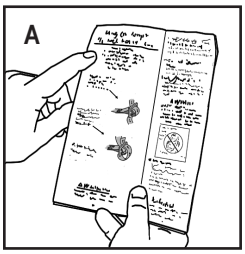
Installing Your Child's Car Seat Tightly

LATCH, Tethers, and Seat Belts Explained

Child Safety Facts 2013

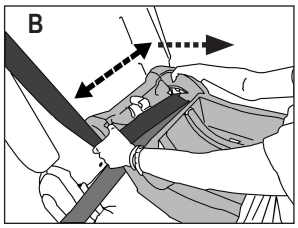
Tight Installation = Better Protection

It is very important that your child's car safety seat (car seat) is tightly secured in the car with the seat belt or LATCH system. If the LATCH straps or seat belt do not stay tight or the car seat slides around on the vehicle seat, your child could be seriously injured in a crash.



Always read the instructions that come with the car seat (A). **Also** read the section on seat belts and car seats in your car owner's manual.

To check for a tight fit, hold the car seat where the LATCH straps or seat belt go through the car seat (B). Pull forward and from side to side. If the car seat moves more than one inch, it is not tightly secured.



B. *To check tightness, hold the car seat at the belt path, pull side to side and forward. It should not move more than 1 inch.*

For help with installing your car seat, contact a local Child Passenger Safety Inspection Location (see Resources).

Make Every Ride A Safe Ride

The LATCH System

LATCH (**L**ower **A**nchors and **T**ethers for **Ch**ildren) is another way to install car seats in cars. It can make installation easier, if both car and car seat have the LATCH parts.

Using the LATCH lower anchors is not always safer than using a seat belt to install a car seat. The key is proper installation. Sometimes lower anchors will provide a better fit. Sometimes the seat belt may work better. Choose the one method that works best for you to get the car seat in tightly and correctly.

LATCH System Parts (E)

1. **On car seats:** Lower LATCH straps are included on all car seats. Forward-facing seats also have a tether strap.

   A few car seats have lower LATCH connectors that are rigid, but most are on flexible straps.

   LATCH has been on all car seats for over ten years. Car seats without LATCH are expired and should not be used.

2. **In cars:** All 2003 and newer cars, and many 2001–02 cars, come with tether *and* lower LATCH anchors. Tether anchors have been required in most cars since 2000. Look for symbols to help you find most hidden anchors (C and D).

   In a car with LATCH, there must be at least two sets of LATCH lower anchors and three tether anchors. Some seat positions do not have LATCH.

C. *Symbol for a tether anchor*

D. *Symbol for a lower anchor*

Back Seat is Safest

The back seat is the safest place for children under 13, with or without a front air bag.

NEVER put a rear-facing infant or toddler in the front seat of a car with a front air bag that has not been turned off. Infants must always ride in the back seat facing the rear of the car.

LATCH DOs and DON'Ts

DO read and follow the instructions for the car seat **and** the car.

DO tighten LATCH straps after connecting them to the anchors in the car. In most cases, tighten the lower LATCH straps before tightening the tether strap.

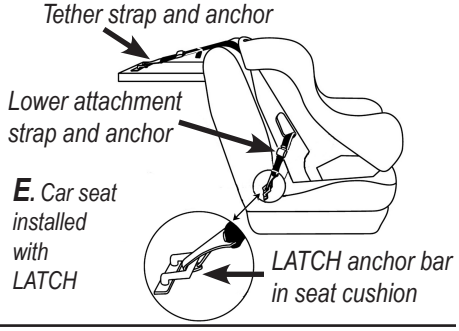
DO use the seat belt instead if the lower LATCH straps do not hold the car seat tightly or if the child weighs over the anchor weight limit. Check the manual or ask a Child Passenger Safety Technician for help (see Resources).

DO NOT use both the seat belt and lower LATCH straps, unless the car AND the car seat instructions say it is okay.

DO NOT use the lower LATCH anchors in the center seat position to install a car seat UNLESS the car AND the car seat instructions allow it. Instead, use the seat belt to install in the center.

DO NOT attach two car seats to one LATCH or tether anchor.

DO NOT allow children to play with unused lap-shoulder belts (see page 4).



E. *Car seat installed with LATCH*

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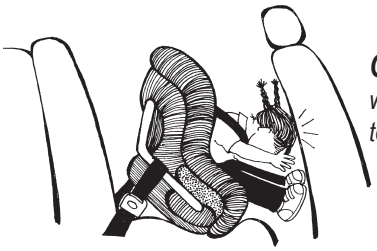
Tethers Protect the Head!

