use weights may not have a label, even after 2/27/2014.

# STEP 1: Find the Lower Anchor Weight Limits

anchorage system, if available, or with a vehicle belt.  
When used without the 5-pt harness or a belt-positioning booster:  
• Use only with children who weigh between 18 and 49.8 kg (40 and 110 lbs) and whose height is 110 – 145 cm (43.3 – 57 in.) AND whose ears are below the top of the child restraint headrest.  
• Use only the vehicle's lap and shoulder belt system when restraining the child in this booster seat.  
• Secure this booster seat when unoccupied with the vehicle's child restraint anchorage system, if available, or with the vehicle seat belt.  
An unsecured booster seat may injure someone if a crash occurs.  
• Install this child restraint with a vehicle seat belt (not LATCH connectors) when using the restraint's harness straps for a child who weighs more than 21 kg (48 lbs).  
General

Do not install by this method for a child weighing more than \* lb



Lower anchors

Does CR have a wt. label with the text?

NO

Does CR have a wt. label by diagram?

YES

Follow the label limit.

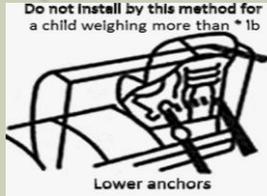
YES

Follow the label limit.

Note: CRs that can be installed with the lower attachments at ALL harness-use weights may not have a label, even after 2/27/2014.

# STEP 1: Find the Lower Anchor Weight Limits

anchorage system, if available, or with a vehicle belt.  
**When used without the 5-pt harness or a belt-positioning booster:**  
 • Use only with children who weigh between 18 and 49.8 kg (40 and 110 lbs) and whose height is 110 – 145 cm (43.3 – 57 in.) AND whose ears are below the top of the child restraint shoulder belt system when restraining the child in this booster seat. • Use only the vehicle's lap and shoulder belt system when restraining the booster seat when unoccupied with the vehicle's child restraint. • Secure this booster seat when unoccupied with the vehicle seat belt. • If available, use the vehicle seat belt-secured booster seat may injure someone in a crash occurs. • Install this child restraint with a vehicle seat belt (not LATCH connectors) when using the restraint's harness straps to a child who weighs more than 21 kg (48 lbs).



What is the CR maker's limit?

Does CR have a wt. label with the text?

NO

Does CR have a wt. label by diagram?

NO

What is the vehicle maker's limit?

YES

Follow the label limit.

YES

Follow the label limit.



Note: CRs that can be installed with the lower attachments at ALL harness-use weights may not have a label, even after 2/27/2014.

# STEP 2: If different, compare the stated limits



<



Is the  
vehicle limit  
< CR limit?

YES

Follow the  
vehicle limit.

# STEP 2: If different, compare the stated limits



Is the  
vehicle limit  
< CR limit?

NO

Does the CR  
allow use of  
the VM limit if  
higher?

NO

Follow the  
CR limit.

YES

Follow the  
vehicle limit.

YES

Follow the  
vehicle limit.

# NHTSA'S NEW LABELS DON'T AFFECT:

- RF-Only CRs
- Belt-Positioning Boosters
- Pre-Compliance CR Models
- Tethering
- Vehicle Manufacturer LA Limits
- How We/Caregivers Should Approach Proper Use of CRs

# TRUE OR FALSE?

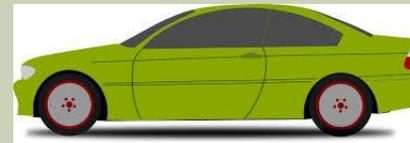
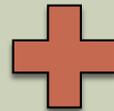
- To install a CR made after 2/27/2014 using the lower attachments, you have to know how much it weighs.

# TRUE OR FALSE?

- To install a CR made after 2/27/2014 using the lower attachments, you have to know how much it weighs.

**FALSE**

Look at the CR label for the lower anchor weight limit and compare to the vehicle weight limits.



# TRUE OR FALSE?

- It's OK to simply advise caregivers to use LATCH only when RF, and not when FF.

