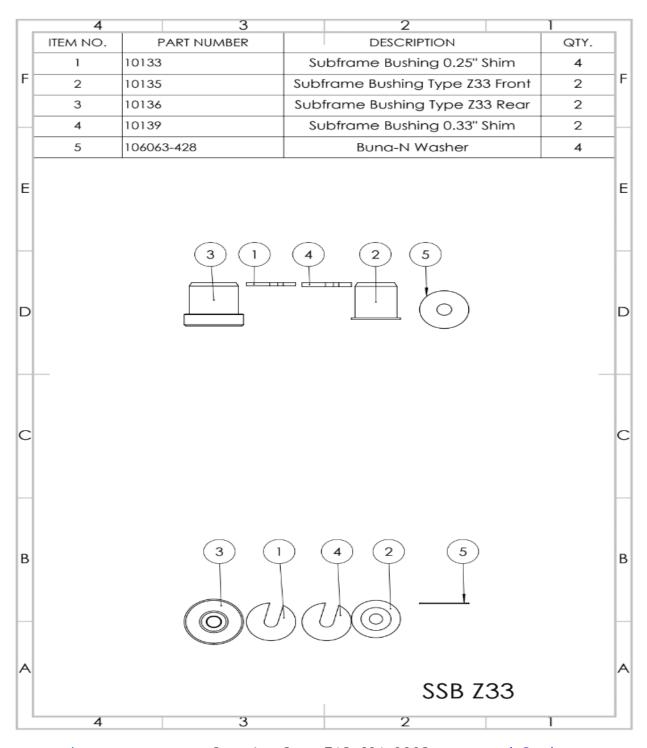


Solid Subframe Bushings Kit Installation Instructions SPL SSB Z33



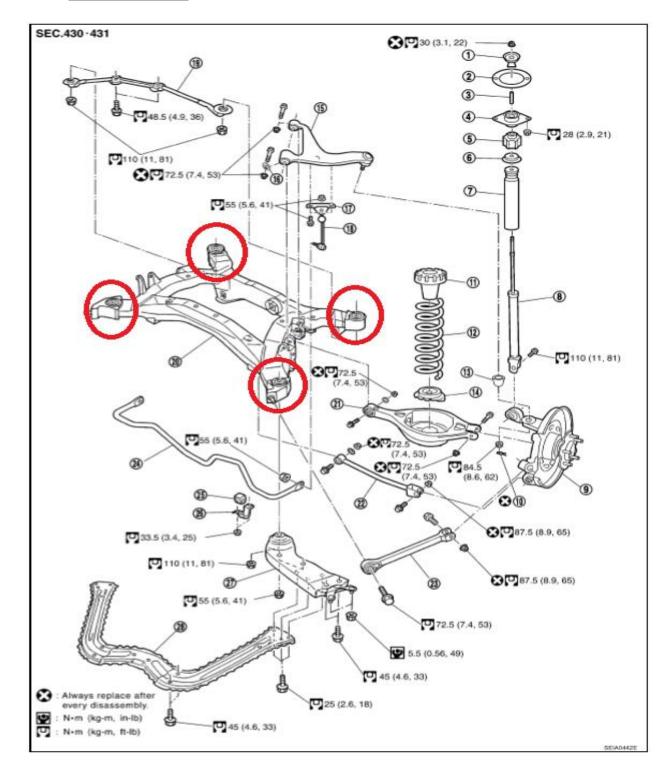
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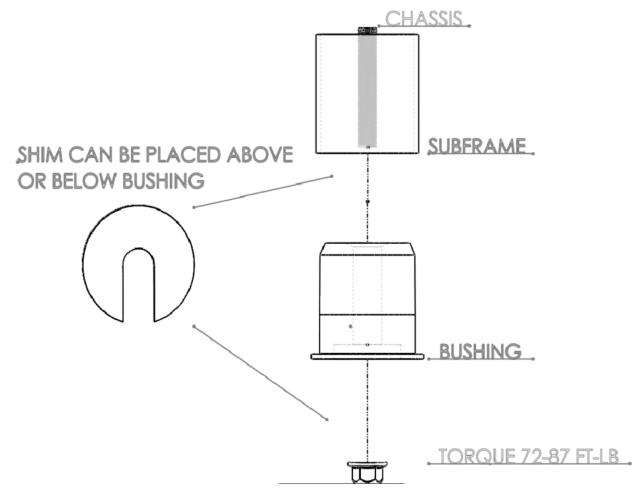
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Thank you for your purchase of this SPL performance suspension product. Please follow these instructions exactly to ensure that the product is able to function to the best of its ability, and you can achieve the most performance out of your vehicle.





