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INSTALLATION INSTRUCTIONS FOR: RE4400/RE4405 TJ TRI-LINK REAR TRUSS ASSEMBLY

Application Notes:

- 1) This is not a standalone kit - it has been specifically designed for use in conjunction with Rubicon MFG's Extreme Duty Long Arm Kits. Modification of this kit or any of its components to adapt to a different manufacturer's system will void any warranty expressed or implied.
- 2) This kit requires modifications to the exhaust system. Generally, after the suspension is installed, plan on having a shop install a system starting at the rear of the catalytic converter and continuing on back, and also using a smaller muffler.

Safety Warning:

Suspension systems or components that enhance the off-road performance of your vehicle may cause it to handle differently, on and off-road, than it did from the factory. Care must be taken to prevent loss of control or vehicle rollover during sudden maneuvers. Failure to drive the vehicle safely may result in serious injury or death to driver and passengers. We recommend you always wear your seat belt, drive safely and avoid quick turns and other sudden maneuvers. Constant maintenance is required to keep your vehicle safe. Thoroughly inspect your vehicle before and after every off-road use.

Installation Warning:

We recommend that certified technicians perform the installations of our products. Attempts to install these products without knowledge or experience may jeopardize the safety of the vehicle. These instructions only cover the installation of our products and may not include factory procedures for disassembly and reassembly of factory components. Read instructions from start to finish and be sure all parts are present before disassembling the vehicle. Included instructions are guidelines only for recommended procedures and in no way are meant to be definitive. Installer is responsible to insure a safe and controllable vehicle after performing modifications. Do not perform test drives on public roads with partially completed installations. Always double and triple check your work before use.

KIT CONTENTS

RE4400 ('97-'02) Tri-Link Rear Truss Kit
or
RE4405 ('03-'05) Tri-Link Rear Truss Kit

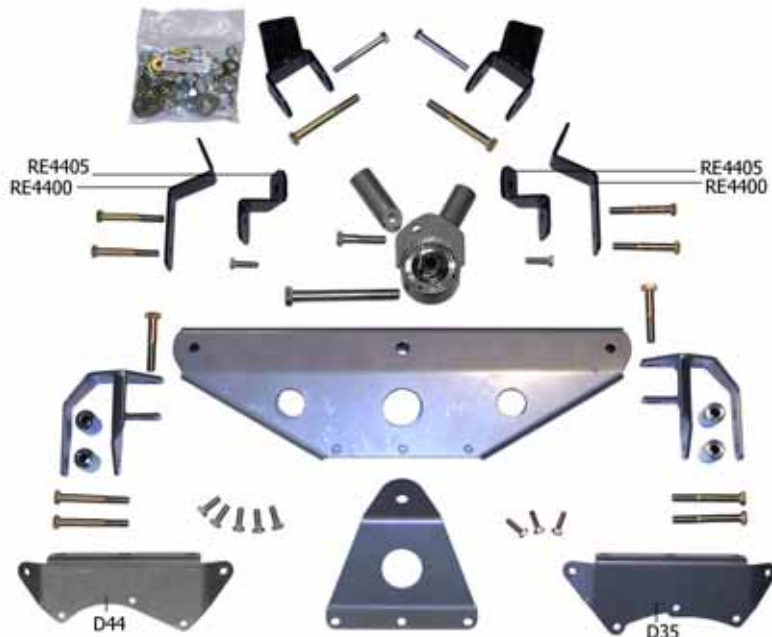
**Also required for use with Rubicon
MFG Long arm:**
RE4450 Tri-Link upper arm conversion kit

TYPICAL TOOLS REQUIRED

Drill motor, drill bits, angle grinder with
sanding disks
Basic mechanical hand tools and T-55
Torx head bit
Floor jack, jackstands (2 pair)

INSTALLATION OVERVIEW

1. Removal of parts and crossmember modifications
2. Rear truss installation
3. Rear upper links (not included with truss kit)



Step 1 – Crossmember modifications

- A. With the vehicle properly supported, remove the rear upper control arms, driveshaft at the pinion only, shocks and sway bar links. Remove the upper exhaust from the catalytic converter to the tailpipe.
- B. Install the right and left upper control arm relocation brackets into the crossmember where the upper arms were removed. New 10mm bolts and lock nuts are supplied. **Refer to Image 1.**



