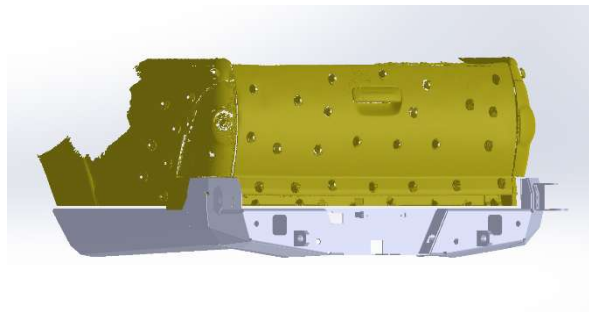


# FREELAND INDUSTRIES

Instruction for Freeland Rear high clearance swing out Bumper for 2<sup>nd</sup> gen Toyota Tacoma



## Overview

This document provides step-by-step instructions for installing the Freeland rear high clearance swing out bumper on a 2nd gen Toyota Tacoma. Please read all instructions thoroughly before beginning installation. Ensure you have all necessary tools and hardware. For safety, installation should be performed by a qualified individual or professional.

## Tools and Materials Required

- Socket set (metric and imperial sizes as needed)
- Ratchet and extensions
- Protective gloves and eyewear
- Angle grinder and buffer pads
- Jack and jack stands (optional)
- Freeland rear high clearance swing out bumper and hardware kit

## Installation time

- 4-6 hours depending on experience and options.

## IMPORTANT NOTES

1. Park the Tacoma on a flat, stable surface and engage the parking brake.
2. Some parts of the bumper will have to be installed on it prior to mounting it on the truck. Please read the instructions carefully
3. Some photos of the assembly instructions are from a 3<sup>rd</sup> gen Tacoma, as these are very similar. This is normal.
4. **IMPORTANT:** Make sure every stainless-steel bolt and nut has some blue Loctite or equivalent. Stainless steel really enjoys seizing if no lubricant or Loctite is applied. Stainless is also less strong than steel, so over torquing it is a big no no. If Loctite is used, a normal torque will make sure that the bolts won't come off unless you decide to. Your future self will thank you.

## Removing OEM bumper

1. Start by unplugging the trailer plug and the lights connectors connected to the bumper.
2. Loosen the hitch brackets from the truck frame.
  - NOTE: the **small L shape bracket** bolted between the hitch and underneath the frame **stays** on the frame, the Freeland bumper bolts onto it.
3. Remove all the 10 M14 bolts from the hitch. These will be reused.
4. Remove the rear bumper
  - NOTE: If you only pull back, the bumper won't come out. **There is a positioning notch that locks it into place.** Pull the bumper up, tilting it a bit forward before pull it out. Don't pull hard as if the bumper was stuck to the frame. Once the notch is disengaged, the bumper will come out easily.



## Preparing the rear bumper for installation

Some parts of the OEM bumper **must be transferred** to the Freeland bumper, and some parts of the swing out must be installed prior to the bumper going onto the truck.

1. **Remove** the wiring **harness** from the OEM bumper, making all the lights are disconnected.
2. **Remove** the **license plate lights** from the OEM bumper.
3. **Remove** the trailer **plug** from the OEM bumper
4. **Remove** the **licence plate** from the OEM bumper
5. If applicable, **unplug** and remove the **proximity sensors** from the OEM bumper.
  - Remove the sensors from the clips and remove the clips. Both will be reused.
  - Please note the blind spot monitoring sensors are not compatible with the swing out bumper.
6. **Install the licence plate lights into the bumper.**
  - NOTE: depending on the type of light, OEM or aftermarket, some **plastic tabs might have to be cut**, leaving only one on the top where there is a notch in the Freeland bumper licence plate light holes. Press the lights into place.
7. **Install the trailer plug**
  - NOTE: since the bumper plate is thicker than the OEM bumper, the metal clips on the **trailer plug might have to be bent back** to accommodate for the thicker material. Make sure the plug clips well into place.
8. **Install the license plate.**
  - NOTE: Since this is a high clearance bumper, the license plate will cover the hitch. Install the provided plate pivot in the bumper first, using the provided ¼-20 stainless socket head bolts. **Use Loctite**. The threads might have a bit of powdercoat in them, a tap can be used to clean them. This is made so the holes don't rust before the installation.
  - Using the provided ¼-20 stainless socket head bolts and serrated flange stainless nuts, attach the licence plate to the pivot. **The pivot should be tight enough**, so the license plate does not move freely.
9. If applicable, **install the sensors in the Freeland bumper.**
  - NOTE: the sensor clips will fit directly into the bumper. Install them first before clipping in place the sensors. If you don't have sensors, some plastic caps are provided. These can be glued in place with a few drops of CA glue (crazy glue, Gorilla glue, etc.)
10. **Install the wiring harnesses** in the bumper, **using some zip ties** to hold in place against the back of the hitch rectangular tube.