- 1. Place the bushings in the freezer the night before to ease installation.
- 2. Apply the parking brake, and place the car in (D)rive for an automatic vehicle or 1st gear for a manual.
- 3. Jack up the rear of the vehicle, making sure to not place the jackstands in a position that would prevent the removal of the subframe.
- 4. Remove the rear wheels from the vehicle.
- 5. Remove the brake caliper. Find a place in the wheel well to hang it and not stretch the brake line.
- 6. Remove any exhaust components that may be in the way, generally from catalytic converters and back.
- 7. Place a jack below the differential to help lower the subframe once the bolts have been removed. Make sure there is nothing below the subframe that could be damaged by removing it.
- 8. Use an impact gun to remove the four bolts holding the subframe up.
- 9. Using the jack, slowly lower the subframe.



- 10. Remove the OEM subframe bushings. The entire bushing needs to be removed, including the outer metal shells. They can either be pressed or cut out. Press in the bushings from the bottom of the subframe.
- 11. Replace the OEM subframe bushings with your new SPL Solid Subframe Bushings. The bushings at the front of the subframe are replaced with the smaller subframe bushings (2) and the bushings at the rear of the subframe are replaced with the larger subframe bushing (3). The flat portion on each of the bushings should be pointed towards the ground.

To place the front of the subframe at the OEM location, the Subframe Bushing Shim (4) and (1) should be installed above the subframe. To place the rear of the subframe at the OEM location, no shims should be installed. *Optional*: The supplied rubber isolators (Buna-N Washers (5)) can be installed between the chassis and the subframe bushing to help dampen some noise.

If you choose to raise your subframe, make sure to place spacers underneath the bushing before tightening the subframe nut on the stud. This is because the stud is not threaded for its full length, and the nut will bottom out before it is tightened fully. The spacers you use beneath will depend on how much you raise the subframe. Make sure not to tighten the nut past the threads on the stud connecting to the vehicle, as this can damage the threads on both the stud and the nut.

The following two pages explain the effect of raising the subframe on roll center and anti-squat. For a car that is lowered, as a general rule, raising the subframe will improve the roll center but reduce traction. Feel free to experiment with different subframe positions to find the one that best suits your driving style!

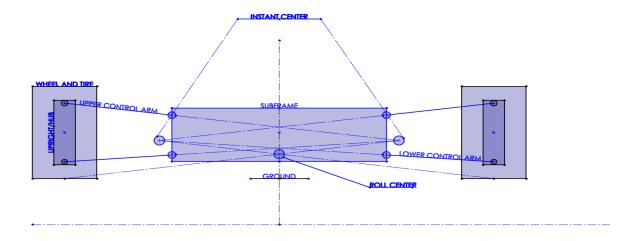
Note: Raising the subframe will alter your rear alignment. Please take your car to an alignment shop after installation.

Be safe, and enjoy your new upgrade!

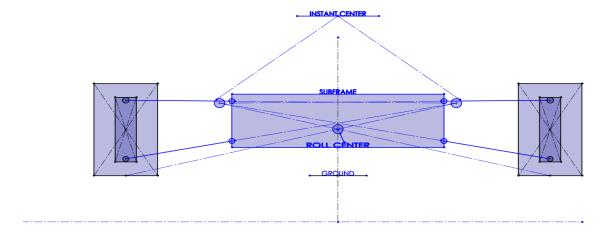


Roll Center and Ride Height Adjustment by Raising Subframe

The following diagram depicts the subframe at the OEM location, with the stock ride height and roll center. Notice the gap between the subframe and the chassis, where the shims would sit.



