TJ Wrangler 5.5” Long Arm Kit

PART #: RK-550LT-TJ | APPLICATION: TJ

INTRODUCTION

Rusty’s recommends that this installation should be performed by a certified automotive technician or a person with a 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 needed parts and know where they install. Read each step completely as you go. Exhaust modifications may be necessary. You will need an inclinometer or similar tool to check rear drive line angles; this will help take a lot of the guess work out. A front end alignment is a must. 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, de burr and grind smooth any surfaces, be sure to paint or undercoat after wards.

PARTS LIST

Be sure you have all needed parts and know where they install. Read each step completely as you go.

RK-550LT-TJ	TJ 5.5” Long Travel Suspension Kit	1
RC-CS808-TJ	Coils-TJ 5.5” Front	2
RC-CS403-TJ	Coils-TJ 5.5” Rear	2
RC-CA311-UV	Control Arm- Long Arm Lower Front (XJ, TJ, ZJ)	2
RC-CA421-UV	Adjustable Front Upper Control Arms w/ Forged Flex End (XJ, TJ, ZJ)	2
RC-CA312-TJ	Control Arm- Long Arm Lower Rear (TJ)	2
RC-CA322-TJ	Control Arm- Long Arm Upper Rear (TJ)	2
RC-TB199-UV	Trac-Bar –Adjustable Front (XJ,TJ,ZJ)	1
RC-TB400-TJ	Trac-Bar – HD Frame Mount (TJ)	1
RC-TB550-UV	Trac-Bar- Adjustable Rear (TJ, ZJ)	1
RC-BP10-TJ	Belly Pan- Long Arm (TJ)	1
RS-DPA1	Drop Pitman Arm- 1.25” (XJ,TJ,YJ)	1
RC-SB500-UV	Rusty’s Quick Disconnects	2
RB-SBL10-UV	Brake Line- Front & Rear Stainless Steel	1
RC-SB300-TJ	Sway Bar- Rear Extended Link Kit	1
CE-9601	Currie Shock Extension Kit	1

FRONT INSTALLATION

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

FRONT DISASSEMBLY

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 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 reuse.
6) Remove the bolts fastening the brake lines to the frame (One bolt per side). If the purchased kit includes extended brake lines, the store 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 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.
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 lower control arms as it will be reused.
9) Place a jack under the transfer case and slightly lift about 3/8” to remove load on the transmission cross member. Remove the 4 nuts at the transmission mount (save the nuts).
10) Remove the transmission cross member; there will be 3 attachment points at each frame rail.
11) Locate the factory lower control arm mounts at the frame. Both driver and passenger side will be removed. Rusty’s recommends the use of a plasma cutter, touch, or cutting wheel. Cut the brackets only; the frame should be left uncut. Cut the bottom portion of the bracket and then move to the inside of the frame. **IMPORTANT:** Be sure to keep clear of fuel and brake lines on the driver side.

12) 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 your next step).**

REAR DISASSEMBLY

13) 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 installation.

14) 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.

15) Remove the rear shocks at both frame and axle end. Save the hardware at the axle for reuse.

16) Remove the rear sway bar links at the sway bar and axle tab. Retain hardware as it may be reused.

17) 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.