# TRUE OR FALSE?

- It's OK to simply advise caregivers to use LATCH only when RF, and not when FF.

**FALSE**

- This limits LATCH unnecessarily.
- It does not align with the owner's manual.
- It oversimplifies, since some CRs are limited in LATCH use in the RF mode.

# TRUE OR FALSE?

- Good CPSTs will make a point of memorizing the lower anchorage limits for all CR models.

# TRUE OR FALSE?

- Good CPSTs will make a point of memorizing the lower anchorage limits for all CR models.

**FALSE**

- Unnecessary, since labels are clear.
- Limits can change, at CR makers' option.
- The limits are not retroactive to older models.

# TRUE OR FALSE?

- There are no limits for tether anchors.

# TRUE OR FALSE?

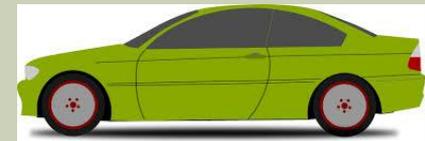
- There are no limits for tether anchors.

**FALSE**

Some vehicle manufacturers DO state limits for TAs in some vehicle models.

Important to remember:

- The CR label applies to lower anchors only.
- NHTSA's rule excludes tethers.
- CR makers always urge tether use.



# NHTSA ON TETHERING

## ■ NHTSA did not include tethering in rule change, stating:

- “A significant portion of the harm to children resulting from motor vehicle crashes could be prevented by the tether.”
- Stated it would be doing more research on this topic.

# VEHICLE MANUFACTURER TETHER ANCHOR LIMITS

- **REMEMBER:** Some VMs give the same limit for tether anchors whether they are used with LAs or a seat belt. (65 minus CR Weight)

**Table B2: Vehicle Anchor Weight Limits\***

Also check the car seat manufacturer **LATCH** weight limit guidance. See Appendix A.

Vehicle brand	Child-weight limit for <b>LOWER ANCHORS</b> (in lbs.) Used <u>with</u> or <u>without</u> tether (except as noted)	Child-weight limit for <b>TETHER ANCHORS</b> (in lbs.)	
		Factory-installed anchor with seat belt	Retrofit anchor with seat belt
<b>Acura</b>	65 minus CR weight.	65 minus CR weight.	65 minus CR weight.
<b>Audi</b>	65 minus CR weight.	Follow CR instructions.	Not stated.
<b>Bentley</b>	65 minus CR weight.	Not stated.	N/A

Excerpt from 2013 LATCH Manual, pg. B-4

# VEHICLE MANUFACTURER TETHER ANCHOR LIMITS

- **REMEMBER:** Some VMs give the same limit for tether anchors whether they are used with LAs or a seat belt.  
(65 minus CR Weight)
- Other VMs allow the tether anchor to be used with a seat belt up to the harness weight limit of the CR.  
(Follow CR Instructions)

**Table B2: Vehicle Anchor Weight Limits\***

Also check the car seat manufacturer **LATCH** weight limit guidance. See Appendix A.

Vehicle brand	Child-weight limit for <b>LOWER ANCHORS</b> (in lbs.) Used <u>with</u> or <u>without</u> tether (except as noted)	Child-weight limit for <b>TETHER ANCHORS</b> (in lbs.)	
		Factory-installed anchor with seat belt	Retrofit anchor with seat belt
<b>Acura</b>	65 minus CR weight.	65 minus CR weight.	65 minus CR weight.
<b>Audi</b>	65 minus CR weight.	Follow CR instructions.	Not stated.
<b>Bentlev</b>	65 minus CR weight:	Not stated.	N/A

