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SAFETY

INSTALLING CHILD SAFETY SEATS



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Child safety seats are required by law in every state because they provide the best protection for infants and young children. However, correctly installing a child safety seat can be challenging, especially with the wide variety of restraint systems, vehicle belt systems and passenger vehicles available on the market today.

Selecting And Installing A Child Safety Seat

It is important to remember these guidelines.

- It must be appropriate for your child's age, height and weight.
- It must fit tightly into your vehicle. **The back seat is the best place for the child safety seat.**
- Read the child safety seat instructions as well as your vehicle's instructions for information on installing the child safety seat. Keep both sets of instructions in your glove compartment for future reference.
- Avoid seats that are too old. Check with the manufacturer to find out how long they recommend using the child safety seat.

Resources

- The National Highway Traffic Safety Administration (NHTSA) rates child safety seats on how easy they are to properly install. For more information, visit www.nhtsa.gov and click on "Ease Of Use Ratings."
- A certified child passenger safety technician can check your installation and answer questions. To find a technician or an inspection station near you, go to www.nhtsa.dot.gov/cps/cpsfitting/index.cfm.
- If your child's safety seat has been in a vehicle that was involved in a crash, check your child safety seat manufacturer's recommendations for replacement, or call the toll-free number on the side of the child safety seat. Most car seat instruction booklets as of May 2004 continue to recommend child safety seats be replaced if they have been involved in a car crash. For more information, visit the National Highway Traffic Safety Administration (NHTSA) at www.nhtsa.gov.
- For information on state child restraint laws, visit the following Web sites.
 - The National Highway Traffic Safety Administration (NHTSA) www.nhtsa.gov/people/injury/airbags/OccupantProtectionFacts/appendixc.htm
 - The Insurance Institute For Highway Safety (IIHS) www.iihs.org/laws/state_laws/restrain2.html

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CHILD RESTRAINT RECOMMENDATIONS 1

	Infants	Toddlers	Older Children		
Weight And Age	<ul style="list-style-type: none"> ■ Until at least 1 year old AND at least 20 pounds. If a child reaches 20 pounds before his first birthday, it is recommended the child remain rear-facing until he turns 1 year old. 	<ul style="list-style-type: none"> ■ Until at least 1 year old ■ More than 20 pounds and less than 35 pounds 	Over 1 year old AND over 20 pounds, up to approximately 40 pounds	Over 40 pounds, until at least 8 years old, unless 4 feet 9 inches tall	4 feet 9 inches or taller
Type Of Seat	Infant seat only or rear-facing convertible seat	Rear-facing convertible seat designed for heavier infants	Convertible/ forward-facing/ high-back booster with harness	Belt-positioning booster (high-back or no-back)	Vehicle seat belt
Seat Position	Rear-facing position only	Rear-facing position only	Forward-facing position	Forward-facing position	Forward-facing position
Make Sure	Harness straps are at, or below , shoulder level	Harness straps are at, or below , shoulder level	Harness straps are at, or above , shoulder level	Use belt-positioning booster seats with lap/shoulder belt combination only	Use lap and shoulder belt
Remember	Do not place infants in the front seat of vehicles with air bags	Do not place infants in the front seat of vehicles with air bags	5-point harnesses provide the best protection	Make sure the lap belt portion fits tight across the child's upper thighs to avoid abdominal injuries	The child's back should be against the vehicle seat back with knees bent comfortably at the edge of the seat

Children under age 13 are safest when properly restrained in the back seat. Keep children rear-facing as long as possible. Always refer to the child safety seat instructions and vehicle manufacturer's instructions for weight limits, proper use and installation.

For information on state child restraint laws, visit the following Web sites:

The National Highway Traffic Safety Administration (NHTSA) www.nhtsa.dot.gov/people/injury/airbags/OccupantProtectionFacts/appendixc.htm

The Insurance Institute For Highway Safety (IIHS) www.iihs.org/laws/state_laws/restrain2.html

2 REAR-FACING INFANT SEATS — CORRECT



Keep The Harness Chest Clip Level With The Armpits

- ✓ Harness straps on rear-facing infant seats should be at, or below, the shoulders.
- ✓ Harness chest clip is positioned at the middle of the chest and is level with the armpits. This keeps the shoulder straps in the correct position.
- ✓ Harness straps are snug, straight and flat.
- ✓ Top of the child's head should be no closer than one inch to the top of the shell.

