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BUYING A SAFER CAR FOR CHILD PASSENGERS 2006

A GUIDE FOR PARENTS





What To Look For When Buying A New Car Child Safety and Booster Seat Basics

Vehicle Safety Tips, FAQs and Contact Information

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### SAFER CARS, SAFER CHILDREN

Safer Cars And Safer Child Passengers 2006 is a National Highway Traffic Safety Administration (NHTSA) guidebook designed to help parents understand vehicle child safety features, make an informed buying decision when purchasing a family car, properly use child safety and booster seats, and help keep children as safe as possible whenever they are in or around vehicles.

When referenced as a vehicle buying guide for your family, this brochure should be used in tandem with the NHTSA *Buying A Safer Car 2006* brochure, which contains a full range of safety feature information, crash tests, and rollover resistance results on cars, light trucks, SUVs, and vans. To view the most updated government crash test results, access the *Buying A Safer Car 2006* brochure or order a free copy, visit www.safercar.gov today.

### SAFETY FEATURES FOR CHILD PASSENGERS

Safety is one of the most important considerations when buying a family vehicle. Manufacturers offer many safety features you should look for to transport children safely. These features cannot, however, replace the need to monitor children when they are in and around motor vehicles or the importance of seeing that children are safely buckled up.

In fact, the most important action a parent or caregiver can do to promote occupant protection for children is to secure all children up to age 13 in an age and weight appropriate child restraint or safety belt — in the vehicle's rear seat. Statistics show that children are much less likely to be seriously injured in a crash if they are properly restrained in the back seat.

The safety features listed here will help you secure your children safely in your vehicle and reduce their risk of incurring crash-related injuries. Moreover, these features can help protect children from other vehicle-related dangers, such as those posed by certain types of power window switches. For details, see the "Child Safety Features By Model – 2006" charts, which begin on page 6 of this booklet.

### **Manual Air Bag On-Off Switch**

Vehicles with no rear seat, or a rear seat that is not appropriate for a child safety seat, may have a switch that lets the driver control the front-seat passenger air bag. The switch has a warning light that must be clearly visible to all front-seat passengers to let them know when the air bag has been turned off. A rear-facing child safety seat should NEVER be

placed in the front seat of a vehicle equipped with an active passenger air bag. Infants and children can be seriously injured — or even killed — if the air bag inflates.

## Refer to your owner's manual for information on the correct use of the air bag ON-OFF switch.

There are circumstances where some people should not be exposed to an inflating air bag. Some of these situations involve child passengers who may be put at risk if an air bag inflates.

If you can certify that you or someone else who uses your vehicle would be at risk if the air bag inflates, you can have an ON-OFF switch installed in your vehicle. Please review the information below on air bag ON-OFF switches to decide whether your driving situation fits one or more risk profiles necessary to have an ON-OFF switch installed by a dealer or repair facility.

People whose risk profiles justify having an ON-OFF air bag switch installed include the following:

- People who **must** transport infants riding in rear-facing infant seats in the front passenger seat.
- People who **must** transport children under 13 in the front passenger seat.
- Drivers who cannot change their customary driving positions to keep 10 inches between the center of the steering wheel and the center of their breastbone.
- People whose doctors say that due to their medical conditions the air bags pose a special risk that **outweighs** the risk of hitting their heads, necks or chests in a crash if the air bags are turned off.

To receive a brochure about retrofitting ON-OFF switches or obtain an Installation Request form:

- Visit the air bag section of NHTSA's Web site, www.safercar.gov/airbags, or
- Call the **DOT Vehicle Safety Hotline** at 888-327-4236 (TDD 800-424-9153).

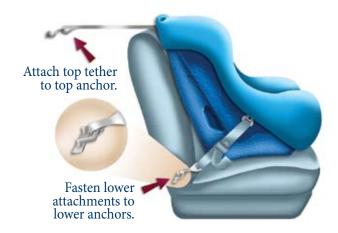
Given that ON-OFF switches are not available for all vehicles, make sure a switch is available for your vehicle before you request authorization to have it installed.

### **Rear Center-Seat Lap and Shoulder Belts**

All rear center seats must be equipped with at least a lap belt. As an added feature, some manufacturers include lap and shoulder belts in rear center seats. This benefits older children and children in booster seats who often ride in the rear center position. A Federal ruling recently mandated that all new passenger vehicles must be equipped with rear center-seat lap/shoulder safety belts by 2008.

### **Adjustable Upper Belts (Rear)**

Because safety belts must fit people of various sizes, including older children, some manufacturers offer an adjustable upper belt that lets you change the position of the shoulder strap to accommodate a person's size. This feature allows adjustment and may improve the shoulder belt fit for the passenger. Check the manufacturer's instructions to correctly adjust the safety belts in your vehicle.



### Lower Anchors and Tethers for Children (LATCH)

LATCH is a relatively new system that makes child safety seat installation easier — without using seat belts. How does LATCH work? Anchors on a LATCH-equipped vehicle are used to install a safety seat equipped with LATCH fasteners. Most LATCH-equipped vehicles have anchors in the right and left rear seat positions. If the center seat doesn't have anchors, you can still install your child safety seat using a safety belt. If your vehicle isn't LATCH-equipped, use the safety belt and, if available, a top tether.

LATCH is required on child safety seats and vehicles manufactured after September 1, 2002. Note: Since the LATCH system has been required equipment on all new vehicles for the past several years, you will not find a listing for LATCH-equipped vehicles in the "Child Safety Features By Model – 2006" charts included in this booklet.

### **Push-Down, Pull-Up Window Switches**

With a conventional rocker or toggle type window switch, a child can accidentally lean or kneel on the switch and cause the window to close, trapping hands, arms or other body parts in the power window. However, Push-Down, Pull-Up Switches help eliminate this safety risk by making it virtually impossible to accidentally close power windows. A Federal rule mandates that safer switches be installed in all cars, vans, pickup trucks and sport utility vehicles made for sale in the United States on or after October 1, 2008.

#### **Anti-Pinch/Auto Reversal Windows**

Automatic reversal windows, sometimes called "pinch protection," "anti-entrapment," or "bounce-back" windows are designed to stop closing and reverse direction if they sense anything, such as a child's hands, arms or head, in the way. There are several different types of systems available. Check with your dealer about the specific operation of anti-pinch/auto reversal windows.

