Recommendations:
It is essential that all bolt connections be checked after driving a short distance when you first install your crossbars. Bolt connections should be checked again at regular intervals (probably once a week is enough, depending on road conditions, usage, loads and distances travelled). You should also check the crossbars each time they are re-fitted.
Make sure to fasten your load securely. Please ensure that all loads are evenly distributed over the crossbars and that the centre of gravity is kept as low as possible.
Use only non-stretch fastening ropes or straps.
Caution:
The handling characteristics of the vehicle change when you transport a load on the roof. For safety reasons, we recommend exercising extreme care when transporting large wind-resisting loads; special consideration must be taken into account when negotiating corners and under braking.
Please remove crossbars when putting vehicle through an automatic car wash.
Load Ratings:
Maximum permissible load is 100kg evenly distributed over two crossbars and 125kg evenly distributed over three crossbars. When crossbars are to be used in off-road conditions, please build a safety factor of 1.5 into this load limit, two crossbars 67kg and three crossbars 84kg. Although the crossbars are tested and approved to AS1235-2000, off-road conditions can be much more rigorous. However, increasing the number of crossbars does not increase the vehicles maximum permissible roof loading.
Note for Dealers and Fitters:
It is your responsibility to ensure instructions are given to the end user or client.

Maximum carrying capacity: 100kg two crossbars. 125kg three crossbars.
Completely remove roof channel trim.
Start by lifting the front edge of rubber trim. Carefully twist rubber trim in an outward direction to unhook the plastic clips. Retain the front three clips on each side to secure the cut trim back in place after installation of the track.

Lift front of the trim from outside edge of roof. Twist outwards to unhook as shown in the diagrams.

The roof channel must be totally clean of any dirt, so be sure to wash thoroughly and completely dry off before track installation.
2 Track and end cap orientation.

- Place the track in the roof channel. Line up track and end of roof channel at the rear.
- Open side doors. Depress the rubber seal and fit outside edge of the track underneath.
- Unless you have assistance from another person, masking tape can be used to hold the track firmly in position while spot drilling the holes.

3 Remove backing strip.
Remove the white backing strip from the foam tape on the underside of the track.

4 Track location.
Locate the track extrusion into the roof channel and up against the rib running through.

5 Track positioning.
- Place the track in the roof channel. Line up track and end of roof channel at the rear.
- Open side doors. Depress the rubber seal and fit outside edge of the track underneath.
- Unless you have assistance from another person, masking tape can be used to hold the track firmly in position while spot drilling the holes.
9

Pin punch 2 holes.
Two spots on the second skin of the roof have to be hit and dented for clearance on the rivet. Use a Pin punch of Ø4-5 mm.

As shown in the diagram at left, carefully hit holes 2 & 7 from the front on each side.

Gap of 0-3 mm between top roof skin and rivet head.

8

Vacuum swarf.
Use a vacuum cleaner to remove swarf from the roof. This will minimise swarf entering the hole and avoid scratching. Wipe the channel clean with a damp cloth.

7

Drill through roof.
Remove the track. Use of a drill stop is recommended to avoid drilling into hood lining. When drilling hold the drill perpendicular to the surface being drilled. Drill through the roof skin using a 5 mm bit.

6

Spot drill roof.
With the track in place, use a 5 mm drill bit to spot drill all 8 holes starting at the rear. Check each hole to make sure the track isn’t moving at all.

Maintain 90° to the surface being drilled.

NOTE: Holes 1, 4 & 5 from the front on each side must be drilled through a second roof skin.

Knock down second skin of holes 2 & 7.
10a Apply sealer.
STEP 1. Apply a liberal amount of cold galvanizing solution to the inside and surrounds of all holes. Allow cold galvanizing solution to touch dry, ten minutes or so, STEP 2. Apply a liberal amount of Selley’s Butyl Mastic sealer in each hole.

10b 1: Remove the backing tape from the Butyl Patches. 2: Place over holes drilled. Once in place remove the rest of the protective tape from the top of the patches.

11 Fasten track with end caps.
Locate the end caps, refer Step 2 for Left and Right end caps. The tongue of the end cap sits inside on top of the bottom surface of the track and is riveted together. Place track over holes, align track by inserting all rivets. Start riveting from the rear to front as shown below.

12 Cut and re-fit roof trim.
Lay the roof trim over the roof channel with the front against existing trim. Measure this distance and mark a line using a pencil. Use a hacksaw to cut through trim. Re-fit the cut roof trim.
13 **Attach legs.**
Remove brass hex nuts from the leg. Place hex nuts into any of the round cut outs of the track and slide to position. Make sure the legs are parallel across the vehicle and hex nuts are clear of all holes after positioning.

**NOTE:**
Leg height spacers not needed for two bar system.

14 **Leg positioning 2 crossbars.**
Use the measurements below to position the legs before fitting crossbars. Maximum load is 100kg evenly distributed over the two crossbars. DO NOT TIGHTEN LEG BOLTS at this stage.

![Distance measurements](image)

680mm 950mm

Take measurements from rear of track.

Front Rear

15 **Leg height spacers, 3 bar system only.**
Front crossbar uses one leg height spacer. Middle crossbar no spacer. Rear crossbar, two spacers.
16 Leg positioning, 3 crossbars.
Use the measurements below to position the legs before fitting crossbars. Maximum load 125kg evenly distributed over the three crossbars. DO NOT TIGHTEN LEG BOLTS at this stage.
NOTE: The positioning is important as it maintains a level height over the 3 crossbars.

17 Attach crossbar.
Place crossbar onto leg. Locate M10 channel nut. Finger tighten at this stage.

18 Tension crossbar and legs.
Locate RLTF legs parallel across the vehicle. Fasten M6 security screws into the brass hex nuts.
19 Check overhang.
Measure to get equal crossbar overhang. Tighten M6 x 35mm leg screw to **3-4 Nm**. Tighten M10 cross bar bolts to **15-17 Nm**.

**EQUAL OVERHANG DISTANCE**

![Tighten M6 screws on all Legs.]

20 Fit rubber buffer and end caps.
Insert rubber into top of the crossbar. Insert end caps into end of each crossbar. A rubber mallet may be required to fit the end caps.

![Channel nut must be fully located across the bar as shown.]

RTS518 - Rhino Heavy Duty Crossbar System