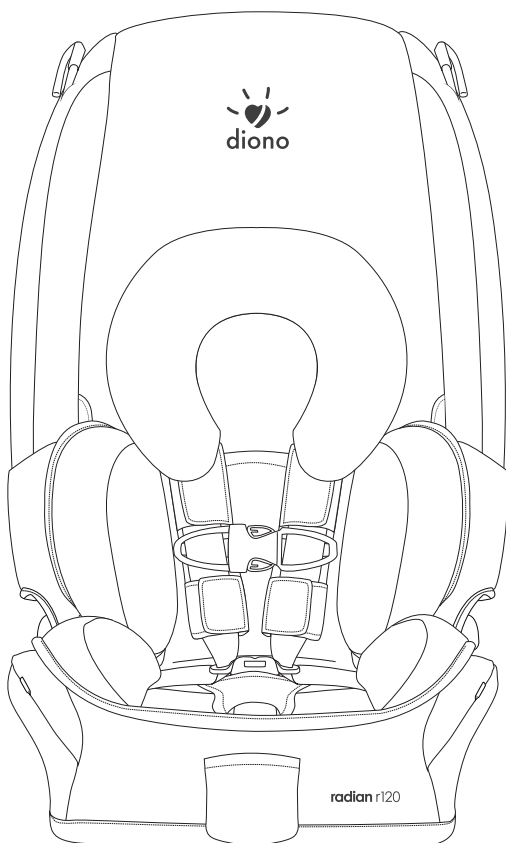




# radian® r120

convertible + booster



## Instruction Manual

Canadian English Version

Please read carefully  
Store manual behind cover



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## Radian Features





# WARNING

DEATH OR SERIOUS INJURY CAN OCCUR

- *Follow all instructions labeled on this child restraint and in the written instruction manual on the lanyard located on back of restraint. For infants under 4.5 kg (10 lbs), consult pediatrician for recommended seat back angle before installation.*
- *Failure to follow all instructions and product labels can result in death or serious injury in a crash. Carefully read and understand this instruction manual prior to using restraint. If you have any questions, visit [ca.diono.com](http://ca.diono.com) or contact Diono at 1-866-954-9786.*
- Use only with children weighing between 2.3 kg to 54 kg (5 lbs to 120 lbs) and who have a height of 144 cm (57") or less.
- Use only in rear-facing position with any infant weighing less than 10 kg (22 lbs) and between 46–76 cm (18–30").
- For children rear-facing with harness: 2.3–20.5 kg and 46–112 cm (5–45 lbs and 18–44")  
Forward-facing with harness: 10–29.5 kg and 76–144 cm (22–65 lbs and 30–57")  
Booster mode: 23–54 kg (50–120 lbs) and 101–144 cm (40–57")
- Only secure this child restraint with the vehicle's lower universal anchorage system (UAS) if available or with vehicle seat belt.
- Always use the top tether strap when installing this restraint forward-facing.
- *Always use the Safe Stop® device according to manufacturer's instructions.*
- Always use a locking clip if it is required for proper restraint installation. Consult vehicle owner's manual.
- **WARNING:** Before installing restraint in a vehicle equipped with front passenger airbags, carefully read the vehicle owner's manual for proper restraint installation instructions.
- Some vehicles have passenger seating in which the passenger faces the side or the rear of the vehicle. Do not install this restraint in such passenger seating. Only use this restraint in a vehicle seat which faces an adult passenger toward the front of the vehicle.
- Always adjust restraint harness for a comfortable and snug fit around child. A snug harness strap should not allow any slack. It lies in a relatively straight line without sagging. It does not press on the child's flesh or push the child's body into an unnatural position.



# WARNING

DEATH OR SERIOUS INJURY CAN OCCUR

- This restraint is not for use in homes, boats, on a motorcycle or in any other non-specified applications or environments.
- Always keep this child restraint secured in the vehicle even when it is unoccupied, using the lower universal anchorage system (UAS) or vehicle seat belt, and also the tether strap.
- Do not carry restraint by harness adjusting strap. This can damage the mechanism and the webbing. Only carry restraint by red carry strap, harness shoulder straps or by the plastic shell.
- In the event of an accident, the vehicle body itself provides the most significant passenger protection. While a properly installed restraint will improve chances for survival in most accidents, some crashes are unsurvivable regardless of what restraint is used.
- Based on accident statistics, Diono recommends the vehicle's rear seat as the safest location for all children under age 13.
- Register this restraint with the manufacturer using the attached registration card.

## Seating Position Information



**WARNING:** *This child-restraint system must be used only in a forward-facing seating position equipped with a vehicle seat belt or a lower universal anchorage system (UAS). Some vehicles have no seating positions which are compatible with this child seat. If in doubt, contact the vehicle manufacturer for assistance.*

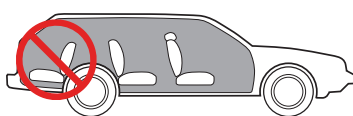
**Forward-facing vehicle seats MUST be used with this child seat. Side-facing or rear-facing seats CANNOT be used.**



**WARNING:** *Only use this child restraint in forward-facing vehicle seats. DO NOT use this child restraint in side-facing or rear-facing seats in vans or station wagons.*



*Seats which face sides of vehicle.*



*Seats which face rear of vehicle.*

## Child Restraint Safety Information

- *This child restraint system conforms to all applicable requirements of Canadian Motor Vehicle Safety Standards 213, 213.1 and 213.2 and is certified for use in motor vehicles.*
- *This car seat is for use only in the following classes of vehicles: passenger cars, trucks, and multi-purpose vehicles such as SUVs (sport utility vehicles) and CUVs (crossover utility vehicles).*
- *This restraint is certified for use in Aircraft.*
- *Register this restraint with the manufacturer.*

Child restraints can be recalled for various reasons. To be reached directly in the event of a recall, you must register your restraint with the manufacturer. Fill out the included product registration card and mail it. You can register online at **ca.diono.com**. You can also register by sending your name, address, the restraint's model and serial number to:

Diono Canada, ULC  
50 Northland Road, Suite 400  
Waterloo, Ontario N2V 1N3 Canada

Or you can call **Diono: 1-866-954-9786**.



**WARNING:** DO NOT place a child restraint in the front seat of a vehicle with a passenger air bag unless *the air bag is turned off*. **DEATH or SERIOUS INJURY** can occur. The back seat is the safest.

