



Rusty's Off-Road Products  
7161 Steele Station Road  
Rainbow City, AL 35906  
1-256-442-0607  
[www.rustysoffroad.com](http://www.rustysoffroad.com)

## Rusty's XJ Front Trail Bumper RA-BM110-XJ INSTALLATION INSTRUCTIONS

Last Revised: 03/22/2019

### Introduction:

Rusty's recommends that this installation be performed by a certified automotive technician or a person with professional mechanical knowledge. Installing this kit without this expertise may jeopardize the handling and safety of the vehicle.

Read instructions several times before starting. Be sure you have all the needed parts and know where they install. Read each step completely as you go. Exhaust modifications may be necessary. Prior to drilling or cutting, check behind the surface being worked on for any wires, lines, or hoses that could be damaged. After any drilling or cutting, remove burrs and grind smooth any surfaces. An inclinometer or similar tool may be needed to measure driveshaft angles before and after the installation.

### Warning:

- It is the owners' responsibility to inspect all Rusty's products for proper torque specs to prevent loosening of components.
- Seat belts and shoulder harnesses should be worn at all times.
- Re-check all bolts and nuts after the first 100 miles and after any off-road usage during the first 300 miles.
- Although all of our products are made from the highest quality materials possible, they are not a substitute for Safe and Careful driving. In other words, have good safe on-road / off-road sense. Know the terrain, the speed limitations, and any obstacles that may lie ahead. Please remember to preserve our right to enjoy public land through the proper use of off-road vehicles.

### Before Starting Installation:

1. Carefully Read all warnings and instructions completely before beginning.
2. Verify all parts have been received in this kit by checking the parts list on page#2 of this document.
3. Only install this kit on the vehicle for which it is specified.
4. Park the vehicle on a clean, dry, flat, level surface and block the tires so the vehicle cannot roll in either direction.
5. Be certain the vehicle is safely secured on jack stands or a vehicle lift prior to working around or under a vehicle. Never rely on a jack alone to support a vehicle's weight; use appropriately rated stands to sup-



For Questions or Suggestions, contact our Tech Department (256-442-0607)

**Parts List:**

**Note:** Please be sure that you have all the provided parts listed below before continuing with the installation.

<b>Part #</b>	<b>DESCRIPTION:</b>	<b>Quantity</b>
RA-BM110-XJ	Rusty's XJ Front Trail Bumper	1
RA-BM110-XJ-FM	Rusty's XJ Front Trail Bumper Frame Mount	2
MC-97763A362	3/8"-16 x 1" Length Button Head Cap Screw (Black Finish)	6
05724620	3/8" SAE Flat Washer	6
52593589	3/8" - 16 Grade 8 Hex Lock Nut	6
67444729	M10 x 1.50mm x 30mm Length Hex Head Cap Screw	8
67746602	3/8" x 13/32" O.D. SAE Flat Washer	10
67486001	M10 x 1.50mm Grade 8 Hex Lock Nut	2
87918686	1/2"-13 x 3-1/2" Length Steel Carriage Bolt	2
87919650	1/2" x 1-3/8" O.D. Flat Washer	2
87922076	1/2"-13 Grade 8 Hex Lock Nut	2

**Optional Pre-Runner Bar Parts List:**

<b>Part #</b>	<b>DESCRIPTION:</b>	<b>Quantity</b>
RA-BM115-XJ-P	Rusty's XJ Front Trail Bumper Pre-Runner Bar	1
74454620	3/8"-16 x 1-1/4" Length Grade 8 Hex Head Cap Screw	2
05724620	3/8" SAE Flat Washer	2