Excerpt from 2013 LATCH Manual, pg. B-4

# SAMPLE SCENARIO



**Graco  
My Ride 65**



**2004 Chrysler  
Town&Country**

# STEP 1: GATHER LIMIT INFO; START BY LOOKING AT LABELS



**Graco  
My Ride 65**

...the top of the child restraint headrest. • Use only the vehicle's lap and shoulder belt system when restraining the child in this booster seat. • Secure this booster seat when unoccupied with the vehicle's child restraint anchorage system, if available, or with the vehicle seat belt. An unsecured booster seat may injure someone if a crash occurs. • Install this child restraint with a vehicle seat belt (not LATCH connectors) when using the restraint's harness straps to secure a child who weighs more than 21.7 kg (48 lbs).  
**General Use:**

**Do not install by this method for  
a child weighing more than \* lb**



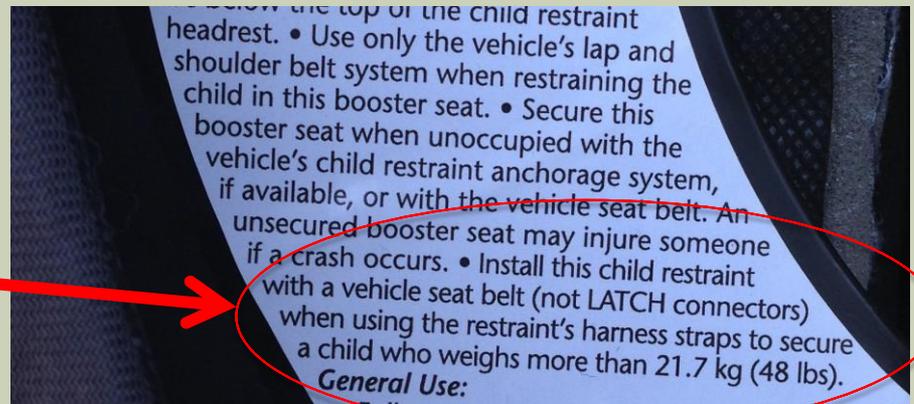
**Lower anchors**

# GATHER LOWER ANCHOR INFO

- If a label exists, follow it for lower attachments,



**Graco  
My Ride 65**



**But if there is no label...**

# IF THE LABEL DOES NOT STATE A WEIGHT LIMIT

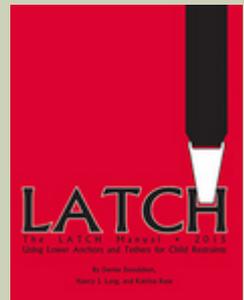


**Graco  
My Ride 65**

Check the CR  
owner's manual for  
LA and TA weight  
limits

and/or

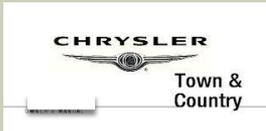
Check the  
manufacturer's  
Appendix A entry in  
2015 LM (pg. A-34).



# LATCH INFO FOR CR

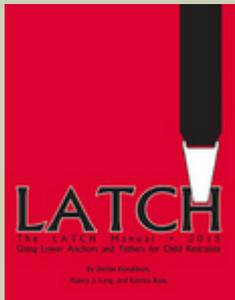
<b>Anchor Type</b>	<b>Graco My Ride 65</b>	<b>2004 Chrysler T&amp;C</b>	<b>Correct Use</b>
<b>LATCH Lower Anchorage</b>	<b>48 lbs., or VM limit, if lower</b>		
<b>Tether Anchorage</b>	<b>All harness weights (65 lbs.)</b>		

# GATHER THE LIMIT INFO FOR THE VEHICLE



Check the VM owner's manual

and/or



Check the manufacturer's entry in Appendix B in 2015 LM (Page B-50).



**2004 Chrysler  
Town & Country**

# 2004 TOWN & COUNTRY LOWER ANCHOR WEIGHT LIMITS

Vehicle LA weight limit = 65 – CR weight  
**65 – 15.8 = 49.2 lbs** child weight limit for LAs

**Graco—CR Weights (in pounds)**  
*(Convertible/Combination/3-in-1 models only)*

ComfortSport.....	12.00
Cozy Cline/Toddler Safety Seat.....	22.00
Classic Ride 50.....	13.13
My Ride 65.....	15.80
My Ride 65 with Safety Surround.....	15.80
My Ride 70.....	15.80
Smart Seat.....	33.00
Nautilus.....	26.00
Size4Me 70/My Size 70.....	18.00
Argos 70.....	20.60
Treasured CarGo.....	8.50
Cherished/Platinum Ultra CarGo.....	8.50

The **product** weight(s) above are provided by the CR mfr. so users can calculate vehicle lower-anchor weight limits when the vehicle mfr. bases the limit on child-plus-CR weight. (Some weights given on retail websites are **shipping** weights, so may differ.)