### **IMPORTANT:**

- *Before each use, always confirm restraint is securely installed and harness is properly adjusted around the child. Remember: The addition or removal of clothing (such as a sweater or coat) will change the fit of the harness.*
- *Always confirm before each use that restraint is securely locked in its unfolded position.*
- *Make sure vehicle seats which fold forward are securely locked in their open position. An unsecured vehicle seat back can impair the ability of the restraint to protect the child occupants.*
- *Cover restraint when vehicle is parked in direct sunlight. Parts of the restraint can become hot and cause injury to a child.*



- *Do not leave any child in a vehicle alone or unattended by an adult.*
- *Secure all personal objects inside the vehicle. In an accident loose objects can become flying hazards with the potential for causing serious injury.*
- *Except per the instructions in this manual or as instructed by a representative of the manufacturer, do not disassemble, attempt to disassemble or tamper with any part of this restraint or change the way the restraint harness or the vehicle restraint system is used.*
- *Do not use restraint if there is any appearance of rust on any of the metal surfaces.*
- *Do not oil or lubricate any part of the restraint.*
- *Release levers and locking bolts should operate smoothly and freely. When release levers are lifted, the release levers and locking bolts should spring back immediately and completely. Do not use restraint if release levers and/or locking bolts wither bind or do not move freely.*
- *When not in use, store restraint properly and avoid placing heavy objects on top of it.*

#### **To prevent injury to child:**

- **This radian® r120 car seat expires 10 years after the date of purchase (DOP). If the date of purchase cannot be determined, refer to the date of manufacture (DOM). The label with this information is located on the child's left hand side of the car seat. Do NOT use this car seat if it is older than 10 years from the original date of purchase. If the original date of purchase cannot be determined, do NOT use this car seat if it is older than 10 years from the date of manufacture. The date of manufacture can be found on the information label permanently affixed to the car seat.**
- **If the webbing of the harness system becomes soiled and cannot be cleaned per the instructions in this manual, the harness system MUST be replaced. Replacement of the harness system does NOT extend the life of this car seat beyond 10 years.**
- **Do not use restraint after it has been involved in any crash, whether the child was present in the restraint or if the restraint was unoccupied. Damage to the restraint may have occurred which could impair its ability to adequately protect a child. Please call our Customer Care Team at 1-866-954-9786 so we can help you determine if your restraint needs to be replaced.**

- *This restraint is not a toy. Do not allow children to play with it.*
- *Using any non-Diono product with this restraint, or any product not specifically approved by Diono for use with this restraint, is not allowed. Use of such products voids manufacturer's warranty and may seriously impact this product's ability to perform properly in an accident.*

## Seat Belt Information

The information below applies only to installations using vehicle seat belts.

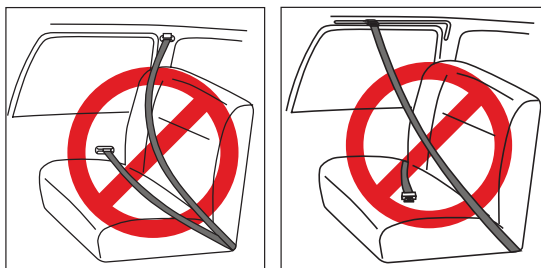
### **IMPORTANT:**

- *This restraint can be installed securely in most vehicles using the seat belt. However, some seat belts have an anchoring position for the lap belt that may not allow a secure restraint installation.*
- *Some vehicles do not have any seating positions that are compatible with a child restraint. Read owner's manual to determine child-specific seating. Contact the vehicle manufacturer if you have any doubts or questions.*

Some vehicle seat belts that are **NOT** compatible with this restraint are:

- Seat belts with top or bottom anchorage points attached to the front door.
- Motor driven automatic seat belts.
- Non-locking, ELR (Emergency Locking Retractor) two-point vehicle seat belts.

If your seat belt is of a type listed above, choose another seat within the vehicle or use UAS connectors and anchorage points. Information on the types of seat belts in your vehicle are in the vehicle owner's manual.





## Carrying Restraint

### **WARNING:**

- *Do not carry restraint by harness adjuster strap (see diagram, page 3). This can damage the mechanism and the webbing.*
- *Only the shoulder strap made by Diono is approved for use with this restraint.*

### **There are four ways to carry restraint:**

1. Red carry strap (Fig. 1)
2. Plastic side (Fig. 2)
3. Shoulder strap: Connect shoulder strap\* to webbing anchors on side of restraint (Fig. 3)



4. Backpack (requires 2 shoulder straps\*): Connect shoulder straps to lower webbing anchors on both sides and upper webbing anchors on back of restraint. (Fig. 4)

\* *Padded shoulder strap(s) available as a separate accessory, not included.*



## Unfolding and Folding Restraint

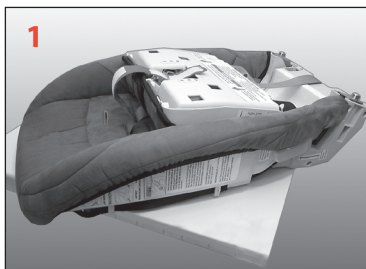


### WARNING:

- *Do NOT use restraint if release levers or locking bolts bind or do not move freely. When release levers are lifted, release levers and locking bolts should spring back immediately.*
- *Do NOT oil or lubricate any part of restraint.*
- *ALWAYS confirm restraint is locked securely in its unfolded position before each use.*
- *To avoid risk of injury, keep others at a safe distance during folding and unfolding.*
- *Familiarize yourself with restraint unfolding and folding operations prior to use.*
- *Foreign objects and debris can interfere with proper operation of locking mechanism. Before installation, confirm both locking bolt and release lever areas are free of any debris (see page 44 for cleaning of mechanisms).*

### Unfolding Restraint

1. Place restraint on its back on a flat surface and unfasten red carry strap from restraint bottom. (Fig. 1)



2. Firmly rotate restraint bottom until a 'click' confirms restraint is locked in open position. (Fig. 2)

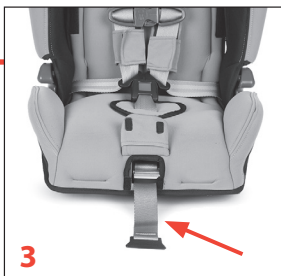


### IMPORTANT:

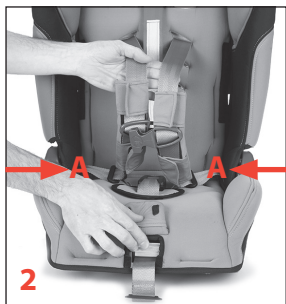
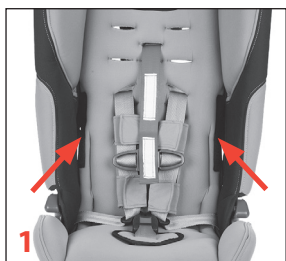
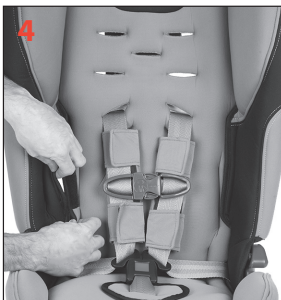
*Confirm release levers are completely recessed inside their housings. (See page 3 diagram.) Confirm restraint is locked in the open position. If not, repeat step 2.*



3. Pull harness adjusting strap until harness begins to tighten. (Fig. 3) If strap does not slide freely, fold restraint, remove harness adjusting strap from fold joint and repeat step 3.



