



Rusty's Off-Road Products
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Rusty's ZJ Grand Cherokee 5.5" Long Travel Kit

RK-550LT-ZJ

INSTALLATION INSTRUCTIONS

Last Revised: 11/29/2016

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 support the vehicle's frame and any other heavy components.



For Questions or Suggestions, contact our Tech Department (256-442-0607)

Parts List:

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

Part #	DESCRIPTION:	Quantity
RC-CS808-ZJ	Rusty's ZJ 5.5" Front Coil Springs (Pair)	1
RC-CS305-ZJ	Rusty's ZJ 5.5" Rear Coil Springs (Pair)	1
RX-16	Rusty's RX100 Performance Shock: RX-16 (Contents Below)	2
	(Bushing Packs: PO1318 & PO1314)	
RX-11	Rusty's RX100 Performance Shock: RX-11 (Contents Below)	2
	(Bushing Packs: PO1313 & PO1532)	
RC-SB500-UV	Rusty's Forged Adjustable Sway Bar Quick-Disconnects (Pair)	1
RC-SB400-ZJ	Rusty's ZJ Rear Sway Bar Links (Pair)	1
RC-TB160-UV	Rusty's HD Track Bar Frame Mount (XJ,ZJ)	1
RC-TB225-UV	Rusty's Track Bar - Adjustable Front HD Track Bar 5-8" Lift (XJ, ZJ)	1
RC-TB600-ZJ	Rusty's Track Bar - Adjustable Rear (ZJ)	1
RA-CM300LT-ZJ OR	Rusty's '93-'95 ZJ Long Travel Crossmember & Frame Mounts OR	1 OR
RA-CM600LT-ZJ	Rusty's '96-'98 ZJ Long Travel Crossmember & Frame Mounts	1
RC-CA311-UV	Rusty's Long Arm Lower Front Control Arms (XJ,TJ,ZJ) (Pair)	1
RC-CA321-UV	Rusty's Long Arm Upper Front Control Arms (XJ,TJ,ZJ) (Pair)	1
BT-512-ZJ	Rusty's Rear Long Arm Hanger Brackets (ZJ) (Pair) (Contents Listed Below)	1
	(BT-512-ZJ-R) Right Rear Hanger Bracket	1
	(BT-512-ZJ-L) Left Rear Hanger Bracket	1
RC-CA312-ZJ	Rusty's Long Arm Lower Rear Control Arm (ZJ) (Pair)	1
RC-CA322-ZJ	Rusty's Long Arm Upper Rear Control Arm (ZJ) (Pair)	1
RS-DPA4	Rusty's Drop Pitman Arm - (ZJ)	1
RB-SBL10F-UV	Rusty's Brake Hoses - Stainless Steel - Front (Pair)	1
RB-SBL10R-UV	Rusty's Brake Hoses - Stainless Steel - Rear	1



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Parts List:

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

Part #	DESCRIPTION:	Quantity
BK-400-ZJ	Frame Bracket Bolt Kit (Contents Listed Below)	1
05728506	1/2"-13 x 5" Length Grade 8 Hex Head Cap Screw	4
05724646	1/2" SAE Flat Washer	8
67488965	1/2"-13 Grade 8 Hex Lock Nut	4
67522524	7/16"-14 x 3-1/2" Length Grade 8 Hex Head Cap Screw	2
52593597	7/16"- 14 Grade 8 Hex Lock Nut	4
RC-TB716	7/16" x 1-1/8" Tab Bolt	2
05724638	7/16" SAE Flat Washer	6
05724620	3/8" SAE Flat Washer	4
67444802	M10 x 1.50mm x 40mm Length Hex Head Cap Screw	4
RW-20	Rusty's Flex Wrench Tool 2"	1
RW-25	Rusty's Flex Wrench Tool 2.5"	1
BK-500-ZJ	Rear Hanger Bracket Bolt Kit (Contents Listed Below)	1
05728506	1/2"-13 x 5" Length Grade 8 Hex Head Cap Screw	4
05724646	1/2" SAE Flat Washer	8
67488965	1/2"-13 Grade 8 Hex Lock Nut	4
RC-TB716	7/16" x 1-1/8" Tab Bolt	4
52593597	7/16"- 14 Grade 8 Hex Lock Nut	4
05724638	7/16" SAE Flat Washer	4
67524728	9/16"-12 x 7" Length Grade 8 Hex Head Cap Screw	2
52593613	9/16"-12 Grade 8 Hex Lock Nut	2
2OD-SP	1/2" I.D. x 2" O.D. x 1/4" Thick Flat Washer	4
SL-100	Frame Sleeves (1" x 3.5" Length)	4

