



Installation Instructions

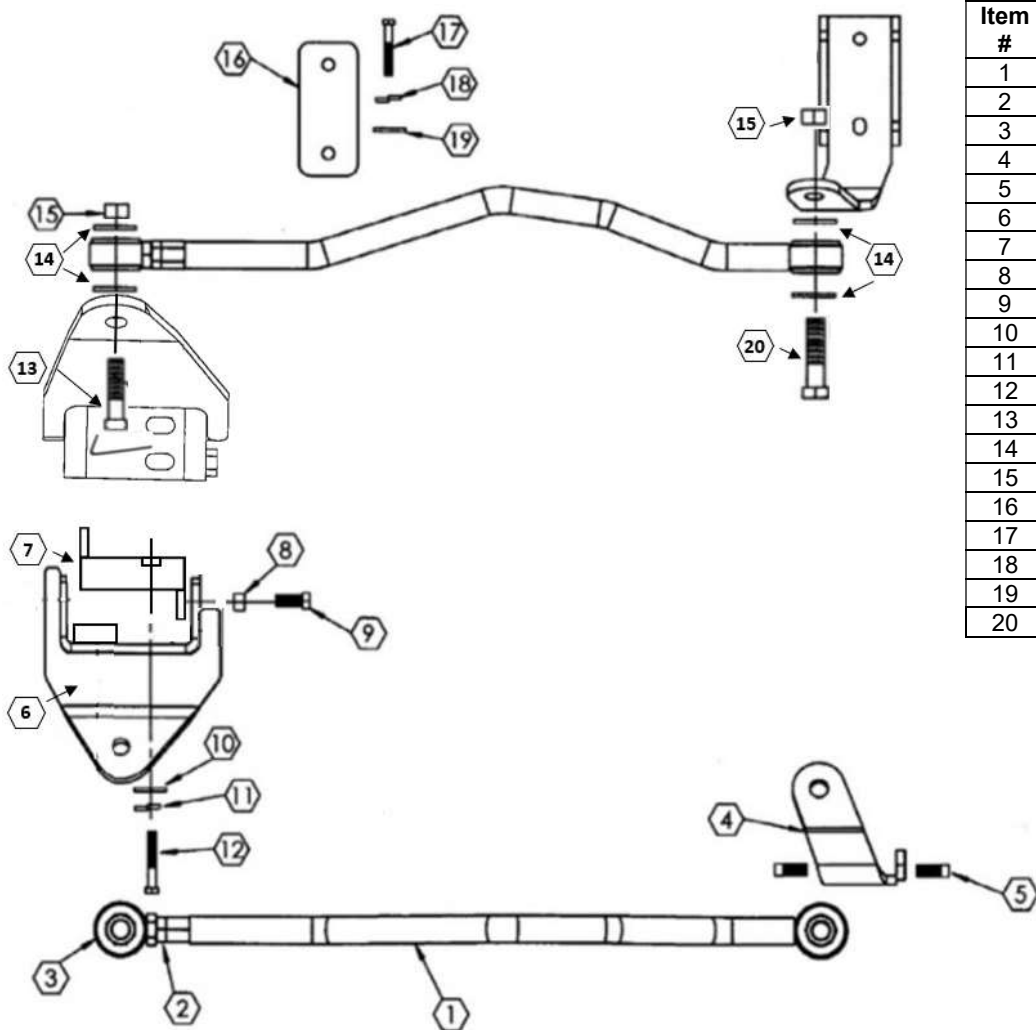
Part #SS451 - Rear Trac Bar

This product is designed to eliminate side shift of the rear axle suspended on OEM leaf springs on the 2021 V-8 E-450

Installation time is 1.5 hours.

A qualified mechanic using normal automotive tools and following all safety measures known should perform installation of this product.