4. Fasten both fabric side panels to center panel. (Fig. 4)
5. Slide red carry strap into the slot in center of cover when not in use. (Fig. 5)



## Folding Restraint

1. Remove red carry strap from behind cover and unbuckle harness. Unfasten both fabric side panels and tuck them into the sides. (Fig. 1)
2. Loosen harness: lift harness adjuster while pulling the harness straps all the way forward. (Fig. 2)
3. Adjust both expandable sides to their inward position (Fig 2A)

*(continued next page)*

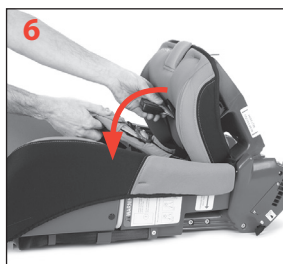
## Folding Restraint

(continued)

4. Place restraint on its back, push either release lever downward to release locking bolts. (Fig. 3)



5. Pull harness straps firmly toward top center restraint. Keep buckle extended toward top of restraint while folding seat bottom into back. (Fig. 4)



### IMPORTANT:

*If restraint does not easily fold completely, do NOT force it closed. See below: 'Folding Tips'*

6. Fasten red carry strap to secure restraint in its folded position. (Fig. 5)



### WARNING:

*Restraint can accidentally unfold and cause injury if not properly secured by carry strap.*



### Folding Tips: to fold restraint completely:

- Loosen harness sufficiently.
- Unfasten and tuck fabric side panels into the sides.
- Pull harness buckle toward top of restraint.
- Adjust expandable sides to their inward position (see page 41).
- Make sure cover fabric or harness webbing is not caught in the steel supports when folding.

## Detachable Base



### WARNING:

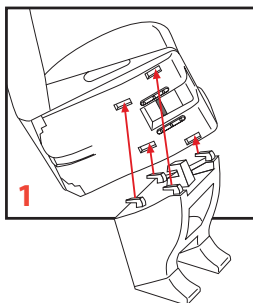
- *Detachable base must be used when restraint is rear-facing.*
- *Do NOT use detachable base when restraint is forward-facing.*

### Installing base (Rear-facing only)

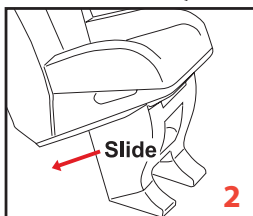
1. Confirm restraint is locked in its unfolded position (see page 10).

2. Confirm adjustable bottom is locked in its raised position (see page 29).

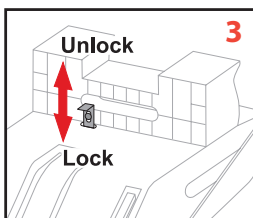
3. Align posts with holes and insert base into restraint bottom. (Fig. 1)



4. Slide base back until it reaches alignment mark on restraint bottom and secures into place. (Fig. 2)



5. Push down metal tab to lock base. (Fig. 3)



### Removing Base

1. Lift metal tab to unlock base. (Fig. 3)
2. Slide base forward (the opposite direction as shown in Fig. 2).
3. Pull base away from restraint bottom.

**Tip:** To carry detachable base, fit it inside folded restraint. (Fig. 4)



## Rear-Facing UAS Installation

### for children 2.3–20.5 kg (5lbs–45lbs)

#### **WARNING:**

- *You must use restraint rear-facing if child is less than 1 year and weighs less than 10 kg (22 lbs). Diono recommends keeping children rear-facing until they are at least 2 years old.*
- *Detachable base must be used with rear-facing restraint.*
- *Do NOT use Safe Stop® with rear-facing child.*
- *See page 42 for UAS connector instructions.*

1. Confirm detachable base is securely attached to restraint bottom (see page 13).
2. Confirm vehicle seating location has its own UAS anchors (see vehicle owner's manual). If it does not, you must use vehicle seat belt for installation (see pages 16 and 18).
3. Locate UAS belt secured in storage compartment on restraint back. Press red release button to remove each UAS connector and webbing. Slide the narrow UAS tethering strap out of plastic strap guides on side of the seat.
4. Place restraint in proper rear-facing position:  
  
Restraint bottom and base are both flat on the vehicle seat with front of restraint against the back of that vehicle seat. (Fig. 1)



***Note: It may be necessary to move vehicle front seats slightly forward to properly fit a rear-facing restraint.***



5. Route UAS belt through rear-facing belt path. Confirm UAS belt lays flat and is not twisted. Attach each connector to the UAS anchor closest to each side of the restraint. (Figs. 2 & 3)

UAS connector will 'click' to confirm attachment to anchor.

6. Push restraint down firmly into vehicle seat while tightening UAS belt. (Fig. 4)

Vehicle cushions should compress where there is contact with the car seat.



### CHECK LIST:

- ☐ Confirm restraint is properly positioned.
- ☐ Confirm UAS belt is tight and that connections to approved UAS anchors are secure.
- ☐ Confirm restraint installation is stable (see page 25).
- ☐ Stability of installation can be improved by using top tether (see page 30 for tether instructions).

### Removal:

- Press red release button on each UAS connector to release it.
- Disconnect top tether if in use.
- Properly store UAS belt and top tether.



# Rear-Facing Lap-Shoulder Belt Installation

for children 2.3–20.5 kg (5 lbs–45 lbs)

## **WARNING:**

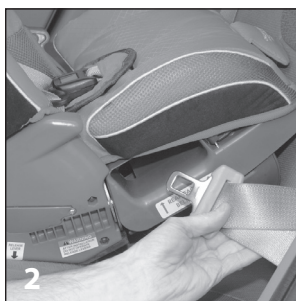
- *You must use restraint rear-facing if child is less than 1 year and weighs less than 10 kg (22 lbs). Diono recommends keeping children rear-facing until they are at least 2 years old.*
- *Detachable base must be used with rear-facing restraint.*
- *Do NOT use Safe Stop® with rear-facing child.*

1. Confirm detachable base is securely attached to restraint bottom (see page 13).
2. Place restraint in proper rear-facing position:

Restraint bottom and base are both flat on the vehicle seat with front of restraint against the back of that vehicle seat. (Fig. 1)

**Note:** *It may be necessary to move vehicle front seats slightly forward to properly fit a rear-facing restraint.*

3. Route seat belt through rear-facing belt path and buckle it. (Figs. 2 & 3) Confirm seat belt lays flat and is not twisted.







4. Push restraint down firmly into vehicle seat while pulling shoulder portion of seat belt to remove slack and tighten lap portion of seat belt. (Fig. 4)

Vehicle cushions should compress where there is contact with the car seat.



### **WARNING:**

- *Make sure vehicle seat belt is properly locked.*
- *Failure to properly lock seat belt will result in an unsafe installation that will greatly increase the potential for injury or death to the child in an accident.*
- *Carefully read vehicle owner's manual to determine seat belt locking requirements or contact vehicle manufacturer.*

See page 39 for instructions on using a locking clip.

