

Installation instructions

For set # 3.4169

2010-12 Sub Frame Bushings

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It is recommended that if you are unfamiliar with this type of work that you refer to a qualified service center specializing in this type of work. It is also recommended that if you choose to do this work yourself that a factory service manual be obtained for the proper procedures pertaining to removal, replacement and proper torque specifications for your vehicle. This instruction set is intended as a guideline for the safe installation of Energy Suspension's polyurethane bushings, once you have removed the factory components from your vehicle.

Parts list:

- | | |
|--|--|
| 2 - 4272 Front Position Bottom Bushing | 2 - 15.10.614.39 Front Position Sleeve |
| 2 - 4273 Front Position Top Bushing | 2 - 15.10.615.39 Rear Position Sleeve |
| 2 - 4274 Rear Position Top Bushing | 1 - 17547 Instruction Sheet pg.1-2 |
| 2 - 4275 Rear Position Bottom Bushing | |

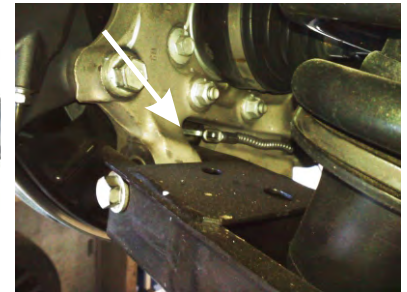


1. Remove left and right rear tire, then unbolt the rear caliper from the rear knuckle. There will be one bolt to remove on the brake line for both sides. Hang the calipers aside. Be sure not to kink the brake lines.



PICTURE A

2. Be sure to have the e-brake released to disconnect the e-brake cables from the back of the rear knuckles. You will need to get a hold of the e-brake cable and pull away from the knuckle to get the slip grommet clear of the knuckle (SEE PICTURE A). Then unhook the e-brake cable from the hook on the back of the rear knuckle on both sides (SEE PICTURE B). Once the brake cable is disconnected you will need to release the e-brake cable guide clamp about 25 inches up the cable (SEE PICTURE C). (No tools required to disconnect the e-brake)



PICTURE B

3. Under the car on the passenger side by the forward sub frame mount and the body there is a connector that needs to be disconnected. This is for the ABS sensors, this can be done without tools. (SEE CONNECTOR IN PICTURE D)

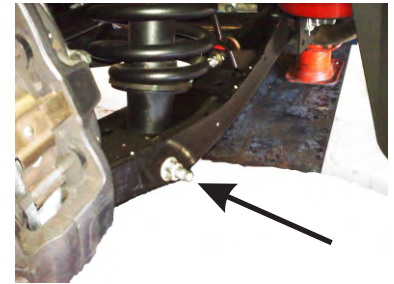


PICTURE C



PICTURE D

4. You will need to remove the rear struts from both sides. There are four bolts on the upper and one on the lower. You will want to mark the top plate of the strut with a paint marker to get them back in the same location. Remove these and set them aside.



5. You will need to mark the alignment with the drive shaft damper and the differential using a paint stick or marker. You will want to make sure they are connected in the same orientation when reassembling. Remove the three hex head bolts, there is a pilot shaft on the differential side and a pilot hole on the damper side, so that they will stay in place until the sub frame is ready to come out. (Note: this will need to be supported when the sub frame is being lowered down so you do not damage the drive shaft shield). (SEE PHOTOS)



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6. Removal of the four main sub-frame bolts to lower down the rear sub frame. Once you have sub frame supported, remove the four sub frame bolts (SEE PICTURE Rear Mount). Lower the sub frame slowly and watch the drive shaft disengaged to be sure that the drive shaft does not drop on its own. Once everything is clear, remove the differential vent hose on top of the sub frame and position that tube so it is clear from snags (SEE PICTURE).



REAR MOUNT



FRONT MOUNT

7. Removal of the stock bushings. You will need to press out the original bushings, two from the rear and two from the front of the sub frame assembly (SEE PICTURE Rear Shown). In the rear location, 4274 will be the top, 4275 is the bottom, and 15.10.615.39 will be the sleeve for both rear locations. For the front of the sub frame, you will use 4273 in the front top location, 4272 in the front bottom, and 15.10.614.39 sleeve will both front locations. You will also re-use the original bolts and hat washers for all four mounts. Suggested method of tooling to remove stock bushings: You can use half inch all thread with washer on one side, a 4 inch long pipe, washer and nut for the other end (SEE PICTURE).



DIFF VENT TUBE



Suggested Tooling

8. Re-installing the sub frame. Once you have all four top bushings and sleeves in place, you can proceed to install the sub frame back in the car. As you start to raise the sub frame, you will need to position the rear sub frame sleeves with the alignment pins on the body and drive shaft into place. Before you have the sub frame seated in its position, make sure you have positioned the differential vent tube back into place. Now you can completely seat the sub frame and put the bottom bushings with the hat washer and bolt into place. Be sure to have the drive shaft in place and line up your marks before you install the drive shaft bolts. Once you have the four sub frame bolts tight and the three drive shaft bolts tight, you can plug in the ABS connector next to the front of the sub frame.



9. Now you can start your re-assembly. Starting with the strut assembly, you will want to put the four bolts in at the top and line up your paint marks before tightening these down. Then put in the bottom bolt but leave these snug until you get the car on the ground and then tighten them. You will install the e-brake cable to the hook on the back side of the rear knuckle and then pull it into alignment and slip it into place. Then you will have to slip the e-brake grommet back into the cable spring clamp. Re-install the caliper back on and bolt the brake line bracket back onto the upper control arm. Replace the rims and tires and let the car down. Don't forget to tighten the lower strut hardware.

TORQUE SPECS.

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Sub Frame to body bolts, frt pos. (74 lbf·ft + 110°)
Sub Frame to body bolts, rr pos. (74 lbf·ft + 110°)
Top strut bolts (43 lbf·ft)
Bottom strut bolt (59 lbf·ft + 120°)
Brake caliper bolts (81 lbf·ft)
Drive shaft hex bolts (72 lbf·ft)