### **Built-In Child Safety Seats**

Some manufacturers offer built-in child safety seats that are designed to restrain children at least 1 year old and over 20 pounds. Specific weight and height requirements may vary; check with the vehicle manufacturer for details. Since the introduction of the Lower Anchors and Tethers for Children system, which was designed to make child safety seats easier to install, only a very small percentage of manufacturers offer this feature. As a result, you will not find this safety feature listed in the "Child Safety Features By Model – 2006" charts included in this booklet. Check with your dealer or manufacturer for more information about vehicle models that include built-in child safety seats.

### ADDITIONAL SAFETY FEATURES TO CONSIDER

The following safety features aren't typically considered specific to children, but they do have an impact on children and/or teenagers. In researching the purchase of a new or used vehicle, it's important to consider how these technologies may affect everyone in your family.

#### **Rear-Seat Active Head Restraints**

The newest type of head restraint is an active head restraint, which comes in a number of designs for the front and back seats of vehicles. Preliminary research has shown that active head restraints may help reduce whiplash.

While this safety feature has no impact on young children, who should be properly secured in their own child safety seats, rear-seat active head restraints may provide additional protection for older children or teenagers during a rear-end crash. In such a crash, active head restraints automatically close the gap between the occupant's head and the head restraint — and in some instances increase their height relative to the occupant's head. (Note that active head restraints may also be adjusted manually.)

### **Frontal Air Bags**

Frontal air bags deploy forcefully and rapidly, posing a danger for children 12 and younger. Therefore, NHTSA recommends all children 12 and under should always ride in the rear seat, where it's safest for them. Vehicles with no rear seat, or a rear seat that is not appropriate for a child safety seat, may have a switch that lets the driver control the front-seat passenger air bag. Refer to the "Manual Air Bag On-Off Switch" section of this booklet on page 1 to learn more about these switches and how and when to use them to protect your child passengers.

### **Advanced Frontal Air Bags**

Designed to meet the needs of occupants in a variety of specific crash situations, advanced frontal air bag systems use sensors to automatically determine if — and with what level of power — the driver frontal air bag and passenger frontal air bag will inflate.

The appropriate level of power is based upon sensor inputs that can typically detect: 1) occupant size, 2) seat position, 3) safety belt use of the occupant, and 4) crash severity.

Even in vehicles equipped with advanced frontal air bags, children 12 and younger should never ride in the front seat. However parents whose teenagers 13 and older ride in the front seat of the family vehicle should be aware of the advantages of this new technology, particularly as teenagers tend to be of smaller stature than the average adult. Currently, vehicles equipped with advanced frontal air bags are being phased into the marketplace. In fact, all passenger cars and light trucks produced after September 1, 2006, will be required to have advanced frontal air bags.

### **Side-Impact Air Bags**

Side-impact air bag (SAB) technology has advanced rapidly over recent years and various types of SABs have emerged. SABs offer additional protection to two principal areas of the body — the head and the chest — during side-impact crashes.

Head-protecting curtain or tubular SABs deploy overhead and downward from the roof rail. Doormounted or seat-mounted SABs, also called torso bags, are designed to offer protection to the chest. A combination SAB, or "combo bag," deploys from the seatback and offers protection to both the chest and head.

A Technical Working Group of experts representing the automotive and insurance industries has developed voluntary SAB testing procedures to minimize the potential risk of SAB-related injuries for out-of-position occupants, which often includes children who are seated very close (called "out of position") to a deploying SAB.

If a vehicle has a "meets requirements" in the column labeled "SAB Out-of-Position Testing," on the www. safercar.gov Web site, it means the manufacturer has reported to the government that all SABs in the vehicle have successfully completed the full battery of out-of-position tests specified under the voluntary guidelines.

You should read the owner's manual or contact your manufacturer for specific information about how the side air bag system in your vehicle works in the event of a crash. Visit www.safercar.gov/airbags for more detail on SABs and children. NHTSA also provides more detailed information in a searchable SAB database at www.safercar.gov.

Some facts that parents will want to remember about child occupant protection in general — and side air bags in particular — are listed here:

- ALL children should use safety restraints appropriate for their age and size (this could be a safety seat, booster seat, or adult safety belt).
- Children 12 and younger are safest sitting in the rear seat properly restrained.
- To minimize injury risks, NHTSA recommends that children not lean or rest against chest-only or head/chest combination SABs.
- NHTSA has not seen any indication of risks to children from current roof-mounted head SABs.

#### **Interior Trunk Release**

Almost all passenger cars with trunks manufactured after September 1, 2001, are required to be equipped with interior trunk releases. This safety feature is intended to help all individuals — and especially children — who may become locked in the trunk of a vehicle to escape. Check with your automobile dealer for specific information on the type of trunk release system offered and which vehicle manufacturers offer retrofit kits for older cars. Ensure that your children know where the interior trunk release is located and how to use it.

### CHILD SAFETY FEATURES BY MODEL - 2006

The following charts, ordered by vehicle type, are designed to help you select a family vehicle with key child safety features.

Included in these charts — listed here in the order presented the charts — is information about the following child safety features:

- Adjustable Upper Belt-Rear
- Rear Center Lap/Shoulder Belt
- Airbag On-Off Switch
- Push Down/Pull Up Window Switch
- Anti-Pinch/Auto Reversal Windows
- Side Air Bag-Chest Air Bag 2nd Row
- Side Air Bag-Head Air Bag 2nd Row
- Side Air Bag Out of Position Tests

Specific information about some safety features is not available. While LATCH is available in every new vehicle, position of LATCH systems in each model is not known. Similarly, information on models that include certain features, such as built-in child safety seats, is not available. Check with your dealer to find out more about such features.

