

## Rusty's TJ Wrangler 3" Basic Kit RK-300B-TJ INSTALLATION INSTRUCTIONS

Last Revised: 2/20/2017

### 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.

**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>
RC-CS300-TJ OR RC-CS305-TJ	Rusty's TJ Front 3" Coil Springs (Pair) <b>OR</b> Rusty's TJ Front 3" HD Coil Springs (Pair)	1 OR 1
RC-CS303-TJ	Rusty's TJ Rear 3" Coil Springs (Pair)	1
RX-27	Rusty's RX100 Performance Shock: RX-27 (Contents Below)	2
	(Bushing Packs: PO1533 & PO1318)	
RX-64	Rusty's RX100 Performance Shock: RX-64 (Contents Below)	2
	(Bushing Packs: PO1532 & PO1313)	
RS-DPA1	Rusty's 1.25" Drop Pitman Arm (XJ,TJ,YJ)	1
RC-TCD1-TJ	Rusty 1" Transfer Case Drop Kit	1
	Transfer Case Drop Spacer (TCD-P)	6
	1/2"-13 x 2-3/4" Length Flat Head Socket Cap Screw (50143197)	6
	M12 x 1.75mm x 60mm Length Hex Head Cap Screw (67445569)	6
RC-SB300-TJ	Rusty's Rear Extended Sway Bar Link Kit	1
	Extended Rear TJ Sway Bar Links (SB-300) (Pair)	1
	Hourglass Shock Bushing (EB1)	4
	Shock Bushing - 1/2" Sleeve (RX-BH1200)	4
RC-TBRB-TJ	Rusty's Rear Track Bar Relocation Bracket (Contents Below)	1
	1/2"-13 x 1-1/2" Length Grade 8 Hex Head Cap Screw (05728159)	1
	1/2" SAE Flat Washer (05724646)	1
	1/2"-13 Grade 8 Hex Lock Nut (67488965)	1
	5/16"-18 x 1 Length Grade 8 Hex Head Cap Screw (05726104)	2
	5/16" SAE Flat Washer (05724612)	4
	5/16" - 18 Grade 8 Hex Lock Nut (67488924)	2



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

## Front Installation Instructions

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. Remove the tires and wheels.
3. Remove the factory shocks from the factory mounting points. The hardware at will be reused.
4. Unbolt the sway bar links on both sides, don't discard hardware.
5. Support the front axle with the floor jack.
6. Remove the bolt at the axle end of the track bar. The hardware at will be reused.
7. Remove the cotter pin and nut that connects drag link to the pitman arm. The hardware will be reused.
8. Remove the tie rod end from the pitman arm. (**Note:** A tie rod end puller will be needed to complete this step.)
9. Remove the nut and washer from the steering gear box shaft. The hardware will be reused.
10. Remove the factory pitman arm from the steering gear box shaft. (**Note:** A tie rod end puller will be needed to complete this step.)
11. On each side, remove the bolt that holds the factory coil spring retainer clip. It is located on the lower coil spring mount.
12. Remove the factory coil springs from vehicle. With the jack used to support the axle, slowly lower the axle in order to free the coil springs. (**Note:** If using a coil spring compressor, take special care.)
13. Set the new coil springs into place and reinstall the factory coil spring retainer clips you removed in step 7. (Torque to 10 ft. lbs.)
14. Install the new Rusty's front shocks into their upper mounting position with the supplied hardware. (Torque to 17 ft. lbs.) (**Note:** It is a good idea to take a wire brush and clean any excess paint from the threads on the stud to prevent the nut from tighten properly.)
15. Install the lower end of the shock to the axle using the factory hardware. (Torque to 20 ft. lbs.)
16. Install the supplied drop pitman arm using the nut and washer removed during step 9. (Torque to 185 ft. lbs.)
17. Reattach the drag link to the new drop pitman arm using the nut and cotter pin removed during step 7. (Torque the nut to 45 ft. lbs.) then install the cotter pin.
18. Reinstall the factory sway bar links at this time using factory hardware. (**Note:** If you purchased Rusty's Forged Adjustable Sway Bar Quick-Disconnects install them at this time using the supplied instructions.)
19. Install tires and wheels.



### Front Installation Instructions (Continued)

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

20. Jack up the vehicle and remove the jack stands in order to lower the vehicle back to the ground.
21. Unlock the steering wheel and have an assistant rotate the steering wheel in order to line the track bar back to its axle side mounting point.
22. Reinstall the factory bolt removed in step 6. (Torque to 35 ft. lbs.)
23. Front Installation is now completed!