Image 1



Image 2

- C. Locate the position of the relocation bracket supports on the frame or crossmember. Mark the frame (97-02) or crossmember (2003+) and drill the necessary holes. Using the supplied hardware, loosely install the brackets. (Late model show in photo) **Refer to Image 2.**

Step 2 – Rear truss assembly

- A. With the upper control arms removed and axle lowered, sand the top of the upper control arm brackets flat, removing the ears from the top front edge. Next, sand the tabs on the outer edges of the brackets to be smooth with the bracket. Then drill out the hole in the upper control arm mount to 7/16". **Refer to Images 3 and 4.**



Image 3



Image 4

- B. Loosely pre-assemble the rear truss assembly. Attach the left and right control arm brackets, upper pivot support, and the correct differential cover bracket. The rear truss kit includes both the D35 and D44 cover bracket. You will need to select the correct differential cover bracket from the kit for your vehicle. **Refer to Image 5.**



Image 5

- C. Remove the upper three differential cover bolts and lower the truss assembly over the upper control arm brackets. Insert the two upper bolts through the control arm brackets, then using the supplied 5/16"x1" bolts, align the rear cover bracket and lightly tighten the bolts. Tighten the two 1/2" bolts that go through the control arm brackets and main truss. Mark and drill the four additional holes on the control arm mounts. **Refer to Image 6.**



Image 6

- D. Insert the four 7/16" bolts through the upper and lower holes in the brackets using the supplied spacers to keep the factory axle brackets from collapsing. Once all hardware is installed, tighten all but the three of the upper pivot support brackets. **Refer to Image 7.**



Image 7

NOTE: Do not install all of the upper pivot support bolts at this time. Leaving two bolts out and swinging the bracket out of the way will assist in installing the upper link assembly. Once the assembly is in place and axle centered, install and fully tighten all hardware.

Step 3 – Rear arm installation

NOTE: If using this kit as a retrofit to an existing Rubicon MFG Long Arm Kit, you will also need the RE4450 Tri-Link Arm Conversion Kit. If this is a new installation, skip step A.

- A. Loosen the jam nut on the upper control arms and remove the coupler assemblies. Remove the set screw from the Super-Flex joint at the end welded to the main arm. With the tool supplied in the RE4450 kit, remove the threaded insert. With a press or vise, remove the ball and races from each arm. Use caution to prevent damaging the threads in the threaded coupler. Reinstall the new races, ball, and threaded insert. Tighten the insert to approximately 60-70 ft/lb then just enough more to install the set screw. When fully assembled the ball should not move with your bare hands.
- B. UPPER TRI-LINK - Pre-assemble the two rebuilt upper arms to the HD S/F ball assembly. The main pivot assembly will connect to what will now be the right upper arm; the threaded coupler with the 1/2" sleeve welded to it will be the left upper arm. It is recommended that the 1/2" bolt be installed from the bottom up for maximum clearance. Set both arms at an equal distance from center of end to center of end, approximately 34 1/4" - do not tighten the jam nuts at this time. **Refer to Image 8.**



Image 8

NOTE: It is very important that 1" of thread contact be maintained between the upper arms and the pivot assembly.

- C. Remove two of the bolts from the upper pivot support bracket and slide the upper arm link assembly into the upper control arm pockets. Install supplied 1/2" x 4" bolts through the upper arm mount and mount support bracket.
- D. Install 5/8" bolt through upper pivot support bracket and main truss to fully secure upper assembly. Refer to Image 9.
- E. Install the 1/2" bolt up from the bottom of the pivot ball through the control arm coupler for maximum clearance. Refer to Image 10.



Image 9



Image 10

- F. Raise the axle into ride height position, approximately 12-13" distance between upper and lower spring cups. With a string line or straight edge, measure axle center off the side of the frame down to the axle. Make sure that your axle measuring point is the same on both sides.
- G. If your axle is off-center to the driver's side, lengthen the driver's side arm and shorten the passenger's side arm, or vice versa. Keep in mind that increasing or decreasing the length of the upper arm assembly will affect the pinion angle. Once centered, and thread contact into the pivot assembly threads is confirmed, use the lower arms to fine-tune pinion adjustment.
- H. Once all adjustments are made, verify that all brackets are installed and hardware is tight.

NOTE: The 1/2" bolt on the end of left upper control arm coupler that connects to the pivot must be tightened after final adjustments are made. This attachment point is not designed to be left loose as a pivot itself.