

CPS Unusual Nuances

Lock-Off vs Belt Tensioner

Booster Seat Belt Routing

Level Lines

Adjusting the Crotch Buckle

Touching the Front Seat

Rotating Car Seats

Anti-Rebound Bar/Load Leg

Tether Routing in Trucks

SAFE
KIDS
GRAND FORKS

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Northwest Minnesota Child Passenger Safety Liaison
Safe Kids Grand Forks

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1

Why Can't All Car Seats Just Follow the Same Rules?!

78 infant seats
37 convertible
59 all in one
20 combination
50 boosters



Source: HealthyChildren.org

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Lock-Off vs Belt Tensioner

LOCK-OFFS

Lock-offs are found on some car seat models to lock the lap belt of a lap-and-shoulder belt at a fixed length. Lock-offs may replace the locking features of lap-and-shoulder belts.

Check the vehicle owner's manual to see if the locking features on the seat belt is allowed to be replaced by the lock-off on the car seat.

There are many lock-off designs, including shims, clamps and doors.



A lock-off can be on either side of a car seat or in the center of the belt path.

When multiple lock-offs are present, check the car seat instruction manual to learn which one(s) to use.

Some vehicle seat belts have folds or buttons that can interfere with the lock-off on some car seats, making this feature incompatible.

TENSION DEVICES

Some car seats have a tension device that may look like a lock-off.

Car seat manufacturers sometimes refer to tension devices by other terms including belt tensioning device and belt tensioning plate.

Tension devices help to achieve a tight installation but require locking the seat belt.



With a tension device, the car seat instruction manual will state that the seat belt requires locking.

Convertible car seat with a tension device

Always check the car seat instruction manual thoroughly as some tension devices are referred to as lock-offs.

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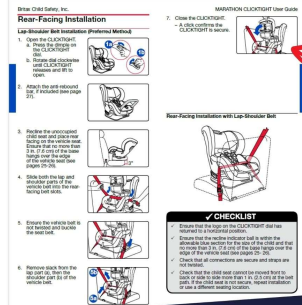
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Lock-Off vs Belt Tensioner

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Touching the Front Seat



evenflo.

WARNING! DEATH or SERIOUS INJURY can occur.

Location Warnings
To help prevent serious injury or death:

- **ALWAYS** read and follow exactly the instructions that accompany your vehicle and child restraint.
- According to accident statistics, children are safer when properly restrained in a rear seating position than in a front seating position. Generally, the center rear is safest and should be used if available. Children 12 and under should ride in the back seat of the vehicle.
- If you are unable to use the center rear seating position and have to install this child restraint directly behind a front vehicle seat, ensure that there is at least 38 mm (1.5 inches) of space between any part of the child restraint and the vehicle seat that is closest to the child's head. This space may be necessary for the child restraint to properly perform in certain types of crashes.
- **ONLY** use this child restraint on forward-facing vehicle seats. **DO NOT** use on vehicle seats which face the rear or side.

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Touching the Front Seat



babyark

SafeCoil™ System

- babyark recommends a 3" gap between the car seat shell and the vehicle seat behind it when installed RF and a 4" gap between the front of the base and the vehicle seat in front of it when installed FF.
- How much the coil elongates depends on the impact force and the child's weight – older and heavier children will result in more movement than a smaller child



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Touching the Front Seat



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Touching the Front Seat

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Should my rear-facing child seat touch the back of the front vehicle seat?

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Based on new data from studies, Dorel now requires a rear-facing car seat to be installed touching the seat in front of it (or as close as possible) when using an outboard seating position. This requirement is considered to be a retroactive improvement to previous versions of the same product. Caretakers with older manuals/models should use this updated requirement.



Place Car Seat Rear-Facing in Back Seat

The car seat base **MUST** be flat on the vehicle seat.

When using the passenger or driver-side locations, the car seat **MUST** be touching the back of the vehicle seat in front of it, or be as close as possible.