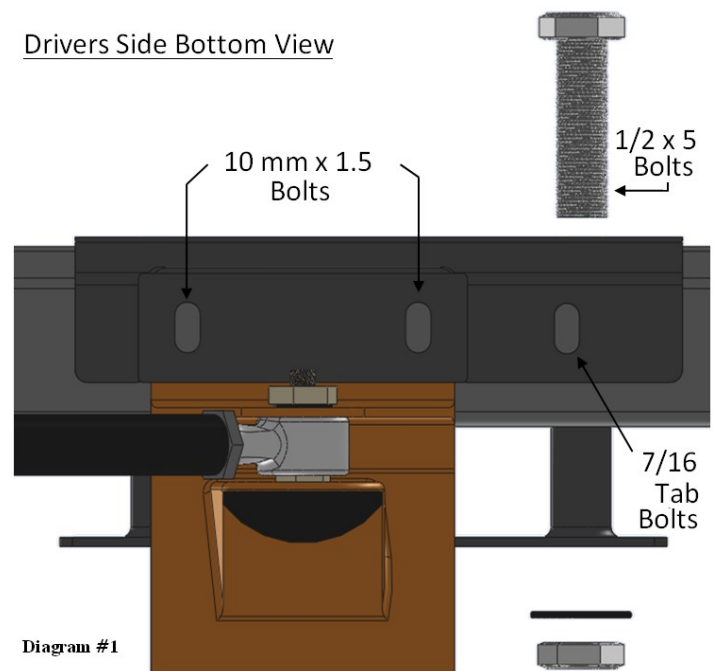


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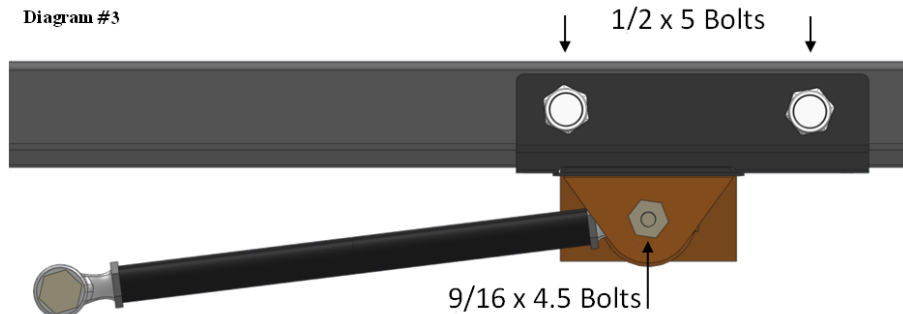
FRONT INSTALLATION

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

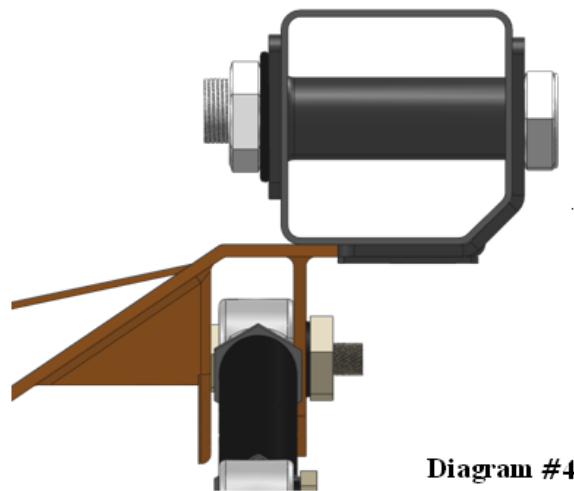
- 1.) Place vehicle up on the rack.
- 2.) Remove the wheels, coils, control arms, shocks as well as both front and rear track bars. Note: Be sure to keep the factory hardware for the control arms and track bars. You will reuse the upper and lower control arm bolts at the axle as well as the track bar bolts at the axle.
- 3.) Cut the front and rear lower control arm mounts to clearance the long-arms. Note: We suggest using a plasma cutter to remove the majority of the mounts, then use a angle grinder to clean up the remaining mounts.
- 4.) Support the transmission and remove the factory crossmember.
- 5.) Place the new crossmember into position, and then position the outer frame plates over it.
- 6.) Temporarily tighten the two lower 10 mm x 1.5 bolts which will put the plates and crossmember into their correct position.
- 7.) Once the outer frame plates are snug against the unibody, center punch where the two holes are to be drilled.
- 8.) Remove the plates.
- 9.) Move your brake and fuel lines away from the unibody.
- 10.) Drill $\frac{1}{2}$ " holes thru the unibody.
- 11.) Then, drill the holes on the inner side of the unibody to 1" allowing the (sleeved mounting system / Sleeved Backing Plate) to be inserted from the inside.
- 12.) Insert $\frac{1}{2}$ " x 5" bolts from the outside of the frame.
- 13.) Insert backing plate from inside the frame.
- 14.) Install washers and nuts
- 15.) Torque to 75 Ft. Lbs.



FRONT INSTALLATION CONTINUED



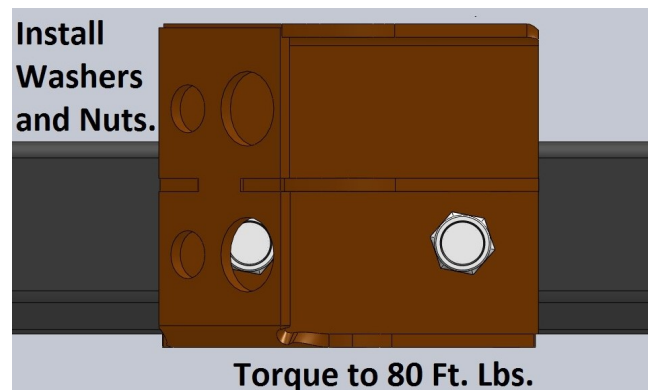
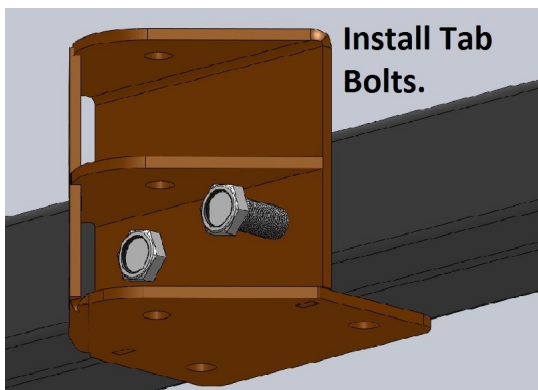
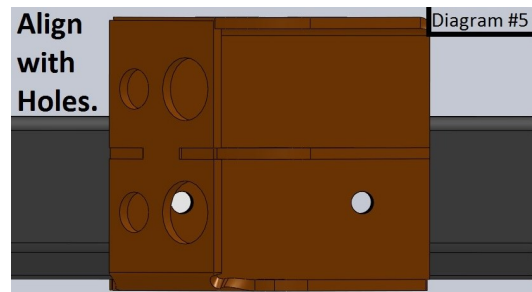
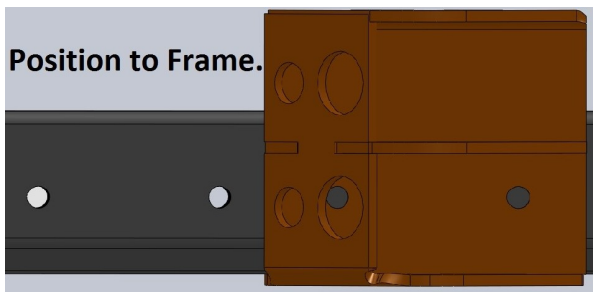
Front View Completed Assembly



- 16.) Immediately in front of the crossmember frame mounting holes, locate the oval hole in the side of the frame, you will need to fish one of the two 7/16" stud bolts through the bottom of the unibody.
- 17.) Place the crossmember and all the plates into position. Once both sides are done, snug the bolts to spec.
- 18.) Now that the front mounting system is installed you can put the front radius arms in. As a starting point, set the adjustable lower arms to 35.75" eye to eye and install them.
- 19.) The upper radius arms should be set to 15.75" eye to eye. These are just a baseline, you'll need to adjust caster when the lift install is completed. 7/26/14 For the Rear Long Arm mounts: -Rusty's uses two factory ZJ holes in the bottom of the unibody. Two additional holes must be drilled through the sides of the unibody to install the rear sleeved mounting system.