The following diagram shows the subframe raised closer towards the chassis (no more gap between subframe and chassis), and the ride height lowered the same amount. The roll center position is unchanged.



If we are to compare the two subframe positions with the car at the same ride height in both cases, raising the subframe will raise the roll center.

Note: Raising the subframe will not significantly change ride height. This is because the ride height is determined by the shock/spring assembly as it sits between the chassis and the knuckle.

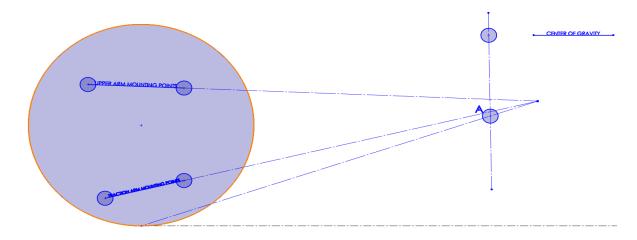
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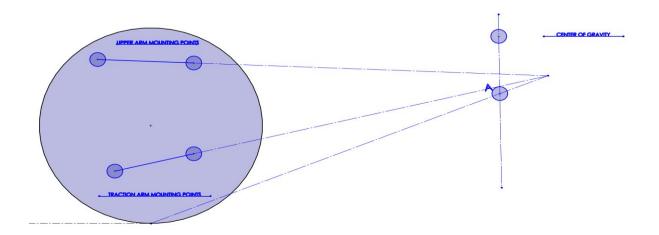
Raising Subframe and Effect on Anti-Squat

The ratio between the height from the ground to point "A", and the height from the ground to center of gravity is the amount of anti-squat. As a general rule, more anti-squat keeps the rear end from squatting under hard acceleration, and reduces traction.

The following diagram depicts the subframe at the OEM location, with the stock ride height and anti-squat. Notice the gap between the subframe and the chassis, where the shims would sit.



The following diagram shows what happens when you raise the subframe closer to the chassis. For this example, we are comparing what happens to the anti-squat when the ride height remains the same. When the subframe is raised, the rear "instant center" is raised as well, that moves point A up and increases anti-squat.





ONE-YEAR LIMITED WARRANTY AND DISCLAIMER

All SPL brand products are intended for **Off Road Use Only** and carry a one year limited warranty. See below for details. All other branded products carry their respective manufacturer warranty.

SPL PRO suspension products warranted to be free of defects in material and workmanship for one (1) year from the date of purchase.

If a product fails to meet specifications, SPL PARTS INC will, at its election, repair, replace, or make appropriate adjustment, if SPL PARTS INC determines to its satisfaction that the product is defective in material or workmanship, i.e. contains a defect arising out of the manufacture of the product and not a defect caused by other circumstances, including, but not limited to accident, misuse, abuse, unforeseeable use, neglect, alteration, improper installation, improper adjustment, improper repair, or failure caused by other equipment or interaction with other equipment. SPL PARTS INC is not responsible for labor charges, removal charges, installation, or other incidental or consequential costs. In no event shall the liability of SPL PARTS INC exceed the purchase price of the product. All parts for warranty claims must be returned to SPL PARTS INC in order for the claim to be processed.

SPL PARTS INC makes no other warranties, either expressed or implied, including limitation warranties as to merchantability or fitness for a particular purpose. SPL PARTS INC shall not be liable for, and buyer assumes all risk of, any advice or failure to provide advice by SPL PARTS INC to buyer regarding the product or use and installation of product. SPL PARTS INC shall not be liable for any special, incidental or consequential damages.

If the purchaser of the product shall fail to pay when due any portion of the purchase price, or fail to meet any terms required under contract agreed on at time of purchase, all warranties and remedies granted may be terminated.

Using any SPL arm as a tie/strap down point for a dyno session or transport will void the warranty.