RELENTLESS FAB 2016+ TACOMA

FULL FRONT BUMPER

INSTALLATION GUIDE

THANK YOU FOR YOUR PURCHASE!

Note: we recommend professional installation on all of our products. Please fully read install guide prior to attempting installation to ensure you have a complete understanding and all required tools and procedures. Be aware that the bumper is heavy (about 140lbs *without* a winch)! You will need 2-3 people to lift the bumper into position to secure it to the vehicle. We assume no responsibility for any injury or property damages from installation or use of our bumper.

TOOLS/PARTS REQUIRED:

- ½" Drive Ratchet (or a 3/8" may work)
- Deep/shallow 10mm, 14mm, 19mm, 2) 7/16",5/8", 11/16", 3/4", sockets and Extension, plus standard or ratchet wrenches.
- Philips and flat screwdrivers
- Razor or sharp knife
- Rotary cutting tool (small angle grinder, dremel, Pneumatic cutoff saw, etc.
- Masking tape, black spray paint
- Wiring tools/connectors/etc for any accessories you plan to install.

INCLUDED HARDWARE:

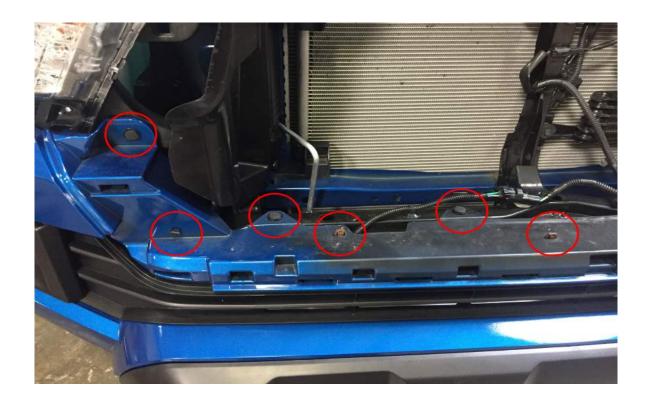
- 2) 1/4x1" bolts, with 2 nyloc nuts and 4x washers for fog light install
- 2) double slotted L brackets for fog light mounting
- 2) 7/16"x1.5" grade 8 bolts, nuts and washers(excess washers to shim bumper height)
- 2) 3/16" plate frame reinforcement brackets
- 2) 1/2"x 4" Grade 8 bolts, nuts, washers

STEP 1:

We always recommend working on a clean vehicle. With the vehicle parked on level ground, transmission in park, and parking brake securely set: Raise the hood of the vehicle. We'll start by removing the grille.

In order to remove the grille start by removing the 2) 10mm bolts at the radiator core support to either side of center, and remove the clip on each end near the headlights. These are removed by popping the head up with a flat screwdriver or body clip removal tool at the intents, then lifting the clip base to fully remove from the hole. Set clips and screws aside safely for reinstallation later. Once they're all removed, pull outward away from the front of the vehicle at the corners of the grille near the headlights, working across and releasing the clips securing the bottom until the grille pops loose. Set grille aside safely for reinstallation later. With the grille removed, locate the now exposed fog light wire loom that was under the bottom of the grille, pinch the clips securing the loom loose from the plug near the center all the way to the left near the passenger side headlight. Then unclip the wiring connecter.





STEP 2:

Factory bumper cover removal:

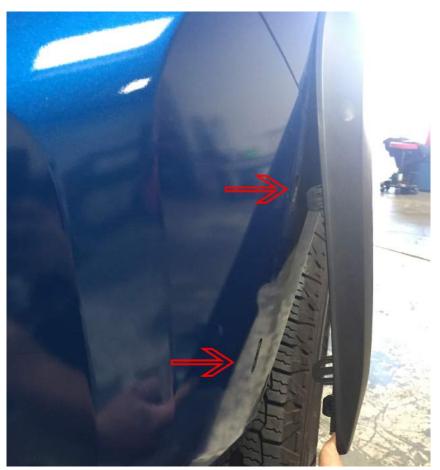
While laying on the ground(use a creeper if you have one), remove all of the fasteners along the bottom of the bumper cover securing it to the supports behind the cover, as well as the fender well liners. We recommend wearing safety glasses to keep debris from within the bumper/fenders from falling into your eyes while under the truck.