SS451 TRAC BAR PARTS LAYOUT



Item #	Description	Qty
1	SS450-1 Rod Assembly	1
2	Jam Nut – 3/4" 16UNF	1
3	Rod End Assembly	1
4	SS450-2 Axle Bracket	1
5	Setscrew – 1/2" x 1" 13UNC Sq Head	4
6	B1047 Frame Bracket	1
7	B1046 Retaining Plate	1
8	Nut – 1/2" 20UNF	2
9	Bolt – 1/2" x 2" 20UNF	2
10	Flat Washer – 1/2"	2
11	Lock Washer – 1/2"	2
12	Bolt – 1/2" x 3" 20UNF	2
13	3/4" Allen Head Bolt w/ Wrench	1
14	Flat Washer – 3/4"	4
15	Top Lock Nut – 3/4" 16UNF	2
16	SS400-5 Spacer Plate	1
17	Bolt – 10x40mm	4
18	Lock Washer – 10mm	4
19	Flat Washer – 10mm	4
20	Bolt – 3/4" x 3 16UNF	2

Item #	Torque Spec (Ft-Lbs.)
2	100-150
5	Securely
9	40
12	75-85
13	130-160
17	35
20	130-160

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A. Preparation

Move the coach to a level, flat surface. If necessary, drive the rear wheels of the coach onto 4" high blocks and set the brakes or you may drive the coach over a work pit and chock the front wheels. Block off adequate space at the rear of the coach to work.

B. Installation of the Axle Bracket

Begin by loosening the 4 bolts, 2 on each side that hold the sway bar saddle brackets on the axle housing. Remove the passenger side bolts while leaving the driver side loosely installed.

On the passenger's side insert the **SS450-2 Axle Bracket (Item 4)** under the sway bar saddle bracket and loosely install using the supplied **10mm Bolts, Lock Washers and Flat Washers (Items 17, 18, 19)** (See **Figure 1** but note that Trac Rod does not get installed yet). Apply Loctite to the 10mm bolts before assembling.

Check for clearance around where the $\frac{3}{4}$ " x 3" **16UNF Bolt (Item 20)** and Trac Rod will mount, as highlighted in **Figure 1**, using the **SS450-1 Rod Assembly (Item 1)** as a guide if necessary.

Typically, best clearance will be with bolt installed as shown in **Figure 1**, but if brake lines/etc. are in the way along the axle tube, it may be necessary to install the $\frac{3}{4}$ " bolt in the opposite direction with the head facing the axle tube. In this case the bolt will need to be placed in the Axle Bracket before the Axle Bracket is attached to the axle. Watch for clearance between bolt and the fuel tank/fuel tank heat shield behind the axle.

Torque the 10mm Bolts to 35 ft-lbs, and again double check for adequate clearance around the axle bracket.

There are four holes drilled and tapped in the Axle Bracket to accept the four $\frac{1}{2}$ " **Square Head Set Screws (Item 5)**. Put a drop of Loctite on each setscrew and thread into the tapped holes. Tighten the setscrews down equally until they contact the bracket that is welded to the differential. This will stop the lateral movement of the bracket.

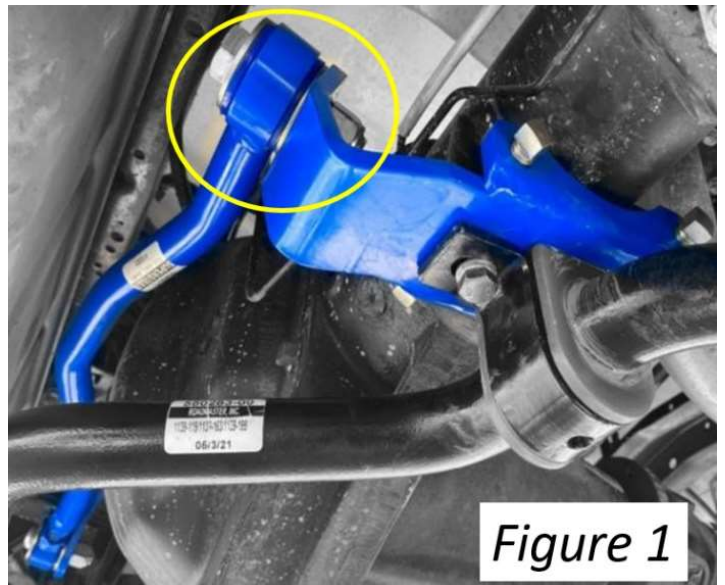
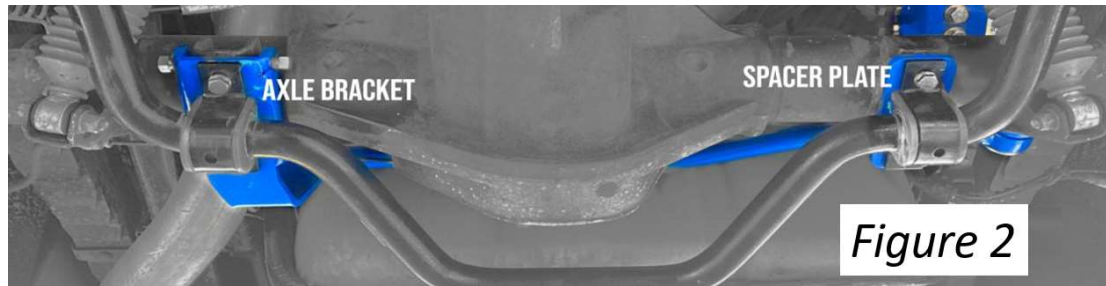