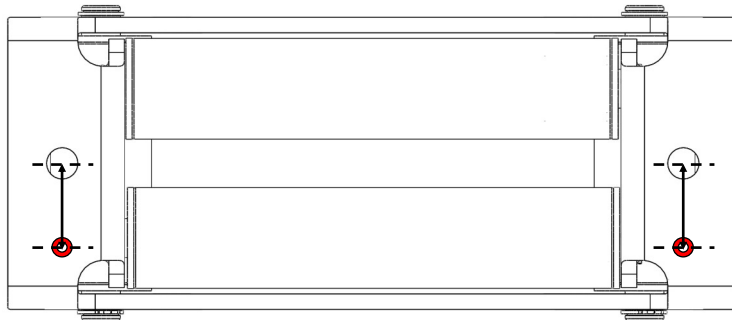


## Installation Instructions

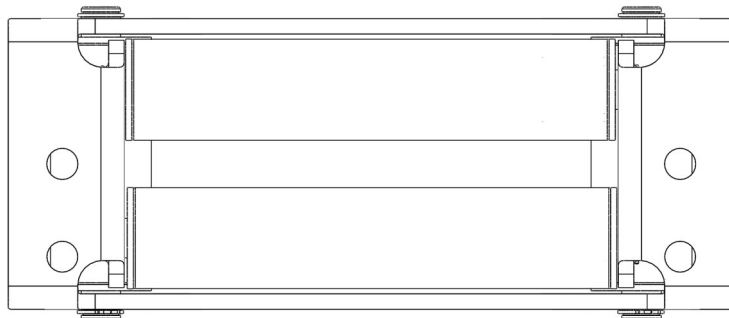
Note: Save all factory components and hardware for reuse, unless noted.

1. Remove the factory front bumper. Retain all factory bolts as some will be reused.
2. If the XJ is a 1997 or newer you will need to relocate the vacuum canister to the passenger side inner fender well. There are many existing holes with bolts that can fasten the vacuum canister.
3. Locate the horn/horns, loosen the attachment bolts and rotate the bracket to a higher point.
4. If the winch used has a hawse fairlead, skip step five.
5. If the winch used has a roller fairlead, new mounting holes will need to be drilled in the roller fairlead. Drill a  $\frac{1}{2}$ " diameter hole directly in line with the existing holes, but  $1\frac{1}{2}$ " down from the existing holes as shown in the images below.

Mark and Center Punch distance  $1\frac{1}{2}$ " from the center existing hole locations.



Drill  $\frac{1}{2}$ " diameter hole located at the two marked hole locations.



## Installation Instructions

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6. The winch clutch handle must be oriented so that it will be easily accessible when fitted in to the bumper. In most cases this will mean re-clocking the clutch lever will be required. Refer to the winch manufacturer's instructions for the procedure to re-clock the clutch mechanism. In most cases, the procedure will involve some variation the following steps:
  - A. Remove the allen screws that retain the clutch and gear box. (Figure 6A)
  - B. Rotate the assembly clockwise so that the handle can be reached from the bottom driver side of the bumper. (Figure 6B)(NOTE: Use caution not to lift or separate the assembly more than a few millimeters while rotating to avoid unmeshing of the gears.)
  - C. Refit the assembly and reinstall the allen screws. (Figure 6C)

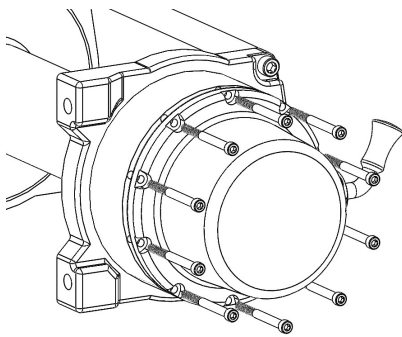


Figure 6A

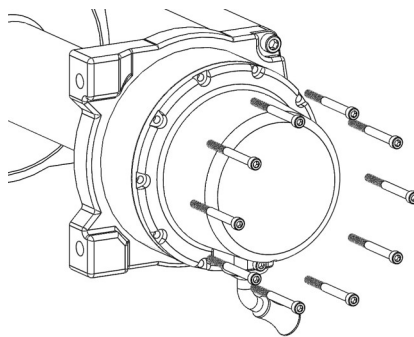


Figure 6B

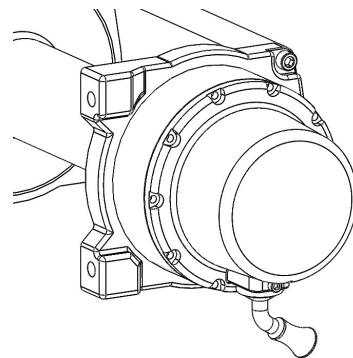
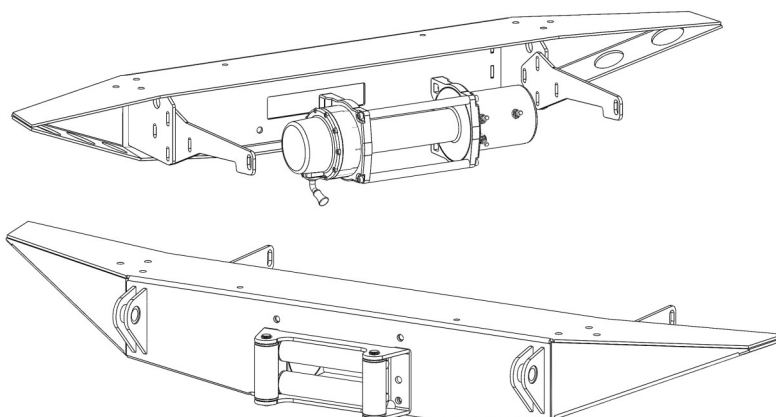


