RELENTLESS FAB 2014+ 4RUNNER FULL REPLACEMENT 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 150lbs *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 from injury or property damages from installation or use of our bumper**.

TOOLS REQUIRED:

- 1/2" Drive Ratchet
- 10mm, 14mm, 19mm, 7/16", sockets and wrenches
- 5/32" or 4mm Allen wrench
- Philips and flat screwdrivers
- Razor or sharp knife
- · Recommended: Masking tape, black spray paint

INCLUDED HARDWARE:

- 2) 1/4x1" bolts, with 2 nyloc nuts and 4x washers for fog light bracket install
- 2) double slotted L brackets for fog light mounting
- 4) M12-1.25x25mm bolts and washers, for lower reinforcement tabs
- 2) 3/16" plate cut lower reinforcement tabs (plates with 2 slotted ½" holes)
- 14) 1/4"x 5/8" Stainless button head screws and nyloc nuts for grille panel

STEP 1:

We'll start by removing the factory bumper cover. 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.

Locate the clips circled in Figure 1. Securing the radiator trim panel. Push in the center of these clips until they release, then use a pick or flat screwdriver to lift them out of the radiator trim panel. Save them for later reinstallation. Once all clips have been released and removed lift the trim panel off of the vehicle and set it aside to be reinstalled later. Now continue to remove upper grille by removing the center 10mm bolt and 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. Once they're all removed, pull the grille 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.

Fig 1:



STEP 2:

Bumper cover removal:

With upper grille out of the way remove the 6 visible clips securing the top of the bumper to the support under the grille. Now we will move on to releasing the bumper cover from the bottom. Laying on the ground, locate the fasteners shown in Figure 2 and 3. Remove all of these fasteners along the bottom of the bumper and lower trim panel. Set aside lower trim panel- It will not be reused.

Fig2:



Next we need to release the sides of the bumper at the fender wells. Locate the fasteners and clips shown in Figure 3. 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. Next, unclip the fog light plug from the fog light bulb on both lights.

Fig 3:



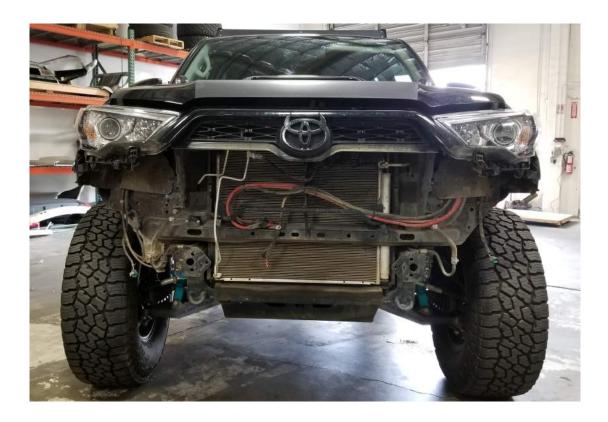
At this point we are now ready to remove the cover. The bumper cover is now only held on via some body clips along the upper edges under and near the headlights. Pull it lightly away from the body at the corner by the fender well (it it clipped over a shoulder at the upper screw the locations from Figure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

Work your way around to the other side, or with 2 people release each side simultaneously working toward the center of the vehicle. Set the bumper cover aside being careful not to scratch it if you plan to keep or sell it.

With the cover removed, remove the plastic clip brackets that held the bumper cover at the fender near the headlights, there are 2 10mm bolts on each bracket. After bracket removal reinstall the forward M6 bolt as it helps to hold the headlight.

Now remove the aluminum crush bar that was inside the bumper via the 3) 14mm nuts within the outer bar on each end, then remove the frame end extensions via the 4) 14mm head bolts on each frame horn and retain the bolts for later, the crush bar and nuts can be set aside as it will not be reused. Also unclip and remove the side plastic shrouds at each side of the radiator as they will be in the way. Additionally the front portion of the factory plastic fender well liners will need to be trimmed away, we like to use the angled factory sheet metal between the core support and fender as a guide. There is a hole in the sheet metal that makes for a good zip tie location to secure the liners from being caught in the wind. Be mindful not to trim the passenger side liner up too high as it protects the factory air intake behind the fender from ingesting water. Figure 3.2 shows a fully stripped and prepped front end ready for the bumper.