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Anti-Rebound Bar/Load Leg

Anti-Rebound Bar/Panel

Upon impact, a rear-facing car seat will rotate forward and then rotate back into the vehicle seatback. The motion of rotating back into the vehicle seatback is called rebound.

- An anti-rebound bar/panel is designed to help absorb rebound energy in a frontal crash.
- Anti-rebound bars/panels are generally found on infant car seats, convertible car seats and all-in-one car seats.
- Some car seat manufacturers design the carry handle of an infant car seat to be used as an anti-rebound bar for that car seat.



Infant car seat with carry handle used as anti-rebound bar



Convertible car seat with anti-rebound bar

Load Leg

A load leg limits forward rotation in a frontal crash by transferring crash energy down to the vehicle floor rather than to the child.

- Load legs are generally found on infant car seats but may also be found on convertible car seats and all-in-one car seats.
- Other terms that car seat manufacturers sometimes use to refer to load legs include foot props, stability legs and support legs.
- Load legs extend down from the front of the car seat base and are adjustable to contact the vehicle floor.



Load leg on convertible base



Load leg on detachable base being adjusted to contact the vehicle floor

- When not in use, load legs can be stored under the base of the car seat.

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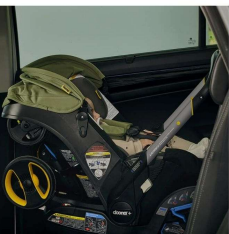
Anti-Rebound Bar



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Anti-Rebound Bar




Anti-Rebound Bar

Doona's handle serves as an anti-rebound bar! While in the car, always rotate the handle against the back of the seat.

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Anti-Rebound Bar

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Using the Embrace Handle

To change handle position, rotate both handle Release and rotate the handle to the desired position. When the handle is locked into position, the Lock Indicator will be green.



Position 1 Position 2 Position 3 Position 4

IMPORTANT: NEVER use Position 2 or 3 when installing in a vehicle. U.S. and Canadian models allow in-vehicle handle positions for infant car seats only.

Using the Embrace Handle

IMPORTANT: Always rotate the child in the car seat into the "Facing your Child in the Car" position on page 15.

Position 1 (Front) - U.S. and Canada
This position can be used for forward-facing in a vehicle. For Canadian Models, you MUST place the handle in this position while traveling.

Position 2 (Rear)
This position is ONLY to be used if your car seat NEVER can be placed in a vehicle.

Position 3 (Overhead)
NEVER use this position. Do not place the car seat in this position in the vehicle.

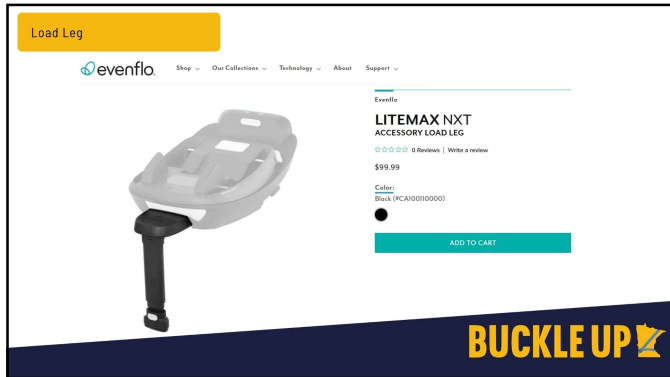
Position 4 (Over) - U.S. and Canada
This position can be used ONLY if your car seat NEVER can be placed in a vehicle. For Canadian Models, you MUST place the handle in this position while traveling.

Position 5 (Over)
Place the handle in this position when you use the car seat in the back. This position can be used for forward-facing in a vehicle. For Canadian Models, you MUST place the handle in this position while traveling.