REAR INSTALLATION

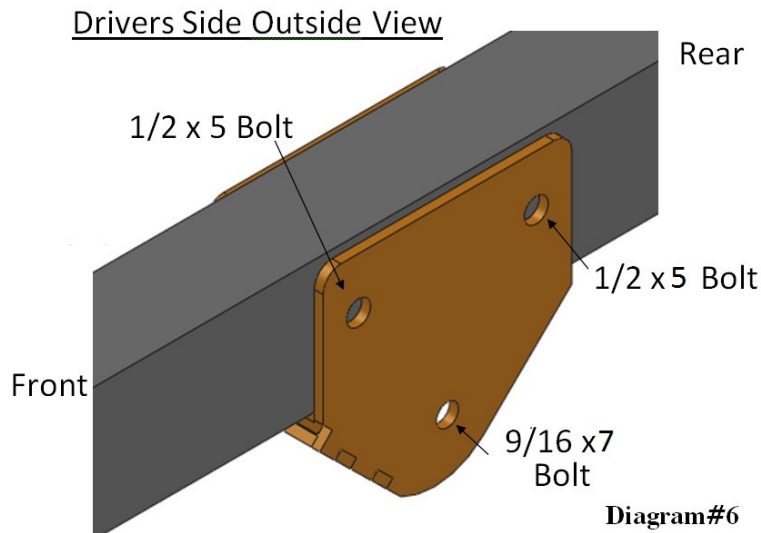
To begin the installation of the supplied rear long arm frame brackets you will align the two factory ZJ holes on the bottom on the unibody with the two holes in the rear long arm frame brackets.



20.) Fish the two supplied tab bolts through the bottom holes and hold temporarily mount the rear brackets to mark the location to drill the rear holes. -In future steps, you will again drill a 1/2" hole thru the outside of the unibody and the inner holes to 1" for the sleeved setup.

REAR INSTALLATION

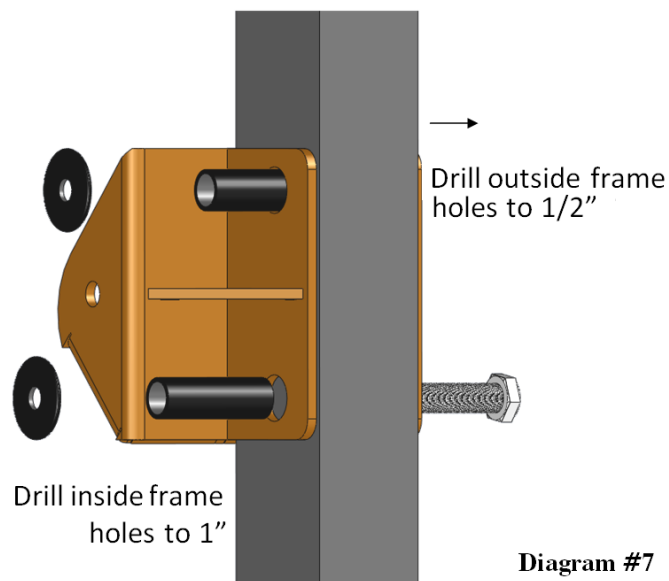
21.) Hold bracket onto frame.



22.) Mark hole location on the outside of frame.

23.) Drill $\frac{1}{2}$ " hole from the outside, through the entire frame

24.) From the inside ONLY, Drill to a 1" hole (to insert the Black Frame Sleeve).

