

INSTRUCTIONS FOR INSTALLATION OF REAR SHACKLE FLIP KIT

PLEASE READ AND UNDERSTAND ALL INSTRUCTIONS THOROUGHLY PRIOR TO INSTALLATION



DISCLAIMER FOR OFF ROAD USE ONLY

THE PURCHASER IS RESPONSIBLE FOR DETERMINING THE SUITABILITY OF ANY AND ALL PRODUCTS PURCHASED

Purchaser understands and recognizes that off road and racing equipment and services provided by manufactured and/or sold by Distributor are subject to varied conditions due to the manner in which they are to be installed and used. Purchaser further recognizes and agrees that suitability of any part sold or manufactured for a particular application is the purchaser's decision and that the purchaser is not relying on the skill or judgment of manufactured and/or Distributor regarding suitability of any product or service.

Manufacturer and Distributor make no warranties whatsoever, expressed or implied, oral or written to purchasers with regard to off road and racing equipment. The right to make changes in design or add to or improve on product without incurring any obligations to install the same on products previously manufactured is expressly reserved.

Buyer agrees to indemnify and hold seller harmless from any claim, action or demand arising out of or incident to the buyer's installation or use of products purchased from Manufacturer and/or Distributor.

All parts are aftermarket replacement parts. No implication is made that these parts are the original car manufacturers', are from the original suppliers, or are approved by them.

Before operating vehicle, always utilize safety restrain systems while operating vehicle.

Warranty & Returns

Please note all products are designed for off road use only. It is up to the user and/or installer to determine fitness for any other application. Manufacturer can't control the severity of off road terrain, your driving habits, and the quality of your installation and offers no warranty as to fitness or performance for a particular application. Many of our products require fabrication skills to install and should only be installed by a qualified fabricator or mechanic. All products carry a one year warranty however only products that have abnormal defects or workmanship can be returned. Parts that have been abused, incorrectly installed, modified, or damaged cannot be returned. Please contact us before returning any parts. No claims will be accepted on parts that have been modified in any way. Warranty is limited to replacement of defective parts only and does not cover labor or shipping costs, vehicle down time or any other losses on your behalf..

WARNING

Installation of any component or kit should only be performed by persons experienced in the installation and proper operating of vehicle systems. It is also the responsibility of the person installing any component or kit to determine the suitability of the components or kit for that particular application. Products are intended for off road use only. The manufacturer and distributor are not responsible for any misuse of these products. Check with your local authorities for highway laws in your area because highway laws and the enforcement of those laws vary widely.

Please check with your local DMV or vehicle department for regulations and information, manufacturer and distributor is not responsible for any legal issues regarding of any product you purchase here.

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HARDWARE INCLUDED:

- 40 'GRADE 8' WASHERS
- 20 'GRADE 8' 3/8X1" BOLTS
- 20 3/8" NUTS
- 20 3/8" LOCK WASHERS
- 2 3/8" OVER-SIZED FENDER WASHERS FOR ADJUSTING BRACKETS

DISASSEMBLY

1. Park vehicle on level surface, block front wheels
2. Raise rear of vehicle, place jack stands **UNDER FRAME** allowing suspension to hang free... leave enough room to ensure assembly can be accomplished
3. Remove wheels, shocks, differential vent tube and unfasten rear brake line from frame
4. Disconnect E-Brake cable and remove E-Brake hard cables from slot in frame
5. Support rear axle with floor jack, remove U-bolts attaching axle to springs
6. Carefully lower the axle to the ground.
7. Remove rear spring mounting bolt/nut holding shackle to frame mount.
8. Gas tank may need to come down on some models to gain access to the spring bolts
9. Remove front spring mounting bolt/nut holding spring pack to frame, remove leaf pack

*****REPEAT Steps 6-7 for other side*****

INSTALLATION OF FORWARD MOUNTING BRACKET

10. Using a 4" grinder or cutoff wheel, remove $\frac{3}{4}$ " from the bottom of mount (See Figure 1). Be sure to grind it smooth so the new inverted mount will sit flush.

