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INSTALLATION INSTRUCTIONS FOR 8795-2 PLEASE READ AND UNDERSTAND TERMS/POLICIES BEFORE YOU INSTALL THIS SYSTEM

M.O.R.E. Shackle Reversal System (S.R.S.™) # 8795-2 contains the following items:

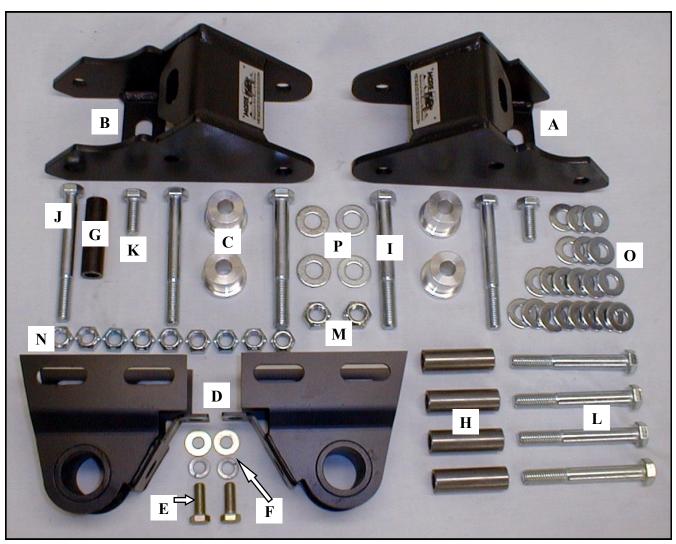
<u>ITEM</u>	<u>DESCRIPTION</u>	QUANTITY	PART NUMBER
Α	Pivot Bracket-Drivers Side	1	8795-DS
В	Pivot Bracket-Pass Side	1	8795-PS
С	Bushing-Aluminum	4	8795-125
D	Bracket-Shackle Hanger	2	SR104
E	Bolt-Shackle Hanger 3/8"x1"	2	18834
F	Washers-Lock & Flat 3/8"	2	33008/33622
G	Tube Spacer 3/4"x2-3/4"	1	S101299
Н	Tube Spacer 3/4"x2-3/8"	4	S101399
I	Bolt-Spring Pivot 9/16"X4-1/2"	2	13271
J	Bolt-Pivot Bracket to Frame 1/2"x4-1/2"	3	13221
K	Bolt-Pivot Bracket to Frame 1/2"x1-1/4"	2	13207
L	Bolt-Shackle Hanger to Frame 1/2"x4"	4	13219
M	Nut-Crimp Lock 9/16"	2	37270
N	Nut-Crimp Lock 1/2"	9	37268
0	Washer-Flat 1/2"	20	33086
Р	Washer-Flat 9/16"	4	33088
-	Instruction Sheet	1	8795-2 IS

Photo of items on page 2 of these instructions. Please familiarize yourself with all components in the system. These instructions will refer to items by letter, not description. Read all instructions carefully before work is started on your vehicle. In addition to basic hand tools, the following specialty tools are needed to perform this installation: Angle head drill (electric or air), 3/4" diameter drill bit, 1/2" diameter drill bit, 21/64" drill bit, 3/8-24 (fine thread) tap, floor jack, jack stands (4), torque wrench, grinder and or cutting torch.

<u>FIT</u> and <u>TOLERANCES</u>: All parts in this system are the results of countless hours of research, testing, fitting and refining. Jeep® frames have a wide tolerance on bolt hole centers from frame to frame. This is why M.O.R.E.™ has installed several "slots" in which to mount our bracketry. In addition to the factory tolerances, most people install other then factory equipment such as bumpers, winch mounts, springs etc. M.O.R.E.™ has done the best job we can to insure that our parts fit with the different possibilities. However, you may find it necessary to grind, elongate, bend, or force the parts in this system to fit on your rig. Please use common sense when installing these parts, and understand that if you modify them in any way, they are not returnable!!



8795-2 S.R.S.™ Contents



Notes:		

8795-2 S.R.S.™ - GENERAL INFORMATION:

This system will fit Jeep® YJ Wrangler vehicles with any engine. This system will lift the front of the Jeep® one inch (1") over where it sits now. Before starting this installation, check the frame to make sure it is in good condition, is straight and has no excessive rust. Only install it on vehicles in good sound condition. This system will work with stock or most aftermarket bumpers, with or without a winch. No welding is required for installation. There will be some drilling and grinding, however.

