

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

# INSTALLATION INSTRUCTIONS FOR: RE2800 YJ WRANGLER SHACKLE REVERSE 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.

## KIT CONTENTS:

- 4 RM20030 Angled shackle side plate
- 1 RM22050 Left spring hanger
- 1 RM22051 Right spring hanger
- 1 RM22060 Tubular cross member unit
- 2 RM22070 Shackle frame hangers
- 4 RM40300 ½ x ¾ Spring eye reducer sleeve
- 8 RM40530 Spring eye poly bushing
- 4 RM42560 Hard plastic spring hanger spacer
- 4 HWC1100 ½-13 x 4.5 Greaseable bolt
- 1 HWC10065 Hardware bag kit #20

# **REQUIRED TOOLS:**

Basic mechanic hand tools
Jack stands (two sets) and floor jack
Drill motor and ½" drill bit
Grinder and/or cutting torch

#### **INSTALLATION:**

Installation Notes: Installation of this kit will reverse the shackle location on the front leaf springs to the rear of the pack. This will give an increase in wheelbase and improved geometry for off-road use. A modified front driveshaft may be required and front castor may be affected depending on spring and shackle selection. This kit lifts the front about 1" to 1.5" depending on spring and shackle selection. Removal of factory spring hangers is required. Verify contents of kit before disassembly.

- 1. Properly support vehicle by frame allowing front axle to be serviced.
- 2. Remove tires and wheels.
- 3. Remove leaf springs.
- 4. Cut off factory spring hangers at main eye bushing. (Note: do NOT cut off front shackle mounts!)

5. Remove front shackle bushings and replace with hard plastic spacers – refer to Photo 1.



Photo 1

6. Remove bottom bolts from front bumper, then install right and left front hangers. Install supplied bolts through plastic spacers, bottom of bumper and backside of factory shackle mount to position hangers for frame drilling. Drill frame rail at top hanger holes and install supplied bolts – refer to Photos 2 and 4.



Photo 2

7. Install cross tube brace with supplied bolts. The inner tab attaches to the middle hanger bolt – refer to Photos 3 and 4.



Photo 3



Photo 4

- 8. Locate shackle to frame mount on frame rail. In order to establish mounting location some measuring is required. For a starting dimension, use the length of your leafs (measure center to center of spring eyes on unloaded spring). This dimension will apply to center of front hanger bushing bolt to center of rear shackle hanger bushing. This is just a starting location DO NOT drill any holes at this time.
- 9. Install poly bushings and sleeves in rear shackle mounts and install the  $\,$

shackles. The supplied angled shackles will mount with long leg to the hanger and the short leg to the spring pointing back (note photo 5 shows old style shackle).

- 10. Reinstall leaf springs and front axle.
- 11. Put vehicle weight on front axle and note angle of rear shackle. Shackle should angle toward rear of vehicle slightly. Adjust accordingly and drill 1/2" holes in frame at corresponding locations and secure with supplied hardware refer to Photo 5.



Photo 5

- 12. Torque all bolts and check your work.
- 13. Verify front driveline length. Make sure at extreme compression and extension shaft does not come apart or bottom out. Modify driveline as necessary.