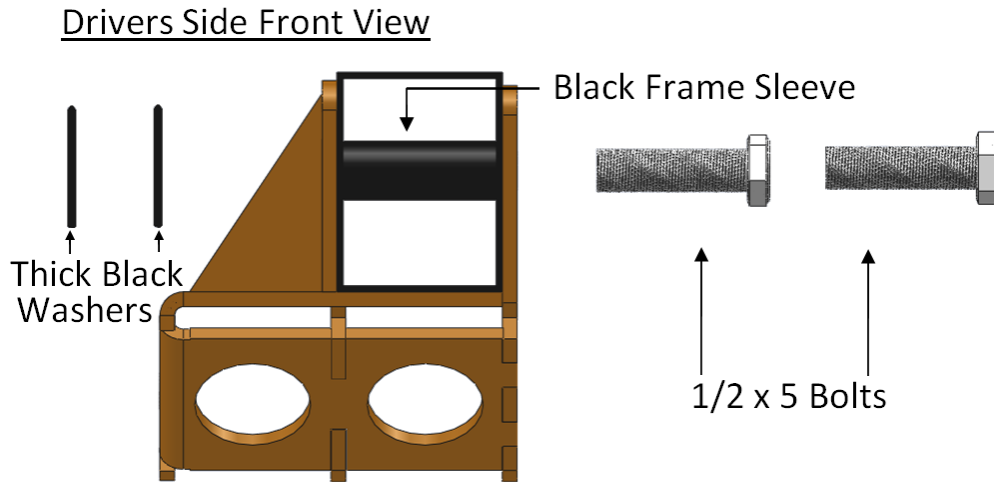


25.) Insert tubes through 1" hole on the inside of the frame.



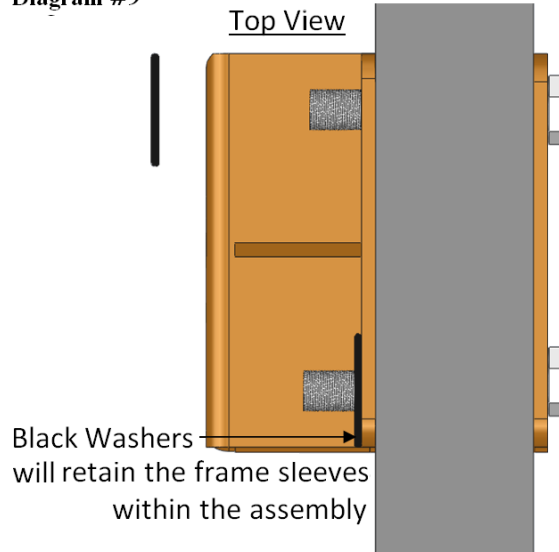
REAR INSTALLATION CONTINUED

Diagram #8



26.) Insert Bolts and Washers from outside of the frame onto bolts.

Diagram #9



27.) Place the rear mounting bracket into position.

28.) Finger tighten the 2 lower and 2 through bolts (4 total per side)

29.) Then, tighten to specs and repeat on other side.

30.) Once finished, reposition your fuel and brake lines back into their stock locations. 7/26/14 The mounting units sandwich the unibody creating a larger area to distribute the suspension load.



REAR INSTALLATION CONTINUED

This image below is just a reference image to note where the previous images were located on the vehicle.



- 31.) Align the upper and lower rear arms into the mounting bracket and use the Grade 8 bolts supplied to install them at the mount.
- 32.) Use the factory hardware to install the arms to the axle. Starting lengths are 39.75" for the uppers and 39.25" for the lowers. Now grab the grease gun and hit the zerks with quality grease.
- 33.) The kit includes a heavy duty track bar frame mount which lowers the track bar for better steering geometry and is much beefier than stock. It mounts using the factory hardware.
- 34.) Mark the location of the stock pitman arm before removing to assure the drop pitman arm is mounted correctly. Use a pickle fork to remove the drag link from the pitman arm. A pitman arm puller removes the stock unit and then the drop pitman arm can be installed.
- 35.) The drop pitman arm will also help to correct the steering geometry by keeping the track bar and drag link at parallel angles.
- 36.) Install the front and rear adjustable track bars. The rear axle mounting location has a plastic piece that simply pops off. It's often a source of confusion for those new to ZJs.

REAR INSTALLATION CONTINUED

37.) Final steps include:

- a. Installing the sway bar extension kit in the rear and quick disconnects up front. Both front and rear extended brake lines are included.
- b. Installing the new coil springs.
- c. Be sure your spring retainer clips are reinstalled as well. -Without them, you will be losing springs with the flex you will get from this kit.

38.) That's all there is to the installation. The install was designed to assure that everything was positioned correctly and the mounts were snug against the unibody. The load is distributed over a larger area the unibody is safe from the rigors of off-roading! Now get to wheeling!



Final Notes:

Refer to the driveshaft angles that were taken before raising the vehicle. Again take a driveshaft angle reading and compare to the first readings. If needed, rotate the cam bolts to get the driveshaft angles as close as possible. This should eliminate driveshaft vibrations. It is very important that both cam bolts are adjusted the same. Be sure to re-torque the cam bolts to 85-ft. lbs. if loosened.

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 specs are: 7 degree positive castor, 0 camber, and the toe should start at 0.

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