

## **ART-124 Installation Instructions**

# 1997-03 Wrangler Rear Trailing Arm Mounts Frame Repair Kit

## PLEASE Read ALL instructions BEFORE starting the repair!

- 1) Safety Notes <u>Follow all instructions</u>. Failure to follow instructions may result in property damage or serious or fatal injury. User assumes all liability.
  - a) Disconnect or remove the battery.
  - b) Remove the fuel tank. Check for leaking fuel. Clamp off or disconnect fuel lines near the tank. If anything leaks, remove it.
  - c) Remove interior panels and carpets that may burn in the area to be worked on.
  - d) Keep flammable materials at least 20 feet from car.
  - e) Keep fire extinguisher and water hose near vehicle.
  - f) Wear safety gloves and full eye protection.
  - g) Use a fire watch person when torch cutting or welding on any car.

### 2) Welding Styles

- a) "Stick" or "arc" welding is difficult for some people, but can produce a sound weld. Be sure to use the proper welding rod for this application.
- b) "Mig" (wire fed) welding produces a very sound weld. We suggest a 220 volt machine with .030 or .035 wire (E7056) and a 75% Argon, 25% CO<sub>2</sub> gas mix.
- c) "Tig" is also an option, but due to the rust and other imperfections of the old material, we do NOT recommend it unless you are an experienced professional welder and know what you're getting into.

#### 3) Welding Notes

a) Weld kit in place using a ½" to 1" long bead, spaced every 1". You must weld the frame kit solid for maximum strength. Allow some time for cooling and move around the part.

- b) Good welds require clean surfaces, so grind, scrape or wire brush surfaces to be welded. Ambient temperature should be at least 50 degrees
- c) If you're not confident doing the welding yourself, have a professional welder install it, or at least have one inspect your welds before you finish-coat the repairs.
- d) This kit is designed to slip over the remaining intact frame and weld in place. This helps keep the original dimensions and locations, which can be lost when frames are completely removed or cut apart. This technique provides superior strength and allows you to get the job done much more quickly than a full replacement. We make it easy to make it safe.
- e) The life of the repair will be extended by trimming or cutting back the rust. Allow at least ½" for overlap.

### 4) Preparing your Jeep Wrangler for a Frame Repair Kit Installation

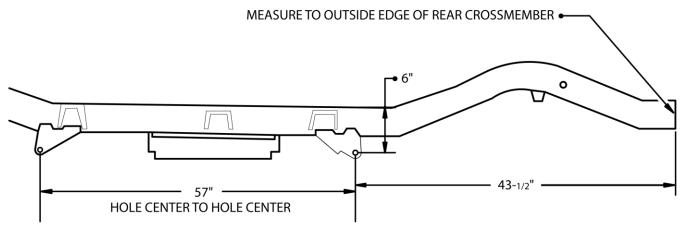
- a) Make sure you have followed all guidelines in **section 1 before** you start the repairs.
- b) Jack up all 4 corners of your Jeep and support it safely on 4 good jack stands. Add 2 more under the rear bumper/crossmember if possible (Skip this step if you're working on a lift)
- c) Remove both rear wheels
- d) Using a floor jack, support the rear end assembly.
- e) Unbolt and remove the upper and lower trailing arms.
- f) Transfer a mark from one of the original bolt hole locations to the frame above were you are cutting. Use a heavy marker, or paint. You will want this for reference later during assembly. You can mark both of the holes for better accuracy. Mark area to be cut, based on **Diagram 2**.
- g) Cut away the rusted area using a plasma cutter, a sawzall, or a torch. **Picture 1, and Diagram 2**
- h) Set the kit in place, roughly mark the areas were you will be welding.
- i) Grind the areas clean were your rough marks are, make it as clean as you can, that will allow for better welds.
- j) Slide kit over frame using measurements from diagram to locate it correctly. **Picture 2 and 3**
- k) Use clamps and make sure kit is in correct location. Take your time it's important to get it right. Double check **diagram 1** for measurements. It's critical you have the frame kit in the correct location. From the forward trailing arm mount to the **NEW** rear lower trailing arm mount is **57**





inches. From the new lower trailing arm mount to the rear crossmember is **43-1/2** inches. The new mount will be **6** inches down from the top of the frame. Measure twice, the measure again, and tack it in place, measure once more, if you're sure you have it located correctly, then prepare to weld it in place.

- 1) Once kit is placed correctly, weld in 1" beads around complete kit. Weld it SOLID. Make it safe, **Picture 4 and 5**
- m) Apply paint or undercoating to protect the new frame components, **Picture 6**
- n) Reinstall upper and lower trailing arms.
- o) Double-check that all your welds are solid. Make sure all the trailing arm bolts are tight, double check that everything you welded and repaired are safe and solid
- p) Lower Your Jeep back to the ground and hit the trails.
- q) Check the repairs and your welds after your first ride; make sure its all in good shape. Enjoy!
- r) Thank you for using our Safe-T-Cap products. We appreciate your business





**Mount rusted away** 



Picture 1, shows frame cut back



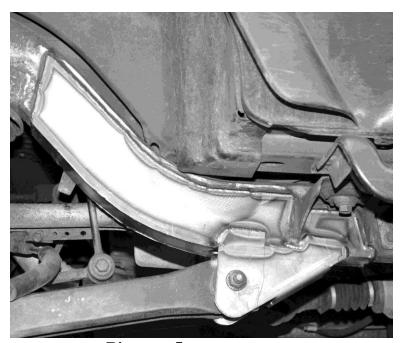
Picture 2, Test fitting



Picture 3, measure for correct location



Picture 4, Tack in place



Picture 5, welded solid



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Picture 6, FACTORY FRESH!

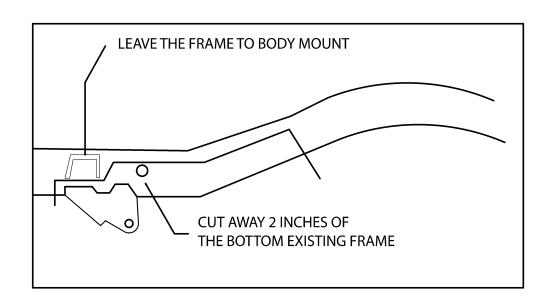


Diagram 2
Make sure you cut away both mounts.

We offer a full line of structural frame repairs kits for all your Jeep needs.