<u>LEAF SPRINGS:</u> This system has been designed to work with stock and aftermarket leaf springs. It has been tested with several different manufactures springs up to 3.5" lift and works fine. It will work with stock springs that have been placed on top of the YJ's axle housings (spring over axle).

<u>PITMAN ARM:</u> You may need to use a stock pitman arm. If a "dropped" arm is used there is a possibility that the tie rod could contact the drag link upon suspension compression.

<u>DRIVE SHAFT:</u> The front drive shaft <u>will need</u> to be modified. A longer travel slip-yoke needs to be installed. Due to the suspension movement the stock slip-yoke will not have enough travel and the fact that this system will push the axle forward aprox. one inch, the stock shaft length will not be enough. M.O.R.E.™ recommends calling Tom Wood's Custom Drive Shafts at: 877-497-4238.

BRAKE HOSES: The stock brake hoses will work if you are using stock leaf springs, under the axle. If you have any lift in your springs, or a spring over axle conversion, the stock hoses will have to be replaced with longer ones. M.O.R.E.™ Has Extended Stainless Braided Brake Lines available if needed.

TERMS/POLICIES

DAMAGE CLAIMS: All orders are carefully packed, however, mishandling by the carrier can result in damage. The carrier has the responsibility for the shipment from the time it leaves our warehouse until it is delivered to you. All claims for lost or damaged goods should be reported to the carrier, not to M.O.R.E.TM LLC.

RETURNS: No returns will be accepted without prior permission from M.O.R.E.™ LLC. After you receive a Return Goods Authorization (RGA) number, merchandise must be returned prepaid and insured. A claim must be made with in 30 days from receipt of merchandise. The original invoice or a copy with the RGA number written on must accompany all returns. A 20% restocking fee will be charged on all parts returned for credit or refund unless merchandise is proven to be defective or was shipped wrong by M.O.R.E.™ LLC. No merchandise will be issued credit or refund if it has been installed, modified, used in any way or is in unsalable condition.

WARRANTY: All merchandise is warranted to be free from defects in materials and workmanship prior to installation. Any alteration or improper use will void this warranty. Because all parts we sell are intended for use in heavy-duty applications it is not possible to warrantee or guarantee the performance of any items.

M.O.R.E.TM LLC. products and the products manufactured by others, which we sell may be subject to an infinite variety of conditions due to the manner in which they are used, serviced and/or installed. Purchasers and users of such products rely upon their own judgment as to the suitable use selection, service and installation of such products.

PRODUCT DISCLAIMER: Modification of your vehicle to enhance performance with parts sold by M.O.R.E.™ LLC. may create a dangerous condition which could cause serious bodily injury, and the buyer hereby expressly assumes <u>all risks</u> associated with any such modifications. All parts sold by M.O.R.E.™ LLC. are for racing or off road use only. Mountain Off Road Enterprises LLC. <u>will not</u> accept responsibility for personal injury or property damage arising from the failure of any parts manufactured or sold by M.O.R.E.™ LLC.

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STEP BY STEP INSTALLATION INSTRUCTIONS:

- <u>STEP 1:</u> On a flat, level, hard surface (concrete) floor, jack up the Jeep® and support the frame with jack stands six inches behind the stock spring hanger (pivot end of spring). Remove the wheels. Remove the plastic front frame cover. SEE FIGURE 1.
- <u>STEP 2:</u> Using a second set of jack stands, support the front axle under the rotor/hub area. There should be a slight bit of weight on the stands. <u>SEE FIGURE 2.</u>
- <u>STEP 3:</u> Remove the front drive shaft. Remove the front bumper. Remove the shackles, bushings and sleeves from the frame. Set them aside, they will be reused. Remove the pivot bolts from the back of the leaf springs. Remove the springs. <u>SEE FIGURE 3.</u>
- STEP 4: On the drivers side remove the front upper bolt (OEM*) that retains the steering box to the frame. Install two of item "C" into the stock shackle bracket. SEE FIGURE 4. Install item "A" onto the frame and into place, lining up the holes. Install one of item "O" on one of item "J" and install it thru item "A" and item "C". Install one item "O" and one item "N" on item "J" you just installed. Do not tighten at this time. Install the OEM bolt removed from the frame thru item "A". Do not tighten at this time. SEE FIGURE 5. Install one item "O" on one of item "K" and install it thru the back side of item "A", and the stock shackle hanger. Install one item "O" and one item "N" on item "K". Tighten item "J" and "K" to 75 lb. ft. torque. Tighten the OEM bolt to 50 lb. ft. torque. *OEM-original equipment manufacture.
- STEP 5: On the passenger side install two of item "C" into the stock shackle bracket. Install item "B" into place, lining up the holes. Install one item "O" over one of item "J" and install it thru item "B" and item "C". Install one item "O" and one item "N" on item "J". Do not tighten yet. Install one item "O" on one of item "K" and install it thru the back side of item "B" and the stock shackle hanger. Install one item "O" and one item "N" on item "K". Tighten items "J" & "K" SLIGHTLY! This is to hold item "B" in place for the next step only.
- STEP 6: With a 1/2" diameter bit in a power drill, use item "B" as a guide to "mark or dimple" the frame at the upper back part of item "B". This should be done <u>inside</u> and <u>outside</u> the frame rail. <u>SEE FIGURE 6.</u> DRILL JUST ENOUGH TO "DIMPLE" THE FRAME. DO NOT GO ALL THE WAY THRU. Remove item "B" from the frame and set it aside for now. With a 1/8" bit in the drill, drill the "dimpled" marks in the frame, inside and out as pilot holes. <u>SEE FIGURE 7.</u> Re-install the 1/2" bit and drill the pilot holes from the outside all the way thru both holes. <u>SEE FIGURE 8.</u> Install a 3/4" bit in the drill and drill the OUTSIDE FRAME ONLY to 3/4". <u>SEE FIGURE 9.</u> Install item "G" into the 3/4" hole (careful, do not drop the spacer tube into the boxed frame!). <u>SEE FIGURE 10.</u> Re-install item "B" onto the frame as you did above. Install one item "O" over the last of item "J" and start it thru item "B" and item "G". Install two items "O" between the inside frame and the inside of item "B", as you insert item "J" thru them and the inside of item "B". <u>SEE FIGURE 11.</u> Install one item "O" on item "J" and one item "N". Tighten both items "J" and item "K" to 75 lb. ft. torque.
- <u>STEP 7:</u> Install the front bumper and start the upper bolts. Install the factory lower bolts thru items "A" & "B" up thru the bumper and into the frame. <u>SEE FIGURE 12A & 12B.</u> After all four bolts are started, tighten them to 65 lb. ft. torque.
- <u>STEP 8:</u> Remove the spring pivot hangers from the frame rails (behind the axle). This can be done with a hand grinder and cut-off wheel, torch or saw-zall. <u>SEE FIGURES 13A, 13B, & 13C.</u> Be very careful and do not cut into the frame. Just grind the welds. A chisel and hammer comes in handy for knocking loose the brackets. After the stock brackets are removed from the frame, grind the welds flush and paint the bare frame with some black paint.
- STEP 9: The next steps (10-14) works for most springs but we have found that there are a few springs that the measurement given in step 10 will not work for. Once you have the shackle hangers placed on the frame at the given measurement, clamp them tight and install the springs with shackles. The shackle angle with weight on the springs should be 90 degrees (straight up and down) or the bottom of the shackle can be slightly back (no more than 5 degrees to the rear of the Jeep) This is very important and if not set correct could damage the leaf springs. If you have any questions regarding this, then give us a call. 970-625-0500

STEP 10: Find items "D" and install the bushings and sleeves that you removed from the stock shackle hangers in step 3 above. SEE FIGURE 14. With a mallet, tap items "D" on the frame where you just removed the stock spring pivot hangers. The tab on the under side (for the locking bolt item "E") faces forward. On the passenger side frame, have a friend hold the dumb end of a tape measure up to the center of item "J" that goes through the center of items "C" at the new M.O.R.E.™ pivot bracket. SEE FIGURE 15. Now measure back 43 inches, until the center of the bushing sleeve and the 43 inch measurement on the tape line up. Tap item "D" forward or back until this measurement is achieved. SEE FIGURE 16. This must be done as accurately as possible. Repeat this procedure on the drivers side frame. Now, tap item "D" up against the frame until you are happy with it's fit.

STEP 11: Find the exact center of the slotted holes, and punch a mark. SEE FIGURE 17 & 18. This must be done as accurately as possible, in the inside and outside of the frame rails, drivers and passenger side. Center punch the lower "lock mounting bolt" hole at this time as well. SEE FIGURE 19. Remove items "D" from the frame. With a 1/8" drill bit in a angle head drill, bore a pilot hole through the center punched marks, all locations. SEE FIGURES 20 & 21. Now, with a 1/2" bit in a power drill, enlarge the pilot holes ON THE SIDES OF THE FRAME ONLY to 1/2". Do not drill the underside lock mounting bolt holes at this time!!! Drill from the outside toward the inside using the inside pilot hole to keep the bit lined up. Enlarge the OUTSIDE HOLES ONLY to 3/4". SEE FIGURE 22. Chamfer any burrs that maybe present.