Make	Model	Body	Adjustable Upper Belt – Rear	Rear Center Lap/Shoulder Belt	Air Bag On-Off Switch	Dynamic Head Restraint	Push Down/Pull Up Window Switch	Anti-Pinch/Auto Reversal Windows	Side Air Bag - Chest Air Bag - 2nd Row	Side Air Bag – Head Air Bag – 2nd Row	Side Air Bag Out of Position Tests
Mini Passenger	Car										
Honda	Insight	2-DR					S				
<b>Light Passenger</b>	Car										
Chevrolet	Aveo	4-DR		S			S				M
Mazda	MX-5/ Miata	2-DR Convertible			S		S				M
Mercedes-Benz	SLK-Class	Convertible						S			
Mercedes-Benz	SLR-Class	2-DR					S	S			
Toyota	Scion xA	4-DR		S	D		S			Ac	M
Toyota	Scion xB	4-DR		S	D		S				
<b>Compact Passer</b>	nger Car										
Acura	RSX	2-DR					S				M
BMW	Z4	2-DR			S		S	S			M
Chevrolet	Cobalt	4-DR	S	S			S			Ac	M
Chevrolet	Cobalt	2-DR	S	S			S			Ac	M
Ford	Focus	4-DR									
Ford	Focus	2-DR									
Honda	Civic	4-DR		S		S	S			Sc	M
Honda	Civic	2-DR		S		S	S			Sc	M
Honda	Civic Hybrid	4-DR		S		S	S			Sc	M
Honda	S2000	Convertible					S				
Hyundai	Accent	4-DR		S			S			Sc	
Hyundai	Elantra	4-DR		S			S				M
Kia	Rio	4-DR		S		A	A			Sc	M
Kia	Rio	4-DR		S		A	A			Sc	M
Kia	Spectra	4-DR		S		A	A			Ac	M
Mazda	Mazda3	4-DR		S			S			Ac	M
MINI	Cooper	2-DR				A	S			St	M
Mitsubishi	Eclipse	2-DR					S				M

<sup>\*</sup>See Key on Page 19

Make	Model	Body	Adjustable Upper Belt – Rear	Rear Center Lap/Shoulder Belt	Air Bag On-Off Switch	Dynamic Head Restraint	Push Down/Pull Up Window Switch	Anti-Pinch/Auto Reversal Windows	Side Air Bag - Chest Air Bag - 2nd Row	Side Air Bag – Head Air Bag – 2nd Row	Side Air Bag Out of Position Tests
Mitsubishi	Eclipse Spyder	Convertible					S				
Mitsubishi	Lancer	4-DR		S			A				M
Mitsubishi	Lancer Evolution	4-DR		S			A				
Nissan	Sentra	4-DR		S			S				
Pontiac	Vibe	4-DR		S			S				M
Saturn	Ion	4-DR		S						Ac	M
Saturn	Ion	2-DR								Ac	M
Suzuki	Aerio	4-DR		S			S				M
Suzuki	Forenza	4-DR		S	S		S				M
Suzuki	Reno	5-DR		S	S		S				M
Toyota	Corolla	4-DR		S	D		A			Ac	M
Toyota	Matrix	4-DR		S	D		A			Ac	M
Toyota	Prius	4-DR		S	D		S	S		Ac	M
Toyota	Scion tC	2-DR		S	D		S	S		Ac	M
Volkswagen	Golf	4-DR	S	S		S	S	S		Sc	
Volkswagen	Golf	4-DR		S		S	S	S	As	Sc	M
Volkswagen	Golf/GTI	2-DR		S		S	S	S		Sc	M
Volkswagen	New Beetle	2-DR				S	S	S			M
Medium Passenger C	ar										
Acura	TSX	4-DR		S			S	Sx		Sc	M
Audi	A3	4-DR		S		S	S	S	As	Sc	M
Audi	A4	4-DR		S		S	S	S	As	Sc	M
Audi	A6 Sedan	4-DR		S		S	S	S	As	Sc	M
Audi	S4	4-DR		S		S	S	S	As	Sc	M
Audi	TT	2-DR Convertible			S		S	S			
BMW	3 Series	4-DR		S			S	S		Sc	M
BMW	3 Series	2-DR		S			S	S	Ad	Sc	M

Make	Model	Body	Adjustable Upper Belt – Rear	Rear Center Lap/Shoulder Belt	Air Bag On-Off Switch	Dynamic Head Restraint	Push Down/Pull Up Window Switch	Anti-Pinch/Auto Reversal Windows	Side Air Bag - Chest Air Bag - 2nd Row	Side Air Bag - Head Air Bag - 2nd Row	Side Air Bag Out of Position Tests
BMW	M3	2-DR					S	S	Ad		
BMW	M5	4-DR		S		A	S	S	Ad	St	M
BMW	M6	2-DR		S			S	S			M
Cadillac	XLR	Convertible									M
Chevrolet	Corvette	2-DR					S				M
Chevrolet	Corvette Z06	2-DR					S				M
Chevrolet	Malibu	4-DR	S	S			S			Ac	M
Chevrolet	Malibu	4-DR	S	S			S			Ac	M
Chevrolet	Malibu Maxx	4-DR	S	S			S			Ac	M
Chevrolet	Monte Carlo	2-DR	S	S			S				M
Chrysler	Crossfire	2-DR			S						M
Chrysler	Crossfire Roadster	Convertible			S						M
Chrysler	Sebring	2-DR Convertible					S				
Chrysler	Sebring	4-DR		S			S			Ac	M
Dodge	Stratus	4-DR		S			S			Ac	M
Dodge	Viper SRT-10	Convertible			S						
Ford	Fusion	4-DR		S			S			Ac	M
Ford	Fusion	4-DR		S			S			Ac	M
Ford	GT	2-DR			S						
Ford	Mustang	2-DR					S				M
Ford	Taurus	4-DR		S							
Ford	Taurus	4-DR		S							
Honda	Accord	2-DR		S			S	Sx		Sc	M
Honda	Accord	4-DR		S			S	Sx		Sc	M
Honda	Accord Hybrid	4-DR		S			S	Sx		Sc	M
Honda	FCX	2-DR									
Hyundai	Azera	4-DR		S		S	S	S	Ss	Sc	M
Hyundai	Sonata	4-DR		S		S	S			Sc	M