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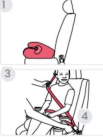
Booster Seat Belt Routing

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NEW



1. Ensure the booster is positioned in a location that has a vehicle head restraint.
2. Sit your child in the booster seat. The top of the child's ears must be below the top of the vehicle head restraint.
3. Pull the vehicle seat belt out, then route the lap part of the vehicle seat belt under both armrests.
4. Route the shoulder part of the vehicle seat belt behind the armrest on the buckle side.



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Booster Seat Belt Routing

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Position Lap Belt on Child

Route **ONLY** the lap belt portion of the vehicle belt through the **Booster Seat Belt Path** as shown. The lap belt should lay snugly across your child's hips, **not** on their stomach.

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Booster Seat Belt Routing

Joie™

Backless Booster - Install/Use: (cont.)

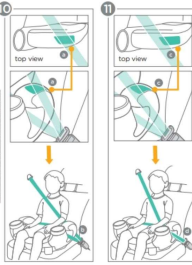
T0 - With the child in the seat: If the shoulder belt is **ON OR BEHIND** the green label (A), keep the shoulder belt **OVER** the armrest (B).

T1 - With the child in the seat: If **ANY PART** of the shoulder belt is **IN FRONT** of the green label (C), move the shoulder belt **UNDER** the armrest (D).

IF ANY PART of shoulder belt is **IN FRONT** of label edge: Move shoulder belt **UNDER** armrest.







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Booster Seat

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Check the head position

The top of your child's ears should **NEVER** be above the top of the booster seat's headrest. Adjust the headrest if needed (see page 17).



Check the car position

DO NOT use the booster seat if your child's head is less than 5 in. (12.7 cm) below the roof of the car.



Check the shoulder belt position

The shoulder belt should lay snugly across the center of your child's shoulder and across their chest.



Check the lap belt position

The lap belt should lay snugly across your child's hips, **NOT** on their stomach.

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Booster Seat

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INSTALLATION

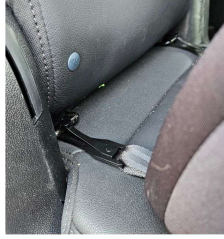
WARNING! Unsecured objects can become flying hazards and can cause serious injury in an accident. If your vehicle is equipped with lower anchors, Diono always recommends installation utilizing the LATCH/UAS connectors with this booster seat.

To improve safety and performance, this booster seat is equipped with a lower anchorage system that allows secure attachment to a vehicle's lower anchor locations.

1. Disengage LATCH/UAS connectors from storage slots and lay booster seat on its side. While **DEPRESSING** the cam lock lever, **PULL LATCH/UAS** connectors away from the booster seat and extend both straps all the way. Do not overextend connector strips.
2. Attach both LATCH/UAS connectors to the vehicle anchors, starting with the connector that is furthest from you. For ease of use, make sure open end of hooks face upward during use.

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Booster Seat




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US / EE.UU : 40 – 120 lb (18 – 54 kg)

LATCH/UAS Installation / LATCH/UAS Installation

WARNING!
DEATH or SERIOUS INJECTION can result if not used properly.

Use only with children who weigh between 40 – 120 lb (18 – 54 kg). Use only the vehicle's lap and shoulder belt.

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Adjusting the Crotch Buckle




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THE CAR SEAT LADY

BUCKLE UP

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THE CAR SEAT LADY

0:00 / 0:23

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Adjusting the Crotch Buckle

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5.0 Installation and Use Internal Harness Mode

5.25.1 Belt Shortening Clip

NOTE: Consult Baby Trend's LATCH (5.23) to ensure an approved Belt Shortening Clip.

1. Route seat to position 1 (Belt route) to access buckle anchor bracket and remove buckle assembly.

2. Thread seat belt (Belt route) through the buckle (Fig. 5B). Repeat for the other side.

3. Flip over and repeat step 2.

5.25.2 Belt Shortening Clip Continued

3. Insert the seat anchor clamping end to secure position (clamping through the rear head rest, seat) (Fig. 5B) - (Fig. 5B).

