



Custom Toyota Truck Tube Works

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95-04 Tacoma Roll Cage Install Guide

Congratulations on purchasing your new 4x Innovations Internal Roll Cage. Included in this manual are package contents, surface coating recommendations, and installation procedures. This document consists of a guide and is not an absolute instruction manual. Professional installation and attention to details is required.

Caution:

1. Installation must be performed by qualified professional metal worker, and welder.
2. Always wear proper Personal Protective Equipment, including but not limited to Closed Toed or Safety Shoes, Safety Glasses, Hearing Protection, Face Shield, Gloves, Weld Coverings, and a Welding Hood.
3. Always have a fire extinguisher in reach while working in and around your vehicle. Interior panels are made from vinyl and other plastics which burn VERY easily; under carriages can be covered in oil and road grime which also burns easily.
4. Working around vehicles is inherently dangerous. You and the installer are responsible for your actions. Take general care while working on a vehicle.

Coatings: Note: For optimum coating performance follow coating manufacturer's instructions.

A. On the quick and easy: Simple spray paint.

This method is an economical method to coat your new cage. Any top quality spray paint rated for metals can be used. In our shop we use Rustoleum Professional Metal paint.

B. POR-15 or similar moisture cured polymers:

These professional coatings are highly durable and can be touched up if scratched. Most are formed as multi part primer, color, and top coats that are abrasion, and heat resistant. They are available online, usually directly from the manufacture.

Preparing Tacoma:

1. Removing the seats from the truck is not required but makes working around the cab much easier. It also ensures the seats will not get burned.
2. Pull back carpet from cab walls to allow mounting plates to sit directly on the floor metal.
3. Protect the glass and interior parts/panels by covering with non flammable material. Be sure to seal the edges with tape to keep sparks out. Hot sparks can crack glass panels.



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Installing the Cage:

Install Notes:

- Cover all flammable materials and glass surfaces with non flammable material.
1. Begin by matching up the A pillar upper and lower mounting plates. The 4 x 9 top plate sits inside cab with the hole that is at one end of the plate centered across the short dimension right over top of the body mount bolt. A new body mount bolt and shims are supplied if you wish to replace the bolt and be able to remove the cab at a later date. To replace the body mount bolt remove the stock body mount bolt, place a washer over the bolt hole, place the 1-3/8" tall 3/4" diameter spacer sleeve on top of this washer. Place the mounting plate over top of this sleeve and make sure the new 3/8 x 4" body mount bolt passes through the sleeve and washer.
 2. The 4x4 lower plate lines up with the 4 mounting holes toward the back of the cab.
 3. Mound the A pillar plates using 3/8x1.5 through 6 holes.
 4. The B pillar uses a 4x6 plate mounted with the 6 inch width going right to left and located as shown in Figure 2.
 5. Another 4x6 plate is used under the cab.
 6. Mount the B pillar plates using 4x 1.5x3/8 bolts each.
 7. The C pillar plates are 4x4 plats for inside the cab and under the cab. They are located on top of the wheel wells by the location of the C pillar tubes.
 8. The driver side C pillar plate is the large 7x8" Plate inside the cab. It is located by the body mount bolt like the A pillar plates. Use the 7/8" x 3/4" sleeve is used if replacing the body mount bolts.
 9. Mount the C pillar plate using 4 1.5" x 3/8" bolts.



Figure 1 Driver Side A Pillar Mounting Plate



Figure 2 Driver Side B Pillar Mounting Plate



Figure 3 Driver C Pillar Mounting Plate



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10. The passenger side C pillar plate is the remaining 4x9 plate. It will mount similar to the A pillar plates. The 4x4 lower plate towards the front of the truck.

Cage Assembly

11. Begin assembling the B and C pillar halves together by drilling two 3/8 inch through holes, at a 90 degree offset, in each half of the B and C pillar, and lightly bevel the edges of the joint.
12. Insert one end (half) of the supplied 1.5" DOM inner sleeve in the B and C pillars. Weld the sleeve via the plug welds. Do NOT weld the sleeve to the end of the tube.
13. Slide the two halves together. Lay the assembly on a flat surface and tac weld the B and C pillar assemblies together.
14. Set the C Pillar in place in at the back of the cab. To ensure the pillar is spread correctly. Adjust the pillar so there is clearance between the wall and the closest part of the pillar.
15. Tac the X brace together to the C pillar. The long tube goes from driver's side top corner to the lower side of the passenger side. The longer tube goes in the driver lower side, the shorter tube goes on the passenger side top.
16. Set the B pillar in place in the cab, behind the front seat area, to ensure the pillar is spread correctly. Adjust the pillar so there is clearance between the wall and the closest part of the pillar.
17. Remove the B and C pillars and fully weld the split joint.
18. You will need to trim the bottom of the pillars to sit flat on the mounting plates.
19. Place the C pillar back into position.
20. Place the B pillar back into position.
21. The B and C pillars attach to each other with the 5 short, straight connection tubes.
22. Place the A pillars in the cab in their approximate positions.
23. Place the front Cross Bar in place using a ratchet strap across the A pillars to help hold the cross bar in place.
24. Insert the front center bar will locate the front cross bar front to back.



Figure 4 B and C pillar detail



Figure 5 B and C pillar detail



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25. Plumb and align the A and B pillars
26. Lightly tac the A pillars to the B pillar.
27. Align the front cross bar making it parallel with the B pillar.
28. Tac the cross bar, and center bar in place.
29. The 8" gusset tubes go between the front cross bar and the A pillar along the roof line.
30. Locate the grab handles as desired.
31. Finish welding the cage kit.

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Figure 6 Front of cage detail