

RUBICON MANUFACTURING INC. 3290 MONIER CIR., RANCHO CORDOVA, CA. 95742 916-473-4600

INSTALLATION INSTRUCTIONS FOR: RE9900 XJ CONTROL ARM DROP BRACKET SET & RE9905 BRACE KIT

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 seatbelt, 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.

RE9900 KIT CONTENTS:

1 1	RM21530 Left lower bracket RM21531 Right lower bracket
1	RM21532 Left upper bracket
1	RM21533 Right upper bracket
2	RM42500 2" Long plastic spacer
2	RM42510 2.25" Long plastic spacer
1	Hardware bag kit with:
4	3/8 x 18 x 1.25" Hex bolts
8	3/8 Flat washers
4	3/8x18 Lock nuts
2	10mm x 75mm Hex bolts
2	10mm Top lock nuts & washers
8	1/2" Washers
2	1/2"x13 Lock nuts
2	9/16x12 Lock nuts
2	1/2 x 13 x 3.5" Hex bolts
2	9/16 x 12 x 4.5" Hex bolts

RE9905 KIT CONTENTS:

1	RM21540 left bracket brace
1	RM21541 right bracket brace

REQUIRED TOOLS:

Basic mechanics' hand tools Jack stands and floor jack 1/2" drill bit and motor

INSTALLATION:

Note: Installation of this kit will relocate the front control arm mounts lower on the frame side of the vehicle to improve suspension geometry. This will lessen the angle of the arms resulting in improved handling and wheel travel characteristics. (If RE9905 support braces are to be installed read steps 15 –17 before installing drop brackets).

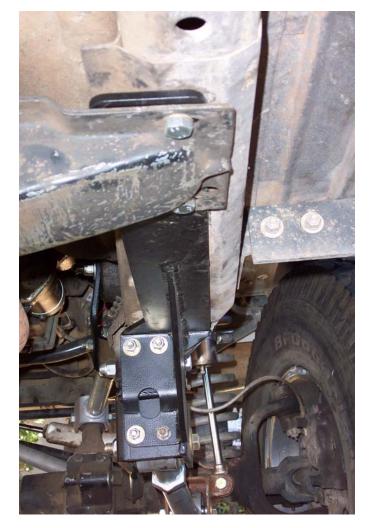
- 1. Verify contents of kit before disassembly.
- 2. Properly support vehicle by frame allowing front axle to be serviced.
- 3. Remove both upper and lower control arms at the frame one side at a time (see step 5)
- 4. Remove alignment shoe and shims from lower control arm bracket.
- 5. It may be helpful to install brackets one side at a time, because the axle is hard to control with both right and left control arms disconnected. If this kit is being installed with a suspension system install brackets on both sides before installing control arms.
- 6. Ream upper control arm mount to $\frac{1}{2}$ ". Use proper size drill bit. This will allow use of a stronger bolt.
- 7. Place new lower control arm drop bracket in stock pocket so that the "ear" for the upper arm is toward the center of the vehicle (see photo 1).
- 8. Use 3/8" bolts to attach bracket to frame at the two holes used by the previously removed alignment shoe.
- 9. Insert 2 1/4" long plastic spacer inside pocket of new bracket where old control arm was bolted. Use 9/16" bolt to secure bracket to frame. This bolt will be used to also attach the lower side of the upper control arm mount (see photo 1).
- 10. Determine which is the appropriate bracket for the upper control arm and attach using the 9/16" x 4.5" bolt you have just put through the bracket and the spacer. This bracket can only be installed one way (see photo 1). To attach the upper side of the upper control arm bracket use a ½"x 3.5" bolt to secure the 2" long plastic spacer inside the stock upper control arm mount. Secure the bracket to the inside of the stock upper control arm mount with this bolt; go through the uppermost bolthole.
- 11. Install factory alignment shoe in lower pocket of new lower control arm bracket. Use of shims is not recommended. If you must use alignment shims verify that bolts in alignment shoe are sufficiently long. If not replace with longer bolts.
- 12. Using the factory bolt, install lower control arms in new brackets in the same fashion as the stock assembly.
- 13. Install upper control arms in the pocket created by both new brackets, use the supplied 10mm x 75mm bolts.
- 14. Torque all bolts to factory specs and check your work.
- 15. Note that the RE9905 support braces will not work on Comanche pick-up trucks. Also, on some early model XJ's, braces may need the holes for the cross member re-drilled. If you are installing the braces on your XJ Cherokee you will want to install them simultaneously with the other brackets because they share 4 bolts on either side.
- 16. Before installing control arm brackets attach brace to frame using the 2 cross member bolts on either side of the frame (see photos 2 & 3). The brace will be located between the frame and cross

member. Separate right and left brackets with the four-hole section, that mates to the drop bracket, toward the center of the vehicle. One bolt on either side of the cross member is a stud. This will have to be removed and replace with a hex head bolt (supplied in transfer case drop kit of main XJ kit). Remember to support transmission before removing bolts at cross member.

17. Verify that the brace will align with the 4 punched holes in the drop brackets on either side. If not, adjust accordingly. Make certain brace is bolted through the factory mount to the new control arm drop brackets at the top two holes. The bottom two bolt right to the drop brackets.



<u>PHOTO 1</u>



<u>PHOTO 2</u>



<u>PHOTO 3</u>