STEP 12: Now, enlarge the underside "lock mounting bolt" holes to 21/64". Tap these drilled holes with a 3/8" x 24 (fine thread) tap. Use cutting oil and tap slowly and carefully. Make sure the tap is straight and true when going up through the hole. SEE FIGURE 23.

<u>STEP 13:</u> Insert items "H" into the 3/4" holes you just drilled. <u>SEE FIGURE 24.</u> Be care full not to drop them into the boxed frame! They should press in with a slight amount of pressure.

STEP 14: Re-install items "D" on the frame over items "H". Grab all four items "L" and install one item "O" over each, and install "L" through item "D" and "H". Then in the inside of the frame install another item "O" over the threads of item "L" and one item "N" on each. Re-check the **43** inch measurement, and if correct, tighten items "L" & "N" to 55 Lb. Ft. torque.

STEP 15: Install items "F" over items "E" and thread items "E" into the tapped holes. Tighten them to 10 Lb. Ft. torque. Reinstall the leaf springs. Switch the springs from end to end (the large eye or pivot end now installs up front in the S.R.S.™ bracket). Use items "I" with items "P" under the heads to secure the pivot ends of the leaf springs to items "A" & "B". Install items "P" on the threads of items "I", and items "M" as well. Do not tighten them at this time. Install your shackles to your springs and to items "D". SEE FIGURE 25. Use thread locking compound on the threads or, new locking nuts on your bolts. Do not tighten at this time. Install the U-bolts and plates and torque them to factory specs. Install the plastic front frame cover. Install the wheels and tighten the lug nuts to factory specs. Remove the jack stands. Jump up and down several times on the front bumper to "seat" the springs. Tighten items "I" & "M" to 30 lb. ft. torque. Tighten your stock shackle bolts to 10 Lb. Ft. torque.

STEP 16: Test drive the Jeep®. Chances are the steering wheel may not be centered. You can adjust the drag link to center it. Installing this shackle reversal system will not affect the alignment (camber or toe-in), so having the Jeep® aligned is not necessary. The caster will increase slightly, however it is a non-tire wearing angle. Go back and check all of your work and make sure everything is done properly. Check the brake lines and make sure that they are not being stretched to far.

<u>STEP 17:</u> Your drive shaft will need to have a long travel slip yoke installed to work properly with this system. Call Tom Wood's Custom Drive Shafts at: 877-497-4238. DO NOT TRY TO SHORT CUT THIS STEP OR DAMAGE COULD OCCUR TO YOUR DRIVE TRAIN!!!

You are finished! Be sure to re-check all hardware for tightness after 100 miles. If you have any questions, please call. Thank you for purchasing this product from M.O.R.E.™ Keep on Jeepin'.











Figure 1 Figure 2 Figure 3



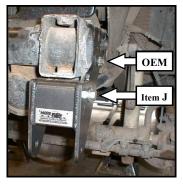




Figure 4 Figure 5 Figure 6







Figure 7 Figure 8 Figure 9









Figure 11





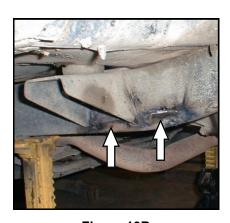


Figure 13A Figure 13B



Figure 13C





Figure 14

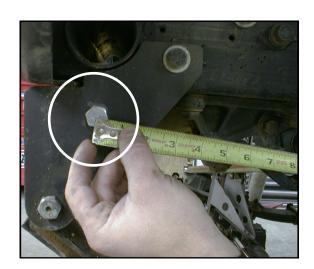


Figure 15



Figure 17



Figure 16



Figure 18









Figure 19 Figure 20 Figure 21







Figure 22 Figure 23 Figure 24

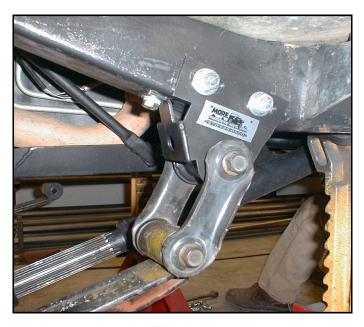


Figure 25

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