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Rusty's JK Wrangler 3.25" Bolt-On Long Travel Kit Rusty's JK Wrangler 4.5" Bolt-On Long Travel Kit Rusty's JK Wrangler 5.75" Bolt-On Long Travel Kit RK-725LT-JK—RK-745LT-JK—RK-755LT-JK

# INSTALLATION INSTRUCTIONS

Last Revised: 4/9/2018

#### Introduction:

Rusty's recommends that this installation be performed by a certified automotive technician or a person with professional mechanical knowledge. Installing this kit without this expertise may jeopardize the handling and safety of the vehicle.

Read instructions several times before starting. Be sure you have all the needed parts and know where they install. Read each step completely as you go. Exhaust modifications may be necessary. Prior to drilling or cutting, check behind the surface being worked on for any wires, lines, or hoses that could be damaged. After any drilling or cutting, remove burrs and grind smooth any surfaces. An inclinometer or similar tool may be needed to measure driveshaft angles before and after the installation.

#### Warning:

- It is the owners' responsibility to inspect all Rusty's products for proper torque specs to prevent loosening of components.
- Seat belts and shoulder harnesses should be worn at all times.
- Re-check all bolts and nuts after the first 100 miles and after any off-road usage during the first 300 miles.
- Although all of our products are made from the highest quality materials possible, they are not a substitute for Safe and Careful driving. In other words, have good safe on-road / off-road sense. Know the terrain, the speed limitations, and any obstacles that may lie ahead. Please remember to preserve our right to enjoy public land through the proper use of off-road vehicles.

#### **Before Starting Installation:**

- 1. Carefully Read all warnings and instructions completely before beginning.
- 2. Verify all parts have been received in this kit by checking the parts list on page#2 of this document.
- 3. Only install this kit on the vehicle for which it is specified.
- 4. Park the vehicle on a clean, dry, flat, level surface and block the tires so the vehicle cannot roll in either direction.
- 5. Be certain the vehicle is safely secured on jack stands or a vehicle lift prior to working around or under a vehicle. Never rely on a jack alone to support a vehicle's weight; use appropriately rated stands to sup-





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# Rusty's JK Wrangler 3.25" Bolt-On Long Travel Kit (RK-725LT-JK) Parts List:

**Note:** Please be sure that you have all the provided parts listed below before continuing with the installation.

Part #	DESCRIPTION:	<b>Quantity</b>	
RC-CS380-JK	Rusty's 3.25" JK Front Coil Springs (Pair)		
RC-CS390-JK	Rusty's 3.25" JK Rear Coil Springs (Pair)	1	
RX-36	Rusty's RX100 Performance Shock: RX-36 (Contents Below)	2	
	(Bushing Packs: PO1533 & PO1318)		
RX-13	Rusty's RX100 Performance Shock: RX-13 (Contents Below)	2	
	(Bushing Packs: PO1532 & PO1313)		
RC-TB380-JK	Rusty's JK Adjustable Front Track Bar	1	
RC-TB390-JK	Rusty's JK Adjustable Rear Track Bar	1	
RC-SB500-UV	Rusty's Forged Adjustable Sway Bar Quick-Disconnects	2	
RC-SBP5-JK	JK Sway Bar Pin Passenger Side (Single)	1	
RC-SB325-JK	Rusty's JK Rear Extended Sway Bar Links (Pair)	1	
RA-CM700LT-JK	Rusty's JK Long Travel Cross Member	1	
RC-CA725-JK	Rusty's Rear Lower Long Arm Frame Hangers (Pair)	1	
RC-CA611-JK	Rusty's JK Long Arm Front Lower Control Arms (Pair)	1	
RC-CA612-JK	Rusty's JK Long Arm Front Upper Control Arms (Pair)	1	
RC-CA623-JK	Rusty's JK Long Arm Rear Lower Control Arms (Pair)	1	
RC-CA624-JK	Rusty's JK Long Arm Rear Upper Control Arms (Pair)	1	
RB-SBL1F-JK	Rusty's Stainless Steel Front Brake Hoses ( <b>Determined by Year Model</b> ) (Pair)	1	
	(RB-SBL100F-JK) Rusty's Stainless Steel Front Brake Hoses (2007-2010 JK)		
	OR		
	(RB-SBL400F-JK) Rusty's Stainless Steel Front Brake Hoses (2011-2017 JK)		
RB-SBL1R-JK	Rusty's Stainless Steel Rear Brake Hoses ( <b>Determined by Year Model</b> ) (Pair)	1	
	(RB-SBL100R-JK) Rusty's Stainless Steel Rear Brake Hoses (2007-2010 JK)		
	OR		
	(RB-SBL400R-JK) Rusty's Stainless Steel Rear Brake Hoses (2011-2017 JK)		