We need to release the sides of the bumper from the liner at the fender wells. Locate the fasteners and clips shown below. Remove the screws and pop the clips loose. After all have been loosened, free the bottom corners of the inner fender well liner, and then continue upward separating it slightly from the bumper cover as shown in the image. Separating the clip from the cover with a flat screwdriver may be helpful. Repeat for other side.

Once the liner is separated from the bumper cover we need to pinch the clips on the back side of the bumper cover that secure the lower portion of the fender flares to the cover. Starting with the lowest clip pinch to release it while gently pulling the flare away from the truck working up clip by clip until you've reached high enough that the flare is no longer clipped into the platic bumper cover. See pictures below





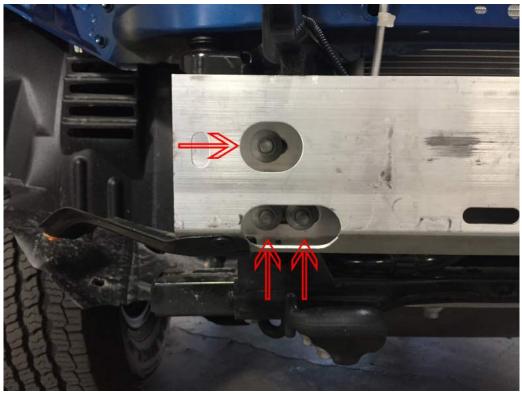
The bumper cover is now only held on via some clips along the upper edges under and near the headlights. Pull the cover lightly to separate it away from the body at the corner by the fender well (it it clipped over a shoulder at the upper screw the locations from Figure 3) and it should start to release.



Work your way around to the other side, or with 2 people release each side simultaneously working from the outside by the fender flare in toward the center of the vehicle under the lights. Set the bumper cover aside being careful not to scratch it.

Now that the cover is off, remove the aluminum crush bar that was inside the bumper(pictured on next page). There is an additional plastic piece that needs to unclipped, the the bar is removed via 3) 14mm nuts within the outer bar on each end, then remove the frame end extensions via the 3) 14mm nuts on each frame horn and retain the nuts for securing the new bumper later, the crush bar and extra nuts can be set aside as it will not be reused. Next unbolt the factory tow hook(s) and the frame cross member extensions with a 17mm socket wrench.





STEP 3:

Bumper cover trimming:

With the cover and crush bar removed we need to trim off the excess lower portion of the fender liners. Trim it up even to the lower angled side portions of the core support/fender support structure. Do not trim too much on the passenger side as the engine draws air in behind the liner and we want to make sure there is no excessive chance of water getting inside.

Now in order to lay the best cut line on the bumper cover we need to unclip the grille insert, fog lights, and fog lights and bezels from the cover. Release all of the clips on the back side of the cover to remove these parts from the main cover. Fog lights are secured with some Philips screws. You can keep the fog light wiring clipped in to the bumper cover if you plan to use it for new lights, just unplug the lights from the wiring.



At this point we are now ready to lay out our cut line on the completely stripped down bumper cover. Using masking tape lay a cut line similar to the photo below.



Once you are satisfied with the straightness and alignment of the tape line you can reinstall the cover back onto the truck so the cover will be more secure for the trimming. This can be achieved by positioning it back onto the front of the truck and then pushing slightly to secure it via the clips under the headlights and along the fender edges. Once the cover is back on give the cut line a second inspection for straightness and then trim the corners of the bumper cover about a ¼" UNDER the tape line. This allows the new plate bumper to be test fit onto the truck with room for adjustments to the cut in the plastic to match the bumper.