Fig 3.2:



STEP 3:

Bumper preparation:

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

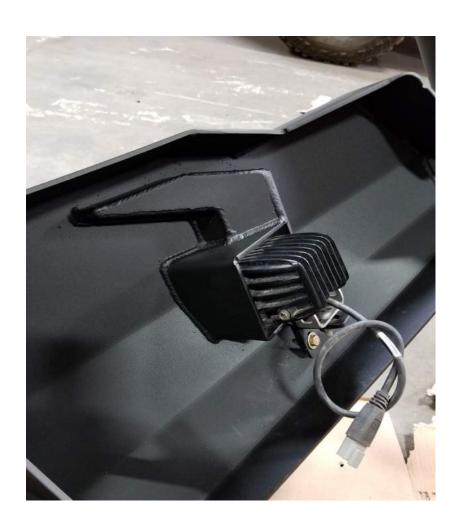
Start by securing the included grille panel with the $\frac{1}{4}$ " x5/8" stainless button head screws and nyloc nuts with your allen wrench and 7/16" wrench. Secure them snug, but be careful not to over torque as stainless can be stripped. After grille is secure, install your light bar onto the grille in the cutout (if ordered with light cutout).

Now install your fog/driving lights with the included L tabs and 1/4x1" Bolts/nyloc nuts/washers(as seen under the Rigid light in Fig 4 below). 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 for final aiming later on. You'll want to do final adjustment once the bumper is on the vehicle and on level ground, once adjusted as desired then fully tighten at that point.

Now, if you have a winch, install the fairlead centered into the recess on the bumper, then bolt the winch into the mounting plate within the bumper. Note that large winches such as the Warn Zeon series will need the control pack relocated, and other winches such as the Warn VR, M, XD series, Smittybilt winches, etc. should fit with the control packs attached but we recommend relocating the control packs to a more easily accessed and safe location under the hood near the battery. We <u>DO NOT</u> recommend permanently integrated control pack/solenoid style winches. Some winches may fit with additional grinding/clearancing of hood latch center support bracket and/or other components. This is done at your own discretion, we do not advise this.

OPTIONAL: On light colored vehicles we recommend masking along the lower edge of the fenders/headlights and painting these areas that will be behind the bumper black, along with the washer bottle. It will help to 'hide' these areas behind the higher sitting bumper as they will be more exposed.

Fig 4:



STEP 4:

With all accessories installed we're now ready to lift the bumper onto the vehicle and mount it up, but first re-install your factory upper grille panel, the tube on the bumper prevents it from being reinstalled later.

We have incorporated frame end plate hooks into our bumper design to help hold and position the bumper on the frame end caps, however we do still recommend threading in one of the 4 frame end bolts from the back of each or the end plates with the threads pointed out forward to act as a support stud while placing the bumper onto the vehicle. The bumper is very heavy, and even heavier with a winch and accessories installed so it is recommended that at least 2 strong people lift the bumper onto the vehicle while a third person guides and positions the bumper and secures some of the mounting bolts to hold the bumper onto the vehicle. With the bumper mounted up to the vehicle, loosen the bolts just enough that each side can individually be adjusted up/down in the slotted mounting holes until the spacing around the headlights/fenders is a even gap of approximately ½". Any tighter gap than this may result in damaging contact of the bumper with the headlights or body in articulation offroad or while traversing rough trails.



STEP 5:

With the bumper mounted and the frame end bolts tight it is now time to finalize your installation. We have included 2 additional lower support plates, these plates attach to our bumpers lower mount ear under the frame end bolt locations and tie it to a factory frame threaded insert. Use 2 of the supplied M12x25mm bolts with washers to secure these plates to the frame and bumper. Torque to about 50 ft/lbs.

Now finish your installation by routing and making final wiring connections of your accessories (be sure to properly secure and encase positive wiring to prevent chaffing/rubbing on sharp brackets or body edges. Failure to do so may result in vehicle fire!) and then reinstalling the upper radiator trim panel.

Congratulations! Installation is now complete! Enjoy your new Relentless bumper!

