

## **ART-99 Installation Instructions**

# 1986-96 Wrangler YJ Skid Plate Mount Kit 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.
- c) Ambient temperature should be at least 50 degrees Fahrenheit.
- d) 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.
- e) 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.
- f) 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 for a Frame Repair Kit Installation

- a) Make sure you have followed all guidelines in 1b before you start the repairs.
- b) Jack up your Jeep and support it safely on good jack stands.
- c) Remove skid plate. Put a jack stand under transfer case to support it.
- d) Unbolt the center body mount and remove the old rubber mount, then cut the steel center frame to body mount off.
- e) Cut rear brake cable bracket off the back side of frame. (Driver side only)
- f) Mark area to be cut, based on the diagram below. Transfer a mark from one of the original bolt hole locations to the frame above were you are cutting. You can mark all 3 of the holes for better accuracy.
- g) Cut the rusted area out using a plasma cutter, a sawzall, or a torch.
- 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.
- k) Use clamps and make sure kit is in correct location. Take your time it's important to get it right. Double check the diagram for measurements. It's critical you have the frame kit in the correct location. From the forward shackle to the first nut location is 13-1/4". Measure twice, measure again, and tack it in place, measure once more, if your 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
- m) Relocate the body to frame mount (see diagram for correct dimensions) weld in place, and bolt the body mount back in place
- n) Apply paint or undercoating to protect the new frame components
- o) Attach skid plate. Lower the transfer case back and bolt it securely
- p) Double-check that all your welds are solid. Make sure all the skid plate bolts are tight, make sure the transfer case mounts are all bolted tightly in place.
- q) Lower Jeep back to the ground and hit the trails.



