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

INSTALLATION INSTRUCTIONS FOR:
RE6010 XJ 3.5” SUPER-FLEX SUSPENSION SYSTEM W/ ADD-A-LEAFS
RE6030 XJ 3.5” SUPER-FLEX SUSPENSION SYSTEM W/ LEAF SPRINGS

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.

RE6010 KIT CONTENTS:

1	RE1140 Gen2 sway bar disconnects
1	RE1300 Front coil spring, pair
1	RE1380 Front 2” bump stop extension
1	RE1410 Add-a-leaf pair
2	RE1480 Spring clamp pair
1	RE1482 5/16” center pin pair
1	RE1515 Rear stainless steel brake line
1	RE3700 Lower front fixed SF2 control arms, pair

RE6030 KIT CONTENTS:

1	RE1140 Gen2 sway bar disconnects
1	RE1300 Front coil spring, pair
1	RE1380 Front 2” bump stop extension
2	RE1463 3.5” leaf spring
1	RE1515 Rear stainless steel brake line
1	RE2421 U-bolt kit (Dana 35/44) or RE1225 (Chrysler 8.25)
1	RE3700 Lower front fixed SF2control arms, pair

REQUIRED TOOLS:

Basic mechanics' hand tools
Jack stands and floor jack
Drill motor and drill bits
Spring compressors

PRE INSTALLATION NOTE:
Control arm bushings are pre-lubed during initial assembly at Rubicon Express. As general maintenance the control arm bushings should be lubed with a silicone base grease as needed. Silicone base grease can be purchased at your local auto parts store.

The Super-flex joints are also pre-lubed during initial assembly at Rubicon Express. As general maintenance the super-flex joints should be greased as needed and the outer spanner nut tightened on the joint. Any type of grease will work on the Super-flex joints. A spanner nut tool is available through Rubicon Express (RE3772) if needed for tightening of the joint.

INSTALLATION:

Note: 1984-1986 vehicles may require modifications to the front drive shaft for proper installation. These vehicles use a double offset joint, while later vehicles use a double cardan (spicer) style CV joint. The spicer CV joint may be retro fitted to the earlier vehicles by changing the transfer case output yoke for the later model. Lift heights this tall may require modifications to the rear driveshaft - see troubleshooting. 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 at axle end.
6. Disconnect steering linkage at pitman arm.
7. Remove front spring retainers (at bottom) and springs.
8. Support the front axle with jack stands.
9. Remove brake hose mounting screw from inner fender well and straighten z shaped bend to lower brake hose. Re-attach brake hose to inner fender well. If you purchased optional stainless lines, do not relocate the hard lines. Simply remove and replace your factory lines with the supplied lines.
10. Remove the factory lower control arms. These will be replaced.
11. Install the lower control arms with the rubber bushing at the frame (use factory bolt at this end, and don't fully tighten until vehicle is back on the ground). The super-flex assembly bolts to axle bracket with supplied hardware. The offset tube is to be located as low as possible (see photo 1).
12. Install the front bump stop extensions by drilling a 5/16" hole in the center of the lower coil spring mount, then tightening the self-tapping bolt to cut the threads. Next, remove the bump stop assembly and place it into the center of the coil spring.
13. Install the coil springs and retainers (do not over tighten the retainer bolt - it strips easily) with the bump stop extension in the center.
14. Tighten the bump stop extension bolt.
15. Install longer front shocks. Some require bar pins to be installed through the bottom shock eyes (use light grease).
16. Install sway bar quick disconnects per instructions supplied with disconnects (see photo 2).
17. Re-drill front track bar axle bracket over toward drivers side ¾", center-to- center (or install optional adjustable front track bar). Reconnect track bar at new hole.
18. Torque all bolts to factory specs. Double-check your work.

-REAR AXLE-

19. Remove the rear shocks.
20. Remove the rear sway bar (this will not be reused).
21. Support the rear axle.
22. Remove rear brake line and install supplied extended rear brake line.
23. Remove the U-bolts and rear leaf springs.
24. **Add-a-leaf kit:** Loosen any spring alignment clamps. Use c-clamps to clamp spring pack on each side of center pin. Remove center pin. Use vise grip pliers on center-pin head. Carefully remove c-clamps. Insert add-a-leaf into spring pack. Add-a-leaf will go into spring pack in such a way as to maintain the pyramid shape of the spring pack (see photo 3). Insert new center bolt through the spring pack with the head on the same side as the old one (spring perch side). Use c-clamps to assist tightening of center bolt. Tighten to 20 ft/lbs. Replace the spring alignment clamps.
    Leaf spring kit: Install new rear springs with new U-bolts in the same manner as factory springs – SEE PHOTO 3-B (don't fully tighten spring eyebolts until vehicle is back on the ground). The 3/8" center pins are stronger than stock and usually require enlarging the spring pad hole. The pins usually come with spacers installed for use w/ floating type degree shims (see troubleshooting for typical shimming requirements). If required, remove spacers so pin does not bottom out on axle tube. If using steel Rubicon Express shims, remove the spacers and replace with the shims (SEE PHOTO 4). These steel shims will require reaming to 3/8" for 3/8" pins.
25. Reinstall springs and u-bolts. Do not fully tighten spring eyebolts until vehicle is back on the ground.
26. Install longer rear shocks. Some require bar pins to be installed through the top shock eyes (use light grease).
27. Install tires.
28. Thoroughly bleed brake lines and check for leaks.
29. Torque all bolts to factory specs (or specs supplied with parts) and double check your work.
30. Test drive and note location of steering wheel.
31. Adjust drag link to center steering wheel.
32. Align vehicle as soon as possible. We suggest Caster @ minimum setting and Toe @ Maximum setting per factory specs
33. Retighten all bolts after 50 miles and again after every off-road excursion.
34. **Reminder**: Do not reinstall the rear sway bar; it will not be reused.

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

PHOTO 2

ADD-A-LEAF PHOTO 3-A

LEAF SPRING PHOTO 3-B

PHOTO 4

LIFT KIT TROUBLESHOOTING

Rear driveline:
Acceleration vibration: Caused by the pinion being too high in relation to the transfer case output shaft. On leaf sprung vehicles, install axle shims to lower pinion accordingly.

Deceleration vibration: Caused by the pinion being too low in relation to the transfer case output shaft. On leaf sprung vehicles, install axle shims to raise pinion accordingly.

Slip yoke vibration: Caused by excessive angle on the transfer case slip yoke. Very common on vehicles with 2" or more of lift. Lifts of 2"-3.5" can sometimes be cured with a transfer case drop kit (pinion adjustment may also be required- see acceleration and deceleration vibration troubleshooting above). If this does not cure it, it will likely require installing a slip yoke eliminator (SYE) kit and CV drive shaft. Adjust pinion so it is 2 degrees below parallel with CV drive shaft (see acceleration and deceleration vibration troubleshooting above). A transfer case drop kit can usually be omitted with a CV drive shaft.

Drive shaft bind (84-95 XJ's): A condition of interference between slip yoke and tube yoke. This is usually only a problem with over 3.5" lifts. A high travel slip yoke (part #RE1822) may remedy this. Later XJ's already have the high travel slip yoke and may instead require an SYE and CV drive shaft (see above slip yoke notes).

High speed wobble:
Fairly common with y-type steering on lifted XJ's. 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. A good rule of thumb is minimum factory caster and maximum factory toe in. Note that lift heights increased with coil spacers (or taller coils) may exhibit wobble that cannot be corrected with alignment.

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.