Position The Infant Seat At The Correct Angle

- ✓ Rear-facing infant seat is positioned at an appropriate angle. Read the manufacturer's instructions to determine the correct angle for your child's infant seat to help ensure unobstructed breathing.



Use Foam Noodle To Get Correct Angle

- ✓ If necessary, a rolled towel or foam noodles may be used at the crack of the vehicle seat to position most infant seats to the correct angle (approximately 45 degrees). Read the manufacturer's instructions to determine the correct angle of the child safety seat and if the seat does not support the use of rolled towels or foam noodles. A rubber grip may be placed on the vehicle seat to protect the seat.



Avoid The Upright Angle

- ✘ Rear-facing infant seat is positioned at an upright angle. This position could force a small child's head to tilt forward and obstruct breathing.

Correct: Read the manufacturer's instructions to determine the correct angle of the restraint.

Do Not Let The Clip Slip

- ✘ Add-on product has forced the harness chest clip to slide out of position. An add-on product is anything that is attached to the restraint that did not originally come with the restraint. These products are not regulated by the National Highway Traffic Safety Administration (NHTSA). Some add-on products may void the manufacturer's warranty and liability. Some child safety seats provide shoulder pads that can be added to the shoulder straps. If used, the pads must be properly positioned on the child's shoulders. Read the manufacturer's instructions for proper use.

Correct: Harness chest clip should be at the middle of the chest and level with the armpits.



Take Up The Slack

- ✘ Harness straps are loose and twisted.

Correct: Keep harness straps snug, straight and flat.

- ✘ Harness chest clip is not fastened.

Correct: Harness chest clip should be fastened at the middle of the chest and level with the armpits.

4 REAR-FACING INFANT SEATS — CORRECT



Use Rolled Receiving Blankets For Support

- ✓ Rolled receiving blankets on either side of the child's head/neck provide support. Do not put rolled receiving blankets underneath the child's head/neck.

Keep Straps Snug, Straight And Flat

- ✓ Harness straps are snug, straight and flat.
- ✓ Harness chest clip is in the middle of the chest and level with the armpits.
- ✓ Blanket is placed over the internal harness straps.



Close The Gap

- ✓ Harness straps on rear-facing infant seats are at, or below, the shoulders.
- ✓ Harness straps are snug, straight and flat.
- ✓ Small blanket is inserted between the harness buckle and the child's groin to provide additional support.



Take The Wraps Off

- X** Blanket is between the child and the harness straps.
Correct: Remove bulky clothing or blankets before placing the child in the restraint system. Never place blankets underneath or behind the child, or inside the harness system.

Avoid Seats That Are Too Small

- X** Child is too tall for the infant seat. The child's head is above the top of the seat.
Correct: Child should be moved into a rear-facing convertible seat.
- X** Harness chest clip is too low.
Correct: Harness chest clip should be at the middle of the chest and level with the armpits.



THE TOP OF THE CHILD'S HEAD SHOULD BE AT LEAST 1 INCH BELOW THE TOP OF AN INFANT SEAT.

Never Place A Rear-Facing Seat In The Forward-Facing Position

- X** Rear-facing infant seat is in the forward-facing position.
Correct: Children should ride rear-facing until they are at least 1 year old AND at least 20 pounds. If they reach 20 pounds before their first birthday, it is recommended they remain rear-facing until they turn 1 year old.
- X** Harness chest clip is not fastened.
Correct: Harness chest clip should be fastened at the middle of the chest and level with the armpits.



CHILDREN SHOULD RIDE REAR-FACING UNTIL THEY ARE AT LEAST 1 YEAR OLD AND AT LEAST 20 POUNDS. IF THEY REACH 20 POUNDS BEFORE THEIR FIRST BIRTHDAY, IT IS RECOMMENDED THEY REMAIN REAR-FACING UNTIL THEY TURN 1 YEAR OLD. A CONVERTIBLE SEAT ALLOWS A CHILD TO RIDE REAR-FACING UNTIL HE IS 30–35 POUNDS.