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# Rusty's JK Wrangler 4.5" Bolt-On Long Travel Kit (RK-725LT-JK) Parts List:

**Note:** Please be sure that you have all the provided parts listed below before continuing with the installation.

Part #	DESCRIPTION:	<b>Quantity</b>	
RC-CS430-JK	Rusty's 4.5" JK Front Coil Springs (Pair)	1	
RC-CS440-JK	Rusty's 4.5" JK Rear Coil Springs (Pair)	1	
RX-16	Rusty's RX100 Performance Shock: RX-16 (Contents Below)	2	
	(Bushing Packs: PO1533 & PO1318)		
RX-13	Rusty's RX100 Performance Shock: RX-13 (Contents Below)	2	
	(Bushing Packs: PO1532 & PO1313)		
RC-TB380-JK	Rusty's JK Adjustable Front Track Bar	1	
RC-TB390-JK	Rusty's JK Adjustable Rear Track Bar	1	
RC-SB500-UV	Rusty's Forged Adjustable Sway Bar Quick-Disconnects	2	
RC-SBP5-JK	JK Sway Bar Pin Passenger Side (Single)	1	
RC-SB325-JK	Rusty's JK Rear Extended Sway Bar Links (Pair)	1	
RA-CM700LT-JK	Rusty's JK Long Travel Cross Member	1	
RC-CA725-JK	Rusty's Rear Lower Long Arm Frame Hangers (Pair)	1	
RC-CA611-JK	Rusty's JK Long Arm Front Lower Control Arms (Pair)	1	
RC-CA612-JK	Rusty's JK Long Arm Front Upper Control Arms (Pair)	1	
RC-CA623-JK	Rusty's JK Long Arm Rear Lower Control Arms (Pair)	1	
RC-CA624-JK	Rusty's JK Long Arm Rear Upper Control Arms (Pair)	1	
RB-SBL1F-JK	Rusty's Stainless Steel Front Brake Hoses ( <b>Determined by Year Model</b> ) (Pair)	1	
	(RB-SBL100F-JK) Rusty's Stainless Steel Front Brake Hoses (2007-2010 JK)		
	OR		
	(RB-SBL400F-JK) Rusty's Stainless Steel Front Brake Hoses (2011-2017 JK)		
RB-SBL1R-JK	Rusty's Stainless Steel Rear Brake Hoses ( <b>Determined by Year Model</b> ) (Pair)	1	
	(RB-SBL100R-JK) Rusty's Stainless Steel Rear Brake Hoses (2007-2010 JK)		
	OR		
	(RB-SBL400R-JK) Rusty's Stainless Steel Rear Brake Hoses (2011-2017 JK)		





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# Rusty's JK Wrangler 5.75" Bolt-On Long Travel Kit (RK-755LT-JK) Parts List:

**Note:** Please be sure that you have all the provided parts listed below before continuing with the installation.

Part #	<u>DESCRIPTION:</u>	<b>Quantity</b>	
RC-CS885-JK	Rusty's 5.75" JK Front Coil Springs (Pair)	1	
RC-CS895-JK	Rusty's 5.75" JK Rear Coil Springs (Pair)	1	
RX-16	Rusty's RX100 Performance Shock: RX-16 (Contents Below)	2	
	(Bushing Packs: PO1533 & PO1318)		
RX-11	Rusty's RX100 Performance Shock: RX-11 (Contents Below)	2	
	(Bushing Packs: PO1532 & PO1313)		
RC-TB380-JK	Rusty's JK Adjustable Front Track Bar	1	
RC-TB390-JK	Rusty's JK Adjustable Rear Track Bar	1	
RC-SB500-UV	Rusty's Forged Adjustable Sway Bar Quick-Disconnects	2	
RC-SBP5-JK	JK Sway Bar Pin Passenger Side (Single)	1	
RC-SB325-JK	Rusty's JK Rear Extended Sway Bar Links (Pair)	1	
RA-CM700LT-JK	Rusty's JK Long Travel Cross Member	1	
RC-CA725-JK	Rusty's Rear Lower Long Arm Frame Hangers (Pair)	1	
RC-CA611-JK	Rusty's JK Long Arm Front Lower Control Arms (Pair)	1	
RC-CA612-JK	Rusty's JK Long Arm Front Upper Control Arms (Pair)	1	
RC-CA623-JK	Rusty's JK Long Arm Rear Lower Control Arms (Pair)	1	
RC-CA624-JK	Rusty's JK Long Arm Rear Upper Control Arms (Pair)	1	
RB-SBL1F-JK	Rusty's Stainless Steel Front Brake Hoses ( <b>Determined by Year Model</b> ) (Pair)	1	
	(RB-SBL100F-JK) Rusty's Stainless Steel Front Brake Hoses (2007-2010 JK)		
	OR		
	(RB-SBL400F-JK) Rusty's Stainless Steel Front Brake Hoses (2011-2017 JK)		
RB-SBL1R-JK	Rusty's Stainless Steel Rear Brake Hoses ( <b>Determined by Year Model</b> ) (Pair)	1	
	(RB-SBL100R-JK) Rusty's Stainless Steel Rear Brake Hoses (2007-2010 JK)		
	OR		