4. View from underside. Pull slack as needed (Fig. 5B).

5. Thread the seat anchor clamping end to the bottom of seat (the visible side for storage). This storage is so that the seat anchor will not interfere with function or cause a low birth weight problem clamping is used (Fig. 5B).

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 Quality • Comfort • Style

**COVER ME
 4-in-1
 Convertible Car Seat**

**How To
 Adjust The Crotch Buckle**

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Adjusting the Crotch Buckle

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Adjusting the Harness

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Adjusting the Harness





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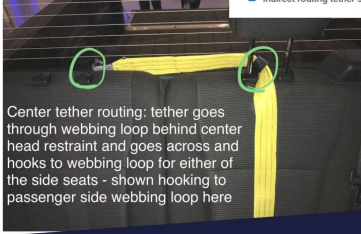
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Tether Routing in Trucks

Indirect Routing Tether Systems

In an indirect routing tether system, the tether first goes through a router that is behind the vehicle seat and then turns to attach to a tether anchor located elsewhere, often behind an adjacent vehicle seat.

- Indirect routing tether systems are found in both small and large pickup trucks.



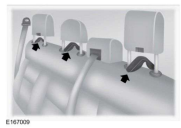
Center tether routing: tether goes through webbing loop behind center head restraint and goes across and hooks to webbing loop for either of the side seats - shown hooking to passenger side webbing loop here

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Tether Routing in Trucks

Rear Seat Tether Strap Attachment (Crew Cab and Super Cab)

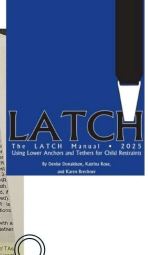




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Tether Routing in Trucks

Appendix B: Vehicle Information - 2025

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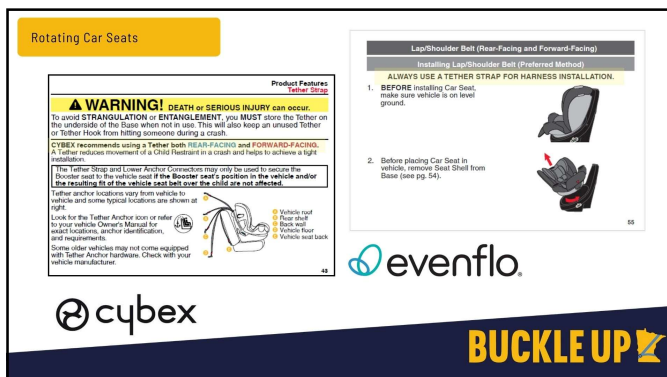
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Rotating Car Seats

Rotating Convertible Car Seats Comparison

	Baby Jogger City Tour	Graco Lemonsafe	Chicco KeyFit 30	Evenflo Revvion	Evenflo Revvion Max	Graco FastForward	Graco FastForward 35	Graco FastForward 35 LX	Graco FastForward 35 LX	Graco FastForward 35 LX
Weight Limits (Rear Facing)	4-50 lbs.	5-50 lbs.	4-50 lbs.	4-50 lbs.	4-50 lbs.	4-50 lbs.	4-50 lbs.	4-50 lbs.	4-50 lbs.	4-50 lbs.
Weight Limits (Forward Facing)	25-50 lbs.	25-50 lbs.	25-50 lbs.	25-50 lbs.	25-50 lbs.	25-50 lbs.	25-50 lbs.	25-50 lbs.	25-50 lbs.	25-50 lbs.
Height Range (Rear Facing)	16-22"	16-22"	16-22"	16-22"	16-22"	16-22"	16-22"	16-22"	16-22"	16-22"
Height Range (Forward Facing)	29-49"	29-49"	29-49"	29-49"	29-49"	29-49"	29-49"	29-49"	29-49"	29-49"
Age Limit for Forward Facing	At least age 1	At least age 1	At least age 1	At least age 1	At least age 1	At least age 1	At least age 1	At least age 1	At least age 1	At least age 1
Top Harness Height	17"	17"	18"	16"	19"	16"	17"	14"	14"	17"
Anti-Rebound Base	X	✓	✓	✓	✓	✓	✓	✓	✓	✓
Built-In Tethering Device	✓	✓	✓	X	✓	✓	✓	✓	✓	✓
Seat Belt Lockoff	✓	✓	✓	X	✓	✓	✓	✓	✓	✓
LATCH Weight Limits	25 lbs. 10"	25 lbs. 10"	25 lbs. 10"	25 lbs. 10"	25 lbs. 10"	25 lbs. 10"	25 lbs. 10"	25 lbs. 10"	25 lbs. 10"	25 lbs. 10"
Center LATCH Borrowing Allowed	X	X	X	✓	✓	X	X	X	X	X
Alcohol Use Allowed	✓	X	✓	✓	✓	X	X	X	X	X
Expiration	10 Years	10 Years	10 Years	10 Years	10 Years	10 Years	10 Years	10 Years	10 Years	10 Years
Duration	30" Crib	30"	30"	30"	30"	30"	30"	30"	30"	30"
MSRP	\$279.99	\$429.99	\$429.99	\$249.99	\$429.99	\$349.99	\$229.99	\$600	\$600	\$600