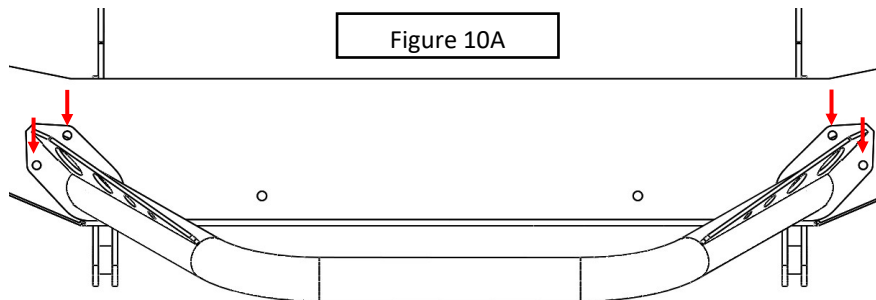
Figure 6C

7. Install the winch and fairlead to the bumper at this time with the supplied hardware provided with your winch. (Note: We have found that by installing the hardware supplied with the winch in the top two hole locations first to hold the winch in position, then align the holes drilled in the fairlead in step 5 to align with the bottom two hole locations of the winch. Tighten hardware to winch manufactures specifications.)



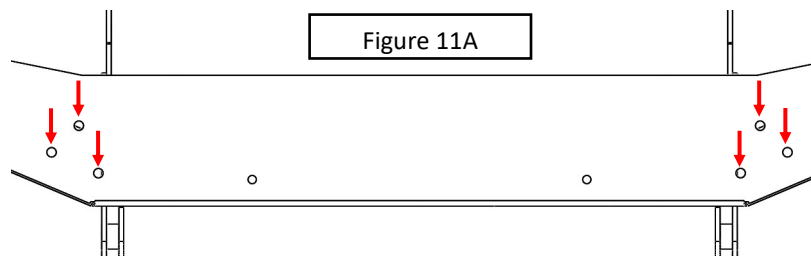
### Installation With Optional Modular Pre Runner Bar (Sold Separately)

10. Complete the following steps if you purchased the optional Modular Pre Runner Bar to be installed with your bumper. (**Note:** The installation of the bar is much easier to complete prior to installing the bumper assembly on the vehicle.)
- A. Install the supplied (Qty:2) 3/8"-16 x 1-1/4" Length Grade 8 Hex Head Cap Screw and (Qty:2) 3/8" SAE Flat Washer included with the optional Modular Pre Runner Bar by installing from the inside of the bumper. (**Note:** Do not fully tighten any hardware until instructed.)
  - B. Install the supplied (Qty:4) 3/8"-16 x 1" Length Button Head Cap Screw (Black Finish) in the top two mounting points on each side of the optional Modular Pre Runner Bar shown in Figure 10A then secure with the supplied (Qty:4) 3/8" SAE Flat Washer and (Qty:4) 3/8" - 16 Grade 8 Hex Lock Nut. (**Note:** Do not fully tighten any hardware until instructed.)
  - C. From the front of the bumper press against the optional Modular Pre Runner Bar towards the bumper shell then fully tighten the installed hardware installed in steps 7-A and 7-B.