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#### **Front Installation Instructions**

Note: Save all factory components and hardware for reuse, unless noted.

- 1. Secure the vehicle and properly place the lift rack or jack stands on the body mounts in line with the front windshield frame and body mounts directly below the front part of the rear flare. This will ensure the lift rack posts or jack stands will not be in the way during the installation.
- 2. Lift the front of the vehicle and correctly place lift rack posts or jack stands. Remove the front tires and wheels. Support the front axle with a jack or jack stands.
- 3. Remove the front shocks at both the frame and axle. Save the hardware at the axle end as it will be reused.
- 4. Remove the front sway bar links at the sway bar end and axle tab. Retain hardware as it may be reused.
- 5. Remove the front track bar at the axle and frame. Save the hardware for re-use.
- 6. Remove the bolts fastening the brake lines to the axle. (One bolt per side located on the rear side of the coil pad). If the purchased kit includes extended brake lines, the stock brake lines should be removed at the frame and disconnected at the caliper. Remember to save the brass washers with the caliper bolts and cap the lines to prevent fluid loss. If the kit purchased does not include extended brake lines, just remove the attachment bolt for installation of the extension bracket.
- 7. Remove the front coil springs. The use of a coil spring compressor may be needed. If so, use extreme caution different.
- 8. Verify the front axle is properly supported. Remove the upper and lower control arms at the frame and axle end. Retain the hardware at the axle end of the upper and lower control arms as it will be reused.
- 9. Remove the front engine/transmission skid plate at the frame mounting points and at the crossmember mounting points. Retain the hardware as it may be reused.
- 10. Remove the transfer case skid plate at all mounting points; retain all hardware as some will be reused (frame and gas tank points)
- 11. Only required for 2007 2011, Skip this step with 2012 and newer. Refer to Photo 1. With the transfer case skid plate removed, locate to the crossmember side of the skid plate. The folds at the crossmember mounting points will need to be trimmed. Measure from the edge of the folds back 3/4". Cut the vertical side portion of the skid plate first, then cut the horizontal side shown in the picture. Once cut, smooth and paint the exposed metal with quality enamel.





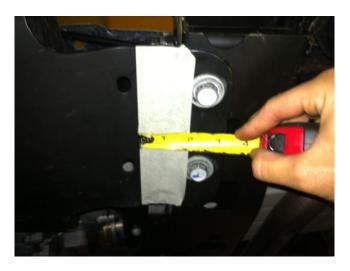
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# **Front Installation Instructions (Continued)**





- 12. Place a jack under the transfer case and slightly lift about 3/8" to remove load on the transmission cross-member. Remove the 3 nuts at the transmission mount (save the nuts).
- 13. Remove the two bolts/nuts at the gas tank skid plate attachment points on the transmission crossmember. (Passenger side of the vehicle)
- 14. Remove the transmission crossmember; there will be two attachment points at each frame rail. Once the nuts are removed, support the crossmember and remove the bolts. Remove the crossmember from the vehicle.
- 15. Refer to image below. Locate the gas tank skid plate mounting plate at the crossmember. Measure back 3" from the front edge of the skid plate, parallel to the front edge. Use tape to mark a straight cut line, then cut the mount. The two existing holes left in the gas tank skid plate will now serve as the new crossmember mounting points.







