



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

INSTALLATION INSTRUCTIONS FOR: RE6500 MJ 5.5" SUSPENSION LIFT

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.

KIT CONTENTS:

52003500 (2)	U-bolt plates
RE1141	Gen2 sway bar disconnects
RE1334	Coil spring spacers
RE1345	Front coil springs
RE1380	Front bump stop extensions
RE1513	Rear brake hose
RE1550	Front brake hoses
RE1660	XD adjustable track bar
RE1665	XD track bar bracket
RE1935	Rear spring perches
RE2020	Weld on shock mounts (pr)
RE2120	T-case lowering kit
RE2421	U-bolt kit
RE3700	Lower front control arms
RE3781	Upper front control arms
RE9900	Control arm drop brackets

REQUIRED TOOLS:

Basic mechanics' hand tools
Jack stands and floor jack
Drill motor and 5/8" drill bit.
Pickle fork for track bar removal
Spring compressors
Brake fluid

INSTALLATION:

Note: Read all instructions before beginning installation. Lift heights taller than 4.5" will require modifications to the rear driveshaft. A CV-type driveshaft and transfer case slip yoke eliminator are recommended. Installation time should be approx 8 hours.

1. Raise vehicle and support with stands.
2. Remove wheels.
3. Remove front shocks.
4. Remove front sway bar end links.
5. Disconnect front track bar; it may be helpful to disconnect steering linkage at pitman arm.
6. Remove front spring retainer clamps at bottom spring cup.
7. Remove front springs. Spring compressors may be helpful.
8. Support the front axle with jack stands.
9. Remove factory brake lines and replace with supplied stainless steel lines. Some require positioning the block and line vertically at the caliper. Watch line routing, use angle brackets and e-clips.
10. Remove the factory control arms that are to be replaced.
11. See instructions for installation of RE9900 control arm drop brackets. Install now before proceeding.
12. Install the lower control arms with the rubber bushing at the drop brackets. Super-flex assembly bolts to axle bracket with supplied hardware. The offset tube is to be located as low as possible (zerk on top – SEE PHOTO 1).
13. Install upper arms using supplied hardware.
14. The 2" bump stop extension is to be located at the axle side spring cup. Drill a 5/16 hole in center of cup and tap hole with supplied self-threading bolt. This assembly will not be installed until after springs are in place. Temporarily attach (use wire ore tape) bump stop inside coil while installing springs. Bolt in place when possible (after coils are installed).
15. Remove front bump stops from bottom of bump stop tower.
16. Remove coil spring isolators.
17. Install RE1334 coil spring spacers (SEE PHOTO 2).
18. Reinstall coil spring isolators and bump stops.
19. Install springs, use compressor or lever bar using caution, index spring into lower spring cup. **Caution! Coil springs have high potential energy, which can cause injury.**
20. In isolated cases the spring will rub the front of the bump stop tower. If your spring rubs the bump stop tower you will need to install a lower profile bump stop. You can also cut bend and re-weld the tower for extra clearance.
21. Install the spring retainer removed in #6. Use caution, this bolt strips easily.
22. Install longer front shocks. Some require bar pins to be installed through the bottom shock eyes (use light grease).
23. Install adjustable front track bar and bracket per instructions supplied with them. Do not attach adjustable side until weight is on vehicle and axle is centered.
24. Install sway bar quick disconnects per instructions supplied with disconnects.
25. Torque all bolts to factory specs and double check your work.

-REAR AXLE-

26. Remove the rear shocks.
27. Support the rear of the vehicle by the frame.
28. Remove rear brake line and install supplied extended rear brake line. Use line wrenches to avoid rounding off fittings. Tighten brake line fittings before bleeding brakes.

29. Remove the u-bolts.
30. Support the axle and remove the springs.
31. Weld on new spring perches on top of axle housing (SEE PHOTO 3):
 - A. Remove paint on areas to be welded
 - B. Set width to match factory spring location.
 - C. Tack perches in place before final welding.
 - D. Set rear perches so pinion rises 2 degrees from stock for standard driveshafts. Approximately 6-7 degrees for CV driveshafts.
 - E. Make sure angles are proper and perches are aligned before welding.
 - F. Weld perches using caution not to use excessive heat while still maintaining good penetration.
 - G. Paint new perches.
32. Install rear springs on top of axle using supplied spring plates. Torque u-bolts to factory specs.
33. Install tires and lower vehicle to ground.
34. Weld on shock mounts so new longer shocks will have about an inch of travel left when the bump stops bottom out.
35. If installing RE2120 transfer case drop kit (see troubleshooting) install it now. Support cross member with floor jack. The cross member is factory mounted with two studs and two bolts. The studs will have to be removed with a stud remover or by double nutting them and backing them out. Lower the cross member just enough to insert the spacers at each bolt hole and install bolts and washers.
36. Adjust front track bar to center front axle per instructions supplied with track bar.
37. Thoroughly bleed brake lines and check for leaks.
38. Double-check all nuts and bolts.
39. Test drive and note location of steering wheel.
40. Adjust drag link to center steering wheel.
41. Align vehicle as soon as is practical.
42. Set caster to factory minimum, set toe in at factory maximum.



< FRAME END (RUBBER) - PHOTO 1 - AXLE END (ZERK ON TOP) >



PHOTO 2



PHOTO 3

TROUBLESHOOTING

DRIVELINE:

Acceleration vibration: caused by the pinion being too high in relation to the transfer case output shaft. Install axle shims to bring pinion down.

Deceleration vibration: Caused by the pinion being too low in relation to the transfer case output shaft. Install axle shims to bring pinion up.

Slip yoke vibration: Caused by excessive wear on the transfer case slip yoke. (Very common on lifted vehicles with more than 30,000 miles). To correct, install a slip yoke eliminator (SYE) kit and replacement driveshaft, or CV driveshaft. Note that if an SYE is used, the transfer case drop can usually be removed.

Driveshaft bind: Condition of interference between slip yoke and tube yoke. Installing a high travel slip yoke may remedy (part# RE1822), or install SYE and replacement driveshaft, or CV driveshaft. Note that if an SYE is used, the transfer case drop can usually be removed.

HIGH SPEED WOBBLE:

A condition where front tires will shimmy after hitting a bump. Avoid bias ply tires and wheels with excessive offset. Check for worn or loose parts. In most cases a reduction of positive caster will eliminate this condition.

BUMP STEER:

Caused by improper relationship of drag link and track bar. To correct, center axle again following the instructions supplied with the track bar. Next determine the neutral position of the steering wheel. Adjust the drag link to center the steering wheel.