6 REAR-FACING CONVERTIBLE SEATS — CORRECT



Keep Straps Snug, Straight And Flat

- ✓ Harness straps are snug, straight and flat.
- ✓ Harness straps are at, or below, the shoulders.
- ✓ Harness chest clip is at the middle of the chest and level with the armpits.

A CONVERTIBLE SEAT CAN BE USED AS A REPLACEMENT WHEN THE CHILD OUTGROWS THE HEIGHT AND WEIGHT RECOMMENDATIONS OF AN INFANT SEAT, BUT STILL NEEDS TO RIDE REAR-FACING.

A HARNESS CHEST CLIP SHOULD BE POSITIONED AT THE MIDDLE OF THE CHEST AND LEVEL WITH THE ARMPITS. THIS KEEPS THE SHOULDER STRAPS IN THE CORRECT POSITION.

Position The Safety Seat At The Correct Angle

- ✓ Child safety seat is positioned at an appropriate angle. Read the manufacturer's instructions to determine the correct angle for the child safety seat.
- ✓ Harness chest clip is at the middle of the chest and level with the armpits.
- ✓ Harness straps are snug, straight and flat.
- ✓ Vehicle seat belt is in the correct belt path.





Do Not Take The Wrong Path

- X** Vehicle seat belt is in the wrong belt path for a rear-facing convertible seat.
Correct: Place seat belt in the correct belt path according to the manufacturer's instructions.
- X** Child seat is positioned at an upright angle. This position could force a younger child's head to tilt forward and obstruct breathing.
Correct: Check the manufacturer's recommendation to determine the correct angle for the child safety seat.

Take Up The Slack

- X** Harness straps are loose, twisted and positioned too high above the shoulders.
Correct: Adjust harness straps so that they are snug, straight and flat and are positioned at, or below, the shoulders.
- X** Harness chest clip is not fastened.
Correct: Harness chest clip should be fastened at the middle of the chest and level with the armpits.



SOME CHILD SAFETY SEATS PROVIDE SHOULDER PADS THAT CAN BE ADDED TO THE SHOULDER STRAPS. IF USED, THE PADS MUST BE PROPERLY POSITIONED ON THE CHILD'S SHOULDERS. READ THE MANUFACTURER'S INSTRUCTIONS FOR PROPER USE.

8 FORWARD-FACING CONVERTIBLE SEATS — CORRECT



Position Straps At, Or Above, The Shoulders

- ✓ Harness straps on forward-facing child safety seats should be positioned at, or slightly above, the shoulders. Harness straps should be threaded through the reinforced slots.
- ✓ Harness straps are snug, straight and flat.
- ✓ Harness chest clip is at the middle of the chest and level with the armpits.
- ✓ Mid-point of the back of the head is not above the top of the shell.

Keep Straps Snug, Straight And Flat



- ✓ Harness straps are snug, straight and flat.
- ✓ Harness straps are at, or above, the shoulders.



CHILDREN SHOULD REMAIN IN A 5-POINT HARNESS SYSTEM UNTIL THEY ARE APPROXIMATELY 40 POUNDS.






Do Not Let The Clip Slip

-  Harness chest clip is positioned too low.
Correct: Harness chest clip should be at the middle of the chest and level with the armpits.
-  Harness straps are loose.
Correct: Harness straps should lay snug, straight and flat.

SOME CHILD SAFETY SEATS PROVIDE SHOULDER PADS THAT CAN BE ADDED TO THE SHOULDER STRAPS. IF USED, THE PADS MUST BE PROPERLY POSITIONED ON THE CHILD'S SHOULDERS. READ THE MANUFACTURER'S INSTRUCTIONS FOR PROPER USE.

Never Let Children Ride Unrestrained

-  Child is unrestrained without a harness strap.
Correct: Child should be properly restrained with harness straps. Most states require children under 4 years old to be properly restrained in an appropriate child safety seat.
-  Harness chest clip is not fastened.
Correct: Harness chest clip should be fastened at the middle of the chest and level with the armpits.
-  Harness straps are loose.
Correct: Harness straps should lay snug, straight and flat.