11. **Install the swing out receiver bracket** on the left side of the bumper on the 4 bottom holes as show in the picture. Use the provided 3/8-16 zinc plated bolts with 2 washers and 1 nut per bolt. **Make sure it's straight** and tighten to 35 ft-lbs.
12. If some back up lights are to be installed, install them in the bumper. These can be installed later if needed, though it is easier to install now.



## Swing out preparation

1. **Install** the billet aluminium Freeland **compression clamps**.
  - NOTE: Using the provided **5/16-18 x 7/8 button head screws** and a 3/16 Allen key, position and tighten in place the clamp. Make sur you use Loctite and torque to **8 ft-lb**. These bolts should only be tightened so much, as the head can easily strip.
2. Install the **spring pin** on the pivot side of the swing out. Use Loctite
3. We recommend installing the swing out on the bumper once the bumper is on the truck. The only part that must be installed prior is the swing out receiver, as mentioned earlier.
  - NOTE: Every accessory can be installed once the swing out is installed. This makes for an easier swing out installation and a better visualisation of where everything goes on the truck. Example: you might not notice dans a jerry can holder is covering a brake light.
- 4.



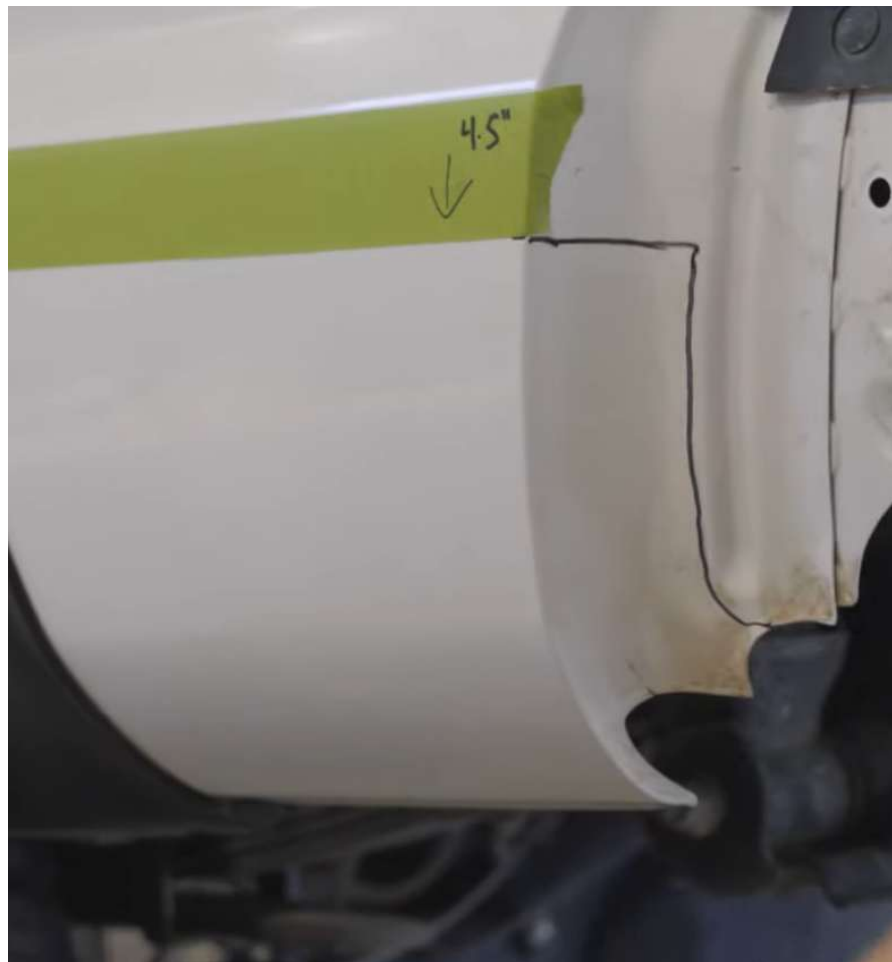
## Bed side cutting and trimming

The **bed sides** now need to be **trimmed**. It is crucial to take your time during this step.

NOTE: We recommend having a professional do it, but anyone can do it if well prepared. If this is your first time and you are not sure about the cutting, you can cut a first line a  $\frac{1}{4}$  inch **lower** than what the instructions call for, test fit and do a final cut.  $\frac{1}{4}$  inch lower meaning the first line is a  $\frac{1}{4}$  inch closer to the ground from what the instructions call for. **NOT THE OTHER WAY AROUND**, otherwise you will have removed too much material. In other words, leave yourself some material to re-cut if you are not sure. This may take more time, this is a recommendation for beginners, not a mandatory step.

1. Start by marking a line 4.5 inch from the bottom of the brake light assembly, as shown down below.
2. You need to trace a line parallel to the the top of the bed. Take a measurement from the top of the bed to the first mark.
3. Take this same measurement and mark it at the junction between the bedsides and fender flare.
4. Using some tape, mark a straight line between those two marks. A laser can be used to make sure everything is straight, as shown here
5. Trace the remaining lines as shown in the second picture on the next page. This cut is not critical, as it will be covered by the bumper.





## Bed side cutting and trimming (continued)

1. Once you have your lines traced, **draw some arrows** on the side of the tape which you cut must be. This can help you not cut on the wrong side.
2. Cut the sides of the bed.
  - A. Use an **angle grinder** to cut. Try to **cut in one cut** to have clean edges.
  - B. Continue the line on the plastic flares and inner plastic liners.
  - C. A side metal bracket holding the bed sides will have to be removed. This bracket can be modified later the better hold the now cut bed sides.
  - D. Make sure no burrs are left. Using a buffer pad, **clean up your cut**.
  - E. Optionally, you can apply **paint on the exposed metal** to prevent rust formation in the future.
  - F. **Install the rubber trim** cover along the cut on the metal part, making sure any paint is dry if used.

