

## Metal Tech 4x4 “Fortress” 2014+ 4Runner Bumper & Winch Mount Installation guide

### Standard Parts:

- 1 Bumper
- 1 Winch Mount
- 1 Accessory package
  - a. Lower Guard
  - b. Side Plates Left & Right
  - c. Large Spacers (2 universal)
  - d. Small Spacers (2 universal)
- 1 Bumper Bolt Kit (BK-MT-33701)
- 1 Winch Mount & Guard Bolt Kit (BK-MT-120-33202)

### Tools needed:

- Metric sockets 10mm, 14mm, 17m
- SAE Socket ¾”
- Drill w/ ½” drill bit
- Cold chisel
- Hammer
- Flat head screwdriver
- Optional blue thread locker for all threads



FIG A

### Optional Add On Parts:

- 2 OPOR 20W Flange Mount LEDs (stage 2 & 3)
- 1 OPOR LED Wire Connectors (stage 2 & 3)
- 1 OPOR 30” Single Row Combo LED Light Bar (stage 3)
- 1 Grill Insert For Light Bar Pocket (Sold Separately)

### Safety:

Please note that this work should be done by a competent mechanic. If you feel you are not competent to do this work please have a professional mechanic do this installation. Metal-tech Cage, LLC is not responsible for any modifications you make to your vehicle. These instructions are meant to be a guide to assist a competent mechanic.

**#1 Always wear safety glasses**

**#2 Always chock the opposite end of wheels when working on a vehicle. (ie. Chock the rear when working on the front, and vice versa.)**

**#3 Always use jack stands!!!! Never work on a vehicle solely suspended by a jack.**

All Modifications are done at the owners’ risk, check local laws for compatibility.

## Prep:

### 1. Stock Bumper Removal: (3 bolts, 10 screws and 6 clips.)

- a. To gain access to the top of the bumper you need to remove the plastic radiator cover. The clips can be pressed in the center and then removed.
- b. Remove the bolts retaining the top of the bumper
- c. The lower portion of the bumper has a series of screws holding it on underneath and a few in the fender well.
- d. The portion near the fenders will need to be pulled on to get it to unclip. (may take force)
- e. Remove the top portion of the bumper as this part will be reinstalled.
- f. Once the plastic bumper cover is removed you will need to remove the steel reinforcement beam and mounts.

### \*Unplug the fog lights before removing.

- g. Remove the lower guard located below the bumper. (5 Bolts)
- h. Remove the plastic radiator deflectors (located on each side of the radiator)
- i. Remove the bumper reinforcement bar (6 bolts) and its mounts (8 flange nuts, do not discard flange nuts they will be reused)
- j. Remove the plastic side supports from the fenders that the bumper was clipped to.
- k. Also remove your license plate (you will probably want that)

## Winch Mount Installation:

1. After removing the stock bumper and supports you are then able to start installation of your new Metal Tech 4x4 Fortress Bumper for the 2014+ 4Runner. (Plastic Frame Plugs may need to be removed during this step)

- a. Drill out the small threaded hole on the outside of the frame directly behind each front bumper flange. Drill out only the one side of the frame. See photo:



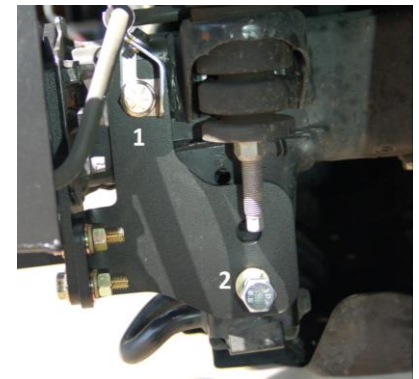
- b. Use a cold chisel and knock off any remaining inner nut fragments from inside the frame on both sides. See photo:



- c. Repeat drilling and chisel action for other side of vehicle

### 2. Install side mounting plates onto frame

- a. Using the included install wrench or a 3/4" box wrench enclosed with tape, to retain the 1/2-13 nut, install and loosely tighten the 1/2-13x1 1/2" bolt with a washer and lock washer on the outside of the mounting plate in the top of the plate making sure to sandwich the provided spacers in between the frame and the mounting plate. (**Fig 1** in image)
- b. Install the provided 12m bolt in the lower location on the plate again with a washer and lock washer on the outside of the mounting plate. (**Fig 2** in image) Loosely tighten.
- c. REPEAT this on the other side of the vehicle.



### 3. Installing Main Winch Mount

- a. Set your Metal Tech winch mount onto the vehicle in place securing it using the stock nuts from **Step 1.i**
- b. Install the provided 3/8-16x1 1/2" bolts, **guards**, spacers, washers, lock washers and nuts into the winch mount and the side plates (2 per side)
  - i. Order: bolt, washer, **guard**, winch mount, spacer, side mounting plate, washer, lock washer, and nut.
- c. Repeat other side and tighten all bolts.

### Winch Installation & Metal Tech 4x4 Rock Guard

NOTE: Metal Tech 4x4's Bumper Fits most planetary style winches.

1. With the winch mount secured it is the ideal time to install your winch following manufacturer's instructions.
2. For your specific winch installation please refer to the manufacturer's installation instructions. Ensure proper winch placement and ease of use by making sure the clutch is clocked to be accessed via the front of the truck. To clock your winch forward also refer to the manufacturer's instructions.
3. Once the winch is installed use the Lower Guard Bolt Kit hardware to install the Metal Tech 4x4 Rock Guard.

### Bumper Installation

You are now ready to install the Metal Tech 4x4 "Fortress" Front Bumper. For completing this part of the process we strongly advise calling your buddy over to help and offering him a cold beverage (pint glasses available at [www.metaltech4x4.com](http://www.metaltech4x4.com)) or a hot meal.

1. At this time, it is ideal to install the Outpost Offroad Fog Lights (stages 2 & 3), Outpost Offroad 30" Light Bar (stage 3), license plate, or Fortress Grill Insert (available separately at [www.metaltech4x4.com](http://www.metaltech4x4.com))
2. Grab a sharpie, your friend, and 4 of 1/2-13x2 1/2" bolt and matching washers lock washers and nuts. Lift the bumper into place by aligning the slots in the end of the winch mount with the slotted holes in the backside of the bumpers pull points and secure the bumper into position. Adjust for proper fitment then using a punch or a sharpie, mark the winch blade through the third/rear hole of the pull-point. This hole is designed to be a placement lock for your bumper so that it maintains its placement during your travels.
3. (EYE PROTECTION CRITICAL)  
Remove the bumper and drill two 1/2" holes where you marked your winch blades in the last step.
4. If you purchased the dual fog lights or a 30" light-bar from Outpost Offroad please install them into the bumper now along with the fairlead for your winch. Metal Tech 4x4 offers a delete plate that may be purchased which could be installed now in place of the light-bar for areas with light-bar restrictions or if you choose to go without. At this time install the license plate with the provided hardware in the matching holes on the main face of the bumper
5. Grab the other 2 sets of 1/2"-13 bolts from the bolt kit and use your friend to place the bumper back onto the truck and secure it into position.
6. Plug all of your lights in. Secure any excess slack in the harness using zip ties to the cross member you bolted the grill to earlier. Pull your winch line through the fairlead and connect your desired winch attachment.
7. Trim the inner fender well back as necessary to avoid rubbing on the tire and to keep it from flapping in the wind.
8. Install Metal Tech 4x4 Stickers everywhere appropriate, enjoy and show off your newly installed Metal Tech 4x4 "Fortress" 4Runner Front Bumper.