### **CHECK LIST:**

- ☐ *Confirm restraint is properly positioned.*
- ☐ *Confirm seat belt is tight and securely locked.*
- ☐ *Confirm seat belt buckle is properly fastened.*
- ☐ *Confirm restraint installation is stable (see page 25).*
- ☐ *Stability of installation can be improved by using top tether (see page 30 for tether instructions).*

### **Removal:**

Release seat belt buckle and disconnect top tether if in use. Properly store top tether.

## Rear-Facing Lap-Belt Installation

for children 2.3–20.5 kg (5 lbs–45 lbs)



### WARNING:

- *You must use restraint rear-facing if child is less than 1 year and weighs less than 10 kg (22 lbs). Diono recommends keeping children rear-facing until they are at least 2 years old.*
- *Detachable base must be used with rear-facing restraint.*
- *Do NOT use Safe Stop® with rear-facing child.*

1. Confirm detachable base is securely attached to restraint bottom. (see page 13)
2. Place restraint in proper rear-facing position:

Restraint bottom and base are both flat on the vehicle seat with front of restraint against the back of that vehicle seat. (Fig. 1)



**Note:** *It may be necessary to move vehicle front seats slightly forward to properly fit a rear-facing restraint.*

3. Route seat belt through rear-facing belt path. (Fig. 2)

Confirm seat belt lays flat and is not twisted.





4. Push restraint down firmly into vehicle seat while adjusting seat belt length. Tighten and lock seat belt according to vehicle owner's manual. (Fig. 3)

Vehicle cushions should compress where there is contact with the car seat.



#### CHECK LIST:

- ☐ *Confirm restraint is properly positioned.*
- ☐ *Confirm seat belt is tight and buckle is properly fastened.*
- ☐ *Confirm restraint installation is stable (see page 25).*
- ☐ *Stability of installation can be improved by using top tether (see page 30 for tether instructions).*

#### Removal:

Release seat belt buckle and disconnect top tether if in use. Properly store top tether.

## Forward-Facing UAS Installation

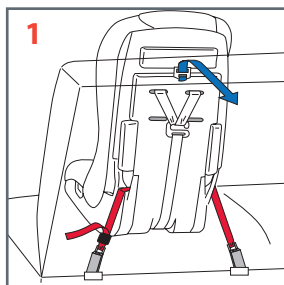
### for children 10 kg–29.5 kg (22 lbs–65 lbs)

#### **WARNING:**

- *Remove detachable base when restraint is forward-facing.*
- *Do NOT place infant in forward-facing restraint until 1 year and 10 kg (22 lbs). Diono recommends keeping children rear-facing until they are at least 2 years old.*
- *ALWAYS use Safe Stop® with forward-facing child below 18 kg (40 lbs). (See page 28)*
- *See page 42 for UAS connector instructions.*
- *Always use top tether as shown in blue. See page 30 for instructions.*

Fig. 1 shows a typical forward-facing installation with UAS.

If forward-facing recline is desired, adjust it prior to installation (see page 29 ).



1. Confirm vehicle seating location has its own UAS anchors. If it does not, you must use vehicle seat belt installation (see pages 22 and 24).
2. Locate UAS belting secured in storage compartment on restraint back. Press red release button to remove each UAS connector and webbing. Slide the narrow UAS tethering strap out of plastic strap guides on side of the seat.
3. Place restraint in forward-facing position.
4. Route UAS belt through forward-facing belt path and behind restraint cover. (Fig. 2)





### **Installation Tip:**

Unfasten fabric side panels and reach behind restraint cover for easy access to belt path. (Fig. 3)

5. Confirm UAS belt lays flat and is not twisted. Attach each connector to the UAS anchor closest to each side of the restraint. (Fig. 4)

UAS connector will 'click' to confirm attachment to anchor.

6. Position connector mechanisms behind the restraint (Fig. 5A).
7. Pull loose end of UAS strap through back of restraint (Fig. 5 and Fig. 6). Place your non-dominant hand inside restraint at the very back and push down. Pull strap upwards with your dominant hand until tight. (Fig. 6)
8. Try moving the restraint at the UAS belt routing path to ensure that it is installed safely, then repeat step 7.

The vehicle cushions should compress where there is contact with the car seat.



### **CHECK LIST:**

- ☐ Confirm restraint is properly positioned.
- ☐ Confirm UAS belt is tight and that connections to approved UAS anchors are secure.
- ☐ Confirm restraint is stable (see page 25).
- ☐ Confirm Top Tether is properly fastened (see page 30).

**Removal:** Press red release button on back of each UAS connector. Disconnect top tether. Properly store UAS belt and top tether.



# Forward-Facing Lap-Shoulder Belt Installation

for children 10 kg–29.5 kg (22 lbs–65 lbs)

## **WARNING:**

- Remove detachable base when restraint is forward-facing.
- Do NOT place infant in forward-facing restraint until 1 year and 10 kg (22 lbs). Diono recommends keeping children rear-facing until they are at least 2 years old.
- Always use Safe Stop® with forward-facing child under 18 kg (40 lbs). (see page 28).
- Always use top tether as shown in blue. See page 30 for instructions.

Fig. 1 shows a typical forward-facing installation with Lap-Shoulder belt.

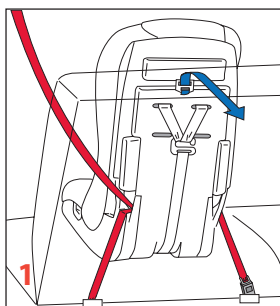
If forward-facing recline is desired, adjust it prior to installation (see page 29).

1. Place restraint in forward-facing position.
2. Route seat belt through forward-facing belt path and behind restraint cover and buckle it. (Figs. 2 & 3)

Confirm seat belt lays flat and is not twisted.

### **Installation Tip:**

Unfasten fabric side panels and reach behind restraint cover for easy access to belt path. (Fig. 4)





3. Push on restraint to force it into vehicle seat while pulling shoulder portion of seat belt to remove slack and tighten lap portion of seat belt. (Fig. 5)

The vehicle cushions should compress where there is contact with the car seat.



### **WARNING:**

- *Make sure vehicle seat belt is properly locked.*
- *Failure to properly lock seat belt will result in an unsafe installation that will greatly increase the potential for injury or death to the child in an accident.*
- *Carefully read vehicle owner's manual to determine seat belt locking requirements or contact vehicle manufacturer.*

See page 39 for instructions on using a locking clip.

### **CHECK LIST:**

- ☐ *Confirm restraint is properly positioned.*
- ☐ *Confirm seat belt is tight and securely locked.*
- ☐ *Confirm seat belt buckle is properly fastened.*
- ☐ *Confirm restraint is stable (see page 25).*
- ☐ *Confirm restraint is installed using top tether (see page 30).*

### **Removal:**

Release seat belt buckle and disconnect top tether. Properly store top tether.