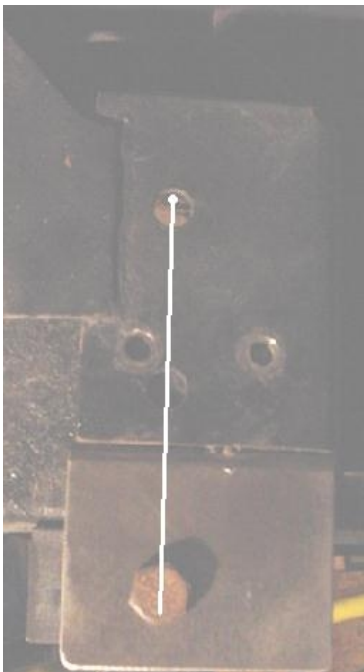


FIGURE 2

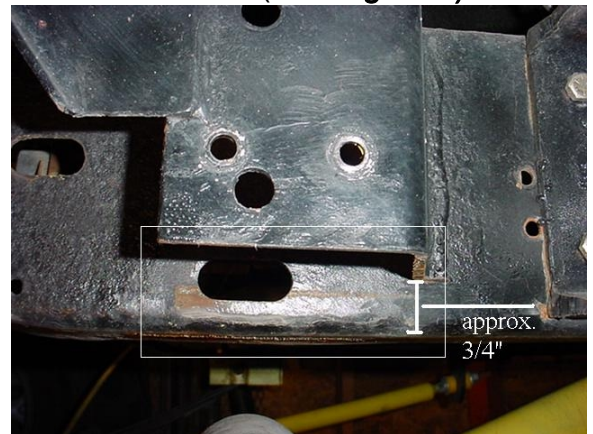


FIGURE 1

11. Place new forward mounting bracket in position by aligning the OEM spring bolt hole with the new bracket's spring bolt hole. Check to ensure enough material has been removed from the bottom of the factory mount so the new forward mounting bracket frame

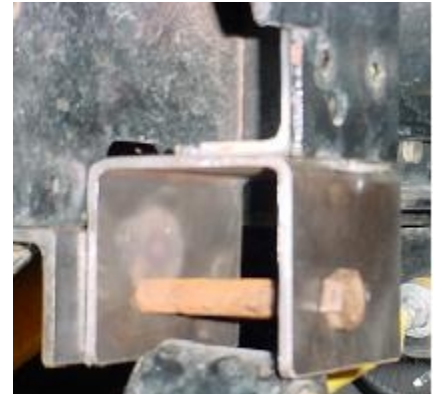
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12. support is properly positioned. (See figure 2) You can place a spring bolt in the mount to ensure its level. Clamp in place once adjusted.

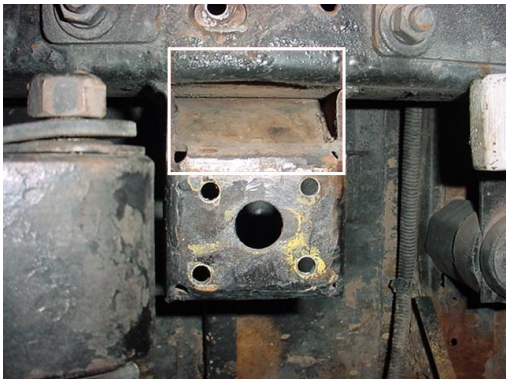
*****Due to slight variances in frames/mounts, proceed with drilling in the area that will hold the new bracket straight and level FIRST....most likely in the frame support *****

13. Drill (4) 3/8" holes. Two (2) in the side and two (2) in the frame support. (See Figure 3). *****Each time a hole is drilled, install 3/8" Grade 8 bolt/nut and washer and snug it down.** This will ensure proper alignment and ease installation.
14. Torque (4) 3/8" bolts/nuts to a minimum of 50 ft lbs.



*****REPEAT Steps 8-14 for other side*****

FIGURE 3
INSTALLATION OF REAR SHACKLE INVERSION BRACKET



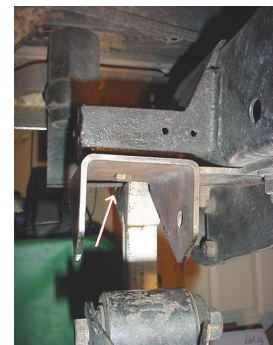
15. Remove base support from bottom of OEM mount with 4" angle grinder (See figure 4 white box) and grind off excess metal for smooth mating surface.
16. Place inverted shackle mount in position using (1) 3/8" grade 8 bolt/nut and 3/8" fender washer through the center hole of the inverted shackle bracket UP through the OEM mount ensuring fender washer is close to center as possible.