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# **Front Installation Instructions (Continued)**

- 16. Locate the Rusty's long arm crossmember. The long arm mounting points will face toward the front of the vehicle. Place the crossmember against the original crossmember's mounting points at the frame; this will align the transmission mounting bolts. Install the three factory nuts at the transmission mount in order to hold the crossmember in place. Do not fully tighten at this time.
- 17. Locate the inside frame gussets. They will be labeled driver and passenger side. (This L-shaped bracket will have three holes).
- 18. Refer to picture #3. Locate the supplied 12mm x 150mm bolts/washers/nuts. Place the bolts through the inner frame gussets, crossmember frame mounts, and crossmember. This will secure the crossmember to the frame. Be sure a washer is placed under the bolt head and nut. Only start the nuts; do not tighten at this time.



19. Refer to picture #4. This is the passenger side shown in the image below. Repeat the same process on the driver side. Do not fully tighten at this point, only start the nuts.







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# **Front Installation Instructions (Continued)**

20. Refer to the Pictures #5 & #6. Locate the 3/4" x 2-5/8" long spacer tubes (black). There will be pre-existing holes on the outside of the frame rail, just forward of the crossmember. The picture shown is the passenger side. Place the spacers in the frame. These holes have recesses that allow the spacers to sit. For the next step these should be installed on the driver & passenger's side.





21. Refer to picture #7. Locate the outside frame crossmember gussets. These will be labeled driver and passenger side. Locate these two on their respective frame sides. Install the supplied 1/2" x 4-1/2" bolts with washers from the outside; they should go through the outside gusset, frame, spacer tube, and inside gusset respectively. Install the washers and start the nuts, but do not tighten at this time







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# Front Installation Instructions (Continued)

- 22. Locate the front lower long arms, both driver and passenger side. Place the flex joint for each long arm in its corresponding crossmember pocket. Secure the arms with the supplied 9/16" x 4-1/2" bolts and washers. Starting from the outside, the bolts should go through the outer gusset and flex joint, then into the crossmember. Start the bolts but do not fully tighten at this time. Refer to Picture #7 (passenger side shown)
- 23. Attach the gas tank skid plate to the crossmember using the supplied 5/16" x 1" bolts, washers, and nuts. With the front crossmember installation complete, the following bolts should be tightened in order:

Order	Location	Hardware Used	Torque Specification
1	Transmission Mount Bolts	Factory Nuts (Qty:3)	38 ft-lbs.
2	Gas Tank Skid Plate Bolts	5/16" x 1" (Qty:2)	13 ft-lbs.
3	Lower Long Arm Mounting Points	9/16" x 4-1/2" (Qty:2)	85 ft-lbs.
4	Outer and Inner Frame Gussets Points	1/2" x 4-1/2" (Qty:2)	70 ft-lbs.
5	Crossmember Frame Mounting Points	12mm x 150mm (Qty:4)	60 ft-lbs.

- 24. The factory transfer case skid plate can now be installed at the mounting point of the frame (drivers' side) and at the gas tank point. The crossmember mounting points should now be placed. There are three weld nuts at the crossmember, and depending on the year model, some will require the supplied 9/16" x 1" bolt and 9/16" flange nuts. Tighten all mounting points.
- 25. Locate to the factory lower control arms mounts at the frame. Both driver and passenger side will be removed. Rusty's recommends the use of a plasma cutter, torch, or cutting wheel. Cut the brackets only; the frame should be left uncut. Cut the bottom portion of the bracket and then move to inside of the frame. IMPORTANT: Be sure to keep clear of fuel and brake lines on the driver side.
- 26. Grind smooth any rough edges and paint the exposed metal with a flat black enamel to avoid corrosion and keep a clean factory look. (Please allow several minutes to dry before moving to you next step).
- 27. The lower long arms should already be installed per step 22. Adjust to the correct length according to the chart below. Once the lower length is set, install the factory mounting hardware at axle end; start the nuts but don't fully tighten.

Front Lower Long Arm Length Chart		
3.25" Lift Height	37-5/8" Center - Center	
4.5" Lift Height	37-7/8" Center - Center	
5.75" Lift Height	38" Center - Center	





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# **Front Installation Instructions (Continued)**

- 28. Locate the front upper radius arms. They are marked driver and passenger side; position each one accordingly. Install the small flex joints into the lower long arm mounting points. The grease fitting should be positioned on the top side for easier access. Locate the 7/16" x 3 1/2" bolts with washers and nuts. The bolts will be installed from the outside, leaving the nut on the inside. Install washers under the bolt heads and nuts. Do not fully tighten at this time.
- 29. Locate the u-bracket close to the upper control arm mount on the axle. Set the length of the arms according to the chart below. This measurement will be taken on the outside of the arm and junctions. Once set to the correct length, attach the arm to the axle using the factory 12 mm bolt and nut. Do not tighten at this time.