A top tether strap (F) adds extra protection to a forward-facing car seat. In a crash, it holds the top of the car seat back. This helps prevent serious head and neck injuries. (G & H show how this works.)

F. *Top tether strap holds top of car seat in place*



G*. Crash without a tether*

H.*Crash using a tether*

IMPORTANT! A tether must be connected in the car to an anchor made for car seat tethers. ALWAYS follow the car seat instructions and the car owner's manual.

Tether System Parts

1. On car seats: Forward-facing car seats made since September 1999 have tether straps attached. If needed, contact the car seat maker for a replacement strap. Only tether using a strap from the car seat maker that is made for this use.

2. In cars: Cars made since model year 2000 have tether anchors already in place. Read the car owner's manual and look for the symbol (page 1, C).

For an older car, a tether anchor kit may be available. For more information, check the car owner's manual or contact a car dealer.

Parts of a Seat Belt

Anchor: The hardware that attaches the lap and shoulder belts to the car; usually attached to the floor, side wall, ceiling, or vehicle seat.

Buckle*:* The part of the seat belt system that the latchplate goes into.

Lap belt: The strap that goes over the lower hips and thighs.

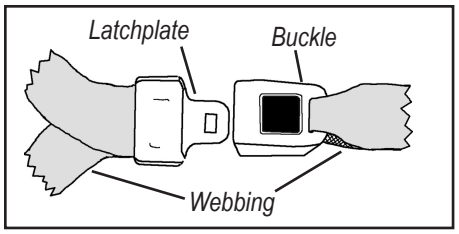
Lap-only belt: A lap belt with no shoulder belt attached.

Latchplate*:* The flat metal "tongue" that clicks into the buckle.

Retractor*:* The spool that pulls in slack on a seat belt. It usually is not visible. Many lap-only belts do not have a retractor and must be tightened by pulling on the strap.

Shoulder belt: The strap that goes across the chest and over a shoulder. Usually the lap and shoulder belts are connected (a lap-shoulder belt).

Webbing: The heavy fabric strap part of the seat belt.



All seat belts have these basic parts. Anchors and retractors may not be visible.

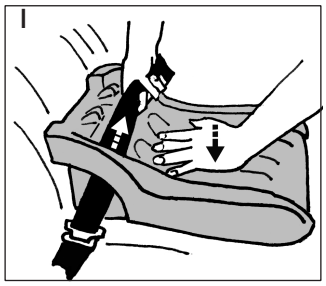
Automatic Seat Belts Are Problems for Car Seats

Automatic belts are found in the front seat of some older cars. They can cause problems when installing car seats. **The best way to avoid these problems is to keep children in the back seat.**

Belts that are attached to the door can never be used to install car seats. If there is a shoulder belt that runs along a track above the door frame, and if there is no other seating option, be sure to read the car owner's manual carefully. A special part may be needed for this type of belt to work. See SBS USA (page 4, Resources) for a list of special parts.

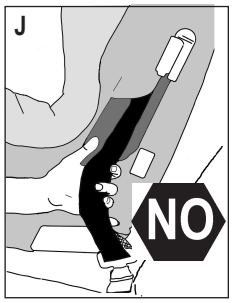
Installing a Car Seat with a Seat Belt

1. Put the seat belt through the correct belt path (I) on the car seat. Use the path shown on the car seat labels and instructions. (If the car seat is a convertible, there are two belt paths: one for when rear facing and one for when forward facing. Use the correct one.)
2. The lap part of the belt must be tight. To make it tight, push the car seat down into the vehicle seat cushion while you tighten the belt. Use your full weight, if needed (I).



I. *Put seat belt through the belt path. Tighten while pushing down on the car seat.*

3. Know how to make the lap part of the belt stay locked around the car seat. (Follow car seat instructions and the car owner's manual.)
4. Follow the instructions for attaching and tightening the tether strap for forward-facing car seats (page 4).
5. To check for a tight fit, hold the car seat close to the seat belt and pull forward and from side to side (page 1, B). If the car seat moves more than one inch or the belt stays loose (J), the car seat is not tightly secured.



J. *Belt too loose*

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Check Your Owner's Manual!

The car manual should have details about using the seat belt to install a car seat. Directions vary depending on the type of retractor and latchplate on your seat belt. Types are described below.

Types of Seat Belt Retractors

1. Emergency locking retractor

This type locks only during a crash or sudden stop. It can be on a lap-shoulder belt or a lap-only belt. With this type, the belt can lengthen during normal driving. If your car seat does not have a built-in lock-off (see car seat instructions), you will need a locking clip to secure a car seat (page 4, T).

