# ART-042 Installation Rear Frame Section / Shackle Mount 1987-1995 Wrangler YJ





CAUTION! If you are not fully confident doing the installation yourself, have a professional welder install it, or at least have one inspect your repairs before you finish coat your SafeTCap<sup>TM</sup> installation.

# IMPORTANT: Read and understand the "General Instructions for Installing SafeTCap Frame Repair Kits" before you begin.

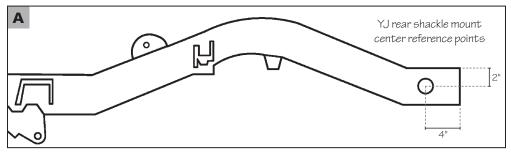
- 1. Position floor jacks or other solid supports under the center section of the frame..
- 2. Disconnect rear upper shackle mounting hardware and pivot down the leaf spring.
- 3. If you are repairing both driver and passenger sides repair one side at a time... safety first!
- **4.** Frames may have brackets, bump stops, etc. that might have to be cut off and welded back on after the SafeTCap<sup>TM</sup> is installed. Drill out spot welds on such parts for a cleaner cut and final finish.
- 5. Use the SafeTCap $^{TM}$  as a guide and mark out lower section of frame it will be covering. [see Illustration B]
- 6. Cut away the rusted area using a plasma cutter, reciprocating saw, or a torch; leaf spring mounting sleeve and the lower part of the frame all rust back to the rear crossmember. Allow a minimum of 1 inch overlapof frame and SafeTCap<sup>TM</sup>. [see Illustration C]
- 7. Set the SafeTCap<sup>TM</sup> in place; mark the area where you will be welding. [see Illustration B]
- 8. Grind the frame and rear crossmember attachment area down to bare, clean metal.
- 9. Slide kit over frame referencing your measurements and factory specifications. [see Illustration A]
- 10. Make sure kit is in correct location. Double check your measurements and tack the SafeTCap $^{\text{TM}}$  in place. Final inspect your set up, then weld all edges 100% solid to frame and rear crossmember. [see Illustration D]

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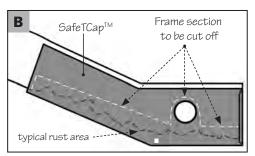
- 11. Prime and paint the repaired area.
- 12. Reinstall leaf spring shackle mount.
- 13. Visually inspect that the repaired area is secure, safe, and solid.
- **14.** Test drive, then inspect after one day or one mile, then monthly.

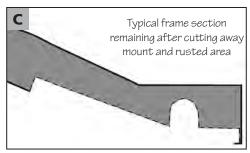
ART-042

# ART-042: Rear Frame Section / Shackle Mount 1987-1995 Wrangler YJ

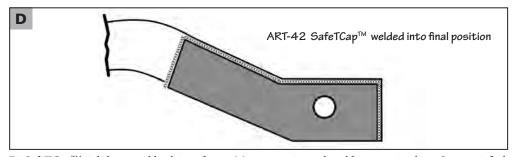


Start by measuring the distance center of the shackle mount to end of the rear crossmember, your frame may vary slightly from the factory specs above. Accurate measurements are key for factory correct alignment of your new SafeTCap<sup>TM</sup> and proper suspension performance.





Use your new SafeTCap<sup>TM</sup> as a guide and marker or chalk out a basic fit placement, keep a 1 inch minimum overlap of frame to SafeTCap<sup>TM</sup>. Grind clean the remaining frame and rear crossmember attachment area, then position the SafeTCap<sup>TM</sup> with measurements referenced in Illustration - A.



Fit SafeTCap $^{\text{TM}}$  tightly up and back into frame. Measure again, tack weld corners in place. Once satisfied with position and appearance, weld all edges 100% solid. Move the bead area around to avoid overheating.



We Make it Easy to Make it Safe!

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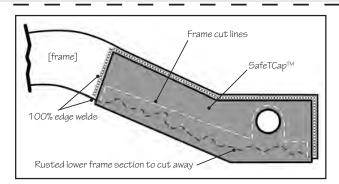
# General Instructions for Installing SafeTCap™ Frame Repair Kits

General automotive welding safety, metal preparation, and frame repair guidelines to achieve long-lasting results – safely.

Attention! For your safety follow all instructions. Failure to follow instruction may result in property damage or serious or fatal injury. User assumes all liability.

## **EQUIPMENT LIST**

- Jack Stands/Ramps/Lift
- Quick Line Disconnect
- Eye & Ear Protection
- · Work Gloves
- Fire Extinguisher & Water
- · Cutting Wheel or Torch
- Grinder or Sander
- Locking Pliers or Clamps
- · Welder: Mig or Stick
- Paint & Undercoat



## VEHICLE PREPARATION

- 1. Disconnect the battery.
- 2. Check for fuel leaks; tank > lines > engine.
- 3. Repair or replace any leaky fuel lines before proceeding any further.
- 4. If the fuel tank leaks, remove it before, repair/replace after installation is complete.
- 5. Remove fuel tank if within 24" of the welding/repair area.
- 6. Keep flammable materials at least 20' from the vehicle.
- 7. Remove interior panels, seats, padding and carpets in the cabin area above work area.
- 8. Keep a fire extinguisher and water hose close by, use water for any fabric fires.
- ALWAYS use a Fire Watch Person when cutting or welding on a vehicle. In case of emergency, call 911 immediately.