Front Upper Radius Arm Length Chart			
3.25" Lift Height	16-7/8" Center - Center		
4.5" Lift Height	16-15/16" Center - Center		
5.75" Lift Height	17" Center - Center		

- 30. Torque the radius arm bolts at the axle, 12mm, to 60 lb-ft. Then the radius arm bolt at the lower arm mount, 7/16", to 52 lb.-ft.
- 31. Install the front coil springs on the driver side and passenger side.
- 32. Attach the front shocks to the upper frame mounts. The nuts can be accessed between the plastic inner fender well and the shock bracket. Tighten the nut until the shock bushings swell slightly.
- 33. Install the front tires/wheels and lower the vehicle to the ground. The vehicle should be at normal ride height for the following steps.
- 34. Attach the front shocks to the lower axle mounts using the factory 12mm hardware. Fully tighten driver and passenger sides to factory specifications.
- 35. Locate the Rusty's front adjustable track bar. The fixed end will attach to the frame with the bend in the bar pointing up for front axle clearance. Install the factory 14mm bolt/nut at the frame. Do not fully tighten.
- 36. The front axle will now need to be centered. To center the axle, measure the distance from the frame to the Center point of the tire, both the driver and passenger side. The measurements should be the same. You will have to push/pull the body over the axle to get the same measurements on both the driver and passenger side.
- 37. With the axle centered under the body, adjust the adjustable end of the front track bar until its mounting point lines up with its attachment point on the axle. Secure the track bar to the axle using the factory 14mm hardware.





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# **Front Installation Instructions (Continued)**

- 38. Torque the frame and axle track bar mounting hardware to 85 lb.-ft.
- 39. Locate the locking jam nut on the front track bar at the adjustable end. Apply three drops of red label loctite to the exposed thread then tighten the jam nut (this is left hand thread). This should be tight!
- 40. If the kit purchased includes front sway bar disconnects, they should be installed at this time. Refer to the instructions included with the disconnects at this time. If the kit purchased includes fixed extended front sway bar links, install them at this time. The factory 12mm hardware will be reused at the axle and the supplied 1/2" x 3" inch bolts/nuts will be used at the sway bar mounting point. Tighten the factory bolts to factory specs and the 1/2" hardware to 50 lb-ft.
- 41. The 14mm front lower long arm hardware at the axle should the torqued to 85 lb-ft. All of the long arm/radius arm/crossmember bolts should be torqued at this time. Double-check all bolts at this time to make sure nothing is overlooked.
- 42. If the kit purchased included extended stainless steel brake lines, they will be installed at this time. Fasten the brake lines at the frame end; use the factory (banjo) bolt and brass washers to fasten at the calipers. Use factory hardware to fasten the line to the axle. Note that the brake system need to bled following the procedure found in the factory service manual; this can be done once installation is completed. If the kit purchased included brake line extension brackets, they should be installed at this time. The brackets will be attached to the factory axle end mounting points using the factory hardware. Note that the bend in the bracket must clear the front coil springs. The supplied hardware will fasten the brake lines to the extension brackets.
- 43. Front installation is now complete.

#### **Rear Installation Instructions**

- 44. Secure the vehicle properly; place the lift rack post or jack stands on the body mount directly in front of the frame side lower control arm mount or 1 foot in front of this body mount for the frame rail. This will ensure the rack or jack stands will not be in the way during the installation.
- 45. Lift the rear of the vehicle and correctly place the lift rack posts or jack stands. Support the rear axle with a jack. Remove the rear tires and wheels.
- 46. Remove the rear shocks at both frame and axle end. Save the hardware at the axle for re-use.
- 47. Remove the rear sway bar links at the sway bar and axle tab. Retain hardware as it may be reused.
- 48. Remove the rear track bar at the axle end and the frame. Retain the hardware at the axle and frame as it will be reused.
- 49. Remove the bolts fastening the rear brake lines to the frame rails. If the kit purchased includes extended brake lines, the stock brake lines should be removed. Remember to save the brass washers with the caliper bolts as well as all other brake line retaining hardware for re-use. Cap the line to prevent fluid loss.