2. Automatic locking retractor

This retractor locks whenever you stop pulling it out. To check for an automatic locking retractor, pull the lap belt part way out and stop. When you pull on it again, you will find it has locked and cannot lenghten. This type of belt will hold the car seat tightly. After buckling the belt, push all the slack back into the retractor.

3. Switchable retractor

This type is made to hold car seats tightly. It is an emergency locking retractor (like 1, above) that can be switched to an automatic locking retractor (like 2, above). It may be on either a lap belt or a lap-shoulder belt. The belt may have a label on it telling you how it works (L). You can also read about it in the car owner's manual.

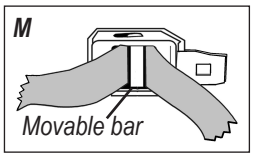
L. *Label on seat belt*

To switch the retractor: First run the seat belt through the car seat belt path and buckle. Next slowly pull on the belt until all the webbing is out of the retractor. Now let go of the belt (you may hear it clicking as it locks into the retractor). Push loose webbing back into the retractor. When all the slack is in the retractor, the belt will stay tight around the car seat. The belt will loosen only when it is unbuckled.

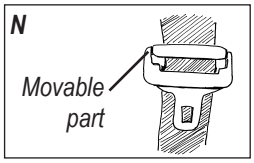
Types of Seat Belt Latchplates

1. Seat belts with locking latchplates

Locking latchplates (M & N) usually work well with car seats. They can be found on lap-only belts and on lap-shoulder belts. A movable bar or other movable part keeps the belt snug after it is tightened.



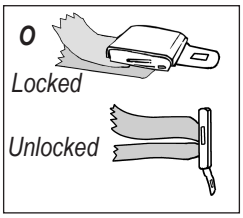
M. *The backside of one type of locking latchplate.*



N. *The front side of another type of locking latchplate.*

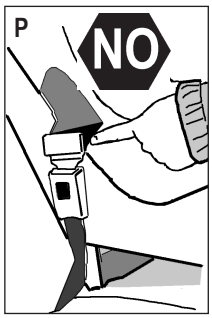
To tighten this type of latchplate, pull on the free end of the lap-only belt or pull up on the shoulder part of the lap-shoulder belt.

Warning! Locking latchplates must be in a locked position to hold a car seat (O)**.**

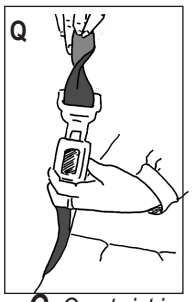


O. *Locking latchplate in locked position and unlocked position*

Check to see if the webbing is locked or unlocked as it comes out of the latchplate (O, P). If unlocked, the latchplate will not hold the belt tightly. To fix, first tighten the belt, then unbuckle it, turn the latchplate one-half turn, and buckle it again (Q). If that does not keep it tight, try twisting the buckle end up to three times to shorten it.



P. *Locking latchplate in unlocked position*

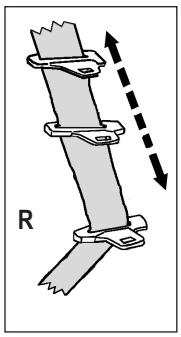


Q. *One twist in belt with locking latchplate*

Some locking latchplate types (N) that are found on lap-shoulder belts may get looser over time. A locking clip (page 4, T) may be needed to keep them tight.

2. Lap-shoulder belt with a free-sliding latchplate

Many lap-shoulder belts have a latchplate that allows the belt webbing to slide through even when the belt is buckled (R). This type of seat belt has a retractor to pull in slack.

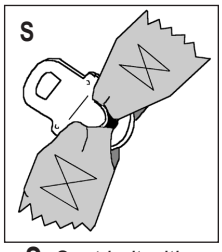


R. *Sliding latchplate on lap-shoulder belt*

Check to see if the belt has a switchable retractor. If it does not have a switchable retractor, you will need a locking clip (page 4, T) to lock the belt around a car seat. Some belts are labeled to tell you the locking clip is needed (L).

3. Sewn-on latchplate

This latchplate is permanently stitched to the belt webbing (S). It can be on a lap-only belt or a lap-shoulder belt. Check to see if the belt is attached to a switchable retractor. If it is not, it is best to use another seating position in the car. If you must use this position, you might need to use a special heavy-duty clip to shorten the lap part of the belt (see page 4). Get help from a Child Passenger Safety Technician (see Resources).