<sup>\*</sup>See Key on Page 19

Make	Model	Body	Adjustable Upper Belt - Rear	Rear Center Lap/Shoulder Belt	Air Bag On-Off Switch	Dynamic Head Restraint	Push Down/Pull Up Window Switch	Anti-Pinch/Auto Reversal Windows	Side Air Bag - Chest Air Bag - 2nd Row	Side Air Bag - Head Air Bag - 2nd Row	Side Air Bag Out of Position Tests
Hyundai	Tiburon	2-DR					S	S			M
Infiniti	G35 Coupe	2-DR				S	S	S			M
Infiniti	G35 Sedan	4-DR		S		S	S	S		Sc	M
Infiniti	M35/45	4-DR		S		S	S	S		Sc	M
Infiniti	Q45	4-DR		S		S	S	S		Sc	M
Jaguar	New X-Type	4-DR		S			S	S		Sc	M
Jaguar	XK	2-DR					S	S			
Jaguar	X-Type	4-DR		S			S	S		Sc	M
Kia	New Optima	4-DR		S		A	S	A		Ac	
Kia	Optima	4-DR		S			S				
Lexus	ES330	4-DR		S	D		S	S		Sc	M
Lexus	IS250/350	4-DR		S	D		S	S		Sc	M
Lexus	SC430	Convertible		S	D		S	S			M
Lincoln	Zephyr	4-DR		S			S	S		Sc	M
Mazda	Mazda6	4-DR		S			S			Ac	M
Mazda	Mazda6	4-DR		S			S			Ac	M
Mazda	RX-8	4-DR					S			Sc	M
Mercedes-Benz	C-Class	4-DR	S	S		S	S	S	Ad	Sc	
Mercedes-Benz	CL-Class	2-DR	S					S	Sd	Scr	
Mercedes-Benz	CLK-Class	2-DR				S	S	S	Ad	Scr	
Mercury	Milan	4-DR		S			S			Ac	M
Mercury	Milan	4-DR		S			S			Ac	M
Mitsubishi	Galant	4-DR		S			S				
Nissan	350Z	2-DR			A		S	S			M
Nissan	Altima	4-DR		S		S	S	S		Ac	M
Nissan	Maxima	4-DR		S		S	S	S		Sc	M
Pontiac	G6	2-DR	S				S			Ac	M
Pontiac	G6	4-DR	S	S			S			Ac	M

Make	Model	Body	Adjustable Upper Belt - Rear	Rear Center Lap/Shoulder Belt	Air Bag On-Off Switch	Dynamic Head Restraint	Push Down/Pull Up Window Switch	Anti-Pinch/Auto Reversal Windows	Side Air Bag - Chest Air Bag - 2nd Row	Side Air Bag - Head Air Bag - 2nd Row	Side Air Bag Out of Position Tests
Pontiac	Grand Prix	4-DR		S			S			Ac	M
Pontiac	GTO	2-DR									
Pontiac	Solstice	Convertible					S				
Porsche	911 Carrera	2-DR			A						M
Porsche	911 Carrera 4	2-DR			A						M
Porsche	Boxster	Convertible			A						M
Porsche	Cayman S	2-DR			A						
Saab	9-2X	4-DR	S	S		S	S				M
Saab	9-3	Convertible		S		S	S				M
Saab	9-3	4-DR		S		S	S			Sc	M
Subaru	Forester	4-DR	S	S		S	S				M
Subaru	Impreza	4-DR	S	S		A	S				M
Subaru	Legacy	4-DR		S		S	S			Sc	M
Suzuki	Verona	4-DR		S	S		S				M
Toyota	Camry	4-DR		S	D		S	A		Ac	M
Toyota	Camry Solara	2-DR		S	D		S			Sc	M
Volkswagen	Jetta	4-DR		S		S	S	S	As	Sc	M
Volkswagen	Passat	4-DR		S		S	S	S	As	Sc	M
Volvo	S40	4-DR		S		S	S	S		Sc	M
Volvo	S60	4-DR		S		S	S	S		Sc	M
Volvo	V50	4-DR		S		S	S	S		Sc	M
Volvo	V70	4-DR		S		S	S	S		Sc	M
Volvo	XC70	4-DR		S		S	S	S		Sc	M
Heavy Passenger Car											
Acura	RL	4-DR		S			S	S		Sc	M
Acura	TL	4-DR		S			S			Sc	M
Audi	A8	4-DR		S		S	S	S	Ss	Sc	M
Bentley	Arnage R	4-DR		S				S	Ss	Sc	M

<sup>\*</sup>See Key on Page 19

Make	Model	Body	Adjustable Upper Belt - Rear	Rear Center Lap/Shoulder Belt	Air Bag On-Off Switch	Dynamic Head Restraint	Push Down/Pull Up Window Switch	Anti-Pinch/Auto Reversal Windows	Side Air Bag - Chest Air Bag - 2nd Row	Side Air Bag - Head Air Bag - 2nd Row	Side Air Bag Out of Position Tests
Bentley	Arnage RL	4-DR						S	Ss		M
Bentley	Arnage T	4-DR		S				S	Ss	Sc	M
Bentley	Continental GT	2-DR					S	S		Sc	M
BMW	5 Series	4-DR		S		A	S	S	Ad	St	M
BMW	6 Series	2-DR		S			S	S			M
BMW	7 Series	4-DR		S		A	S	S	Ad	St	M
Buick	LaCrosse	4-DR		S			S			Sc	M
Buick	Lucerne	4-DR	S				S			Sc	M
Cadillac	CTS	4-DR	S	S						Sc	M
Cadillac	DTS	4-DR	S	S			S			Sc	M
Cadillac	STS	4-DR	S	S			S			Sc	M
Chevrolet	Impala	4-DR	S	S			S			Sc	M
Chrysler	300	4-DR		S			S	A		Ac	M
Dodge	Charger	4-DR		S			S			Ac	M
Dodge	Magnum	4-DR		S			S			Ac	M
Ford	Crown Victoria	4-DR		S							M
Ford	Crown Victoria	4-DR		S							M
Ford	Five Hundred	4-DR		S			S			Acr	M
Jaguar	S-Type	4-DR		S		S	S	S		Sc	
Jaguar	XJ	4-DR		S		S	S	S		Sc	M
Kia	Amanti	4-DR		S		S	S	S	Ss	Sc	M
Lexus	GS300/430	4-DR		S	D		S	S		Sc	M
Lexus	LS430	4-DR		S	D		S	S		Sc	M
Lincoln	LS	4-DR		S						Ac	M
Lincoln	Town Car	4-DR		S							M
Mercedes-Benz	CLS-Class	4-DR	S			S	S	S	Sd	Scr	
Mercedes-Benz	E-Class	4-DR	S	S		S	S	S	Sd	Scr	
Mercedes-Benz	Maybach	4-DR	S					S	Sd	Scr	

**Charts continue on page 14** 

BUYING A SAFER CAR FOR CHILD PASSENGERS 2006

### **GUIDELINES AND USAGE CHART: CHILD SAFETY AND BOOSTER SEATS**

CHILDREN 12 AND YOUNGER ARE SAFEST WHEN PROPERLY BUCKLED IN THE REAR SEAT.

