# ART-150 Installation Forward Fuel Tank Support Crossmember 1999-2006 Silverado/Sierra 1500 1999-2006 Silverado/Sierra 2500





The ART-150 is designed to function like the original OEM crossmember, but does not resemble it in appearance.

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.

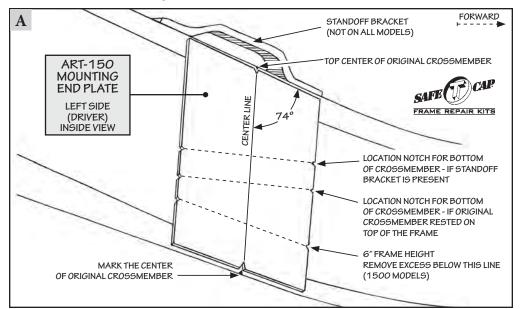
- 1. IMPORTANT: Read and understand the "General Instructions for Installing SafeTCap" Frame Repair Kits" BEFORE YOU BEGIN.
- 2. Prepare your truck by running the fuel as low as possible in the tank to decrease the weight of the tank.
- 3. Support the truck on two heavy duty jack stands under the rear axle. Create enough room to work safely. Level the frame left to right. Two additional jack stands on the frame will add extra stability and support.
- 4. Place a floor jack under the fuel tank to support it during removal.
- 5. Disconnect the fuel tank filler neck and remove gas cap.
- **6.** Unbolt the straps that hold the fuel tank in place.
- 7. Disconnect the fuel lines. You may need a 3/8" and 5/16" quick line disconnect available at any auto parts store. Clamp off or plug lines to avoid fuel leaks and fumes.
- 8. Lower the fuel tank out from the frame and move the tank to a safe distance away from the vehicle.
- 9. Mark the vertical center of the original crossmember on the inside face of both left and right frame rails.
  Once center is marked, extend it to the bottom frame element by an angle of 74 degrees. [Illustration A]
- 10. Next, remove the old crossmember. Use a reciprocating saw, plasma cutter or cutting disc tool.
- 11. Grind area to be welded where the inside mount plate meets the top and bottom of the frame.
- 12. Make a note of where all lines and wires are routed. Most will run above the cross member.
- **13.** Line up the center marks on the inside end plates with the center line of the original crossmember marked on the frame. [Illustration A]
- **14.** After clamping the mounting plates into position, recheck the center mark alignment and tack weld the mounting plates to the inside of the frame rails.
- 15. You are now ready to place the ART-150 crossmember into position.
- 16. Make sure the fuel tank strap mount (M10-1.5x75mm mounting bolt included) is on the driver's side.
- 17. The ART-150 is approximately  $3^{3/16}$ " wide. Mark two lines parallel to the center line on each mounting plate at a measurement of  $1^{19/32}$ " to serve as location marks for the new crossmember. [Illustration A]
- **18.** Determine if your original crossmember is mounted directly to the top of the frame, or sits on top of a bracket that elevates it off the frame by approximately 1" [Top Illustration B]. This will determine which height line to use on the inner mount plate to set the ART-150 on. [Illustrations A + B] (con't. page 2)

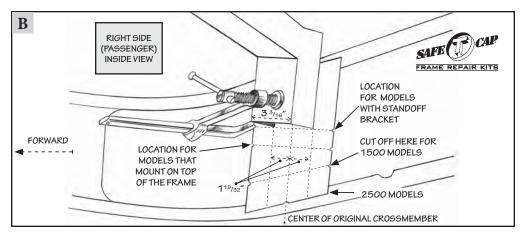
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- 19. Position the ART-150 on the marks that match your model, clamp to the inner mount plates. [Illustration B]
- 20. Check the alignment of the new crossmember with the rear fuel tank crossmember by making sure the bottoms of both T-strap brackets are parallel. [Illustration C]
- **21.** Route all lines and wires over the crossmember where applicable.
- **22.** Tack weld in place and remove the clamps.
- **23.** Test fit the fuel tank in place.
- **24.** Once satisfied with the position and fit of the new crossmember, weld the ART-150 solid to the mount plates and the mount plates to the top and bottom of the frame. Note: Some models have EVAC components welded to the crossmember, *you will need to reinstall it before you remount the fuel tank.*
- **25.** Move the fuel tank into position to be reinstalled. *Note: This may be a good time to replace the fuel pump.*
- **26.** Reconnect the fuel lines and rehang the fuel tank with your existing mounting strap and new, supplied bolt.
- 27. Lower the truck to the ground, refuel tank, idle engine, and check for fuel leakage.
- 28. Test drive and recheck all components.





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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.

#### 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.

### EQUIPMENT LIST

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

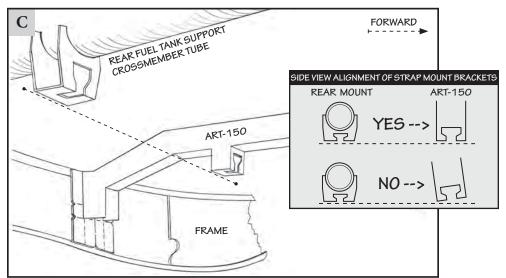
- 1. Take safety precautions by wearing eye protection, gloves, sturdy boots, etc.
- 2. "Stick" or "arc" welding is difficult for some, but capable of producing a sound weld. For best old/new metal results, use 6011, 3/32", or 1/8" welding rods.
- 3. "MIG" welding produces a very sound weld. At Auto 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.

#### 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. Measure, fit, measure, then tack weld the SafeTCap® at key points, the final installation requires complete 100% edge welding with an assistant acting as Fire Watch.
- 4. 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.
- 5. Once welding and wire brushing is finished, brush or spray primer, then paint or undercoating.
- 6. Inspect the repair yearly.

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#### 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<sup>®</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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