S. *Seat belt with webbing sewn to latchplate*

4. Switchable latchplate

This type normally acts as a sliding latchplate, but can be switched to lock onto the belt webbing by sliding a button or turning a dial to the "child" setting.

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How to use a locking clip on a lap-shoulder belt

A metal locking clip (T) is used to keep a seat belt tight. It is **only** used on a lap-shoulder belt with a sliding latchplate (page 3, R). However, if this type of belt has a switchable retractor (page 3), a locking clip is usually not be needed.

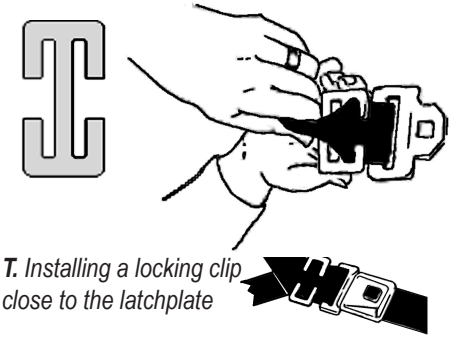
A locking clip comes with most new car seats. If you do not have one, you can buy one from a car seat maker and from some stores.

Some car seat models have "lock-offs" built in. Lock-offs keep the seat belt tight, so a regular locking clip should not be needed (see the car seat instructions).

Using a locking clip

1. Put the belt through the correct belt path on the car seat and buckle it. Pull on the shoulder belt to tighten the lap part.
2. Hold the two parts of the webbing together at the latchplate so it won't slip. Then unbuckle the belt.
3. Put both pieces of webbing through the locking clip together, close to the latchplate (T).
4. Buckle the belt again, and make sure the car seat is installed tightly. If not, start again, and take up a little more slack.
5. Remember to remove the locking clip when the belt is not holding a car seat.

The regular locking clip that comes with a car seat must NEVER be used on a lap-only seat belt.



T. Installing a locking clip close to the latchplate

How do I use a lap belt with retractors that do not lock?

Many cars made before 1996 have seat belts with emergency locking retractors (page 3) on the lap belt. Most of these have sewn-on latchplates (page 3,S). If this kind of belt does not have a switchable retractor (page 3), the only way to tighten it is with a special belt-shortening clip.

This special clip looks like a regular locking clip, but is made from extra-strong metal. Some versions are a little bigger, about three inches long.

WARNING!: You should **never** use a regular locking clip to shorten a belt. Doing so would put your child in serious danger in a crash. The regular clip could bend and release the belt, which could lead to serious injury.

You can get a belt-shortening clip **only** from Ford, General Motors, and Toyota. Your car owner's manual might explain how to use it. If the manual does not have instructions, call the car maker's customer service number.

If you have questions about how to use a belt-shortening clip, get help at a local Child Passenger Safety Inspection Location (see Resources).

Part numbers for belt-shorting clips are:

Ford: F03Z-5461248-A
General Motors: 94844571
Toyota: 73119-22010

Can I use one of those special seat belt tightening products?

Use of seat belt tightening products is **NOT** recommended by car makers and most car seat makers. Using them may void your warranty on your car or car seat. Tighten belts by following the car and car seat instructions.

Some makers of these products say they have crash tested them. However, there is no safety agency that has a crash test for these types of products.

My car has scooped out seat cushions. How can I install my child's car seat?

Some vehicle seats have hollows and humps that prevent the base of the car seat from resting flat on the cushion. Use a position with a flat cushion, or find a car seat with a base that fits better in your car.

Why do loose objects and car booster seats need to be secured?

In a crash, anything loose in the car is thrown around and can hurt people in the car. Sometimes serious injuries occur from even very small objects hitting a person in the head. It is very important to keep loose objects in the trunk or secure them in the cargo area. When a child's booster seat is not being used, the seat belt should still be put on it and buckled.

WARNING!: Keep unused seat belts away from children

A child can be seriously injured by a shoulder belt wrapped around his or her neck. It can get locked and become hard to make loose again. Teach children not to play with seat belts. Keep unused seat belts away from them. One way to do this is to buckle the belt before installing the car seat with LATCH. For unused belts next to a child, you can lock the retractor after buckling the seat belt (see page 3).

Resources

NHTSA: 888-327-4236, 800-424-9153 (tty), *www.nhtsa.gov*

Find a Child Passenger Safety Inspection Location:
866-732-8243, *www.seatcheck.org*

SafetyBeltSafe U.S.A. (SBS USA):
Parent information; list of special seat belt parts: *www.carseat.org;* Helpline: 800-745-7233

The Children's Hospital of Philadelphia:
www.chop.edu/carseat

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