Always refer to the child seat and vehicle manufacturer instructions for proper use and installation.

Age/Weight	Seat Type/Seat Position		<b>Usage Tips</b>
Age/ Weight	INFANTS		Usage 11ps
Birth to 1 year and up to 20 lbs Less than 1 year/20-35 lbs	Infant Only Seat/rear-facing OR Convertible Seat/ used rear facing Convertible Seat/used rear facing (select one recommended for heavier in	nfants)	Never use in a front seat where an air bag is present.  Tightly install child seat in rear seat, facing the rear.
Seat should be secured to the vehicle by the safety belts or by the LATCH system.		Convertible/ Rear Facing	Child seat should recline at approx. a 45-degree angle.  Harness straps/slots at or below shoulder level. (See manufacturer's instructions for details.)
	PRESCHOOLERS/TODDLERS		
1 to 4 years and at least 20 lbs (up to approx. 40 lbs)  Seat should be secured to the vehicle by the safety belts or by the LATCH system.		Forward Facing -Point Harness	Tightly install child seat in rear seat, facing forward.  Harness straps/slots at or above child's shoulders. (See manufacturer's instructions for details.)  Harness straps snug on child; harness clip at armpit level.
	YOUNG CHILDREN		
4 to at least 8 years/ unless they are 4'9" (57") or taller	Booster seat: ■ High-Back Booster Seat w/ Belt Positioner, OR ■ No-Back Booster Seat		Booster used with adult lap and shoulder belt in rear seat.  High-back booster offers head/neck support for vehicles
Stay informed about child safety seat recalls; be sure and fill out the registration card that comes with new child seats.	High-back Booster  N	lo-back Booster	with rear seats having little or no head support.  Shoulder belt should rest snugly across chest, and should NEVER be placed under the arm or behind the back.  Lap belt should rest low, across lap/upper thigh area — not across the stomach.

Make	Model	Body	Adjustable Upper Belt – Rear	Rear Center Lap/Shoulder Belt	Air Bag On-Off Switch	Dynamic Head Restraint	Push Down/Pull Up Window Switch	Anti-Pinch/Auto Reversal Windows	Side Air Bag - Chest Air Bag - 2nd Row	Side Air Bag - Head Air Bag - 2nd Row	Side Air Bag Out of Position Tests
Mercedes-Benz	S-Class	4-DR	S	S				S	Sd	Scr	
Mercedes-Benz	SL-Class	Convertible					S	S			
Mercury	Grand Marquis	4-DR		S							M
Mercury	Grand Marquis	4-DR		S							M
Mercury	Montego	4-DR		S			S			Acr	M
Porsche	911 Carrera Cabriolet	Convertible			A						M
Rolls-Royce	Phantom	4-DR		S		S	S			St	
Saab	9-5	4-DR	S	S		S	S				
Toyota	Avalon	4-DR		S	D		S	S		Sc	M
Volkswagen	Phaeton (4 Pass.)	4-DR		A		S	S	S	Ss	Sc	M
Volvo	S80	4-DR		S		S	S	S		Sc	M
Sport Utility Vehicle											
Acura	MDX	4-DR		S			S	Sx		Scr*	M
BMW	Х3	4-DR		S		A	S	S	Ad	Sc	M
BMW	X5	5-DR		S		A	S	S	Ad		M
Buick	Rainier	4-DR	S	S			S			Acr	M
Buick	Rendezvous	4-DR	S	S							M
Cadillac	Escalade	4-DR	S	S			S				M
Cadillac	Escalade ESV	4-DR	S	S			S				M
Cadillac	Escalade EXT	4-DR	S	S			S				M
Cadillac	SRX	4-DR	S	S						Scr	M
Chevrolet	Avalanche	4-DR	S	S			S				M
Chevrolet	Equinox	4-DR		S						Ac	M
Chevrolet	HHR	4-DR	S	S						Ac	M
Chevrolet	Suburban	4-DR	S	S			S				M
Chevrolet	Tahoe	4-DR	S	S			S				M
Chevrolet	Trailblazer	4-DR	S	S			S			Acr	M
Chevrolet	Trailblazer EXT	4-DR	S	S			S			Acr	M

<sup>\*</sup>See Key on Page 19

Make	Model	Body	Adjustable Upper Belt - Rear	Rear Center Lap/Shoulder Belt	Air Bag On-Off Switch	Dynamic Head Restraint	Push Down/Pull Up Window Switch	Anti-Pinch/Auto Reversal Windows	Side Air Bag - Chest Air Bag - 2nd Row	Side Air Bag - Head Air Bag - 2nd Row	Side Air Bag Out of Position Tests
Chrysler	Pacifica	4-DR		A			S			Ac*	M
Dodge	Durango	4-DR	S	S			S			Ac*	M
Ford	Escape	4-DR		S						Acr	M
Ford	Escape Hybrid	4-DR		S						Ac	M
Ford	Expedition	4-DR	S	S						Acr	M
Ford	Explorer	4-DR		S			S			Acr	M
Ford	Freestyle	5-DR		S			S			Acr*	M
GMC	Envoy	4-DR	S	S			S			Ac	M
GMC	Envoy XL	4-DR	S	S			S			Ac	M
GMC	Yukon	4-DR	S	S			S				M
GMC	Yukon XL	4-DR	S	S			S				M
Honda	CR-V	4-DR		S			S	Sx		Scr	M
Honda	Element	4-DR					S	Sx			M
Honda	Pilot	4-DR		S			S	Sx		Scr*	M
Hummer	H2	4-DR	S	S			S				
Hummer	Н3	4-DR		S			S			Acr	M
Hyundai	Santa Fe	4-DR		S			S				
Hyundai	Tucson	4-DR		S			S			Sc	M
Infiniti	FX35/45	4-DR	S	S		S	S	S		Sc	M
Infiniti	QX56	4-DR		S		S	S	S		Scr*	M
Isuzu	Ascender 5	4-DR	S	S			S			Acr	M
Isuzu	Ascender 7	4-DR	S	S			S			Acr	M
Jeep	Commander	4-DR		S			S			Scr*	M
Jeep	Grand Cherokee	4-DR		S			S			Acr*	M
Jeep	Liberty	4-DR		S						Ac	M
Jeep	Wrangler	2-DR			S						
Kia	Sorento	4-DR		S		A	S			Sc	M
Kia	Sportage	4-DR		S			S			Ac	M