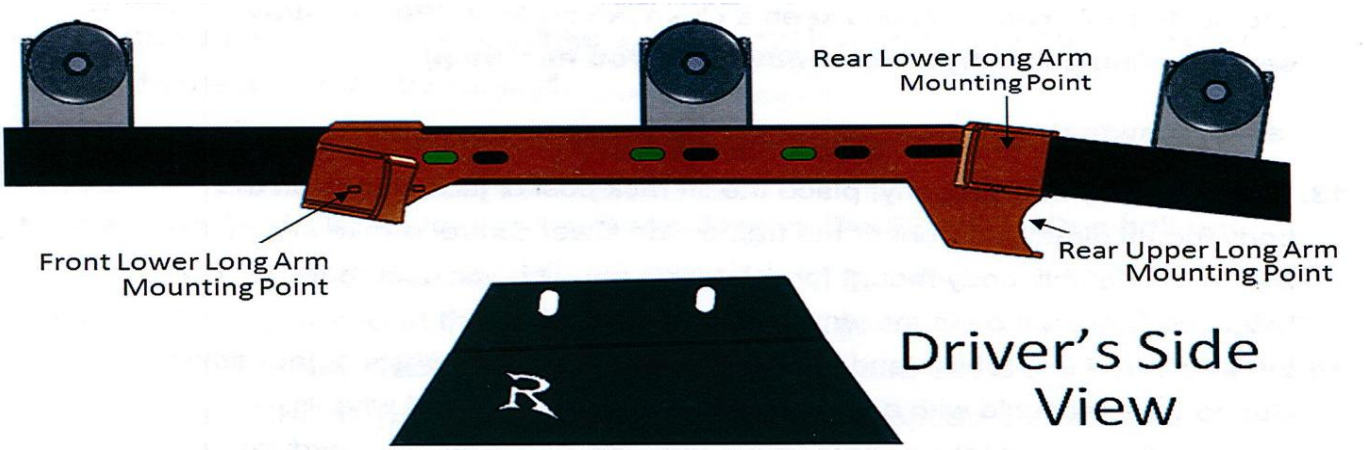
18) Remove the c-clip fastening the rear brake lines to the frame rail. If the kit purchased includes extended brake lines, the stock brake lines should be removed. Cap the line to prevent fluid loss.

19) If the kit purchased does not include extended brake lines, just remove the c-clip for installation of the extension bracket.

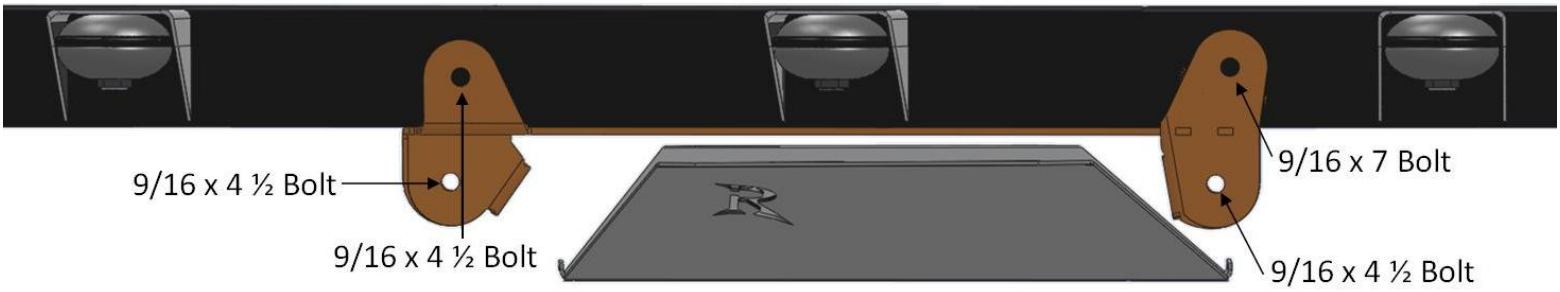
20) Remove the rear coil springs. The use of a coil spring compressor may be needed. If so, use extreme caution.

21) Verify the axle end is supported. Remove the upper and lower control arms at the frame and axle end. Save the hardware at the axle for reuse.

22) Locate the factory lower control arms and upper control arms at the frame. These mounts must be removed. Rusty's recommends using 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 a quality flat black enamel.



Place to the correct side.



23) Locate the driver and passenger side sub-frame control arm mount brackets. Place to the correct side.

24) Refer to diagram 1 (bottom driver side view) for placement. TJ/LJ have different mounting points per year models. Most 97-02 will use the green belly pan mounting points. Most 03-06 will use the black belly pan hardware kit. The varying year models will require different belly pan mounting hardware. Most 97-02 will the ½ x 1 ½ hex bolts and washers. The 03-06 will use the 12mm x 1.5 hex bolts & washers. Check and insure you are using the correct bolts at the 3 per side bottom mounting points. (2000-2002 will be the most varying models).