### Installation Without Optional Modular Pre Runner Bar

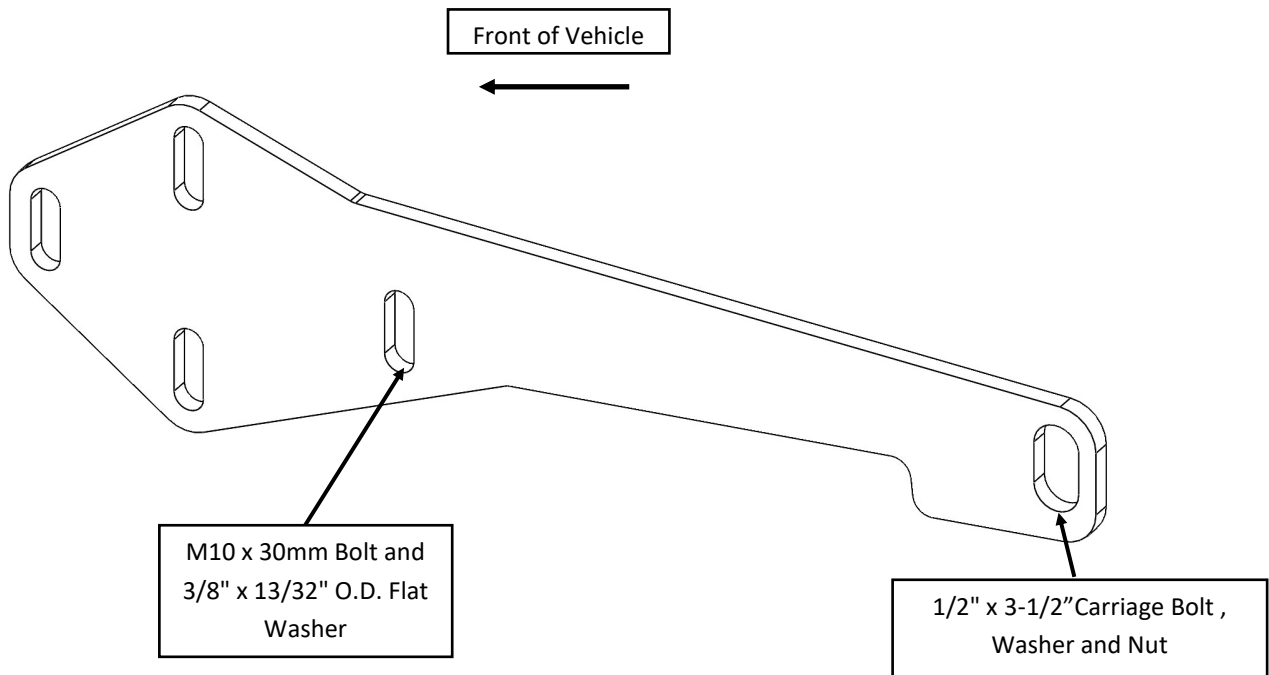
11. Complete the following steps if you are completing the installation without the optional Modular Pre Runner Bar to be installed with your bumper.
- A. Install the supplied (Qty:6) 3/8"-16 x 1" Length Button Head Cap Screw (Black Finish) in the six exposed mounting points on the bumper shown in Figure 11A then secure with the supplied (Qty:6) 3/8" SAE Flat Washer and (Qty:6) 3/8" - 16 Grade 8 Hex Lock Nut. (**Note:** These holes locations can be used to mount lights or other accessories if needed.)



## Installation Instructions (Continued)

Note: Save all factory components and hardware for reuse, unless noted.

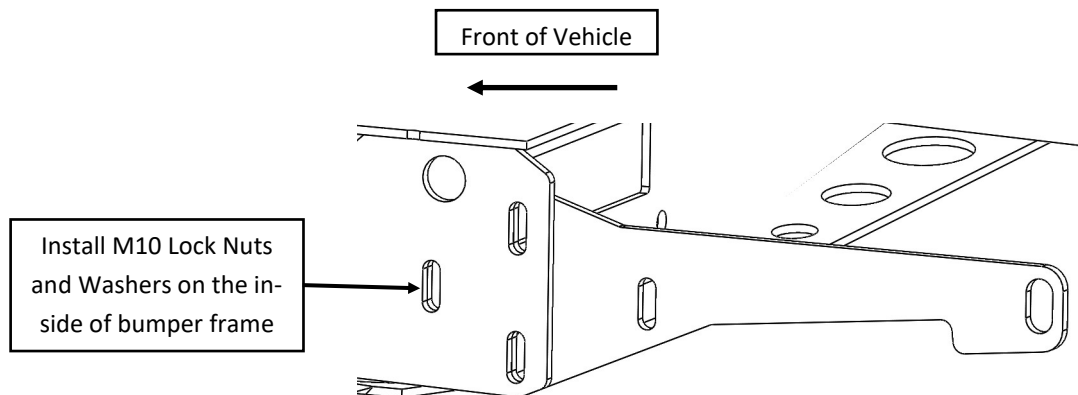
12. Install the supplied bumper frame mounts to both sides of the frame rail completing the following steps.
  - A. Align the supplied bumper frame mounts with the factory hole locations that align with the slotted hole locations in the bumper frame mounts.
  - B. Install the supplied M10 x 1.50mm x 30mm Length Hex Head Cap Screw and 3/8" x 13/32" O.D. SAE Flat Washer in the marked hole locations image below. (**NOTE:** Do not fully tighten at this time to allow for adjustment.)
  - C. Install the supplied 1/2"-13 x 3-1/2" Length Steel Carriage Bolt, 1/2" x 1-3/8" O.D. Flat Washer, and 1/2"-13 Grade 8 Hex Lock Nut in the marked hole locations image below. Install so that the washer and nut are on the inside of the frame rail. (**NOTE:** Do not fully tighten at this time to allow for adjustment.)