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### **Rear Installation Instructions (Continued)**

- 50. If the kit purchased does not include extended brake lines, just remove the retaining bolts for installation of the extension brackets. Remove the bolts fastening the brake lines to the axle. One bolt per side located on the rear side of the coil pad.
- 51. Remove the rear coil springs. The use of a coil spring compressor may be needed. If so, use extreme caution.
- 52. Verify the axle is supported. Remove the upper and lower control arms at the frame and the axle end. Save all of the factory hardware except the lower control arm frame side bolts as they will be replaced.
- 53. Refer to Pictures #8 and #9. Locate the factory lower control arms at the frame. These mounts must be removed. Rusty's recommends using a a plasma cutter, torch, or cutting wheel to remove these mounts. Be sure not to cut into the frame rail. Once removed, smooth the cut area with a grinder. The exposed metal surface should be cleaned, prepped and painted with quality flat black enamel.





54. Refer to Picture #10. Remove the passenger side body mount bolt located directly in front of the stock upper control arm mount at the frame. Retain this bolt as it will be reinstalled in a later step.







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### **Rear Installation Instructions (Continued)**

55. Locate the gas tank mounting bolt directly in front of the body mount bolt just removed. Remove the bolt and set aside. Using a small pry-bar, place between the skid plate and frame rail and slightly pry down creating about a 3/8" gap



56. The passenger side lower long arm mount can be placed on the frame rail as shown in Picture #12. The straight line on the rear part of the bracket will sit flush against the front inside body mount. The gas tank mounting bolt should be threaded back into place. (Do not fully tighten). While threading the bolt back in place, push the bracket towards the frame to ensure correct placement. Just tighten slightly the bolt to insure the bracket is sitting flush to the frame rail







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# **Rear Installation Instructions (Continued)**

57. Mark and center punch the front two outside frame mounting points. These two points should be drilled to 9/16".





- 58. Pictures #13 and #15. Locate to the bottom two mounting holes; these will be on the bottom of the frame rail. There is one mounting point on each side of the gas tank mounting bolt. These holes should be center punched in the frame and drilled to 7/16".
- 59. Refer to Pictures #16 and #17. Install the two-nut tab through the square opening shown in the picture. Once positioned, start the supplied 9/16" bolts into each nut. Take precautions not to drop the tab inside the frame





60. With the two-nut tab secure, place the one-nut tab through the square in the frame. Once start the supplied 9/16" bolt into the tab nut. Take precautions not to drop the tab nut into the frame.





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### **Rear Installation Instructions (Continued)**

- 61. Place both smaller 7/16" nut tabs in the square opening in the side of the frame. Line these tab nuts up with the 7/16" holes drilled in the bottom of the frame in step 57. Once aligned, start the supplied 7/16" x 1.5" bolts with the thick washers in the tab nuts. Do not fully tighten at this time.
- 62. Replace the body mount bolt removed in step #53. Torque to 40 lb-ft.
- 63. Torque The 9/16" bolts on the outside of the frame to 75 lb-ft.
- 64. Torque the 7/16" bolts with thick flat washers on the bottom of the frame to 52 lb-ft.
- 65. Torque the stock gas tank mounting point to 50 lb-ft.
- 66. Position the driver side bracket on the driver side frame rail and line the flat portion of the bracket up with the body mount as done on the passenger side.
- 67. One of the mounting holes in the bracket lines up with an existing hole in the frame. Temporarily install a bolt in this location to hold the bracket in place. Push the bracket against the frame and center punch the outside front mounting point and drill to 9/16". The hole will be drilled all the way through the frame rail. Ensure the drill is straight while penetrating the frame rail.
- 68. Once drilled, place the supplied 9/16" x 4.5" bolts with washers and nuts in the drilled hole and the existing hole. Slightly tighten the two 9/16" x 4.5" bolts/washers/nuts to hold the bracket in place.
- 69. Locate the three mounting holes present in the bottom of the bracket. Center punch these holes in the bottom of the frame and drill them to 7/16".
- 70. Picture #18. Locate the long 7/16" nut strip. Place the nut strip in the rectangular hole in the bottom of the frame directly in line with the stock upper control arm mount. The welded nuts will be on the upper side, placing the strip side directly against the inner frame rail.







