



Rusty's Off-Road Products  
7161 Steele Station Road  
Rainbow City, AL 35906  
1-256-442-0607  
[www.rustysoffroad.com](http://www.rustysoffroad.com)

## Rusty's Jeep Tie Rod Conversion RS-SC250-UV INSTALLATION INSTRUCTIONS

Last Revised: 02/16/2017

### 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 sup-



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>
RS-SC250-TR	Rusty's Jeep Tie Rod Conversion Tie Rod Bar	1
RS-SC250-DL	Rusty's Jeep Tie Rod Conversion Drag Link Bar	1
J8136600	Steering Tie Rod End (MOOG ES140R)	2
J8136674	Steering Tie Rod End (MOOG ES62L)	2
RS-WS22-UV	Rusty's Tie Rod End Wiper Seals - Polyurethane	2
RS-JN1116-LH	Rusty's Jam Nut 11/16" (Left Handed Thread)	2
RS-JN1116-RH	Rusty's Jam Nut 11/16" (Right Handed Thread)	2
RS-TRM950-1125	Rusty's Clamp Style Steering Stabilizer Mounting Bracket(1.125" Tubing)	1
08806366	M10 x 1.50 x 60mm Long Low Socket Cap Screw ( <b>Excluded on YJ Models</b> )	1

**Installation Instructions**

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

- 1.) Properly block and secure vehicle prior to installation. Place the front wheels in the straight-ahead position.
- 2.) Remove the cotter pins and retaining nuts at the steering knuckles and at the pitman arm.
- 3.) Remove the nut attaching the steering stabilizer to the tie-rod and move aside.
- 4.) Remove the tie-rod ends with a puller.
- 5.) (**Skip this step if installing on YJ Wrangler Model**) Replace the factory axle side track bar bolt with the supplied M10 x 1.50 x 60mm Low Socket Cap Screw using a 8mm Allen wrench. The Rusty's steering conversion with the straight wheel to wheel tie rod will turn sharper than the factory steering and will sometimes make contact with the factory track bar bolt. Even with the new bolt replaced it may require adjusting the steering stops on the steering knuckle to prevent from scratching the tie rod. Most likely it will not make contact when the steering stops are adjusted properly. Torque the track bar bolt to 40 ft. lbs.

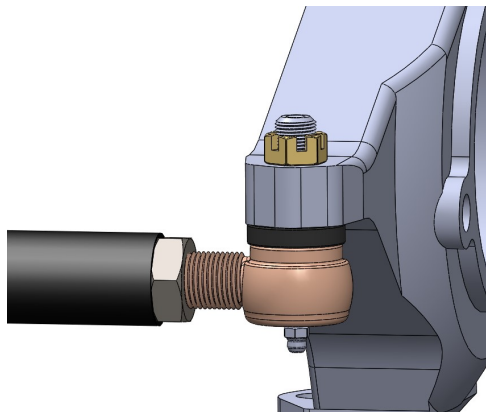
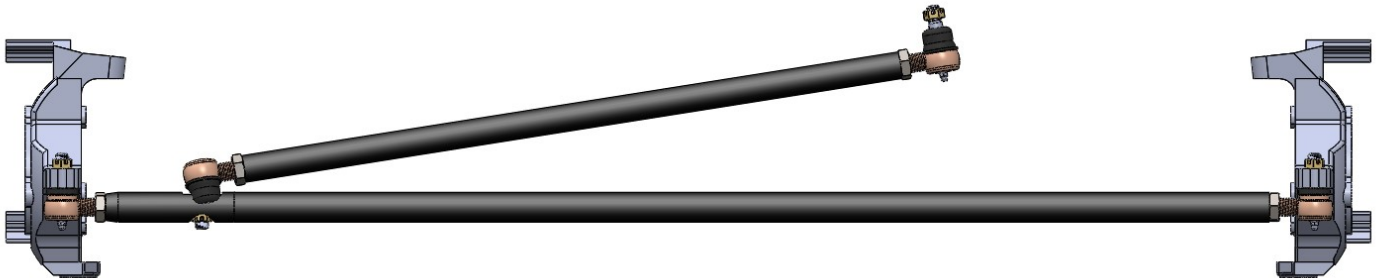


## Installation Instructions (Continued)

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

6.) Install the Rusty's steering conversion system starting with the long tie-rod that goes from wheel to wheel. Then attach the drag link to the pitman arm. When attaching the drag link to the tie rod, the drag link engages the tie rod from the top. This will put the nut on the bottom of the tie rod. Torque the tie rod and drag link nuts to 35 ft. lbs. Reinstall cotter pins. Torque the Tie Rod jam nuts to 35 ft. lbs.

**Important Note:** Use thread locking compound to prevent jam nuts from working loose.



**Important Note:** Make sure that you install the steering with the provided wiper seals on the Tie Rod Ends only. The wiper seals prevent premature rotational wear. Do NOT install them on the drag link ends.

7.) Attach the supplied steering stabilizer bracket to the stabilizer and then loosely connect it to the bottom of the drag link. Pull stabilizer out 1 inch and turn wheels to the right, then lock the steering wheel and tighten the bracket. The stabilizer bracket should be horizontal, parallel with the ground, on the bottom side of the drag link, with the stabilizer mounting on the top side of the bracket. If you don't have an aftermarket stabilizer, this is a great time to replace it. The factory stabilizers have a tapered style stud, it sometimes does not fit the Rusty's steering stabilizer plate properly. You can replace the stud with a 1/2 inch bolt and a sleeve and it will work fine.

8.) Now torque the stabilizer bracket hardware to 14-ft.lbs.

9.) Cycle the steering lock-to-lock several times to ensure there is no interference or binding.

10.) The vehicle must now be professionally aligned. When checking wheel alignment, it is important that wheel bearings and ball joints be in proper shape. With the Rusty's steering system only the toe will be changed, but to get the best in handling, we highly suggest keeping the caster within factory specs.



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

## Final Notes

**Important Note:** Use Thread Lock on all tie rod and drag link jam nuts to prevent them from working loose.

### Alignment Recommended Specifications

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

Castor: 7.5 Degrees Positive

Camber: 0

At this point there should be no remaining new parts left to be installed except for the decals.

Double-check all fasteners involved with the installation for proper torque. Double-check all components for proper clearances and operation prior to driving 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 (256-442-0607)