Make	Model	Body	Adjustable Upper Belt - Rear	Rear Center Lap/Shoulder Belt	Air Bag On-Off Switch	Dynamic Head Restraint	Push Down/Pull Up Window Switch	Anti-Pinch/Auto Reversal Windows	Side Air Bag - Chest Air Bag - 2nd Row	Side Air Bag - Head Air Bag - 2nd Row	Side Air Bag Out of Position Tests
Land Rover	LR3	4-DR		S			S	S		Scr*	M
Land Rover	Range Rover	4-DR	S	S			S	S		Str	
Land Rover	Range Rover Sport	4-DR		S			S	S		Scr	M
Lexus	GX470	4-DR	S	S	D		S	S		Scr	M
Lexus	LX470	4-DR	S	S	D		S	S		Scr	M
Lexus	RX330	4-DR		S	D		S	S		Scr	M
Lexus	RX400h	4-DR		S	D		S	S		Scr	M
Lincoln	Navigator	4-DR	S	S			S			Scr	M
Mazda	Tribute	4-DR		S						Acr	M
Mercedes-Benz	ML-Class	4-DR	S	S			S	S	As	Scr	M
Mercedes-Benz	R-Class	4-DR	S	S			S	S	As	Scr*	M
Mercury	Mariner	4-DR		S						Acr	M
Mercury	Mariner Hybrid	4-DR		S						Ac	M
Mercury	Mountaineer	4-DR		S			S			Acr	M
Mitsubishi	Endeavor	4-DR		S			S				M
Mitsubishi	Montero	4-DR		S			S				M
Mitsubishi	Outlander	4-DR		S			S				M
Nissan	Armada	4-DR		S		S	S	S		Scr*	M
Nissan	Murano	4-DR	S	S		S	S	S		Sc	M
Nissan	Pathfinder	4-DR	S	S		S	S			Ac	M
Nissan	Xterra	4-DR	S	S		S	S			Ac	M
Pontiac	Torrent	4-DR		S						Ac	M
Porsche	Cayenne	4-DR	S	S			S			Sc	
Saab	9-7X	4-DR	S	S			S			Scr	M
Saturn	VUE	4-DR		S						Acr	M
Subaru	Outback	4-DR		S		S	S			Sc	M
Subaru	Tribeca	4-DR	S	S		S	S			Sc	M
Suzuki	Grand Vitara	4-DR		S			S			Sc	

<sup>\*</sup>See Key on Page 19

Make	Model	Body	Adjustable Upper Belt – Rear	Rear Center Lap/Shoulder Belt	Air Bag On-Off Switch	Dynamic Head Restraint	Push Down/Pull Up Window Switch	Anti-Pinch/Auto Reversal Windows	Side Air Bag - Chest Air Bag - 2nd Row	Side Air Bag - Head Air Bag - 2nd Row	Side Air Bag Out of Position Tests
Suzuki	Grand Vitara XL-7	4-DR	S	S			S				
Toyota	4Runner	4-DR		S	D		S	S		Acr	M
Toyota	Highlander			S	D		S	S		Acr	M
Toyota	Highlander Hybrid			S	D		S	S		Acr	M
Toyota	Landcruiser	4-DR	S	S	D		S	S		Acr	M
Toyota	RAV4	4-DR		S	D		S	A		Ac	M
Toyota	Sequoia	4-DR	S	S	D		S	S		Acr	M
Volkswagen	Touareg	4-DR	S	S		S	S	S		Sc	M
Volvo	XC90	4-DR		S		S	S	S		Scr*	M
Pickup											
Chevrolet	Colorado	2-DR			S		S			Ac	M
Chevrolet	Colorado	4-DR	S	S			S			Ac	M
Chevrolet	Silverado	4-DR	S				S				
Chevrolet	Silverado	2-DR					S				
Chevrolet	SSR	2-DR			S						M
Dodge	Dakota	2-DR		S	S		S			Ac	M
Dodge	Dakota	4-DR			S		S			Ac	M
Dodge	Ram 1500	2-DR			S						M
Dodge	Ram 1500	4-DR		S						Ac	M
Ford	F-150	2-DR		S							
Ford	F-150	4-DR		S							
Ford	Ranger	2-DR			S						
Ford	Ranger	2-DR			S						
GMC	Canyon	2-DR			S		S				M
GMC	Canyon	4-DR	S	S			S			Ac	M
GMC	Sierra	2-DR					S				
GMC	Sierra	4-DR	S				S				
Honda	Ridgeline	4-DR		S			S	Sx		Scr	M

Make	Model	Body	Adjustable Upper Belt – Rear	Rear Center Lap/Shoulder Belt	Air Bag On-Off Switch	Dynamic Head Restraint	Push Down/Pull Up Window Switch	Anti-Pinch/Auto Reversal Windows	Side Air Bag - Chest Air Bag - 2nd Row	Side Air Bag - Head Air Bag - 2nd Row	Side Air Bag Out of Position Tests
Isuzu	I-280	2-DR			S		S				M
Isuzu	I-350	4-DR	S	S			S			Ac	M
Lincoln	Mark LT	4-DR		S							
Mazda	B-Series	2-DR			S						
Mazda	B-Series	2-DR			S						
Nissan	Frontier	4-DR		S		S	S			Ac	M
Nissan	Frontier	2-DR				S	S			Ac	M
Nissan	Titan	2-DR		S		S	S	A		Acr	M
Nissan	Titan	4-DR		S		S	S	S		Acr	M
Subaru	Baja	4-DR				S	S				
Toyota	Prerunner	2-DR			S		A				
Toyota	Prerunner	4-DR		S	D		S			Ac	M
Toyota	Tacoma	2-DR			S		A				
Toyota	Tacoma	4-DR		S	D		S			Ac	M
Toyota	Tundra	2-DR		S	S		A				
Toyota	Tundra	4-DR	S	S	D		S			Ac	M
Van											
Buick	Terraza		S	S			S		Ab	Ab	M
Chevrolet	Express		S	S							
Chevrolet	Express 15 Passenger		S	S							
Chevrolet	Uplander		S	S			S		Ab	Ab	M
Chrysler	PT Cruiser	4-DR		S			S				M
Chrysler	Town & Country		S	S						Ac*	M
Chrysler	Town & Country		S							Ac*	M
Dodge	Caravan		S							Ac*	M
Dodge	Grand Caravan		S							Ac*	M
Ford	E-150										
Ford	E-350 15 Passenger										