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# **Rear Installation Instructions (Continued)**

- 71. Insert the supplied 7/16" x 1.5" bolts with thick washers in the three mounting holes in the bottom of the frame and start them into the nut strip. Once all of the bolts are started and slightly tightened, torque to 52 lb-ft.
- 72. Torque the 9/16" hardware on the outside of the frame to 75 lb-ft.
- 73. Locate the rear lower long arms. Using the supplied 9/16" x 4 ½" bolts with washers, attach the flex joint to the lower long arm to the mounts just installed on the frame. Mount both driver and passenger side arms. Torque to 85 lb.-ft.
- 74. The rear lower long arms should now be set to the correct length. Measure the outside distance of the lower long arms.

Rear Lower Arm Length Chart			
3.25" Lift Height	29-7/8" Center - Center		
4.5" Lift Height	30-1/4" Center - Center		
5.75" Lift Height	30-1/2" Center - Center		

- 75. Once set to the correct length, attach the lower long arms to the axle using the factory 14mm hardware. Do not tighten at this time
- 76. The rear upper arms should now be set to the correct length, adjust each end of the arm equally. There will be a long and short side of the arm from the center of the bend. Position the control arms so that the short side of the control arm is mounted to the axle and the long side is positioned at the frame mount. Use the retained factory hardware to secure both ends. (Torque hardware to 85 lb.-ft.)

	Rear Upper Arm Length Chart
3.25" Lift Height	17-1/2" Center - Center
4.5" Lift Height	17-3/4" Center - Center
5.75" Lift Height	18-1/16" Center - Center

77. The tire size and wheel offset will determine the orrentation of the rear upper control arms bend. If the wheel being used does not have much offset, position the bend of the control arms in the same manner as the factory upper control arms to allow for adequate tire clearance. If you are using aftermarket wheels that have more offset than factory you can position the arms with bend facing up or down.





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### **Rear Installation Instructions (Continued)**

- 78. Apply Loctite to the threads on the axle side of the rear upper control arms, seat the jam nuts, and fully tighten. This will only be completed on the side of the arms that mount to the rear upper control arm mounts on the axle due to this end of the control arms will not be able to be accessed once the wheel and tires are installed.
- 79. Install the rear coil springs; be sure to reinstall the rubber isolator at the frame end.
- 80. The tires/wheels should now be installed on the vehicle. Lower the vehicle off the lift rack/ jack stand. The vehicle should be at ride height for the next steps.
- 81. Tighten the rear lower long arm mounting points at the axle, driver & passenger side. Torque to 85 lb-ft.
- 82. Locate the supplied rear adjustable track bar. The fixed end will attach to the axle end using the factory 14mm bolts/nuts. The two bends in the bar should be positioned to clear the rear differential.
- 83. Center the rear axle. To center the axle, measure the distance from the frame to the center point of the tire, both driver & passenger side. The measurements should be the same. You will have to push/pull the body over the axle to get the same measurements on both driver & passenger side.
- 84. With the axle centered under the body, adjust the adjustable end of the rear track bar until its mounting point lines up with the frame mount. Attach the track bar using the factory14mm hardware.
- 85. Torque the frame and axle track bar mounting hardware to 85 lb-ft.
- 86. Locate the locking jam nut on the adjustable end of the track bar. Apply 3 drops of the red label loctite to the exposed threads and then tighten the jam nut (this is left hand thread). This should be TIGHT!
- 87. Install the extended rear sway bar links. If the kit purchased includes fixed links, simply mount the sway bar end links on the axle and frame using the factory hardware. If the kit purchased includes adjustable sway bar links, position the sway bar level (horizontally 0 degrees). Measure the distance from the sway bar frame mounting point to the axle end tab. The threaded portion of the adjustable link is designed to be cut to the correct length. Ensure the nut is installed on the threaded portion to chase the threads before cutting. That will ensure the ball joint is able to screw back on.
- 88. Install the rear shocks. Use the factory hardware at the frame end (with bar pins). Torque the bolts to 16 lb-ft. Line up the lower end of the shocks with the mounts on the axle and secure using the factory hardware. Torque to 35 lb-ft.