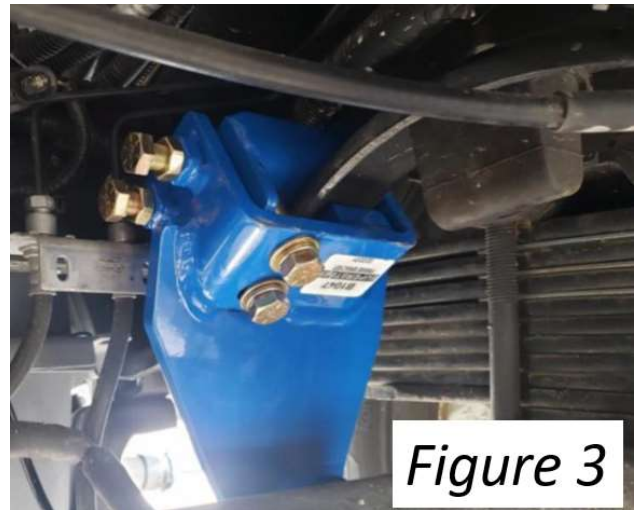
Figure 1

Remove the driver side sway bar bracket, insert the **SS400-5 Spacer Plate (Item 16)** between the sway bar bracket and the differential as shown in **Figure 2**. Install 10mm Bolts with Loctite, Flat and Lock Washers, and torque to 35 ft-lbs.



C. Installation of the Frame Bracket

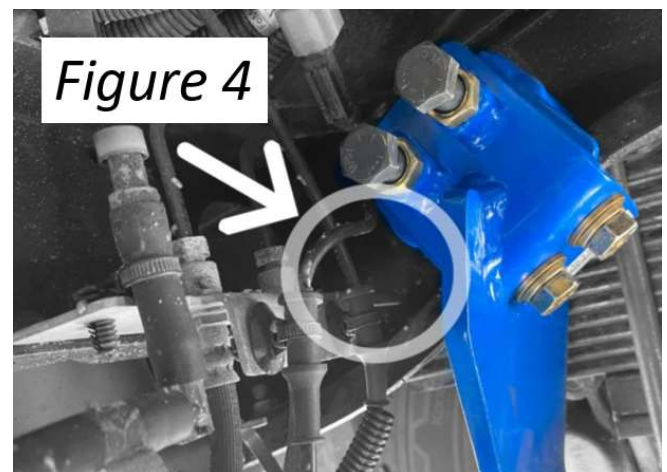
Install the **B1047 Frame Bracket (Item 6)** and **B1046 Retaining Plate (Item 7)** to the frame rail. The frame rail must be between the Retaining Plate and the Frame Bracket. The Frame Bracket is designed to mount to the bottom and sides of the frame rail, positioned to clear brake hoses and axle. Place Retaining Plate with the welded nuts on the inboard side (in line with the holes in the Frame Bracket below the frame) and the inboard lip facing down. Refer to **Figure 3**.



Make sure not to contact any wires, brake lines, etc. Install $\frac{1}{2}$ "x 3" Bolts (Item 12) through the bottom of the Frame Bracket and into the Retaining Plate using supplied Lock and Flat Washers (Items 11 and 10), only hand tight for now.

Note: If Coach has Jayco J-Ride or Hellwig Overloads, the U-bolts which attach the overload mounting plate above the axle may need to be loosened and the overload mounting plate shifted rearward before re-tightening the u-bolts. This will allow the Frame Bracket to fit.

