

Metal Tech 4x4 FJ Cruiser Hidden Winch Mount Installation Guide



Tools needed:

- Metric sockets 10mm, 14mm, 17mm
 - SAE Sockets 3/4", 9/16"
 - Box wrench 9/16", 3/4" *
 - Drill with 1/2" drill bit
 - Sharp Utility Knife **
 - Cold chisel
 - Hammer
 - Optional blue thread locker for all threads
- *This needs to be a thin head box wrench. Most double end box wrenches work well.
- **Something to cut 1/8" plastic, angle grinder and a cut off disc work but can be messy

Standard Parts:

- 1 Hidden Winch Main Body
- 1 Left & Right Side Support Plates
- 2 Universal Spacers
- 1 Bolt Kit (BK-MT-120-33202)

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.

- Always wear safety glasses.
- Always chalk the opposite end of wheels when working on a vehicle, chock the rear when working on the front, and vice versa.
- Always use jack stands if the vehicle is to be off the ground. Never work on a vehicle solely suspended by a jack.

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

- Thank you for your purchase! We have taken great pride in our product development and manufacturing. We also use what we make and look forward to the opportunity to see you on the trail! Before you begin your installation take a moment to read through this write up.
- We welcome your feedback on our products and your experience with Metal Tech 4X4. You can reach us toll free at **800-839-0684** Mon-Fri 8:30 AM to 5 PM PST. Or via e-mail at **info@metaltech4x4.com**

1. Stock Bumper Removal and Prep

- 1.1. **[Tool: 10mm socket]** Remove the head light bezel. All the top clips and bolts are accessible with the hood open.
- 1.2. **[Tool: 10mm socket]** To remove the stock bumper unbolt the lower, top and side bolts holding it onto the truck as well as removing the plastic clips from the top. It will take a prying force with your hands to pull the side of the stock bumper off the mounts by the fenders. It will come off with some force. (Tip: Try to not use a tool, it can be done with hands.)
- 1.3. **[Tool: 14mm deep socket]** Remove the OEM inner steel cross brace that is behind the plastic bumper shell. This will take some force as Toyota typically has the nuts on tight. (Tip: Try to use a 6-point socket to keep from stripping the shoulders of the nuts, they are reused.)

2. Cutting the Stock Bumper

- 2.1. **[Tool: Utility Knife**]** Remove the Valance Panel and cut out the center section of the stock bumper. (Fig. A)
 - 2.1.1. (Fig. B shows the recommended cut line)



3. Side Support Plates Installation

- 3.1. **[Tool: Drill with 1/2" Drill Bit]** Drill out the small threaded hole on the outsides of the frame directly behind each front bumper flanges. Drill out only outermost sides of the frame not through. (FIG. C)
- 3.2. **[Tool: Cold Chisel and Hammer]** Use a cold chisel and knock off any remaining inner nut fragments from inside the frame on both sides.
- 3.3. **[Tool 17mm, Socket]** Mount the side support plates (Proper placement shown in Fig E) Start by loosely installing the lower 12mm bolt with 1/2" lock washer and 1/2" washer into pre-threaded frame hole.
- 3.4. **[TOOL: 3/4" socket and 3/4" box wrench]** Install the 1/2" bolt with a lock washer and washer on the outside into side plate and spacer then the upper hole you drilled in step 2.1.
- 3.5. **[TOOL: 3/4" socket, 3/4" box end wrench]** Install a 1/2" washer and nut on the bolt you just installed. Tip: To hold and thread the 1/2" nut using the 3/4" box end wrench, put a small piece of packing tape over one side of the box end wrench and fold over to trap the nut inside. (Fig D) It is best if you loosely assemble the bracket for now.



4. Winch Mount Installation

- 4.1. **[Tool: 14mm socket]** Place the Hidden Winch Mount centered on the frame studs and reinstall the 14mm nuts from step 1.4
- 4.2. **[Tool: 9/16 socket]** Install the two 3/8 bolts with a washer through the Winch Mount, Side Support Plate, flat washer, lock washer, and nut then tighten.
- 4.3. Tighten all other Support Plate bolts at this time.

5. Winch Installation

- 5.1. Install your winch at this point following manufacturer's instructions. Your winch should have come with mounting hardware. There is room for most planetary style winches tucking back almost entirely under the front grill with the control solenoid remote mounted under the hood.

6. (OPTIONAL STEP) Install Light Bar or factory grill insert.

- 6.1. Install Outpost Offroad 30" LED Combo Light Bar **OR** Outpost Offroad 25.5" LED Combo Light Bar using the MT 2" Proud Light Bracket Set (sold separately at www.metaltech4x4.com)

7. Stock Bumper Reinstallation

- 7.1. Reinstallation of stock bumper is the reversal of removal with the exception of the OEM inner steel cross brace remaining off the vehicle, refer to steps 1.3 and 1.2.

8. After 500 miles or time on the trail, check tightness of all hardware.

Install Metal-tech 4x4 sticker on your truck for 5.3hp gain. Enjoy a beverage and admire your FJ Cruiser with its new armored look ready for the trails.