FIGURE 4

***** Next step is done for adjustment purposes ONLY! The bolts, nuts, and fender washers will later be removed after final drilling and reused with a lock washers for the brackets*****

17. Position the inverted shackle bracket so that it is centered left to right and new shackle mounting hole is 1.25" FORWARD of the OEM mounting hole. Tighten center bolt. (See figure 5)

*****REPEAT Steps 15-17 for other side*****



right

FIGURE 5

REASSEMBLY FOR ADJUSTMENTS

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18. Install front of spring in new front mount with spring bolt/nut HAND TIGHT. Lift rear of spring into position and install spring, push bolt/nut through inverted mount and shackle HAND TIGHT.

*****REPEAT Step 18 for other side*****

19. Raise axle to leaf springs and install U-bolts attaching axle to springs. Tighten securely, but not to specs.
20. Install rear wheels.
21. Raise vehicle slowly, by rear axle, enough to remove the jack stands under the frame.
22. CAREFULLY AND SLOWLY, lower vehicle so full weight is now back on the wheels.

HEIGHT CHECK *vehicle should be empty with no cargo*****

23. Visually check vehicle stance from front to rear. Slight rake is built into the kit for towing. If it is acceptable to you, proceed to **STEP 33**. If it requires adjustment, please refer to the proper section **REAR SAG (Step 24)** or **FRONT RAKE (Step 29)**. There is only enough adjustment for approximately 1"

REAR SAG (LOWER IN REAR) ADJUSTMENT

24. Carefully and slowly raise rear of vehicle, place jack stands **UNDER FRAME** allowing suspension to hang free...tires can be touching the ground
25. Loosen center bolt holding inverted shackle bracket to OEM mount just a little to allow movement by a hammer
26. Using a hammer, force the inverted shackle bracket **REARWARD** ¼". You may move it more if you feel it's warranted. Retighten the center bolt on

*****REPEAT Step 25-26 for other side...ENSURE BOTH SIDES ARE EQUAL*****

27. Raise vehicle slowly, by rear axle, enough to remove the jack stands under the frame
28. CAREFULLY AND SLOWLY, lower vehicle so full weight is now back on the wheels and recheck stance... repeat if necessary

FRONT RAKE (LOWER IN FRONT) slight rake is designed into the kit for towing purposes

29. Carefully and slowly raise rear of vehicle, place jack stands **UNDER FRAME** allowing suspension to hang free...tires can be touching the ground
30. Loosen center bolt holding inverted shackle bracket to OEM mount just a little to allow movement by a hammer
31. Using a hammer, force the inverted shackle bracket **FORWARD** ¼". You may move it more if you feel it's warranted. Retighten the center bolt

*****REPEAT Step 30-31 for other side...ENSURE BOTH SIDES ARE EQUAL*****

32. Raise vehicle slowly, by rear axle, enough to remove the jack stands under the frame

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33. CAREFULLY AND SLOWLY, lower vehicle so full weight is now back on the wheels and recheck stance... repeat if necessary

FINAL INSTALLATION

34. Once adjustments are completed, disassemble rear suspension as described in **STEPS 1 through 6 for both sides of vehicle**
35. Drill (6) 3/8" holes to attach the inverted shackle bracket to OEM mount and frame... (4) holes through the bottom of the inverted shackle mount and (2) in the frame support of the mount. Install (4) 3/8" grade 8 bolts UP through the inverted shackle bracket, through the OEM mount and torque bolts/nuts to a minimum of 50 ft lbs. (See Figure 5) Remove center bolt and reuse

*****REPEAT Step 35 for other side*****

36. Verify ALL new mounting bracket bolts/nuts are torqued to a minimum of 50 ft lbs
37. Re-install the shackle and spring to the inverted shackle bracket and tighten to specified torque in your manual. Repeat for other side.
38. Raise axle to leaf springs and install U-bolts attaching axle to springs. Tighten securely to specified torque from your manual
39. Install rear wheels.
40. Raise vehicle slowly, by rear axle, enough to remove the jack stands under the frame.
41. CAREFULLY AND SLOWLY, lower vehicle so full weight is now back on the wheels.

NOTES

- A. Modifications must be completed on the rear brake line. Recommend the purchase of an extended brake line
- B. Relocation of the E-Brake cables through MOST REAR slot in the frame is necessary
- C. Purchase of new shocks and/or modifications to shock mounts is highly recommended
- D. Re-torque all bolts after one week of driving to ensure they are tight.

If you have ANY questions at all... please contact me ASAP at ttsfabworks@cox.net