## Forward-Facing Lap-Belt Installation

for children 10 kg–29.5 kg (22 lbs–65 lbs)

### **WARNING:**

- *Do NOT place infant in forward-facing restraint until 1 year and 10 kg (22 lbs). Diono recommends keeping children rear-facing until they are at least 2 years old.*
- *Always use Safe Stop® with forward-facing child under 18 kg (40 lbs) (see page 28).*
- *Remove detachable base when restraint is installed forward-facing.*
- *Always use top tether as shown in blue. See page 30 for instructions.*

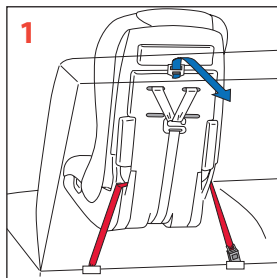
Fig. 1 shows a typical forward-facing installation with a lap vehicle seat belt.

If forward-facing recline is desired, adjust it prior to installation (see page 29).

1. Place restraint in forward-facing position.
2. Route seat belt through forward-facing belt path and behind restraint cover and buckle it. (Figs. 2 & 3)
3. Confirm seat belt lays flat and not twisted

#### **Installation Tip:**

*Unfasten fabric side panels and reach behind restraint cover for easy access to belt path. (Fig. 4)*







4. Push on restraint to force it into vehicle seat while pulling loose end of seat belt to remove slack and tighten lap portion of seat belt. (Fig. 5)

The vehicle cushions should compress where there is contact with the car seat.



#### CHECK LIST:

- ☐ *Confirm restraint is properly positioned.*
- ☐ *Confirm seat belt is tight and properly locked.*
- ☐ *Confirm seat belt buckle is properly fastened.*
- ☐ *Confirm restraint is stable (see page below).*
- ☐ *Confirm restraint is installed using top tether (see page 30).*

**Removal:** Press seat belt buckle and disconnect top tether if in use. Properly store top tether.

## Checking Restraint Stability



#### WARNING:

*An unstable installation is NOT safe and will greatly increase the potential for injury or death to the child in an accident.*

Confirm stability of restraint after installation and before each use:

- Grasp restraint near belt path being used. Attempt to move restraint side-to-side and front to back: restraint should not move more than 2.5 cm (1 inch) in any direction. Restraint should stay securely installed and the securing belt (either UAS belt or vehicle seat belt) must remain tightly adjusted.

If restraint does not stay securely installed, restraint installation is **NOT** safe. You **MUST** re-install restraint according to the restraint instructions and the vehicle owner's manual. In order to achieve proper installation you may need to choose an alternate installation method or seating location within the vehicle.



## Booster

### for children 23–54 kg (50lbs–120lbs)

This restraint may also be configured for use as a belt positioning booster.



#### **WARNING:**

- *Unsecured objects can become flying hazards and can cause serious injury in a accident. While not required, it is recommended to use UAS in vehicles equipped with such anchorages. If UAS anchors are not available use the vehicle seat belt to secure the restraint when unoccupied.*
  - *Do NOT use UAS if installation interferes with vehicle seat belt.*
  - *Do NOT use as a booster with child under 23 kg (50 lbs) and under 101 cm tall (40") and if child's shoulders are below the 4th harness position.*
  - *Do NOT use as a booster unless harness straps and buckle are removed .*
  - *Do NOT use as a booster with only a vehicle lap belt.*
  - *Use as a booster ONLY with lap-shoulder seat belt.*
  - *While crash testing indicates belt positioning booster mode meets all CMVSS213 regulations, all vehicles do not simulate the crash test bench. Therefore, we recommend using this restraint in booster mode ONLY if the seat belt retracts freely and fully on its own. If not, continue using the 5-point harness system which gives your child optimum protection.*
1. Remove buckle (page 37) and both harness straps (page 43)
  2. Place restraint in proper seating location, flat on vehicle seat bottom and touching vehicle seat back.
  3. If available, secure restraint with UAS (page 20) and/or top tether (page 30)
  4. Properly position child in restraint: sitting upright and all the way back in restraint.
  5. Fasten seat belt across child: lap portion of seat belt should rest within both lower belt guides with buckle located on the outside of the restraint (Fig. 1)



6. Place shoulder portion into the upper belt guide so that belt lays properly across child: on collar bone, interior to the shoulder.

Periodically check to ensure your child has not moved out of position and loosened the shoulder belt.

7. Make sure seat belt is not twisted and remove slack from seat belt so it lays flat, smooth and snug across child in all locations.

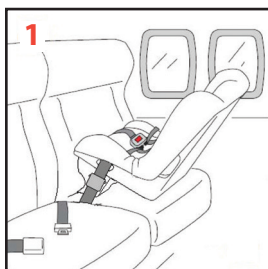
**WARNING:** If lap and shoulder belt portions of seat belt and seat belt buckle are not all correctly positioned, restraint is not properly installed as a booster.

## Proper Buckle Position

Seat belt buckle should be correctly positioned on the outside of the lower belt guide. If seat belt buckle is pulled across lower belt guide and into the restraint, this is incorrect and another seating position within the vehicle should be chosen.



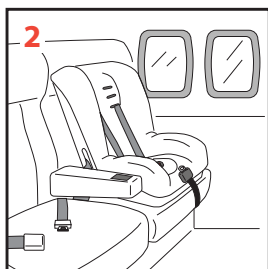
## Aircraft Installation



*This restraint is FAA certified for use in an aircraft only as a harnessed restraint. This restraint is NOT certified for use in an aircraft as a belt-positioning booster.*

### Rear-facing aircraft installation (Fig. 1):

- Adjust seat belt buckle to its shortest length to ensure buckle is accessible for release.
- Ask flight attendant for 'seat belt extender,' and then use this extender to adjust seat belt length.
- Follow remaining installation instructions on page 18.



### Forward-facing aircraft installation (Fig. 2):

- Follow installation instructions on page 24. Top tether is **NOT** used for aircraft.

## Safe Stop®

Safe Stop® is a load-limiting device designed to absorb energy and reduce impact to a smaller, forward-facing child. Store Safe Stop® with top tether on back of restraint.



### WARNING:

- **ALWAYS** use Safe Stop® with forward-facing child under 18 kg (40 lbs).
- Do not use Safe Stop® with any other installation configuration.
- Do not use with rear-facing child.

### Instructions:

1. Remove harness straps from metal yoke of harness adjuster. (Fig. 1)
2. Thread bottom of Safe Stop® onto metal yoke of harness adjuster. (Fig. 2)
3. Thread both harness straps onto metal arm of Safe Stop®. (Fig. 2)



## Forward-Facing Recline Adjustment



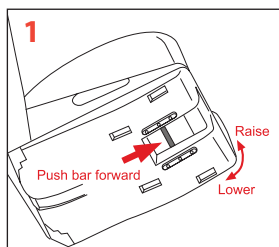
### WARNING:

- *Do not operate adjustable bottom when using detachable base with rear-facing installation.*
- *Only use adjustable bottom to position forward-facing restraint at a more reclined angle.*

Fig. 1 shows operation of adjustable base.