## WELDING & SAFETY

- 1. Take safety precautions by wearing eye protection, gloves, sturdy boots, etc.
- "Stick" or "arc" welding is difficult for some, but capable of producing a sound weld.
   For best old/new metal results, use 6011, 3/32" or 1/8" welding rods.
- 3. "MIG" welding produces a very sound weld. At Auto Rust Technicians we use 220v units with .035 wire (E7056) with a 75% Argon/25% CO2 gas mixture.
- 4. Quality welds require clean surfaces; so grind, scrape or wire brush surfaces to be welded the minimum frame temperature for welding is 50°.
- 5. Weld kit in place using 1/2" to 1" long beads every 1", then weld seams solid.
- 6. If in doubt about the techniques, equipment and skills needed for a safe and successful installation call (800)407-7024 for an appointment to install your kit at our Cranston, R.I. location, or to obtain a list of installers near you.

> continued on page 4

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# General Instructions (con't.)

#### INSTALLING THE NEW FRAME KIT

- 1. If you are installing a right/left pair, repair one side at a time, keeping a reference/measuring point.
- 2. Support vehicle completely over a solid, level floor. Use good quality, weight-rated, safety jack stands, ramps or ideally a hydraulic lift.
- 3. Most of our kits are designed to slip over the original frame after the bottom of the frame rust is cut back, and then welded in place. This helps duplicate the original dimensions, and location points, which can be lost if sections are completely removed. This overlapping SafeTCap<sup>TM</sup> technique is the way we have been successfully repairing frames for over 40 years, providing superior strength while allowing you to complete the job safely and quickly.
- 4. The bottom of the frame must be cut off and area ground to clean metal at least half way up the frame. With this method the frame rust is not contaminating your new frame section. The minimum remaining can be no less than 1/2″ of the original frame for the SafeTCap™ kit to overlap and perform as designed. Measure, fit, measure, then tack weld SafeTCap™ at key points, the final installation requires complete 100% edge welding, with an assistant acting as a Fire Watch.
- 5. Some frames have brackets, bumps, stops, etc. that need to be cut off and reused in order to complete the installation. Drill out the factory spot welds on these for cleanest removal.
- 6. Once welding and wire brushing is finished, brush or spray primer, then paint or undercoating.
- 7. Inspect the repair yearly.

# SAFETCAP™ ONE YEAR LIMITED WARRANTY

### What Does This Limited Warranty Cover?

This warranty covers any SafeTCap<sup>†M</sup> product defect or malfunction in your new frame repair component.

#### How Long Does The Coverage Last?

This warranty lasts one (1) year from the date of purchase and is nontransferable.

#### What Will SafeTCap™ Do?

SafeTCap™ will replace any defective part at no charge. You must pay shipping and all labor charges to remove and reinstall the defective part.

#### What Does This Limited Warranty Not Cover?

This limited warranty applies to the SafeTCap<sup>TM</sup> frame repair components only, and covers any defects in materials and workmanship on the component. SafeTCap<sup>TM</sup> is not responsible for product failure due to improper installation, or installation on modified frames and vehicles with non-standard retrofitted suspensions. SafeTCap<sup>TM</sup> is not responsible for the quality of

the installation, or for any issues that may arise beyond the scope of repair for which the part was intended.

Consequential and incidental damages are not recoverable under this warranty. Some states do not allow the exclusion or limitation of incidental or consequential damages, so the above limitation or exclusion may not apply to you.

#### How Does State Law Apply?

This warranty gives you specific legal rights; you may also have other rights which vary from state to state.

#### How Do You Get Warranty Service?

In order to be eligible for service under this warranty, you must return the SafeTCap<sup>TM</sup> registration card provided, within 30 days of receipt. You may also register your SafeTCap<sup>TM</sup> online at www.safetcap.com. To obtain warranty service, please call us toll free at 1-800-407-7024.



We Make it Easy to Make it Safe!

## SafeTCap<sup>TM</sup>

1550 Elmwood Ave. Cranston, Rhode Island 02910 (401) 944-4444 (800) 407-7024 www.safetcap.com (USA) SafeTCap products are designed and developed by SafeTCap Inc. in response to hundreds of vehicles that have required frame rot repairs. All kits/parts have been developed, manufactured, tested and installed at our Cranston, Rhode Island, USA facilities.

We accept returns within 30 days of receipt of product. Buyer pays return shipping and is subject to a 10% RESTOCKING FEE. To return an order customers need to call 1-800-407-7024 to obtain a RETURN AUTHORIZATION NUMBER. We do not accept returns that have been modified or altered, in any way, from the factory shipped component.

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