# Relentless Off-Road Fabrication 2005-15 Toyota Tacoma skid plate installation guide:

#### Tools needed:

- 1. Floor jack/jack stands recommended
- 2. 3/8" or  $\frac{1}{2}$ " drive ratchet
- 3. 10mm, 13mm, 17mm, 5/8" sockets for chosen ratchet
- 4. 14 and 15mm wrenches, 9/16 and 11/16" wrenches
- 5. Drill and drill bit kit, with up to ½" bits.

### Part 1- IFS skid installation:

- 1. Remove the stock front skid plate(splash pan) via the 4) exposed 10mm head bolts. If your truck is a TRD off-road, you have one more additional skid plate under the engine, which will also need to be removed so do so at this time via the additional 2 bolts.
- 2. Next, remove the 2) U-channel brace bars which span from the front cross member to the second cross member in front of the differential, via the now-exposed 17mm head M12 bolts. Save these bolts, as 4 of them will need to be reused.
- 3. Now you're ready to install your Relentless IFS skid. Its best to do so with a floor jack to aid in lifting and positioning the skid plate into position as it is quite heavy and awkward. If a floor jack is not available, having a friend help with lifting the skids is advised. Installing bolts from front to back is recommended, threading the bolts in several turns but not tightening.
- 4. After the skid is lifted into position and lined up with mounting locations, start installing mounting bolts from front to back. Reuse 4 of the M12 17mm head factory bolts for the forward mounts on the skid, and the 2) supplied M8 flange head bolts for the 2 rear mounts into the threaded inserts in the 3<sup>rd</sup> cross member(the same locations as the rear TRD offroad skid mounting). It is best to install all bolts loosely at first, then once they're all in, tighten them snug but still loose enough for the skid to move slightly.
- 5. If installing the mid skid, continue with the bolts slightly loose, if only installing the IFS skid then you can now torque the bolts down and install is complete.

#### Part 2- Mid skid installation

- 1. In order to install the Relentless Mid/transmission skid, you first need to have the IFS skid installed and the bolts slightly loose.
- 2. Next, locate the 4) transmission cross member bolts and remove the nut from the end. \*DO NOT REMOVE ANY OF THESE BOLTS, THEY HOLD THE WEIGHT OF THE TRANSMISSION\* Make sure the head of these bolts face the front of the truck, with the exposed threads sticking out the back. If they're not in this orientation, they must be removed and turned around ONE AT A TIME. Most

- trucks should have them facing the proper way from the factory, but is has been found that some face the opposite direction and must be flipped around.
- 3. Now, take the mid skid and lift the rear of it up onto the 4) exposed cross member bolt shanks, then pivot the front of the skid up to mate with the back flange of the IFS skid. Install the 3) ½"x1.25" grade-8 bolts through the IFS/Mid skids to secure them together. Keep these bolts finger tight at this time.
  - -Skip steps 4 through 6 if installing the transfer case skid at this time-
- 4. Now, reinstall the nuts onto the back of the transmission cross member bolts and re-torque them.
- 5. After the mid skid is secured to the cross member, tighten the 3) ½" bolts between the mid and IFS skid.
- 6. Once the mid skid is fully secured, the bolts on the IFS skid can now be torqued down tight, and installation is complete.

## Part 3- Transfer case skid plate installation:

- 1. In order to install the t-case skid plate, you must first have the IFS skid, and mid skid installed in place, from step 3 of the mid-skid install.
- 2. In order to install the T-case skid, we need to replace the 4) cross member bolts with longer 3/8"x6" Grade8 bolts included in the hardware. ONE AT A TIME remove the factory cross member bolts, and install one of the supplied longer 3/8"x5" grade-8 bolts from the front to back.
- 3. With the new bolts now installed, pivot the front of the T-case skid onto the ends of these bolts similarly to how the mid skid was installed. With the front of the T-case skid resting on the bolts, support the rear of the T-case skid with a floor jack/jack stands, then install the supplied 3/8" washers and nuts onto each cross member bolt and secure them finger tight.
- 4. With all the skids in place, position them to your liking and then torque the 3/8" cross member bolts while still supporting the back of the T-case skid.
- 5. Now, with the rear mounts of the T-case skid resting on the bottom of the frame rails, mark center for holes to be drilled through the frame and center punch the mark.
- 6. Start with a 1/8" drill bit for a pilot hole through the frame, then step up into larger bits until you have a  $\frac{1}{2}$ " hole drilled through the frame.
- 7. Now, install the supplied 7/16" grade-8 bolts from the bottom-up through the mounts and install the 7/16" washers and nuts onto the bolts. Torque the bolts down tightly.
- 8. At this point, all the skids are in place, and the T-case skid is fully secured. Follow steps 4 though 6 of the mid skid install directions to complete installation of the skids.

Now celebrate a job well done and go out and enjoy your new underbody protection from Relentless Off-Road Fabrication!