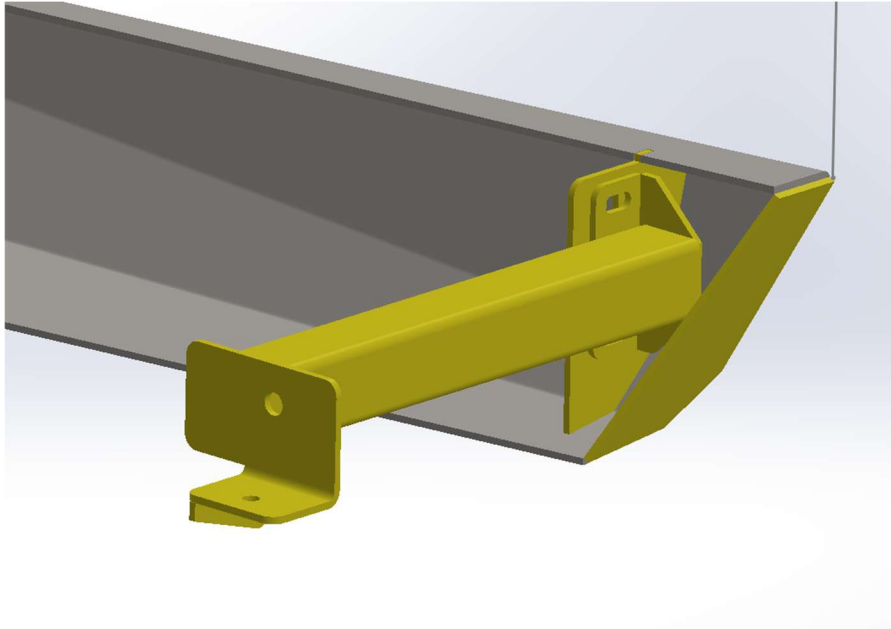


## Bumper installation

The bumper will now have to be installed.

NOTES: **Use anti-seize** compound on the frame bolts. Some can also be put on the surface on which the bumper will touch the frame. This will help prevent rust formation in the future.

1. Using jacks or with the help of someone, slide the bumper in place, aligning the bolt holes. At this point, the side bumper brackets are not installed. NOTE: **Be careful of the wiring harness**, they should not be pinched anywhere during installation.
2. **Loosely install 2 bolts** on each side so the bumper can be held in place.
3. Thread in completely all remaining bolts until they are flush with the brackets, but **sill loose so the bumper can be adjusted**.
4. Position the bumper so the **gaps are even**. We recommend about a **3/8in gap** between the bumper and the bottom of the brake light assembly. Using a finger, make sure each side is equal.
5. Once you are happy with the position, tighten a few bolts so the bumper stays in place. **Don't torque them to spec** just yet, as the bumper might have to be adjusted again.
6. Position the side brackets **as shown**. Use two 3/8-16 bolts and nuts on the bumper. On the frame side, use a 3/8-16 bolt on the bottom and a 1/2-13 on the side. Make sure you use a **big washer on the side of the frame**, as the hole is square.
7. Loosely fasten all the bolts.
8. Once you are happy with the position of the bumper and brackets, tighten everything on the brackets.
  - NOTE: **some washers might be required** between the frame bracket and frame on the side of the frame, where the 1/2-13in bolts goes. This is so the side brackets can be slightly tilted down.
  - The bumper might move slightly when the side brackets are tightened, adjust accordingly.
  - Tighten the 3/8-16 bolts to **40 ft-lb** and the 1/2-13 to **55 ft-lb**.



9. **Torque the M14 frame bolts to 100 ft-lb**, or the recommended torque per the manufacturer.
10. **Plug** the bumper wiring harnesses and trailer plug, making sure everything clicks into place.

## Swing out installation

1. With the help of a friend, position the swing out in place on the pivot.
2. Thread in the 1 inch bolt, making sure it's not cross threaded. **Use anti-seize.**
  - NOTE: the bolt will at first be easy to thread in. At some point, you will feel a resistance after a few threads. **This is the locknut engaging.** Take your time and make sure you **don't scratch the paint** while threading it in.
3. Tighten the bolt enough to take up any slack and **have a slight resistance while opening the swing out.**
4. Install all the accessories. The swing out holes are 10mm square, made to be used with either 3/8-16 bolts or carriage bolts. Other bolts can be used, **make sure to use washers if necessary.**
5. **Use Loctite on stainless steel bolts and anti-seize on steel bolts and nylon lock nuts.**

## Final touches.

1. The side plastic inner lining can be trimmed and held in place using the side metal bracket that was removed earlier. Drill a hole on the plastic liners and connect them to the bracket. The bracket can be bolted where it originally was, only using one bolt so the angle can be adjusted.
2. Make sure the bumper looks good on the truck and that everything is torqued to spec.

Thank you for your purchase, your Tacoma will thank you. **Feel free so send us pictures** or tag us on Instagram @freeland\_industries

For any questions, feel free to reach out to [arthur@freelandco.ca](mailto:arthur@freelandco.ca)