25) Locate the transmission mount, the mounting points at the transmission should be loosened (do not remove; loosen each bolt 3 to 5 threads).

26) Place the sub frame control arm mounting brackets to the frame rails, and using an assistant place the belly pan. Install the mounting bolts at the belly pan (2 on each side) and the rearward mounting bolts (1 per side). Start the bolts/washers only. Do not fully tighten.

27) The sub frame brackets now stalled, with slotted holes should be centered forward and backwards. To insure correct driver side and passenger side alignment, measure from the most forward body mount to the center hole in the front frame mounting point. These measurements driver side and passenger side will need to measure the same. (Just shift forward or backwards to align).

28) Torque the 6 mounting points at the sub frame/belly pan (shown in Diagram 1) to 75 ft. lbs.

29) Lower the jack or support at the transmission. Align the transmission mount bolts while lowering the transmission. The nuts removed in step 9 should be installed and fully tightened. The bolts loosened at the transmission should be retightened.

30) Refer to diagram 2. The two mounting frame points will be drilled to 9/16. Insure the drill is level to correctly align with the inside frame tabs.

31) Install the front frame mounting points: 9/16 x 4 ½ hex bolts/washers/nyloc nuts.

32) Locate the rear upper control arms to the rearward inside frame mounting points (shown in diagram 1). Use an assistant to hold the control arm in place and from the outside of frame install the 9/16 x 7 hex bolt/washers/nyloc nuts. (This will go through the frame flex joint completing the assembly). Torque to 120 ft. lbs.

33) The rear upper control arms should be now aligned at the axle mounting point. Reinstall the factory bolts/nuts and torque to 50 ft. lbs. Adjust to the correct length.

TJ ***CENTER HOLE TO CENTER HOLE*** **LJ**

3.5": 28 ¼	3.5": 37 ½
5.5": 28 ½	5.5"" 37 ¾

34) Locate the lower control arms. The flex joint will be placed at the sub frame mounting point. Install the 9/16 x 4 ½ hex bolts/washers/nuts. Torque to 130 ft. lbs.

35) Adjust to the correct length.

3.5": 28	3.5": 37 ¼
5.5":28 ¼	5.5": 37 ½

36) Once the rear lower control arm is set to the correct length, install at the axle mounting points. Start the bolt/nut only. DO NOT TORQUE!

37) Locate the front lower long arms. Place the flex joint end of the control arms at the sub frame. Install the 9/16 x 4 ½ hex bolts/washers/nuts. Torque to 130 ft. lbs.

38) Adjust to the correct length:

3.5": 35 ½	3.5": 35 1/2

5.5”: 35 ¾	5.5”: 35 ¾

39) Place the front lower long arms to the axle mounting points. Install the hardware. Start the bolt/nut only. DO NOT TORQUE!

40) Locate the front radius upper control arm. Place at the lower long arm and install the 7/16 x 3 ½ hex bolts/washers/nuts. Torque to 80 ft. lbs.

41) Locate the u-bracket close to the axle upper control arm mounts. Set the length of the arms according to the chart below. This measurement will be taken on the outside of the arm end junction. Once set to the correct length, install the supplied 10mm x 3 ¼ hex bolt/nut. Torque to 50ft lbs.

3.5”: 15 ½	5.5”: 15 ¾

FRONT ASSEMBLY

42) Install the front coil springs on the driver and passenger side.

43) 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.

44) Install the front tires/wheels and lower the vehicle to the ground. The vehicle should be at normal ride height for the following steps.

45) Attach the front shocks to the lower axle mounts using the factory hardware. Fully tighten the driver and passenger sides to factory specifications.

46) Locate the HD trac-bar mount. Follow its provided instructions.

47) 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 sides.

48) With the axle centered under the body, adjust the adjustable end (frame side) until its mounting points align. Install the factory hardware at the axle end. Torque to 55ft lbs. Install the adjustable end of the trac bar to the HD frame mounts. The ½ x 3 ½ bolt should be torqued to 130 ft. lbs.