### Transfer Case Drop Installation Instructions

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

1. Place a jack under the passenger side of the transfer case crossmember in order to support it.
2. Remove the 3 bolts that attach the transfer case crossmember to the frame rail.
3. Lower the jack used to support the transfer case crossmember enough room in order to install the supplied transfer case drop spacers into position.
4. Install the correct supplied bolts loosely (Qty: 3 Per Side) on the passenger side. (**Note:** For 1997-2002 models use the supplied 1/2"-13 x 2-3/4" Length Head Socket Cap Screw (Qty: 6) and for 2003-2006 models use the M12 x 1.75mm x 60mm Length Hex Head Cap Screw (Qty: 6).
5. Move the jack to the driver side of the vehicle.
6. Repeat steps 2-4 as the installation will be the same as the passenger side.
7. Tighten the supplied hardware to 55 ft. lbs.
8. Transfer Case Drop Installation Completed!

### Rear Installation Instructions

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

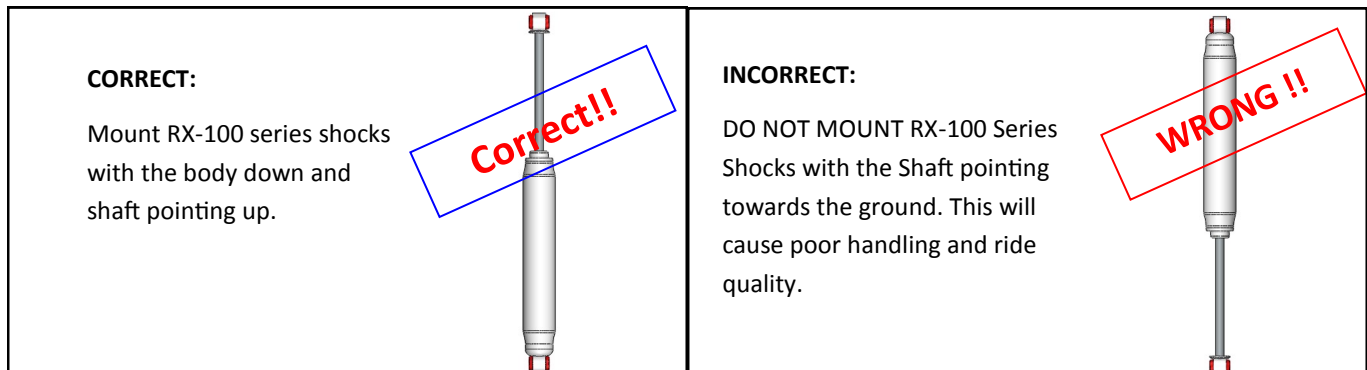
1. Jack up the vehicle at the axle and place the jack stands under the frame.
2. Remove the tires and wheels.
3. Remove the factory shocks, keeping the factory hardware and discarding the old shocks.
4. Remove and discard the rear sway bar links from the axle and the sway bar. Retain the hardware, it will be used again.
5. Remove and discard the plastic shield from the driver side of the rear track bar.
6. Remove the rear track bar bolt from the axle side mounting point. Retain the hardware, it will be used again.
7. Remove the factory rear coil springs using the same method used to remove the front coil springs.



### Rear Installation Instructions (Continued)

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

8. Install the provided rear coil springs and slowly raise the rear axle until the coil springs are seated. (**Note:** Use caution not to lift the frame off the jack stands.)
9. Install the bushings and sleeves in the new Rusty's shocks. Install them on the vehicle with the factory hardware. (Torque upper bolts to 18 ft. lbs. and lower bolts to 40 ft. lbs.) (Note: Please note the orientation of the rear shocks.)



10. Install the provided rear track bar bracket into position using the supplied 1/2"-13 x 1-1/2" bolt, washers and lock nut into the factory track bar mounting hole on the axle. (Torque to 80 ft. lbs.)
11. Drill the two hole locations where the plastic cover attached to the axle track bar mount to a 5/16" hole.
12. Install the provided 5/16"-18 x 1" bolts, washers and lock nuts into the two hole locations you have drilled to 5/16". (Torque to 18 ft. lbs.)
13. Install the factory rear track bar to the installed rear track bar relocation bracket using the factory hardware removed in step 6. (Torque to 50 ft. lbs.)
14. Install the supplied bushings and sleeves into the supplied rear sway bar links.
15. Install the rear sway bar links with the factory hardware remove in step 4.
16. Install tires and wheels. Jack up vehicle and remove jack stands and lower to the ground.
17. Rear Installation is now completed!

## 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



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

### 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



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