10 FORWARD-FACING SEATS — CORRECT



Combination Seat

- ✓ 5-point harness is in the correct position. A 5-point harness seat must be secured to the vehicle.

Child is in a combination seat. A combination seat is a type of forward-facing child restraint that is used with an internal harness system to secure a child up to 40 pounds, and then, with the removal of the internal harness, is used as a high-back belt positioning booster (BPB) seat. Read the manufacturer's instructions for more information.



COMBINATION SEATS CANNOT BE USED REAR-FACING.

ALMOST ALL FORWARD-FACING CHILD SAFETY SEATS CAN BE USED FOR A CHILD WEIGHING BETWEEN 20 TO 40 POUNDS. NEWER MODELS HAVE HIGHER WEIGHT LIMITS.

SOME CHILD SAFETY SEATS PROVIDE SHOULDER PADS THAT CAN BE ADDED TO THE SHOULDER STRAPS. IF USED, THE PADS MUST BE PROPERLY POSITIONED ON THE CHILD'S SHOULDERS. READ THE MANUFACTURER'S INSTRUCTIONS FOR PROPER USE.



Remove Internal Harness When Shoulders Are Above All Harness Slots

X Harness straps are below the shoulders.

Correct: Internal harness system should be removed and the restraint should be used as a belt-positioning booster with the vehicle lap/shoulder belt.

POSITION HARNESS STRAPS IN A FORWARD-FACING CHILD SAFETY SEAT AT, OR ABOVE — NOT BELOW — THE CHILD'S SHOULDERS.

Avoid Seats That Are Too Big

X Infant is too small for the convertible seat.

Correct: Infant should be in a rear-facing infant seat or rear-facing convertible seat.



12 BELT-POSITIONING BOOSTER SEATS — CORRECT



NO-BACK BOOSTER

Always Use The Lap/Shoulder Belt With Booster Seats

- ✓ Child is in a no-back booster secured by the vehicle lap/shoulder belt. The lap belt is snug across the child's upper thighs and the shoulder belt is snug across the chest.
- ✓ Child has head and neck protection with an adjustable head restraint.

LAP BELT
ON UPPER
THIGHS

A BELT-POSITIONING BOOSTER SEAT SHOULD BE USED UNTIL A CHILD IS AT LEAST 8 YEARS OLD, UNLESS THE CHILD IS 4 FEET 9 INCHES TALL.

HIGH-BACK AND NO-BACK BOOSTER SEATS SHOULD BE USED FOR A CHILD WHO HAS OUTGROWN A CHILD SAFETY SEAT WITH INTERNAL HARNESSSES AND IS NOT TALL ENOUGH FOR THE VEHICLE SEAT BELT SYSTEM.

- ✓ Child is in a high-back booster secured by the vehicle lap/shoulder belt. The lap belt is snug across the child's upper thighs and the shoulder belt is snug across the chest.



HIGH-BACK BOOSTER



Never Use Just The Lap Belt With Booster Seats

- ✘ Child is restrained with a vehicle lap belt only. Children can be severely injured if not properly restrained in a lap/shoulder belt.

Correct: For upper body protection, a lap/shoulder belt should always be used with a booster.

- ✘ Lap belt is on the child's abdomen. Children can be severely injured if not properly restrained in a lap/shoulder belt.

Correct: Lap belt should fit securely on the child's upper thighs in addition to using a shoulder belt.

ALWAYS POSITION THE LAP PORTION OF THE VEHICLE SEAT BELT SNUG ACROSS THE UPPER THIGHS (PELVIC BONE) AND THE SHOULDER BELT SNUG ACROSS THE CHEST.

Do Not Allow Children To Play With Hard Toys And Other Objects

- ✘ Hard toys and other objects can become dangerous projectiles during hard braking and crash situations.

Correct: Use soft toys only.

- ✘ Child is restrained with a vehicle lap belt only. Children can be severely injured if not properly restrained in a lap/shoulder belt.

Correct: For upper body protection, a lap/shoulder belt should always be used with a booster.

NEVER USE PILLOWS, TOWELS OR BOOKS AS A BOOSTER SEAT — DOING SO CAN COMPROMISE YOUR CHILD'S SAFETY.



