

Relentless Off-Road Fabrication 1996-2004 Tacoma wrap around rear bumpers DIY guide

1st part: Assembly:

First off, it is recommended that before assembly you should disconnect the ground cable of your vehicle's battery. After that you'll want to remove your stock bumper, beginning with the associated components such as license lights, trailer wiring plug and license plate. Next install the mounting plates onto the frame, which may or may not have the center main section of the bumper attached- if it is not, set it over the installed mounting plates and tack weld it into place.

Next, assemble the sides of the bumper with the parts in the orientation shown in the pictures and aligned with your vehicles fenders. We recommend starting with the largest lower triangle pieces and wrapping around the side and up to the edge of the main plate, then tacking the bent L bumper top corner to the top plate next to the tail gate followed by the edge strip and finally the top caps. *Be sure to leave adequate clearance between the L riser plate and the tailgate otherwise damage to the tailgate may occur when you lower it.*

2nd part: welding/sanding

Now, remove the bumper (we recommend having 2 or 3 people assisting with the process) and position the lower center piece between the mounting plates and aligned with the license plate recess and lower plates of the bumper. Now, using the supplied 1 3/4" round tube, cut and fit up brace tubes between the 2 holes on the side of the mounting plates and the bent up tab on the bottom plates of the bumper sides. These tubes will allow for additional strength and bracing on side impacts when off-road.

Once this is all in place, begin to stitch weld the exterior seams in sections. Be sure to skip around to distribute heat, and take a break for cooling after welding 1/3-1/2 of the exterior to prevent warping of the bumper from excess heat. It is not a bad idea to take reference width measurements prior to welding to be sure the bumper is not warping and pulling as it is best to catch and remedy this before welding further. A piece of tube or angle iron tacked across the width of the bumper is helpful in preventing warping and pulling during welding if you have a piece of scrap to sacrifice.

After allowing the bumper to cool off, finish welding the exterior seams while being mindful that it doesn't get too hot. Allow the bumper to cool once again and then sand down and blend the welds with a 40G or 60G flap disc on an angle grinder. Finally, stitch weld the interior of the bumper. Only 25-50% of the seam lengths need to be welded. Just do several stitches on each seam with spaces in between. Weld all corners for strength and weld the majority of the seams in the center of the bumper between the mounting plates. Typically we do 2-3" stitch welds, and 1-2" stitches in the tighter spots/short seams.

3rd part: Accessory installation

After welding and sanding, align back-up light recess tubes or LED recess plates (if applicable) and stitch weld them on the interior of the bumper plates.

Next, install the recovery points into the slots with approx 2 1/2" sticking out from the bumper face. Ensure the recovery points are square to the bumper vertically, but parallel to the mounting plates and then weld around the recovery points on the inside of the bumper, then weld the exterior. It is important that your welder is powerful enough to penetrate adequately on the thick material, doing them inside then out ensures a preheat of the material and will lead to cleaner and stronger welds on the exterior. Serious injury or death can occur if a recovery point pulls free from the bumper during a pull- strong welds with full penetration are mandatory!

At this point, if you optioned the bumper with receiver hitch it can be installed. The HD and Hidden hitch options include a cross tube that spans between the mounting plates of the bumper, and just within the back bent lip of the bumper bottom plate. If applicable, install and stitch weld along the tube to the bent lip, then fully weld the receiver tube to the bumper and capture/boxing plates.

Remember that we do not rate the hitch for towing, it is intended as an accessory receiver. Complete Liability is shifted from Relentless Off-Road Fabrication to the party who builds and completes the DIY bumper parts kit, and any damages or injury due to failure of hitch or other DIY bumper component is placed onto the DIY assembler/fabricator. Full disclaimer is available on our website.

Lastly, clean, prime and paint bumper- Or drop off at a local bed coating or powder coating shop for a professional finish.
Install and enjoy your new bumper!

1996-2004 Tacoma wrap around DIY parts orientation:

