

ART-102 Installation Instructions

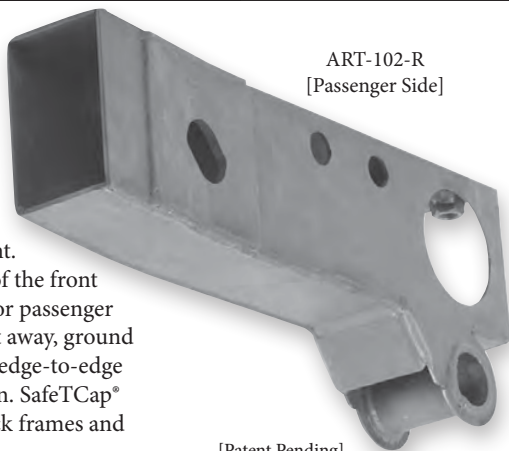
Front Shackle & Steering Box Mount Kit



1987-1995 Wrangler YJ



We Make it Easy to Make it Safe!



ART-102-R
[Passenger Side]

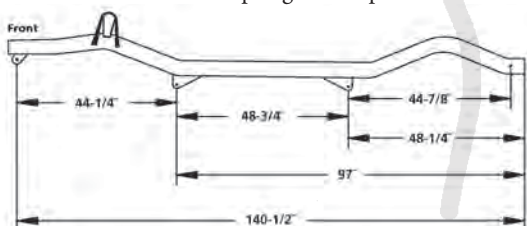
[Patent Pending]

This kit is a replacement frame section component. The ART-102 is designed to replace the first 14" of the front frame rail on either the driver side (ART-102-L) or passenger side (ART-102-R). The rotted frame section is cut away, ground down clean and straight, then the kit is fit tightly edge-to-edge to the frame and butt welded into its final position. SafeTCap® frame repair kits are guaranteed to fit factory stock frames and are designed and manufactured in the USA.

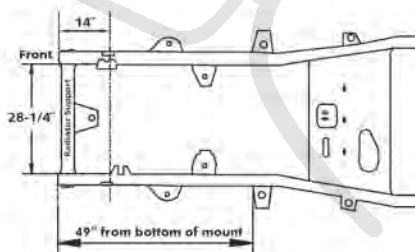
CAUTION! If you are not fully confident doing the installation yourself, have a professional welder install it, or at least have one inspect your repairs before you finish coat your SafeTCap® installation.

PREPARING YOUR JEEP FOR ART-102 INSTALLATION:

1. **IMPORTANT:** Read and understand the "General Instructions for Installing SafeTCap® Frame Repair Kits" before you begin.
2. Support the Jeep properly over a solid, level surface. Use heavy duty jack stands, do not rely on a pump jack to hold your Jeep up! - use all precautions for your safety. Support the Jeep by the frame so that the suspension is unloaded, or hanging; this will make it easier to lower the leaf spring out of the way.
3. Remove the front bumper and any body panels that attach to the frame section to be repaired.
4. If repairing the driver side frame rail, remove the steering box or you can unbolt it from the frame and push it away from the repair area, then lower the sway bar out of the way.
5. Remove the bracket that attaches under the frame and to the steering box.
6. Remove the front shackle bolt and the mount bushing - if you are not replacing with a new one.
7. Lower the front leaf spring down and out of your way to give yourself plenty of work space.
8. This kit is engineered as a frame section replacement to be butt welded into place. Before you start cutting the old frame away, take several measurements for reference. The new frame section must be welded in at the stock specs; frame bottom to level ground and 28-1/4" between frame rails. The factory frame diagrams below show the other critical dimensions; 14" cut off of frame rail and 44-1/4" for leaf spring mount points.



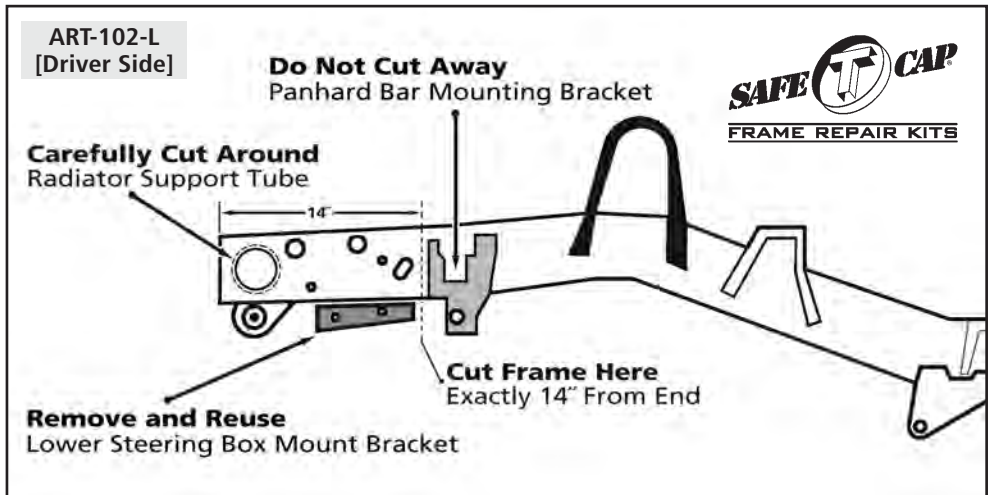
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ART-102

ART-102 Installation Procedures & Tips

- A. Because this is a frame replacement section, steps should be taken to brace the frame BEFORE you cut the rusted section away. If the engine is still in place, it will help keep it from moving; however you should plan to weld a support brace across the frame to keep it from shifting laterally. You should also weld a second support brace in place to keep the frame from shifting up or down while you're doing this repair.
- B. Start by cutting the section of frame rail away from the tubular radiator support. Then cut back 14" to just before the panhard bar mounting bracket. Do not cut beyond this mount, the kit does not go beyond that. You will need to remove one of the ears on the panhard bar bracket where our replacement section joins up. If you do have rust beyond that point you will need to fabricate a repair. Cut the frame away carefully, and make sure to not cut too much; measure once, measure twice...then cut. We find that cutting the frame away in several sections relieves any remaining support pressure and helps to insure an accurate fit of kit to frame.
- C. Remove the cut section(s) and carefully grind down the factory welds around the tubular radiator support. The tube will now slide into the kit as the stock frame section did. This is a key anchoring and measuring point to achieve the factory set inside frame measurement of 28-1/4" for driver to passenger frame rails. Grind all frame-to-kit contact surfaces clean to prepare for positioning and tacking.
- D. Now, fit the kit in place and clamp it up, and support the kit from underneath. Run a 4' level across the frame rails to be sure the new frame repair kit is in the correct place, both vertically and horizontally. Measure the distance between your new frame section, and the frame on the opposite side. It must be exactly 28-1/4" or 717.55 mm. Be 100% accurate, take your time and adjust the kit as required. When satisfied with your measurements, tack weld the kit in place, measure one last time to be completely accurate.
- E. Once the kit is in the correct location and matches the measurements taken before cutting anything, you are ready to weld. Weld all connection points and surfaces - do not overheat. Run beads 1-2" long, then move to another area. Take your time and do it right; 100% solid and smooth welds. Quality welding is the most important factor in this installation. Reinstall leaf spring, steering box, panhard bar, and any other frame attachments.



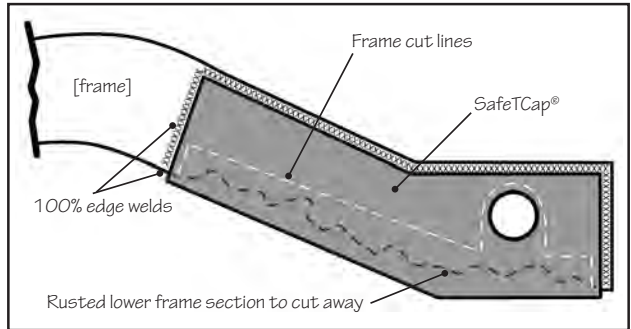
General Instructions for Installing SafeTCap® Frame Repair Kits

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.
9. 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.
2. "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 (ER70S-6) 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.

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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® 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® 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® frame repair components only, and covers any defects in materials and workmanship on the component. SafeTCap® is not responsible for product failure due to improper installation, or installation on modified frames and vehicles with non-standard retrofitted suspensions. SafeTCap® 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® registration card provided, within 30 days of receipt. You may also register your SafeTCap® 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®

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(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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