Use the **SS450 Rod Assembly (Items 1, 2 and 3)** to check the position of the Frame Bracket relative to the Axle Bracket. The rod will install on the back side of both brackets. Confirm adequate clearance between the Frame Bracket/Retaining Plate and brake lines, as shown in **Figure 4**.



Install the $\frac{1}{2}$ " Jam Nuts (Item 8) to the $\frac{1}{2}$ " x 2" Bolts (Item 9) and install on the Frame Bracket. Tighten to push Retaining Plate securely to the inside of the frame rail, approximately 40 ft-lbs (be careful not to overtighten and bow frame bracket out). Next, apply Loctite to $\frac{1}{2}$ " x 2" bolts and tighten Jam Nuts against Frame Bracket. Now tighten the bottom $\frac{1}{2}$ " x 3" Bolts to 75-85 ft-lbs.

D. Installation of Rod Assembly

Position the Rod Assembly to the rear of the Axle Bracket and Frame Bracket. Install the Rod Assembly using the **3/4" Allen Head Bolt (Item 13)**, **Flat Washers (Item 14)**, and **Lock Nut (Item 15)** on the Frame Bracket side as seen in **Figure 5** and the **3/4" x 3" 16UNF Bolt (Item 20)** with Flat Washers and Lock Nut on the Axle Bracket side. Be sure that there is a flat washer on each side of both urethane bushings. Place the adjustable end of the Trac Rod on the Frame Bracket side.

As seen in **Figure 5**, the head of the Allen Bolt must face toward the rear of the coach. As noted in the Axle Bracket Installation section, the 3/4" bolt on the Axle Bracket side may be installed in whichever direction provides the best clearance.

When adjusting the length of the rod assembly, it is necessary that the coach's full weight be on the suspension. Adjust to fit with the coach at normal ride height.

Tighten the rod end bolts to 130-160 ft-lbs. Torque the jam nut to 100 - 150 ft. lbs.

As noted in **Figure 5** and **Figure 6**, confirm adequate clearance between the Trac Bar and related components. If necessary, supplied split conduit and Zip Ties can be used to secure lines/wiring to prevent them from rubbing.

E. Follow-Up

Double-check the fasteners to make sure all are properly torqued. Test drive. To register your product for warranty purposes, go to the SuperSteer website at www.SuperSteerParts.com and fill out the online registration card. Re-check torque in 6 months.



Figure 5

Use Zip Ties and Split Conduit to loosely secure lines to prevent them from rubbing on the Trac Bar

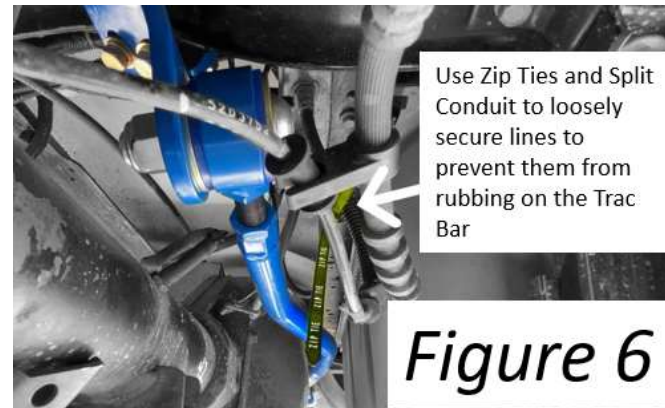


Figure 6

Use Zip Ties and Split Conduit to loosely secure lines to prevent them from rubbing on the Trac Bar

Your comments are greatly appreciated.
Please feel free to contact SuperSteer
at 888-898-3281 or e-mail at
Sales@SuperSteerParts.com



LIMITED LIFETIME SUPERSTEER WARRANTY

1. WARRANTY

1a. WARRANTY OF CONFORMITY AT TIME OF SALE

SUPERSTEER warrants that at the time of sale of this product it will be free from defects in material and manufacture and will conform to SUPERSTEER'S specifications for the product.

