

R3 Installation Instructions



Helmet D-Ring Attachment

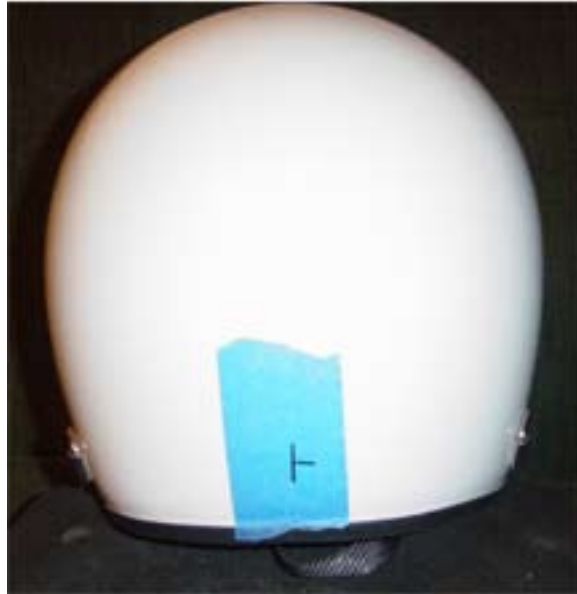
The R3 Head and Neck Restraint comes with all of the parts to attach the D-rings to the helmet.

Supplied are

- (2) 10-32 3/8" screws
- (2) 10-32 _" screws
- (2) Nut-Washers
- (2) Back-up washers and
- (2) D-rings.

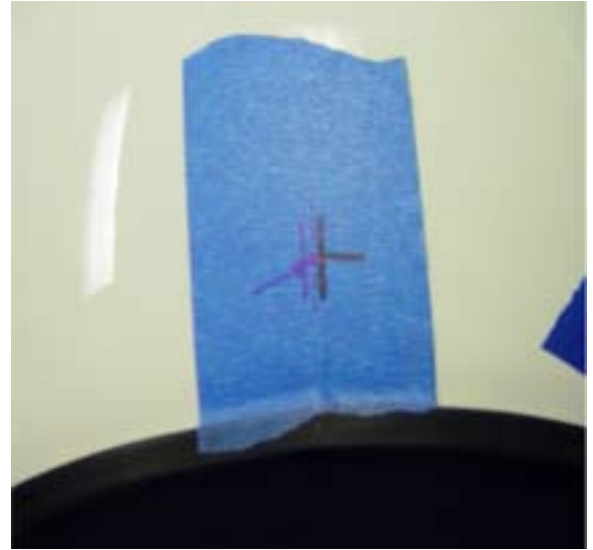
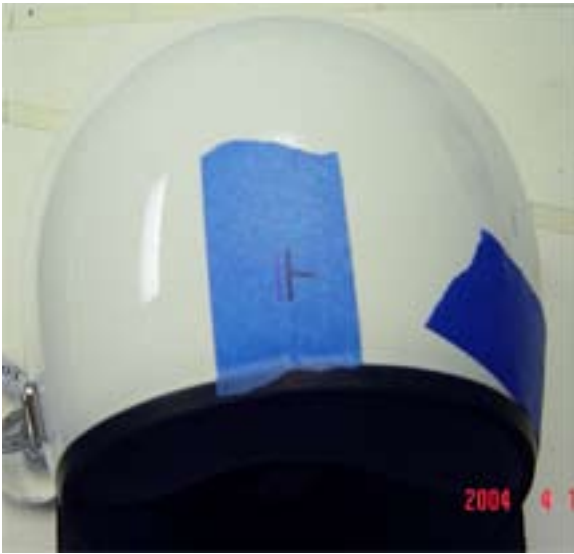
**To locate the D-rings:
Find the center of the helmet by:**

- 1) Place a piece of masking tape at the center of the rear of the helmet, (estimate)
- 2) Mark the center of the tape 1.5" above the bottom of the helmet.



- 3) Measure from the helmet visor screw to the marked centerline on the right side of the helmet.
- 3a) Mark the left side of the helmet by using the measurement found in step 3 for the right side. Measure from the left side visor pivot point to the mark in the rear of the helmet. At the same distance as on the right side, mark on the tape on the rear of the helmet vertically, 1.5" above the bottom ridge of the helmet.

- 4) You should have two marks on the tape on the back of the helmet.
Measure the distance between the two marks.
The center of the two measurements is the center of the helmet.



- 5) Measure from the new centerline around the helmet 5.5".
Mark this spot 1.5" above the bottom of the helmet.
Repeat the procedure on the opposite side of the helmet.



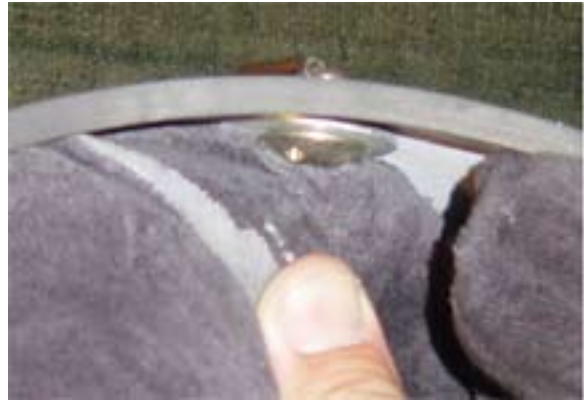
- 6) Drill the helmet using a 3/16" drill at the point marked in step 5.



