

NHTSA's "Ease of Use" Rating System for Child Restraint Systems

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Situation in the U.S.

- ★ NHTSA data indicates that 7 out of 10 child safety seats are either the wrong size for the child or seriously misused, reducing their effectiveness in a crash.
- ★ When properly used, child restraint systems reduce fatal injury by
 - 71 percent for infants and 54 percent for toddlers in passenger cars, and in
 - Light trucks, by 58 percent for infants and 59 percent for toddlers.

Ease of Use Program

- ★ In January 2008, NHTSA introduced a new five star rating system that will grade child safety seats on how easy they are to properly install, and will help guide parents and caregivers in choosing the right car seat to keep their children safe.
- ★ New star ratings are available for 78 seats currently on the market in the US.

Ratings Information

- ★ All car seats rated by NHTSA meet Federal Motor Vehicle Safety Standards. While all rated seats are safe, they do differ in their ease of use in four basic categories:
 - Evaluation of Instructions,
 - Vehicle Installation Features,
 - Evaluation of Labels, and
 - Securing the Child

5-Star Ratings

★ NHTSA Ease-of-Use 5-Star Ratings

NHTSA uses a five-star rating system to help consumers evaluate the four basic category ratings:

- ★★★★★ = Excellent features on this child restraint for this category.
- ★★★★ = Above average features on this child restraint for this category.
- ★★★ = Average features on this child restraint for this category.
- ★★ = Below average features on this child restraint for this category.
- ★ = Poor features on this child restraint for this category.
- N/A = Does not contain any features that require a rating.

Rating System Overview

Category Example	Rating		Weighted Value	Weighted Score= (Weighted Value x Rating Value)
Feature	Letter	Value		
Feature One	A	3	3	9
Feature Two	C	1	2	2
Feature Three	B	2	2	4
Sum of Weighted Scores			15	
Weighted Ave = $\frac{\text{Sum of Weighted Scores}}{\text{Sum of Weighted Values}}$			2.14	
Star Rating			3	

- ★ Features are rated
- ★ Each feature has an associated weighted value
- ★ Weighted average for that category is calculated and converted to a star rating
- ★ Overall rating is weighted average of all categories converted to a star rating as well

Rating System Breakdown

- ★ The category AND overall ratings are assigned as follows:

	Stars
Distribution of Scores by Weighted Average	5 Stars ≥ 2.6
	4 Stars = $2.6 < \text{Score} \leq 2.3$
	3 Stars = $2.3 < \text{Score} \leq 2.0$
	2 Stars = $2.0 < \text{Score} \leq 1.7$
	1 Stars = $\text{Score} < 1.7$

Portion of Sample Rating Form

Evaluation of Labels

	A	B	C	Notes
Clear indication of child's size range for this mode. Is there additional information on the CRS about how the child should fit in it?	Separate, clear, complete height and weight information directly next to the illustration. Additional size information included as a picture. <input type="checkbox"/>	Separate, clear, complete height and weight information directly next to the illustration. Additional size information included as short, simple text. <input type="checkbox"/>	Incomplete text as indicated, text independent of illustration, or no illustration, and/or no mention of additional sizing information. <input checked="" type="checkbox"/>	No picture of child in seat.
All methods of installing the seat in this mode are clearly indicated, including with lower anchors, lap belt only, and lap/shoulder belt, with and without the base as necessary.	Illustrated clearly with CR in vehicle seat. No need to read text although illustrations should be labeled for each method of installation. <input checked="" type="checkbox"/>		Method missing, partially illustrated, or no illustrations at all. CRS may be shown without any vehicle seat at all. Must read text. <input type="checkbox"/>	
Does the CRS indicate the correct harness slot height for this mode? Is there additional information on the CRS about how the shoulder straps should fit for this mode?	Yes, there is a graphic or contrasting text indicating the correct harness slots to use for this mode. Additional harness adjustment information is conveyed using a picture. <input type="checkbox"/>	Yes, there is text indicating the correct harness slots to use for this mode but they may be the same color as the shell. Additional harness adjustment information is included but may be text only. <input type="checkbox"/>	No indication of correct slots to use for this mode (for applicable multi-mode CRS) and/or no mention of additional sizing information. <input checked="" type="checkbox"/>	

Sample Category Rating

	Feature			
Value	Evaluation of Labels	Score	Weighted Score	Weighted Ave.
2	Clear indication of child's size range.	1	2	2
2	Are all modes of use clearly indicated?	3	6	2
2	Are the correct harness slots for this mode indicated?	1	2	2
2	Seat belt & lower attachment routing path clarity.	3	6	2
2	Shows how to prepare & use lower attachments.	1	2	2
1	Durability of labels. (n/a if not youngest mode)	3	3	1
		Total	21	11
		Weighted Ave	1.90	
		Star Rating	2	

Sample Overall Rating

Feature	Sum of Weighted Scores	Sum of Weighted Values
Evaluation of Labels	21	11
Evaluation of Instructions	26	10
Securing the Child	44	21
Vehicle Installation Features	28	15
Total	119	57
Overall Weighted Average	2.09	
Overall Star Rating	3	

Conclusions

- ★ These changes will make it easier for consumers to compare products and determine which child safety seat is easiest for their daily routines.
- ★ For child seat ratings: www.nhtsa.gov
- ★ Final Rule, search on “NHTSA-2006-25344” at www.regulations.gov.