14 SEAT BELT SYSTEMS — CORRECT



Keep The Lap Belt Low On The Upper Thighs

- ✓ Child is sitting straight against the back of the vehicle seat with his knees bent comfortably at the edge of the seat.
- ✓ The shoulder belt is snug across the chest and the vehicle lap belt fits snug and low over the upper thighs.
- ✓ Child has head and neck protection with an adjustable head restraint.



CHILDREN SHOULD SIT STRAIGHT AGAINST THE BACK OF THE VEHICLE SEAT WITH KNEES BENT COMFORTABLY AT THE EDGE OF THE SEAT. THE VEHICLE'S SHOULDER BELT SHOULD FIT SNUG ACROSS THE CHEST AND THE LAP BELT SNUG AND LOW OVER THE UPPER THIGHS.



Never Put A Small Child In A Seat Belt

- ✘ Child is too short to be in a vehicle lap/shoulder belt. The vehicle shoulder belt is under the child's arm. This can cause serious injuries in a crash.

Correct: Child should be in a forward-facing seat with an internal harness. Only children who are tall enough (4 feet 9 inches tall) can fit properly in vehicle seat belts.

ALWAYS POSITION THE LAP PORTION OF THE VEHICLE SEAT BELT ACROSS THE UPPER THIGHS (PELVIC BONE) AND THE SHOULDER BELT SNUG ACROSS THE CHEST.

Never Put A Shoulder Belt Behind The Back

- ✘ Vehicle shoulder belt is behind the child's back. Children can be severely injured if not properly restrained in a lap/shoulder belt.

Correct: Shoulder belt should fit snug across the chest.

- ✘ Lap belt is on the child's abdomen. Children can be severely injured if not properly restrained in a lap/shoulder belt.

Correct: Lap belt should fit securely on the child's upper thighs.



16 THINGS TO AVOID



The “Child Crusher” Position

- ❌ Lap-held child is unrestrained and in the front seat. This is the “child crusher” position.

Correct: Child should be properly restrained in the back seat. Never hold a child while riding in a vehicle.

A Lack Of Restraint

- ❌ Child is unrestrained in the front seat and sitting too close to the dash and the air bag.

Correct: Child should be properly restrained in the back seat.

- ❌ Child is wearing a backpack.

Correct: Children should never wear backpacks in the vehicle. Backpacks can limit the effectiveness of restraint systems.



**CHILDREN UNDER AGE 13 SHOULD
BE PROPERLY RESTRAINED
IN THE BACK SEAT OF THE VEHICLE.**



Keep Children Under Age 13 Properly Restrained In The Back Seat

X Rear-facing child safety seat is in the front seat directly in the air bag deployment zone.

Correct: Child should be properly restrained in the back seat of the vehicle.

AIR BAGS CAN CAUSE SERIOUS INJURY OR DEATH TO CHILDREN, ESPECIALLY INFANTS IN REAR-FACING CHILD SAFETY SEATS. CHILDREN UNDER AGE 13 SHOULD BE PROPERLY RESTRAINED IN THE BACK SEAT OF THE VEHICLE.

X Forward-facing child safety seat is in the air bag deployment zone.

Correct: Child should be properly restrained in the back seat of the vehicle.



18 WARNING LABELS



Seat Belt

- ◆ Vehicle seat belt system with an air bag warning label.

Child Safety Seat

- ◆ Child safety seat with an air bag warning label.

AIR BAG WARNING LABELS CAN BE IN A VARIETY OF LOCATIONS.

BY LAW, ALL RESTRAINT SYSTEMS ARE REQUIRED TO HAVE AN AIR BAG WARNING LABEL.



Vehicle Visor

- ◆ Vehicle visor with an air bag warning label.





LATCH Child Safety Seat Attachment

- ◆ LATCH is a vehicle safety seat attachment system that comes with some child safety seats. You do not need to use vehicle seat belts to secure the safety seat. However, unless both the vehicle and child safety seat have the LATCH system, you will need to use the vehicle seat belts to secure the child safety seat.