7) Clean the hole in the helmet as much as possible.

Put a medium strength thread locker on the Nut-washer and place it on the inside of the helmet over the hole.

Tread the screw from the outside of the helmet through the D-ring and into the helmet and Nut-Washer.



8) Tighten the helmet D-ring screw snugly.

Over tightening is not necessary and could damage the helmet shell.



Fitting the R3 Restraint in the car.

The R3 is placed in back of the occupant between the seat and the wearer's back and shoulders. Because of this, it is recommended to contour the back of the seat with the foam seat inserts provided. This will help the restraint become a part of the seat from a comfort standpoint. If the foam is not used, the wearer may feel like they are able to "rock" from side to side in the seat with the restraint in.



Cut FOAM for the inside of the SEAT



Cut the foam provided in the shape of the bottom of the restraint $+1/2''$ on each side of the restraint.

This will provide room for the restraint to nest in.

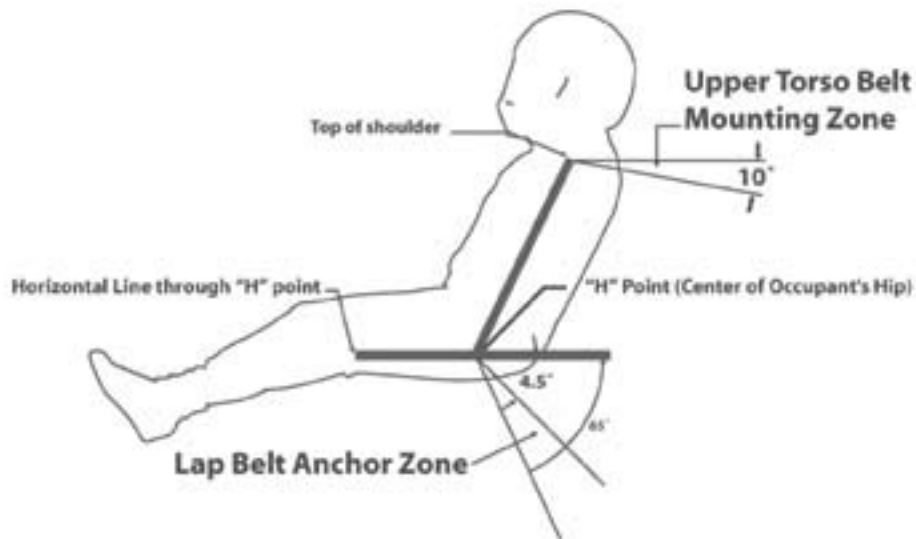


The wings of the restraint should extend under the shoulder belts between the seat back and the occupant.

The shoulder belts of the car should be mounted with the shoulder belts mounted at 0 to 10 degrees down from the top of the shoulder.

(If the shoulder belts are mounted lower than this, the occupant will be pulled forward when the shoulder belts are tightened.)

Restraint System Mounting Zones (Side View)



The shoulder belts should be mounted as close to the occupant as possible, separated by 2-3 inches at the mount.

The correct restraint model, (I.E. 10 degree, 15 degree.....) is chosen by the seat angle and contour. The restraint should “fit” the contour of the seat and head rest / head restraint. The wearer can quickly determine if the restraint will fit into the car’s seat by holding it against the back of the seat lined up with the shoulder belts.

If the restraint contacts the headrest at the top and bottom only, a different model may be chosen or the headrest can be set back to allow room for the restraint.

If the restraint is angled too far forward, it may contact the back of the helmet and push the head forward. A different model is then recommended with the top at a more rearward angle.



Fitting the Restraint to the Wearer

The R3 Head and Neck Restraint has adjustable chest and shoulder straps to fit a variety of wearers.

To adjust the chest strap:

Loosen the chest strap in the buckle and slide the buckle to fit the occupant's chest size. The harness should fit snug to tight in the chest area, This is the bottom anchor for the restraint.

Adjust the shoulder straps to locate the chest strap below the chest pectoral muscles.

The R3 Restraint should be adjusted to stay properly adjusted on the occupant with the chest strap buckled.





To Insure that the chest strap is locked, make sure to keep the webbing laced through the buckle with the loose end to the inside of the chest strap.



Helmet Tether Adjustment / In Car Adjustment:

The Helmet Tethers need to be adjusted with the wearer seated and buckled into the vehicle.

Loosen the helmet tether strap screws on the backside of the restraint before entering car.

Restraint Tethers



Get into car and buckle into the seat.

Note: Getting in and out of the car with your back perpendicular with the roof bars will aid in quicker exits from the race car while wearing the R3 Head and Neck Restraint.)

Once seated in the car, position the restraint comfortably under the shoulder harnesses and between the foam pads inserted in the seat.

With the helmet strapped securely, pull the yellow Quick Release tethers to open the Quick release on the restraint.

Attach the quick release to the Helmet Hook on the helmet making sure to have the tether ring pointing down.

(The Quick release will release better if the bail is hooked to the helmet D-ring from the “outside in”.)

With help, Adjust the Helmet Tether to allow a Maximum of 0.75” of straight forward movement before restraint is felt. (Early restraint has been seen to reduce the overall neck tension in an impact with an R3 Head and Neck Restraint.) This should allow 35 – 40 degrees of side to side movement.

Diagram of Helmet Adjustment



Quick Release Tether Placement



The quick release tethers should be Velcro'd to the chin bar of the helmet.

NEVER attach the tethers to the seat belts or the car.