## Installation Instructions (Continued)

Note: Save all factory components and hardware for reuse, unless noted.

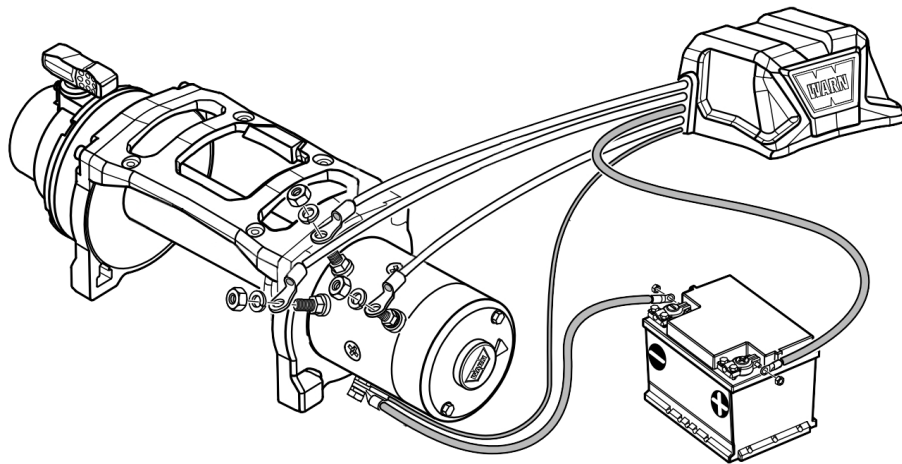
12. Install the bumper at this time with the help of an assistant by completing the following steps by raising the bumper and aligning the hole locations of the bumper frame mounts with the hole locations of the
  - A. Raise and align bumper mounting locations with the three unused hole locations on the bumper frame mounts shown in the image below. (**Note:** The bumper mounting locations should mount on the outside of the bumper frame mounts as shown in the image below.)
  - B. Install the supplied (Qty:6) supplied M10 x 1.50mm x 30mm Length Hex Head Cap Screws, (Qty:8) 3/8" x 13/32" O.D. SAE Flat Washers, and (Qty:2) M10 x 1.50mm Grade 8 Hex Lock Nuts to secure the bumper to the frame mounts. Install the M10 Lock Nuts and Washers on the inside of the bumper mounts of the most slotted hole locations the closest to the front of the vehicle marked below. (**NOTE:** Do not fully tighten at this time to allow for adjustment.)



13. Adjust bumper to ensure that it is mounted level and not tilted forward or backward. Once satisfied with the bumper alignment, tighten all of the mounting hardware to secure the bumper mounting position.
14. If the XJ is a 1997 or newer you will need to trim the front side of the inner fender well flush with the new bumper.
15. If the XJ is a 1996 or earlier you will need to trim the front fender flare/inner fender. Most will cut flush with the bottom of the grill.

### Installation Instructions (Continued)

16. With most of the winch models that will work with this bumper will need to have the control box removed and mounted elsewhere. Most customers will mount the control box either on the top of the bumper, under the hood, or in the grille. Route the inch electrical cables to the vehicle battery. Use precautions to ensure the cables are not routed near anything sharp or near any sources of excessive heat. Make all necessary electrical connections according to the instructions included with the winch. Once completed, double-check all fasteners for proper torque prior to using the winch under load.



17. Installation is now completed!

## WARNING

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