1b. CONDITIONAL LIMITED LIFETIME WARRANTY

In addition to the preceding time-of-sale warranty, if the product registration is completely and accurately filled out at supersteerparts.com within thirty (30) days of purchase, SUPERSTEER will provide a Limited Lifetime warranty after sale the product will remain in good working order, PROVIDED THAT the product is installed and maintained in accordance with SUPERSTEER'S instructions and is not subjected to: (a) alteration or unauthorized repairs or repairs by anyone other than SUPERSTEER or a SUPERSTEER -authorized service center, (b) misuse, abuse, commercial use, or improper maintenance, (c) Acts of God (including without limitation hurricanes, tornadoes, floods, or other severe weather or natural phenomena), (d) failures due to products not supplied by SUPERSTEER, or (e) other treatments, uses, or installations for which the product was not intended. This warranty extends only to the first retail purchaser-consumer of the product and is not transferable.

2. DISCLAIMER OF OTHER WARRANTIES

The preceding warranties are the exclusive and sole express warranties given by SUPERSTEER. They supersede any prior, contrary or additional representations, whether oral or written. No agent, representative, dealer or employee has the authority to alter or increase the obligations or limitations of this warranty. Any implied warranties, including the WARRANTY OF MERCHANTABILITY and any WARRANTY OF FITNESS FOR A PARTICULAR PURPOSE, are limited in duration to thirty days or the term of the applicable express warranty provided above, whichever is longer. Some states do not allow limitations on how long an implied warranty lasts, so the above limitation may not apply to you.

3. EXCLUSIVE REMEDY FOR ANY NONCONFORMITIES

If during the applicable Warranty Period, the product does not conform to the preceding Warranties, notify SUPERSTEER as provided below, and within a reasonable time SUPERSTEER will provide, at its option, one of the following: (1) replacement components for any nonconforming or defective product or components or (2) the percentage of the purchase price for the nonconforming product equal to the percentage of the Warranty Period remaining when SUPERSTEER is notified of the nonconformity. SUPERSTEER will, at its option, (a) use new and/or reconditioned parts in performing warranty repairs and making replacement products, (b) use parts or products of original or improved design in the repair or replacement. If SUPERSTEER repairs or replaces a product, its warranty continues for the remaining portion of the original Warranty Period or 60 days from the date of the return shipment to the customer, whichever is greater. All replaced products and all parts removed from repaired products become the property of SUPERSTEER. SUPERSTEER will not provide, and will not be liable for, labor, costs of removal or reinstallation of components, disposal, shipping, freight, taxes, or other incidental charges.

4. DISCLAIMER OF INCIDENTAL AND CONSEQUENTIAL DAMAGES

For any breach of warranty, the Owner must telephone SUPERSTEER at 1-888-898-3281 within thirty (30) days after discovering the nonconformity. Do not return any product without first calling SUPERSTEER and getting a return authorization number. Returned products must include the return authorization number and a copy of the original invoice, bill or other proof of the date of purchase. The date of purchase must coincide with the original warranty registration card on file. SUPERSTEER will authorize (a) shipment of the product to SUPERSTEER or (b) repair or replacement at the nearest warranty service center—in both cases with shipping at your expense. Do not purchase replacement parts or pay for repair labor—you will not be reimbursed. Compliance with the requirements of this paragraph is a condition to coverage under the Warranty: if these requirements are not complied with, SUPERSTEER will have no obligation to provide any remedy for any breach of warranty.

4. DISCLAIMER OF INCIDENTAL AND CONSEQUENTIAL DAMAGES

IN NO EVENT SHALL SUPERSTEER BE LIABLE FOR ANY INCIDENTAL, SPECIAL, INDIRECT OR CONSEQUENTIAL DAMAGES, WHETHER RESULTING FROM NONDELIVERY OR FROM THE USE, MISUSE OR INABILITY TO USE THE PRODUCT OR FROM DEFECTS IN THE PRODUCT.

Some states do not allow the exclusion or limitation of incidental or consequential damages, so the above limitation may not apply to you.

5. APPLICABLE LAW

This Warranty will be interpreted, construed, and enforced in all respects in accordance with the laws of the State of Washington, without reference to its choice of law rules. The U.N. Convention on Contracts for the International Sale of Goods will not apply to this Warranty.

6. SEVERABILITY

If any provision of this warranty is found to be invalid or unenforceable, then the remainder shall have full force and effect, and the invalid provision shall be partially enforced to the maximum extent permitted by law to effectuate the purpose of the agreement.

7. ADDRESS FOR NOTICES TO SUPERSTEER

SuperSteer, 458 Redwood Hwy, Grants Pass Oregon 97527

This warranty gives you specific legal rights, and you may also have other rights which vary from State to State.