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Moral of the Story....

READ THE MANUAL

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SAFE KIDS GRAND FORKS

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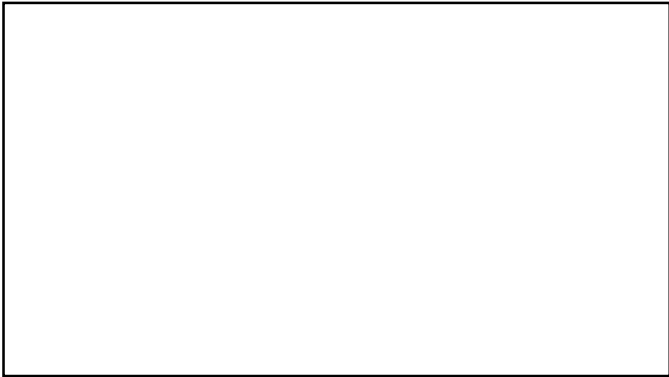
Address
607 DeMers Ave, East Grand Forks, MN

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BuckleUpMN.org

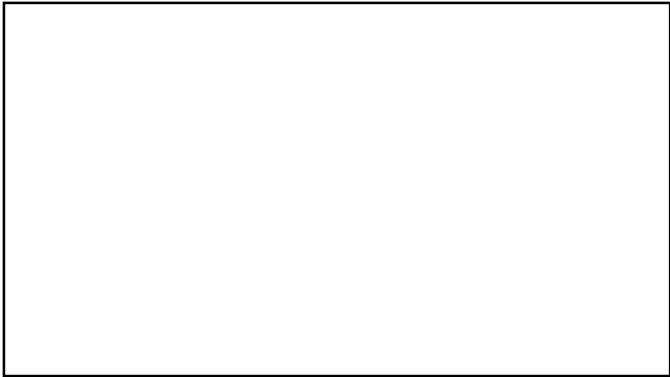
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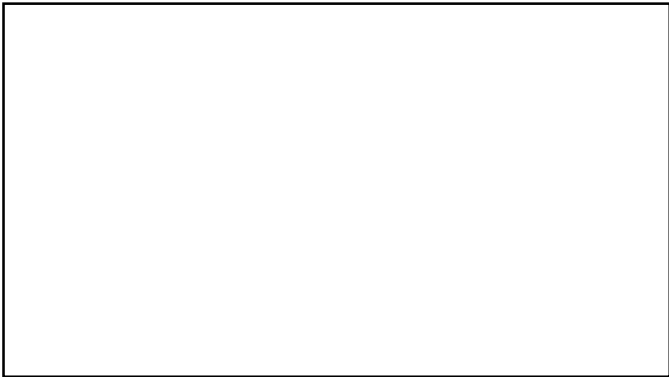
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