With the cover and lower portion of the flares cut off, carefully lift the new bumper onto the frame end studs and secure it with 2 nuts per side. At this point you will want

to make sure the trim line of the bumper cover is even and parallel all the way along the top of the bumper cover. With the plate bumper test fit and mounted all the way down on the slotted mounting holes there should be around a ¾" to 1" space between the top of the plate bumper to the bottom edge of the tape line. This should be even and consistent all along the top of the bumper, adjust the tape as necessary for the final cut. With the tape adjusted, remove the plate bumper. The trip up to the bottom of the final tape line. At this point any remaining clips to secure the center portion of the bumper cover and the grille should be reinstalled onto the truck.



Installed bumper final gap. Make sure you have about 1/2" clearance between bumper and plastic bumper cover to allow body movement off road over bump and during articulation.



STEP 4:
Bumper install:

We are now ready to prepare your new bumper for installation!

Start by installing your fog/driving lights with the included L tabs and 1/4x1" Bolts/nyloc nuts/washers. The narrow slots correspond to the slot on the tab welded to the bumper, the larger slot is where you attach your new LED fog/driving lights for in/out adjustment within our recesses. Adjust the lights to be centered vertically and horizontally, and aimed as best as you can for now. Snug all bolts to the point that everything is secure but can still be moved with a bit of effort. You'll want to do final adjustment once the bumper is on the vehicle, and then fully tighten at that point. If your bumper was ordered with light bar cutout, secure the light bar into the bumper now.

If you have a winch to be installed start by installing the fairlead into the bumper fairlead recess. Center the fairlead into the mounting location and tighten it down. With that done bolt the winch into the mounting plate within the bumper. Note that large winches such as the Warn Zeon series are not recommended. All winches will need the control pack relocated to an easily accessed and safe location under the hood near the battery or behind the grille of the truck. We <u>DO NOT</u> recommend permanently

integrated control pack/solenoid style winches, grille and support structures behind the grille would need to be modified.

STEP 5:

We're now ready to lift the bumper onto the vehicle and secure it. With a winch installed the bumper is now very heavy, it is recommended to use a minimum of 2 strong people for lifting, 3 is better! Alternately a jack or hydraulic lift table can be helpful in raising and positioning the bumper onto the truck.

Position the bumper over the frame end studs and loosely secure the bumper to the truck with 2-4 of the nuts. Next use the included 7/16" bolts, nuts, and washers to secure the lower mount tabs to the lower cross member of the frame. Begin to tighten the bolts in order to raise the bumper up. Adjust to between ½ and 5/8" clearance between top of plate bumper and lower edge of the plastic cut edge. Once desired height is achieved and bumper is level side to side secure the nut onto the inside single mounting studs on each side of the frame horns. With these nuts tight remove the lower tab/cross member bolts and fill any space between the tab and cross member with washers. Some trucks may need no washers, some may need a few on each side. With washers in place, tighten the 2 lower bolts.

Now we're ready to install the mounting brace plates(pictured below). Remove the nuts off of the outer 2 studs on each side of the bumper. Slide the bracket over the studs, the rear single hole will go over a cap on the side of the frame rail. Set bracket aside and pop this cap out, as well as the companion cap on the back side of the frame rail. With the caps popped out, slide the brace plate back over the 2 studs and install the 4" bolt through the bracket all the way through the frame and thread the nut onto the end of the bolt. With the through-bolt installed, now tighten the 2 nuts at the front of the bracket to hold it back and secured to the bumper, then tighten the through bolt. Repeat for the other side.



We are now nearly complete with the installation. At this time check all fasteners to be sure they're installed and tight.

Lastly, wire up any accessories such as new fog lights, light bar, or winch that you installed into the Bumper.

Congratulations on completing the installation of your new Relentless Off-Road Fabrication bumper!

We hope you enjoy your bumper for years to come!

If you have any questions or comments please feel free to contact us Mon-Fri 9am-5PM PST at 775-200-0544 or any time via email: Sales@relentlessfabrication.com