

RELENTLESS FAB 2019-23 FORD RANGER HYBRID 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. If you are not confident in your ability to complete the procedure please seek professional installation. Be aware that the bumper is heavy! 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 REQUIRED:

- ½" and 3/8" Drive Ratchet set with Deep/shallow sockets and Extensions, metric and SAE.
- Standard and/or ratchet wrench sets, metric and SAE
- Philips and Flat screw driver or trim clip tool
- Pliers, diagonal cutters
- Wiring tools/connectors/loom/Zip ties, etc for any lights or other accessories you plan to install.
- Hex key/Allen bit set

INCLUDED HARDWARE:

- 2) 3/8x 1" bolts, nyloc nuts and 4) washers

We always recommend working on a clean and dry vehicle that is securely parked on a hard flat surface and parking brake applied. We STRONGLY recommend wearing safety

glasses throughout the install process to keep debris from within the bumper/fenders from falling into your eyes while under the truck.

Read each step of the install procedure fully before beginning that step.

STEP 1:

Preparation and original bumper removal:

Double check all listed hardware is present and you have all necessary tools before starting. An ACC/AEB module relocation kit will be required if your truck is equipped with the feature, this is not included with the bumper!

Begin by disconnecting the wiring harness connector for the lights/sensors in the front bumper. The connector is located a few inches forward of the driver side fender opening, under the headlight. Access it by reaching up from under the bumper corner and releasing the lock tab, then pinching the clip and separating the connector.

Next, remove the front section of the skid plate from the truck. This is done with 4 bolts, 2 secured near the lower frame cross member and 2 forward locations at the tow hooks under your frame ends. Set skid and bolts aside.

At this point you can also remove the 2 bolts securing each of the tow hooks to the bottom of the frame. Save the bolts for later, discard the tow hooks.

Now remove the lower plastic trim portion of the front bumper. There are a few screws and clips securing the edge/center portion that must be removed. With the screws and clips removed the plastic trim can be pulled outward from one side across to the other to release the clips holding it to the bumper. This will expose the frame end bolts which secure the bumper to the frame.

Loosen and remove the 6 large nuts holding the bumper onto the frame rails the truck. As you get to the last 2 ensure you're supporting the bumper so it does not fall. Carefully remove it from the front of the truck by sliding it off straight forward away from the truck. Ensure no wiring or any other components are holding it back so you do not damage anything accidentally. Set bumper aside and remove the parking sensors, their plastic bezels and harness from the old bumper, transfer them into the new bumper ensuring the wiring harness end is on the same side as it was on the factory bumper.

Before bolting the new bumper on we'll need to make a small cut on the bottom inner part of each side frame end plate as shown in the image below. Use an angle grinder, sawzall or similar metal cutting tool. Smooth and paint the cut edge.



All trucks with the Adaptive cruise/AEB module will need to relocate the module with a bracket/kit (not included!) at this point in the installation process. These kits are available from various manufacturers and can be purchased online from your favorite vendor.

STEP 2:

Relentless Bumper install: We are now ready to prep your new bumper!

If you haven't already, transfer your parking sensors(if optioned/equipped) into the new bumper with care to the routing of the harness. Do not pass the wiring through the rectangular cutout in the mounting area, route it above or below and secure with Zip ties.

We recommend test fitting the bumper onto the truck at this time to ensure everything clears properly before adding the weight of the winch(if you're installing one). Once a winch is mounted in the bumper it is at least a 2 person job to lift and secure the bumper to the truck.

Install the Baja Designs light bar and fog/driving lights into the provisions in the bumper. When installing the Squadron, S2 or S1 lights to the side mounting locations we recommend removing the 4 screws in the light bezels and flipping the lens and bezel so the text reads correct since the lights get mounted upside down in the new bumper. Be mindful not to strip or cross thread the small screws and keep the lights clean through the process. On reassembly ensure the O-ring is correctly seated in the groove so it seals and does not allow moisture intrusion. Note that this process is allowed by Baja Designs with their "U Service" design for lense color/pattern changes and will not void warranty as long as it's done correctly.

Now you can mount your winch. Start by mounting the cable fairlead to the recess on the bumper with the hardware that was included with the winch. Bolt the winch down with the 4 Bolts/nuts included with the winch to the winch plate in the bumper and the cable/rope fed through the fairlead. *If the winch does not fit between the mounts on the bumper the winch will not fit between the frame end plates on the truck! A different winch must be chosen. Any modifications to the bumper or frame ends due to an incompatible winch are up to the discretion of the owner/installer and not recommended by us.* Some winches may need their control packs relocated off the winch if a space conflict occurs during installation onto the truck. Choose a secure/protected area to mount the control pack and route extended cables to the new location if needed.

With the sensors, lights, and winch installed the bumper can be mounted to the frame. Secure it with the factory tow hook bolts and the large nuts to the frame end studs. The lower frame end nut has limited access behind the bumper tube and may need to be installed first, and a wrench used to tighten these. Remaining bolts/nuts are easily

accessible with a socket and extension through the access cutouts provided. Tighten all hardware to factory torque specs.

Lastly, run your winch and accessory light wiring harnesses safely and securely away from any sharp edges, moving or hot parts that could rub through the wire casings. Connect winch power direct to battery. Connect the light wiring harnesses per the light manufacturer guidelines or accessory switch controller directions.

Congratulations on completing the installation of your new Relentless Off-Road Fabrication bumper! We hope you enjoy your new bumper for years to come!

Be sure to re-check torque on all bolts after the first week or 250 miles of use, and periodically thereafter as parts can settle or rattle loose from continued off-road use.

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

We love when customers tag us in their social media posts!

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