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### **Rear Installation Instructions (Continued)**

- 89. If the kit purchased included Stainless Steel brake lines, install the brake lines at the frame end and tighten. Secure the brake lines to the frame using the factory hardware, then attach the brake lines at the caliper end. Use the factory brass washers on each side of the brake line fitting, install the banjo bolt & tighten. If the kit purchased included brake line extensions, fasten the brake line extensions to the factory frame rail mounting points using factory hardware. The supplied hardware will mount the brake line to the extension brackets. You will need to slightly pull the brake line down to reach the new location. Tighten the supplied hardware.
- 90. Step 91 & 92 will require the use of Loctite. The correct procedure for this is to expose the threads where the jam nut will seat to the control arm. Apply 3-4 drops and then tighten the nut.
- 91. Locate the rear long arms. Back off the jam nuts on the upper and lower control arms enough to expose the threads closest to the ends of the arms. Apply Loctite to the threads, seat the jam nuts, and fully tighten.
- 92. Locate the front long arm/radius arms. Back off the jam nuts on the upper and lower radius arms enough to expose the threads closest to the ends of the arms. Apply Loctite to the threads, seat the jam nuts, and fully tighten.
- 93. If extended brake lines were installed, bleed the brake system now following the procedure found in the factory service manual.
- 94. Double-check all fasteners for proper torque.
- 95. Start the vehicle. Have an assistant cycle the steering lock-to-lock while inspecting all components for proper clearance and operation.
- 96. Have an assistant cycle the suspension while visually checking all components for proper operation and clearance.
- 97. At this point there should be no parts left except the stickers. A professional alignment is required and strongly recommended before driving the vehicle any extended distance. Failure to align the vehicle may cause poor handling characteristics, "death wobble", and poor tire wear. Alignment specs are as follows: 7 degrees positive caster, 0 degrees camber, 0" toe. Slight toe alterations may be necessary depending on the vehicle.
- 98. The installation is now complete.

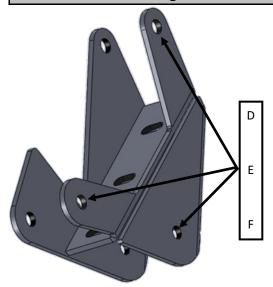




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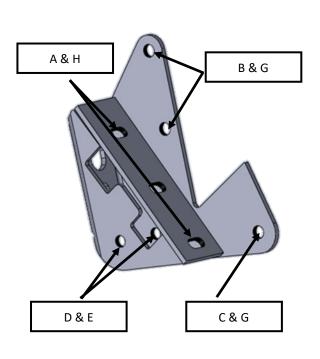
# **JK Rear Long Arm Bracket Hardware List**

# **Driver Side JK Rear Long Arm Brackets**



Location	Part Number	Description	Qty:
А		7/16" Tab Strip	1
В	73840498	7/16" x 1-1/2" Bolts	3
С	73840498	Spacing Washers	3
D	67524520	9/16" x 4-1/2" Grade 8 Bolts	3
E	05724653	9/16" SAE Flat Washer	6
F	87922084	9/16" Lock Nut	3

# **Passenger Side JK Rear Long Arm Brackets**



Location	Part Number	Description	Qty:
Α		(Tab B) 7/16" Tab Nuts	2
В		(Tab C) 9/16" Double Tab Nut	1
С		(Tab A) 9/16" Tab Nut	1
D	87921607	9/16"-12 UNC Right Hand Thread Hex	1
E	67524447	9/16"-12 x 3-3/4" Length Grade 8 Hex	1
F	05724653	9/16" SAE Flat Washer	3
G	05729157	9/16"-12 x 1-1/2" Length Grade 8 Hex	3
Н	67426049	7/16"-14 x 1-1/2" Length Grade 8 Hex	2
I	73840498	1/2" x 1-1/16" O.D. Extra Thick Flat	2





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### **Final Notes**

At this point there should be no parts left but installing the stickers. The vehicle will need to have an alignment as soon as possible, if you don't you may get the "death wobble", poor tire wear or just a bad handling vehicle.

#### **Alignment Recommended Specifications**

Toe: Should be set at 0 to 1/32" Toe Out

Castor: 7.5 Degrees Positive

Camber: 0

# WARNING

It is the owners' responsibility to inspect all Rusty's products for proper torque specs to prevent loosening of components. Seat belts and shoulder harnesses should be worn at all times. Re-check all bolts and nuts after the first 300 miles and after any off-road usage during the first 300 miles. Although all of our products are made from the highest quality materials possible, they are not a substitute for Safe and Careful driving. In other words, have good safe on-road / off-road sense. Know the terrain, the speed limitations, and any obstacles that may lie ahead. Please remember to preserve our right to enjoy public land through the proper use of off-road vehicles. Thank you for choosing Rusty's Off Road Products.