49) 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!

50) If the kit purchased includes a drop pitman arm, the stock pitman arm, the stock pitman arm will be removed. The use of a pitman arm removal toll will be needed. The drop pitman arm will now be installed.

51) If the kit purchased includes front sway bar disconnects, they should be installed at this time. Refer to the instructions with the disconnects at this time. If the kit purchased includes fixed extended front sway bar links, install them at the time. The factory 12mm hardware will be reused at the axle and the supplied ½" x 3" bolts/nuts will be used at the sway bar mounting point. Tighten the factory bolts to factory specs and the ½" hardware to 57 ft. lbs.

52) The 14mm front lower long arm hardware at the axle should be torqued to 100 ft. lbs. All of the long arm/radius arm/ cross member bolts should be torqued at this time. Double check all bolts at this time to make sure nothing is overlooked.

53) 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 the calipers. Use factory hardware to fasten the line to axle. Note that the brake system needs to bleed 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 frame end mounting points using the factory hardware. Note that the bend in the bracket must face out and downward. The supplied hardware will fasten the brake lines to the extension brackets.

REAR ASSEMBLY

54) Install the rear coil springs; be sure to reinstall the rubber isolator at the frame end.

55) The tires/wheels should now be install on the vehicle. Lower the vehicle off the lift rack/jack stand. The vehicle should be at ride height for the next steps.

56) Tighten the rear lower long arm mounting points at the axle, driver & passenger side. Torque to 100 ft. lbs.

57) Locate the supplied rear adjustable trac bar. The fixed end of the trac bar will mount at the frame end. The two bends in the trac bar should be positioned to clear the rear differential.

58) Center the rear axle. To center the axle, measure the distance from the frame to the center point of the tire, both 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 driver & passenger side.

59) With the axle centered under the body, adjust the adjustable end of the rear trac bar until its mounting points line up with the axle mount. Mount using the supplied hardware. Torque both mounting points ½ x 3 ½ hex bolts to 120 ft. lbs.

60) 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!!

61) Install the rear extended sway bar links. The frame mounting side will require the use of the supplied sleeve. The sway bar mounting point may have a shoulder bolt, if so do not use the supplied sleeve. If the bolt is standard the supplied sleeve will be used. Fully tighten both mounting points.

62) Install the rear shocks. Use the factory hardware at the frame end (with bar pins). Torque the bolts to 16 ft. lbs. Line up the lower end of the shocks with the mounts on the axle and secure the factory hardware. Torque to 35 ft. lbs.

63) If the kit purchased included stainless steel brake lines, install the brakes line at the frame end and tighten. Reinstall the c-clip to hold position. Install the split block to the axle and fully secure and tighten hard brake lines to the split block.

64) Step 65 & 66 will require the use of Loctite. The correct procedure for this is to expose the threads where the jam nut will set to the control arm. Apply 3-4 drops and then tighten the nut.

65) Locate the rear upper and lower long arms. Back off the single jam nuts on the lower end dual jam nuts on the upper enough to expose the threads closest to the end of the arms. Apply Loctite to the threads, set the jam nuts, and fully tighten.

66) Locate the front long arms/radius arms. Back off the jam nuts on the upper and lower radius arms enough to expose the threads closets to the ends of the arms. Apply Loctite to the threads, seat the jam nuts, and fully tighten.

67) If extended brake lines were installed, bleed the brake system now following the procedure found in the factory service manual.

68) Double check all fasteners for proper torque.

69) Start the vehicle. Have an assistant cycle the steering lock-to-lock while inspecting all components for proper clearance and operation.

70) Have an assistant cycle the suspension while visually checking all components for proper operation and clearance.

71) At this point there should be no parts left except for 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 in alterations may be necessary depending on the vehicle.

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.

For questions or suggestions, contact our Tech Department
7161 Steele Station Road
Rainbow City, Al 35906
256-442-0607