<sup>\*</sup>See Key on Page 19

Make	Model	Body	Adjustable Upper Belt – Rear	Rear Center Lap/Shoulder Belt	Air Bag On-Off Switch	Dynamic Head Restraint	Push Down/Pull Up Window Switch	Anti-Pinch/Auto Reversal Windows	Side Air Bag - Chest Air Bag - 2nd Row	Side Air Bag - Head Air Bag - 2nd Row	Side Air Bag Out of Position Tests
Ford	Freestar	3-DR	S	S						Acr*	M
GMC	Savana		S	S							
GMC	Savana 15 Passenger		S	S							
Honda	Odyssey	4-DR	S	S			S	Sx		Scr*	M
Kia	Sedona	4-DR	S	S		A	S			Ac	M
Mazda	Mazda5			S			S			Sc*	M
Mazda	MPV						S				M
Mercury	Monterey	3-DR	S	S						Acr*	M
Nissan	Quest		S	S		S	S	S		Sc*	M
Pontiac	Montana SV6		S	S			S		Ab	Ab	M
Saturn	Relay		S	S			S		Ab	Ab	M
Toyota	Sienna		S	S	D		S	A		Ac*	M

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#### Code Definition

- S Standard on all vehicles in that model line
- A Available as an option on some or all vehicles in that model line; or standard on some vehicles in that model line but not available or an option on others; or will be introduced part way through that model year as standard on all vehicles in that model line
- D Speak to your dealer about this safety feature.
- M Meets Requirements for TWG SAB out of position tests

#### Key

#### Code Definition

- c Curtain Air Bag for head protection
- d Door-Mounted Torso Air Bag for chest protection
- r Head Air Bag also deploys as rollover air bag
- s Seat-Mounted Torso Air Bag for chest protection
- t Tube Air Bag for head protection
- x For Driver Only
- \* Curtain Air Bag For Third Row

### CHILD SAFETY SEATS AND BOOSTER SEATS

If you have children and are shopping for a family car, you'll want to check to see that your child safety seat and booster seat is compatible with the vehicle. After all, vehicles and seat styles are extensive. Review the following compatibility information, ease-of-use ratings, and child safety and booster seat usage chart to make sure your new vehicle and safety seat will work together properly to protect your child in the event of a crash.

### **Vehicle Compatibility Considerations**

Not all child safety seats can be installed in all vehicles and in all seating positions. With so many models of child safety seats, more than 300 models of passenger vehicles, and the wide range of seat types and belt systems available today, correctly installing a child safety seat can be a challenge.

Vehicle design factors that can affect child safety seat placement include: two-door vehicles, small back seats, deep bucket seats, slope and contour of the back seat, splits in bench seats, forward-anchored belts, and pickup truck jump seats/extended cabs. (Note: side-facing jump seats are unsafe for a child safety seat under all circumstances!)

To ensure your child safety seat is compatible with the vehicle you are looking to purchase, NHTSA recommends testing the fit of the child safety seat in the vehicle before you buy. Alternatively, if the vehicle you want to purchase isn't compatible with your current child safety seat(s), it's important to purchase and install safety seats that are compatible.

Read the child safety seat's instruction manual and review the information in the vehicle owner's manual about correct installation. Once the seat is installed, check it by firmly pulling at the base of the child seat, at the safety belt path, from side to side and forward. The child safety seat should not move more than one inch in any direction.

Go to www.nhtsa.dot.gov/cps/cpsfitting and click on the Fitting/Inspection Stations button for help in finding the child safety seat inspection station nearest you. You can also call 888-327-4236 or 866-SEATCHECK.

#### **Ease-of-Use Ratings**

The easier a child safety seat is to use, the greater the chance it will be installed and used correctly. And a seat that is used correctly is more likely to protect your child in the event of a crash. That's why NHTSA developed an ease-of-use rating system to rate child safety seats and booster seats. These are not safety ratings, since all child restraints are required to meet Federal safety standards. Instead, the new ratings can give you the confidence to select a child restraint that will be easier to install and correctly use. Child safety seats and booster seats are rated on several factors:

- Assembly
- Evaluation of labels
- Evaluation of instructions
- Installation features
- Securing the child safety seat features

Visit www.nhtsa.gov and click on Child Safety Seat Usage Ratings, or go directly to www.nhtsa.dot. gov/CPS/CSSRating/Index.cfm to find updated ease-of-use ratings for both child safety seats and booster seats.

### KEEPING CHILDREN SAFE IN AND AROUND VEHICLES

The dangers of leaving a child unattended in or near a vehicle are widely misunderstood and underestimated. But in reality, if left alone — sometimes even for mere moments — a child could:

- Start the car, or put it in neutral, and cause a crash, resulting in injuries or death.
- Die of heat stroke, exposure to cold, or carbon monoxide poisoning.
- Become trapped in your vehicle's trunk and die of heat stroke or suffocation.
- Get hit or run over by another vehicle while inside or out of your car.
- Be killed or seriously injured by a driver who may not be aware of or see a child when backing out of a parking space or driveway.

### **Beyond Safety Technologies** and **Equipment**

Vehicle safety technologies and proper child restraints can go a long way towards helping to keep child passengers safe. However, these are no replacement for careful monitoring by a parent or adult caregiver whenever a child is inside or even near a vehicle. To keep children safe from danger, never allow them access to your car keys or a remote locking/unlocking device.