CR weight provided in  
Graco entry, PAGE A-36

# VEHICLE TETHER ANCHOR LIMIT

For the '04 Town & Country, it says:

“When a seat belt is used to install CR, tether may be attached to TA up to the CR manufacturer’s weight limit.”

Vehicles with three or more rows of seats—Chrysler						
MODEL Body	YEAR	SECOND ROW		THIRD ROW		NOTES
		CENTER	OUTBOARD	CENTER	OUTBOARD	
TOWN & COUNTRY Minivan	01	N/A	(2) LATCH	LATCH	(2) LATCH	(5) TAs on backs of seats. <b>Maximum Weight Limit—TAs:</b> When a seat belt is used to install CR, tether may be attached to TA up to the CR manufacturer’s weight limit. <b>3<sup>rd</sup> Row Center:</b> Install with LAs in the designated center LATCH position by attaching to the two inner bars of the footrest. If LAs are used for center installation, LAs may not be used for either outboard position.
	02-04			TA	None	(3) TAs on backs of seats <b>Maximum Weight Limit—TAs:</b> When a seat belt is used to install CR, tether may be attached to TA up to the CR manufacturer’s weight limit. <b>3<sup>rd</sup> Row Outboard TA Retrofit Part:</b> 05012007AB. Part is covered under the manufacturer’s retrofit program; owner responsible for part and installation costs.
						(3) TAs on backs of seats

# LATCH INFO FOR VEHICLE

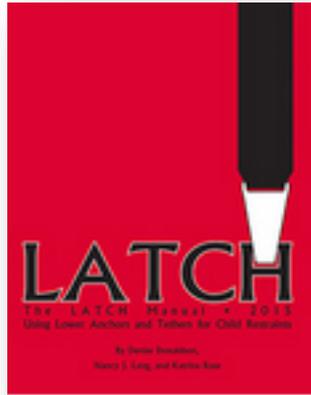
<b>Anchor Type</b>	<b>Graco My Ride 65</b>	<b>2004 Chrysler T&amp;C</b>	<b>Correct Use</b>
<b>LATCH Lower Anchorage</b>	<b>48 lbs., or VM limit, if lower</b>	<b>49.2 lbs.</b>	<b>?</b>
<b>Tether Anchorage</b>	<b>All harness weights (65 lbs.)</b>	<b>Follow CR instructions</b>	<b>?</b>

# STEP 2: COMPARE CR LIMITS WITH VEHICLE LIMITS

<b>Anchor Type</b>	<b>Graco My Ride 65</b>	<b>2004 Chrysler T&amp;C</b>	<b>Correct Use</b>
<b>LATCH Lower Anchorage</b>	<b>48 lbs., or VM limit, if lower</b>	<b>49.2 lbs.</b>	<b>48 lbs.</b>
<b>Tether Anchorage</b>	<b>All harness weights (65 lbs.)</b>	<b>Follow CR instructions</b>	<b>65 lbs.</b>

**Correct use always equals the lower of the two weight limits!**

# FREE LATCH RESOURCES AT WWW.SAFERIDENEWS.COM



## LM UPDATES

Check regularly for updates to the LM. Sign up to be notified of changes.



## SRN SUPPORT

Newsletter articles and other resources like Center LATCH List and Retrofit DIY.



## LATCH GALLERY

A place to share photos of interesting lower and tether anchor situations.

# QUESTIONS?

- **Bookmark these helpful links!**

**<http://cpsboard.org/links-for-techs/>**

**<http://www.saferidenews.com/>**