Adjustable bottom must be operated before installation of restraint.

Restraint must be locked in its unfolded position before operating adjustable bottom.



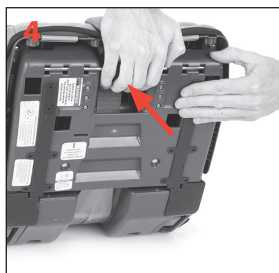
### Lowering adjustable bottom:

1. Pull bar upward. (Fig. 2)
2. Pull adjustable bottom out to its lowered position, then release bar. (Fig. 3)
3. Confirm adjustable bottom is lock in its lowered position.



### Raising adjustable bottom:

1. Pull bar upward. (Fig. 2)
2. Push adjustable bottom back into restraint bottom, then release bar. (Fig. 4)
3. Confirm adjustable bottom is locked in its raised position.



## Top Tether

- If vehicle does not have tether anchorage points, consult vehicle owner's manual or contact vehicle manufacturer with questions. Do NOT modify vehicle without approval from vehicle manufacturer or authorized vehicle dealer.
- Do NOT attach tether connecting strap to any movable mechanism of a vehicle seat.



### **WARNING:**

*In forward-facing installations, attach top tether to approved vehicle tether anchorage points **ONLY**, as labeled by vehicle manufacturer.*

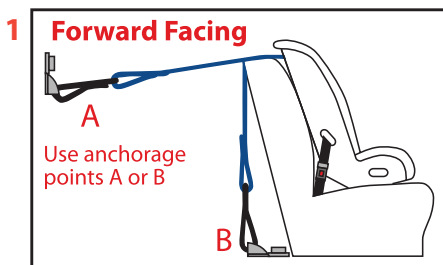
### **Using Top Tether:**

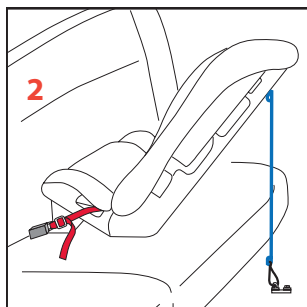
1. Before installing restraint, remove top tether from storage compartment and fully extend tether strap
2. Loosely attach top tether to approved anchorage point in vehicle using the hook at end of top tether strap.

See Fig. 1 for forward-facing installations.

See Fig. 2 for rear-facing installations.

**Note:** Rear-facing installation may also require the use of tether connecting strap (see page 31).





3. Install restraint as shown in appropriate installation sections (see pages 14 to 24 for restraint installation instructions).
4. After installing restraint, pull top tether adjuster strap to remove all slack.

## Tether Connecting Strap

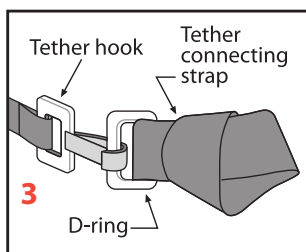


### WARNING:

*Tether connecting strap is ONLY to be used in rear facing installations.*

With some vehicle models, the top tether may not fit structural parts of vehicle seat or there may not be a suitable anchorage point for top tether hook. It may be necessary to use the tether connecting strap to create a tether anchorage point:

1. Locate attachment point where a vehicle seat belt is anchored directly to frame of vehicle, OR find the leg of a vehicle seat that is bolted to vehicle frame.
2. Wrap tether connecting strap around vehicle leg or seat belt anchorage point, and thread metal 'D' ring through the loop at end of tether connecting strap. Pull strap to form a tight knot. (Fig. 3)
3. Now, use metal 'D' ring as an anchorage point for top tether metal hook (see page 30 for top tether anchor instructions).



## Infant Support Cushion

### Infant Support:

This restraint features a full infant head and body support. (Fig. 1) Fasten Velcro tabs through harness slots to keep infant head pillow in place. (Fig. 2)



### Toddler Body Support:

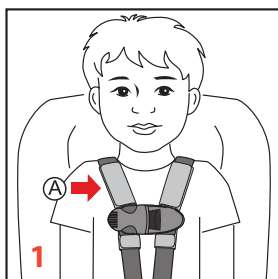
Remove infant head pillow and place body support cushion in restraint for toddlers. Body support lays in seat and does not fasten.



## Using Harness Clip

### **IMPORTANT:**

Position harness clip at proper height for child: level with child's armpits. (Fig. 1)  
For forward-facing children, **ALWAYS** utilize harness pads and attach them as shown. (Fig. 1A)

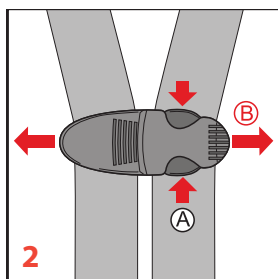


### **To Fasten:**

Push both halves together until a 'click' confirms proper engagement.

### **To Unfasten:**

Squeeze middle tabs together (Fig. 2-A) and separate clip. (Fig. 2-B)



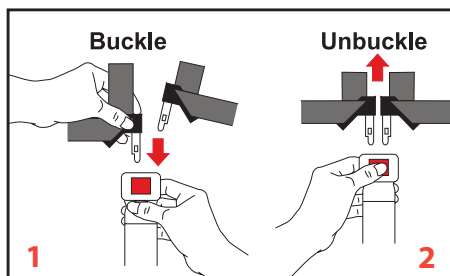
## Restraint Harness Buckle

### **To Fasten:**

Insert one buckle tongue at a time into buckle. A 'click' confirms proper connection after each tongue is inserted. (Fig. 1)

### **To Unfasten:**

Press the red button on the face of buckle and both buckle tongues will eject. (Fig. 2)



## Properly Securing Child

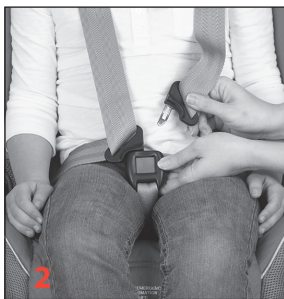


### WARNING:

*Serious injury or death can result if child is not properly secured in restraint.*

Confirm harness is snug\* before each use and after making any restraint adjustments.

1. Confirm proper restraint installation.
2. To loosen harness: lift harness adjuster and pull shoulder straps forward. (Fig. 1)
3. Unfasten harness clip and harness buckle, and move harness straps to the sides.
4. Place child in restraint with their back flat against the child restraint.



5. Position harness straps around child and fasten buckle. (Fig. 2)

Confirm harness buckle is properly fastened by gently tugging on it.