Bottom line: keep children out of your vehicle and away from other vehicles unless you are there to watch them!

### FREQUENTLY ASKED QUESTIONS

- Q. Is the back seat the safest place for my child?
- **A.** Yes, children 12 and younger should be properly restrained in the back seat of the vehicle. It is estimated that children are 26-percent less likely to be fatally injured in a crash if seated in the rear seat of a passenger vehicle.
- Q. What if I have no choice but to place a child under 12 in the front seat?
- **A.** There may be occasions when a parent or caregiver has no other option than to place a child in the front seat, for example:
  - In a pickup truck with insufficient or no available rear seat, or
  - If a parent is transporting too many children for all to ride in the back, or
  - When transporting a child with a medical condition that requires monitoring and another adult is not available.

Infants in rear-facing child safety seats must never ride in the front seat of a vehicle with an active front passenger air bag. In the event there is no available rear seat and parents have no other option than to place a child (other than an infant in a rearfacing child safety seat) in a front passenger seating position, take these steps:

- 1. Ensure the child is properly restrained,
- 2. Move the vehicle seat as far back as possible,
- 3. Make sure the child is not leaning out of position, and
- 4. Set the air bag ON-OFF switch, if available, to the OFF position.

When faced with having to choose which child other than an infant in a rear-facing child safety seat to place in front of an air bag in the front seat, select the child that can be most relied upon to remain in a proper seating position. This may not necessarily be the oldest child.

Remember: Infants in rear-facing child safety seats must NEVER ride in the front seat of a vehicle with an active front passenger air bag.

- Q. Based on the age and size and my child, what is the most appropriate restraint?
- A. Refer to the "Guidelines And Usage Chart: Child Safety & Booster Seats" on page 12-13 to help you choose the child restraint system that is correct for the age, size, and weight of your child.
- Q. When should your child use a booster seat?
- **A.** All children who have outgrown child safety seats should be properly restrained in booster seats until they are at least 8 years old, unless they are 4'9" or taller.

When used correctly, booster seats can help prevent injury to older children by making adult-sized safety belts fit properly. The adult lap and shoulder belt should fit the child snugly, with the lap belt lying flat across the upper thigh area, and the shoulder belt crossing the chest, resting against the middle of the child's shoulder.

- Q. What could happen if my child doesn't use a booster seat?
- **A.** Without a booster seat:
  - The lap belt can ride up over the child's stomach and cause serious internal injuries in a crash.
  - The shoulder belts may be uncomfortably high, leading to misuse if children put the safety belts behind their backs or under their arms. These misuses can cause very serious internal injuries.

Regardless of weight or height, all children 12 and younger should be properly restrained in the back seat. Always read the child safety seat or booster seat manufacturer's instructions, as well as the vehicle owner's manual before installing a child safety seat.

### Q. Will the vehicle safety belt system meet the needs of my children?

**A.** Correct safety belt use for all vehicle occupants should be the rule in your vehicle. Children who have clearly outgrown child safety seats and booster seats should be able to fit the adult belt system correctly.

Read the vehicle owner's manual to be sure you understand how to use the safety belt correctly, and remember the following:

- The lap belt should fit low over the child's upper thighs when the child is sitting straight against the vehicle seat back. The child's knees should bend naturally and comfortably over the edge of the vehicle seat.
- The **shoulder belt** should stay on the shoulder and lie against the child's chest. Never put the shoulder belt under the arm or behind the child's back.
- A lap-only belt (without a shoulder belt) should be used to restrain a child only if no other safety belt system is available. If you must transport several children in a vehicle that has a lap-only belt in the middle rear seat, and one of the children is in a rearfacing or a convertible/toddler child safety seat, follow these guidelines:
  - Have the older children use the lap and shoulder belts.
  - Put the child riding in a child safety seat in the middle.
  - Secure the child safety seat with the laponly belt.

### Q. Is it safe to use the child safety seat after it has been in a crash?

- **A.** NHTSA recommends that child safety seats be replaced following a moderate or severe crash in order to ensure a continued high level of crash protection for child passengers. NHTSA recommends that child safety seats do not automatically need to be replaced following a minor crash. Minor crashes are those that meet ALL of the following criteria:
  - The vehicle was able to be driven away from the crash site;
  - The vehicle door nearest the safety seat was undamaged;
  - There were no injuries to any of the vehicle occupants;
  - The air bags (if present) did not deploy; AND
  - There is no visible damage to the safety seat.

- **Q.** Which vehicles have the Lower Anchors and Tethers for Children (LATCH) system?
- **A.** Since September 2000, all new passenger vehicles (except most convertibles) have been equipped with the top tether anchors. All vehicles manufactured after September 1, 2002, are equipped with the lower anchors. Although convertible vehicles are exempt from tether anchor requirements, some manufacturers offer them as a safety enhancement.

Check your owner's manual or contact the manufacturer to see if your older vehicle is equipped with tether anchors or has pre-drilled points where tether anchors can be installed.

- Q. What if my vehicle is not LATCH-equipped?
- **A.** Any child safety seat, even one with LATCH, can be installed using the vehicle safety belt and, if available, a top tether. Be sure to follow the vehicle owner's manual and child safety seat instructions.

See the Guidelines and Usage Chart on pages 12-13 for specifics and tips on how to choose and use the right child safety and/or booster seat for your children.









# Think Your Vehicle Or Child Safety Seat Has A Safety Defect?

Visit
www.safercar.gov
Call

888-327-4236

Mail

NHTSA, Office of Defects Investigation (NVS-210) 400 7th St., SW Washington, DC 20590

All complaints are carefully reviewed by our team of safety experts.

We welcome your input.

### **ADDITIONAL RESOURCES**

To access additional information on child and vehicle safety, visit the National Highway Traffic Safety Administration Web site at www.nhtsa.gov. For specific information about vehicle safety technologies and to obtain updated Government crash test results, visit www.safercar.gov or call the DOT Vehicle Safety Hotline at 888-327-4236 (TDD 800-424-9153).

Looking for a Child Safety Seat Inspection Station? Visit www.nhtsa.dot.gov/cps/cpsfitting and click on the Fitting/ Inspection Stations link, call the DOT Vehicle Safety Hotline or 866-SEATCHECK.