All passenger vehicles, pickup trucks, minivans and child safety seats manufactured after September, 2002 are equipped with the LATCH system. LATCH is designed to simplify seat installation; however, to best protect children, safety experts recommend inspections by certified technicians. To locate inspection sites nationwide, visit www.nhtsa.gov/cps/cpsfitting/index.cfm.



Lower Anchor Attachment

- ◆ Read your vehicle manufacturer's instructions for proper use of anchor attachments and placement of child safety seats.



Upper Tether Attachment

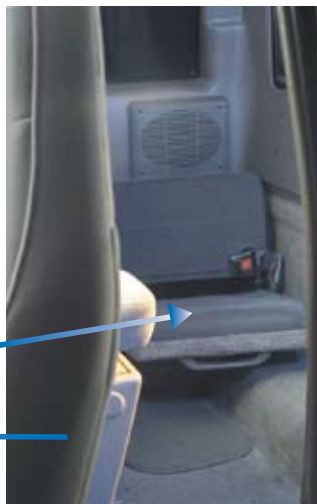
- ◆ Most rear-facing seats do not allow for the use of the upper tether. Read your child safety seat instructions for proper use. For forward-facing seats, you must use both the lower attachments and the top tether strap.

20 COMPATIBILITY ISSUES

Pickup Truck Jump Seats

- ◆ Child safety seats will not fit safely in side-facing pickup truck jump seats. Side-facing jump seats are unsafe for a child safety seat under all circumstances.

JUMP SEAT
FRONT OF VEHICLE



Contoured Seats

- ◆ Seat is too upright. Contours in a vehicle seat can make it difficult to install a child safety seat in the correct position.

No Middle Seat

- ◆ Some vehicle back seats have a hump in the center making it impossible to install a child safety seat correctly.



Seat Buckles

- ◆ Buckles on extended webbing can make it difficult to install a child safety seat in the correct position.

EXTENDED WEBBING

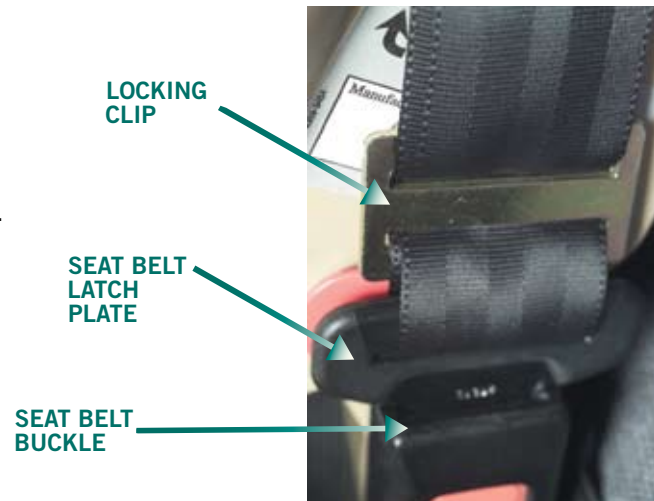


Lock It Up

- Some vehicle seat belt systems require additional hardware such as a locking clip to lock the child restraint. Newer seat belt systems have a built-in locking mechanism. Refer to the vehicle manufacturer's instructions to determine whether to use a locking clip to secure the child safety seat.

USE YOUR HAND TO PRESS THE CHILD SAFETY SEAT TIGHTLY INTO THE VEHICLE CUSHION. IF YOU CANNOT GET A TIGHT FIT, PUT YOUR WEIGHT INTO THE CHILD SAFETY SEAT, COMPRESS THE VEHICLE SEAT AND TIGHTEN THE SEAT BELT AS MUCH AS POSSIBLE. THE SEAT SHOULD NOT MOVE MORE THAN 1 INCH FROM SIDE TO SIDE AND FRONT TO BACK.

LEARN HOW TO USE VEHICLE SEAT BELTS WITH CHILD SAFETY SEATS. READ THE CHILD SAFETY SEAT INSTRUCTIONS AND THE VEHICLE MANUFACTURER'S INSTRUCTIONS.



Special Needs

- Premature infants and children with respiratory difficulties, orthopedic challenges, neurological and behavioral problems may require special child restraints. For more information, visit the American Academy of Pediatrics (AAP) at www.aap.org.

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