6. Gently pull harness straps upward to snugly fit lap portion of harness which should fit low on child's body, across the hips.
7. Slowly pull adjuster strap downward (forward-facing) or upward (rear-facing) using a pull-tug pull-tug motion to tighten harness for a comfortable and snug fit around child. (Fig. 3)

*\*A snug harness strap should not allow any slack. It lies in a relatively straight line without sagging. It does not press on the child's flesh or push the child's body into an unnatural position.*

## IMPORTANT:

*Give a firm, upward tug on both harness straps behind the child's shoulders and close to the harness slots in the restraint, to confirm there is no harness slack behind the restraint.*

8. Confirm harness is not twisted and lays flat against child.
9. Fasten harness clip and position it so that it is level with child's armpits. (Fig. 4)
10. Confirm harness height is correct (see below for correct *Harness Height*).
11. Confirm harness buckle location is correct (see page 37 for correct center buckle position).



## Proper Harness Height & Child Height

### **WARNING:**

*ONLY use top three shoulder harness positions for forward-facing child. When using the top harness position, child's shoulders can be above harness slot as long as child is proper height.*

1. Secure the child into the child restraint (see page 34 for properly securing the child in the child restraint).
2. Confirm correct harness height:
  - **Rear-facing** (Fig. 1): Straps should be in nearest slot at or below the level of child's shoulders.
  - **Forward-facing** (Fig. 2): Straps should be in nearest slot above the level of child's shoulders.
3. If harness height is not correct, you **MUST** adjust it before using restraint with that child. (See page 36 for adjusting harness height.)



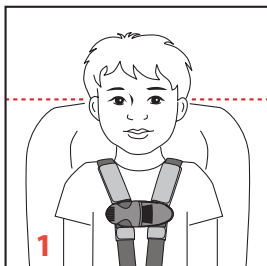
## Proper Harness Height & Child Height

(continued)

### Maximum Height:

Rear-facing child is too tall for restraint if top of head is less than 3.8 cm (1.5") from top of restraint or if child is more than 112 cm tall (44").

Forward-facing child is too tall for restraint if tops of the ears are above the back of the restraint or if child is more than 144 cm tall (57").



### Adjusting Harness Height

1. Loosen harness: lift harness adjuster and pull shoulder straps forward. (Fig. 2)
2. From back of restraint, remove shoulder straps from metal harness yoke. (Fig. 3)
3. From front of restraint, pull shoulder straps out and re-thread them through the correct height harness slots. (Fig. 4)
4. From the back of seat, re-attach shoulder straps to metal harness yoke. (Fig. 3)



### IMPORTANT:

***Make sure loop ends of BOTH straps are threaded completely onto the arm of the metal harness yoke.***

5. Confirm harness straps are not twisted and both shoulder straps are threaded through restraint at the same height.
6. Pull harness adjuster strap to retighten harness.



## Harness Buckle Location

Confirm location of harness buckle is correct, to insure proper harness fit:

1. Properly secure child in restraint (*see page 34*).
2. Check for correct position of harness buckle.

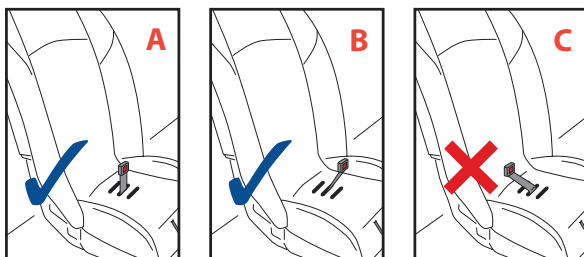
### ***For children 2.3-13.5 kg (5-30 lbs):***

Harness buckle can be directly above its buckle slot (Fig. A) or forward of its buckle slot. (Fig. B)

If harness buckle strap angles sharply back towards child (Fig. C), move buckle to a rear buckle location. (*See below.*)

### ***For children over 13.5 kg (30 lbs):***

Always use forward-most buckle location.



## Harness Buckle Removal and Installation

### **Installing harness buckle:**

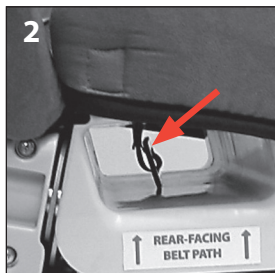
1. Locate correct harness buckle slot.
2. Hold buckle strap metal retainer vertically and then rotate it slightly to slide it completely through slot in restraint bottom. (Fig. 1)
3. Firmly pull buckle upward to confirm it is secured by restraint bottom.
4. Confirm buckle release button faces toward front of restraint and buckle strap is not twisted.



## Harness Buckle Removal and Installation *(continued)*

### Removing harness buckle:

1. Make sure restraint is securely locked in its unfolded position. (See page 10, *unfolding restraint*.)
2. Unbuckle harness.
3. Push harness buckle strap down 2 inches into rear-facing belt path tunnel.
4. Position metal buckle strap retainer so that it is vertical. (Fig. 2)
5. Guide buckle strap and metal retainer upward and rotate it slightly to fit through slot in the restraint bottom. (See Fig. 1 on page 37.)



### **IMPORTANT:**

*For larger hands or if buckle is in position closest to child, partially fold the restraint to access the metal retainer through bottom of restraint. (Fig. 3)*



## Locking a Vehicle Lap-Shoulder Belt with a Locking Clip

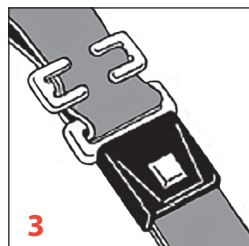
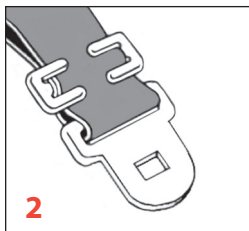
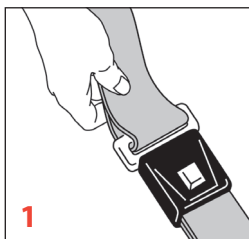
Proper use of a locking clip maintains a tight, secure installation by preventing the seat belt from becoming loose over time.

### **WARNING:**

- *Failure to properly lock the seat belt will result in an unsafe installation that will greatly increase the potential for injury or death to the child in an accident.*
- *If your vehicle lap shoulder seat belt is equipped with ELR (Emergency Locking Retractor) that does not switch to function as ALR (Automatic Locking Retractor), you **MUST** use a locking clip to secure lap portion of vehicle seat belt.*

If you have any questions about the specific type of seat belt system in your vehicle and its operation, consult vehicle owner's manual or contact vehicle manufacturer.

1. Remove locking clip from storage location on restraint back.
2. Begin restraint installation as per instructions (*see pages 16 and 22 for lap-shoulder belt installation instructions*).
3. After seat belt is tightened, hold the lap and shoulder portions together with one hand. (Fig. 1) This determines the correct seat belt length to 'lock'.  
Using your other hand, release the seat belt buckle.
4. While still holding the lap and shoulder belts together, attach locking clip to the lap and shoulder belts. (Fig. 2)
5. Re-insert seat belt buckle tongue into buckle. (Fig. 3)
6. If seat belt is not tight enough, retighten seat belt and repeat steps 3 through 5.
7. Once seat belt is tight and locked, complete remaining instructions.



