



Rusty's Off-Road Products  
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## Rusty's ZJ Grand Cherokee 3.5" Budget Kit

RK-300A-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.

<b>Part #</b>	<b>DESCRIPTION:</b>	<b>Quantity</b>
RK-300A-ZJ	ZJ GRAND CHEROKEE 3.5" ADVANCED KIT	1
RC-CS405-ZJ	COILS — ZJ 3" FRONT	2
RC-CS200-ZJ	COILS — ZJ 3" REAR	2
RC-TB122-UV	TRACK BAR— ADJUSTABLE FRONT (XJ, ZJ, TJ)	1
RC-TBRB-ZJ	TRACK BAR — REAR BRACKET	1
RC-CA111-ZJ	CONTROL ARMS — FIXED LOWER FRONT	2
RC-CA121-UV	CONTROL ARMS — FIXED UPPER FRONT (XJ, TJ, ZJ)	2
RC-CA112-UV	CONTROL ARMS — FIXED LOWER REAR	2
RC-CA222-UV	CONTROL ARMS — ADJUSTABLE UPPER REAR (TJ, ZJ)	2
RS-SB500-UV	Rusty's Forged Adjustable Sway Bar Quick Disconnects (PAIR)	1
RC-SB400-ZJ	Rusty's Rear Extended Sway Bar Links (ZJ)	1
RB-SBL10-UV	BRAKE LIKE — FRONT AND REAR STAINLESS STEEL KIT	1
RX-36-ZJ	SHOCKS — ZJ HYDRO FRONT 3"	2
RX-13-ZJ	SHOCKS — ZJ HYDRO REAR 3"	2
RC-BH1306	SHOCK BUSHING — SLEEVE	4
RX-BH1314	SHOCK BUSHING — CLOSED BAR PIN	2
RX-BH1318	SHOCK BUSHING — BUSHING/WASHER (STUD STYLE)	2

**FRONT INSTALLATION**

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

- 1.) Raise vehicle and place jack stands under frame. Chock the rear tires to prevent any accidental movement.
- 2.) Support the front axle with the floor jack.
- 3.) Remove tires and wheels.
- 4.) Remove the factory shocks at the top and bottom and discard. The bottom hardware will be re-used.



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## FRONT INSTALLATION CONTINUED

- 5.) Unbolt the sway bar on both sides at the frame, don't discard hardware it will be reused. The front sway bar drop bolts to the frame with the factory hardware.
  - 6.) Un-bolt brake line at the frame and at the brake caliper, save copper washers, they will be re-used. Remove brake line.
  - 7.) Remove the bolt at the axle end of the track bar, save the hardware it will be reused when installing the adjustable track bar.
  - 8.) Follow the trackbar to the frame mount, remove cotter pin and nut and remove the track bar (a ball joint separator may be necessary).
  - 9.) Paint or scribe the front bolt of the lower control, rotating this bolt adjusts the caster.
  - 10.) Remove the axle and frame end lower control arm bolts on both drivers and passenger's side and remove the arm.
  - 11.) Remove the axle and frame end upper control arm bolts on both drivers and passenger's side and remove the arm.
  - 12.) On each side, remove the bolt that holds the spring keeper clip, it's located on the lower coil spring mount.
  - 13.) If using a coil spring compressor, take special care. Lower the axle and remove the coils.
- \*NOTE: Do not torque bolts to spec until vehicle lowered to the ground and set to ride height.
- 14.) Using special care, install the new Rusty's coils.
  - 15.) Install the new lower & upper control arms before unloading the coils. The lower control arms have a bend in them; the short side of the bend will mount to the axle side.
  - 16.) Inspect the old mounting bolts for wear, if worn replace with a grade 8 bolt.
  - 17.) Position the new coils into place. Install the factory spring keeper clip. Torque to 10-ft. lbs.
  - 18.) Torque the lower control arm bolts. Axle end to 85-ft. lbs. Frame end to 130-ft. lbs.
  - 19.) Torque the upper control arm bolts to 55-ft. lbs.
  - 20.) Install the new Rusty's shocks into their upper position with new hardware. Torque the upper hardware to 17-ft. lbs.
  - 21.) Install the lower end of the shock to the axle using the factory hardware. Torque to 20-ft.lbs.
  - 22.) Install the Rusty's adjustable quick disconnects using the supplied instructions.



## FRONT INSTALLATION CONTINUED

- 23.) Install the new stainless steel brake lines provided. Make sure to properly bleed the brake system prior to driving.
- 24.) Install tires and wheels.
- 25.) Jack up vehicle and remove jack stands and lower to the ground.

## FRONT ALIGNMENT

- 26.) Install new adjustable track bar to the axle, torque to 55-ft. lbs.
- 27.) Before bolting to the frame, you will need to center the body over the axle. Look at the front of the vehicle to see if the axle is centered, if not unlock the steering wheel, but do not crank, turn the steering wheel one way or the other to shift the body until the body is centered. When centered, lock the steering wheel. Adjust the tie rod end to the proper length and bolt to the frame. Torque to 65-ft. lbs., and install cotter pin.

## REAR INSTALLATION

- 28.) Raise vehicle and place jack stands under frame. Chock the front tires to prevent any accidental movement.
  - 29.) Support the rear axle with the floor jack.
  - 30.) Remove the tires and wheels.
  - 31.) Remove the factory shocks, keeping the factory hardware and discarding the old shocks.
  - 32.) Disconnect the sway bar links. Retain the hardware, it will be used again.
  - 33.) Un-bolt the brake line and discard.
  - 34.) Remove the plastic shield that covers the driver's side of the rear track bar, discard the plastic cover.
  - 35.) Remove the rear track bar, retain the hardware, it will be re-used.
  - 36.) Remove the axle and frame end lower & upper control arm bolts on both drivers and passenger's side and remove the arms.
  - 37.) If using a coil spring compressor, take special care. Lower the axle and remove the coils.
- \*NOTE: Do not torque bolts to spec until vehicle lowered to the ground and set to ride height.
- 38.) Install the new coil springs and raise the axle until the springs are seated. Be sure the frame stays on the jack stands.
  - 39.) Install the new lower & upper control arms before unloading the coils.



## REAR INSTALLATION CONTINUED

- 40.) The rear lower control arms are 17.25”.
- 41.) Torque the lower control arm bolts to 130-ft. lbs.
- 42.) Install the new adjustable control arms. (As a starting point, adjust the arms 3/8” longer than factory). Make sure that the jam nuts are tightened. Torque the upper control arm bolts to 55-ft. lbs. This measurement is just to get you in the ball park for your driveline angle, it may need to be changed once the lift is installed and the vehicle is setting on the ground.
- 43.) Install the new shocks with the factory hardware. Torque the upper bolts to 17-ft. lbs. and the lower to 21-ft. lbs.
- 44.) Install the new stainless steel brake line provided. Make sure to properly bleed the brake system prior to driving.
- 45.) Install the new rear track bar bracket. It will be necessary to drill the two holes that held on the plastic cover to 5/16” and install bolts and nuts supplied. Install the new 7/16” bolt and nut to the factory mount hole.
- 46.) Place the factory track bar into the supplied bracket and install using the factory bolt and nut. Torque to 50-ft. lbs.
- 47.) Re-attach the factory sway bar links.
- 48.) Install tires and wheels.
- 49.) Remove jack stands and lower the vehicle.



### 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 retorque 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.

## WARNING

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