**Note:** To prevent loss, secure locking clip in its storage location after use.

## Restraint Cover



### **WARNING:**

*Never remove buckle tongs or chest clip when removing and replacing restraint cover. This is dangerous and NOT necessary for removing or replacing the restraint cover.*

### **Removing restraint cover:**

1. Unthread harness shoulder straps from back of restraint (see page 36, adjusting harness height).
2. Remove fasteners securing cover to inside of restraint bottom. (Fig. 1-A)
3. Unhook fasteners securing cover to front of restraint. (Fig. 1-B)
4. Carefully remove upper portion of cover from restraint taking care not to damage the white EPS foam panels, and then remove cover from bottom portion of the restraint.



### **Replacing restraint cover:**

To replace the cover, follow cover removal instructions in reverse order. Make sure harness shoulder straps are threaded through correct slots and that harness straps are not twisted. (See page 36, for changing harness height.)



## Expandable Sides

Sides may be rotated either inward (Fig. 1A) or outward (Fig. 1B) during use.

*Note: Before folding restraint, both sides must be adjusted to their inward position (Fig. 1A)*

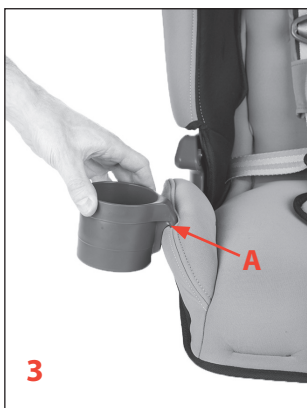


## Cup Holder

Cup holders can be purchased as added accessories and attached to either expandable side. (Fig. 2)

Each side has a slot for one cup holder. (Fig. 3A)

Adjust side to its outward position (Fig. 1B), insert cup holder stem into receiving slot in top of side (Fig. 2) and push down until it is securely engaged. (Fig. 3)



## SuperLATCH™ UAS

SuperLATCH™ is a high-capacity child restraint installation system.

### Using SuperLATCH™ Connector:

1. Press red button to set connector to 'open' position for use. (Fig. 2)
2. Attach connector to vehicle anchor (audible 'click' confirms attachment, see pages 14 and 20 for complete instructions).

**Removal:** Press red button to release connector from vehicle anchor. (Fig. 1)



## Replacing Harness Straps

1. Remove harness clip and buckle tongs from harness straps.
2. Take out screws and remove access panels. (Fig. 1)
3. Remove old harness straps from seat.
4. Insert new harness strap through slot in metal frame (Fig. 2), pull strap until metal end is inside the cavity. (Fig. 3)
5. Fasten access panels in place with screws. (Fig.1)
6. Slide buckle tongs and harness clip into harness straps.



## Cleaning and Maintenance

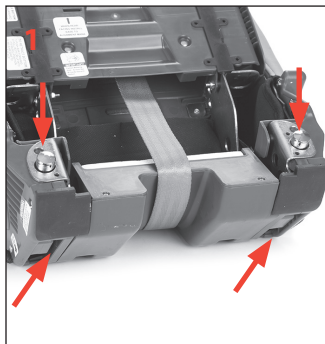
### Cleaning / Maintenance of release mechanism and locking bolts:

Periodically inspect release levers and locking bolts for cleanliness and proper functioning: When release levers are lifted, release levers and locking bolts should spring back immediately and completely.



#### **WARNING:**

- *Do NOT use restraint if release levers and locking bolts do not function properly. There may be excessive build-up of debris that cannot be removed or internal damage to the locking mechanisms that could prevent safe functioning.*
- *Do NOT oil or lubricate any part of the restraint.*
- *Do NOT use restraint if there is any appearance of rust on any metal surface.*



Remove debris from release mechanism areas (Fig. 1) with soft bristled brush.

### Removing dried liquids or food requires more thorough cleaning:

1. Secure restraint in its folded position (*see page 11, folding restraint*).
  2. Clean with damp cloth only: wet cloth with warm water and wring thoroughly so it is NOT dripping water.
  3. Towel dry.
  4. Confirm areas are free of debris and release mechanisms function properly.
- *Use ONLY water.*
  - *Do NOT use solvents, soap, abrasive cleaners or any detergents.*



## Cleaning the plastic shell:

- Clean with damp cloth only: wet cloth with warm water and mild soap and wring thoroughly so it is NOT dripping water.
- Towel dry.
- Do **NOT** use solvents or abrasive cleaners.

## Washing the cover:

- Hand wash or machine wash only in front loading machine.
- Line dry or tumble dry on low temperature setting .
- Do **NOT** bleach.

*(See page 40 for cover removal and replacement.)*

## Cleaning harness straps:

- Clean only with warm water and mild soap, wring to remove excess water.
- Towel dry.
- Do **NOT** use solvents or abrasive cleaners.

## Cleaning harness buckle:

If child eats or drinks in restraint, periodically clean harness buckle to insure proper functioning.

1. Remove center buckle from restraint. *(see page 37)*
  2. Rinse thoroughly in mildly hot water or soak overnight to loosen dried liquid or hardened food debris.
  3. Towel dry.
  4. Confirm proper buckle functioning: repeatedly fasten and un-fasten buckle with both tongues. If no 'click' is heard confirming proper engagement after inserting each buckle tongue, repeat cleaning procedure.
- Use **ONLY** water to clean buckle.
  - Do **NOT** use any solvents, soap, abrasive cleaners or detergents.
  - Do **NOT** lubricate.





## Cleaning and Maintenance *(continued)*

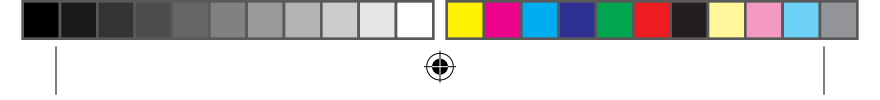
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### Cleaning harness adjuster:

Periodically inspect harness adjuster for cleanliness and proper functioning: When lifted, harness adjuster should spring back immediately.

- Use a soft bristle brush to remove loose debris or clean more thoroughly if necessary.
- Clean with damp cloth only: wet cloth with warm water and wring cloth thoroughly so it is NOT dripping water.
- Towel dry.
- Do **NOT** use solvents or abrasive cleaners.
- Do **NOT** attempt to disassemble the harness or unthread adjuster mechanism.





## Warranty Information

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The manufacturer of this child restraint, warrants this product only to the original retail purchaser.

Visit **ca.diono.com** for complete warranty information and details.





# radian® r120

convertible + booster

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*product:* **radian r120**  
convertible + booster

*model series:* 16000  
*mfg. by:* Diono Canada, ULC  
50 Northland Road, Suite 400  
Waterloo, Ontario N2V 1N3 Canada

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