



**ADJ. SOLID SUBFRAME BUSHING KIT
CONVERSION BUSHING S13 TO S14
INSTALLATION INSTRUCTIONS:**

89-94 NISSAN 240SX/SILVIA/180SX S13

**PART NUMBER:
SBNS-0101**

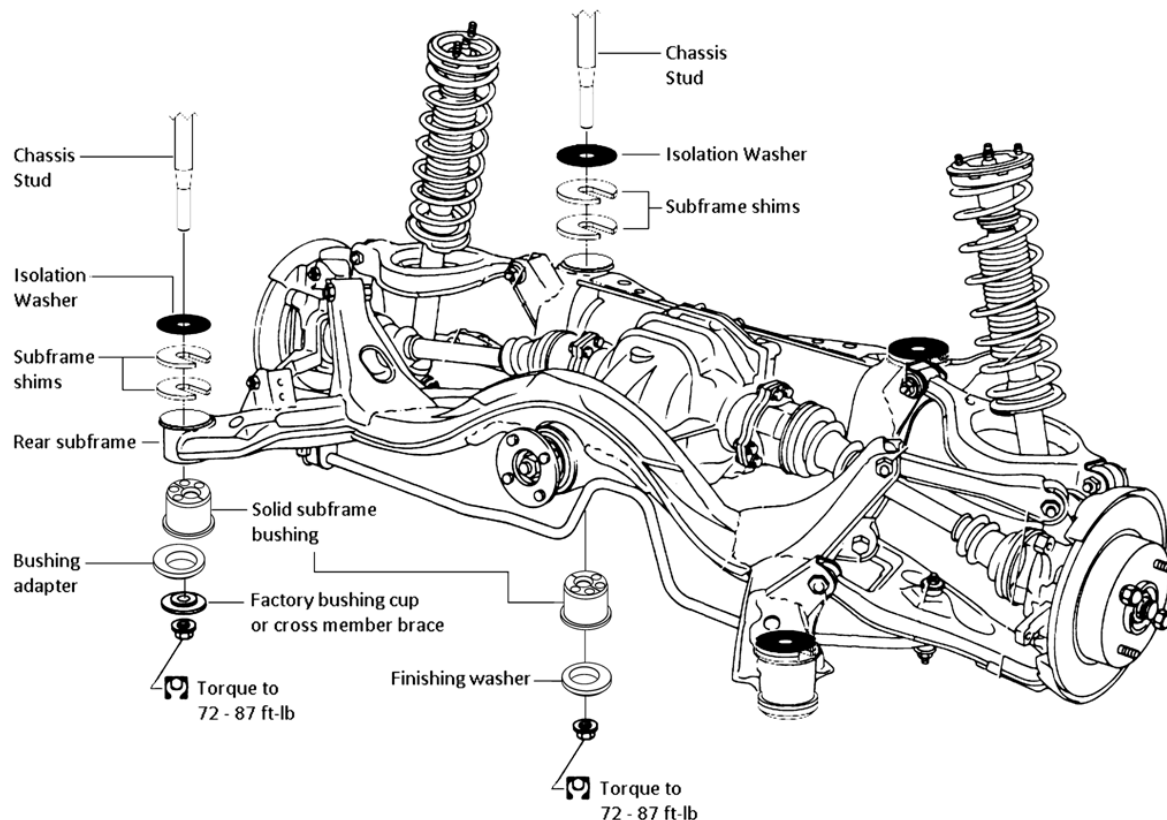
We recommend that installation of all Voodoo13 parts be completed by a professional who is experienced in suspension tuning. With proper installation and maintenance, Voodoo13 suspension products will provide exceptional performance and durability. For any questions, please contact Voodoo13 immediately. We thank you for choosing Voodoo13 for your suspension tuning needs!

RECOMMENDED TOOLS AND SUPPLIES

- General Mechanics Tool Set
- Vehicle Jack and Safety Jack Stands (Or Vehicle Lift)
- Torque Wrench
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PART BREAKDOWN

NOTE: For any OE hardware please refer to OEM service manual for torque specifications. For all included hardware please torque to specifications shown below.



INSTALLATION PROCEDURE

Step 1: Lift the vehicle to a safe height using the recommended factory lift points to work underneath the rear suspension. Ensure to place safety jack stands where recommended by Nissan before anyone goes underneath the car (unless using a vehicle lift with safety locks).

Step 2: Using the Nissan Factory Service Manual (FSM) as a guide, remove the drive shaft from the rear differential, the rear section of the exhaust, the rear wheels and brake calipers, and unbolt the top of the rear struts.

Step 3: Utilizing a suitable jack to hold the rear subframe assembly in place, remove the four subframe bushing nuts and accompanying hardware. Slowly lower the rear subframe assembly moving any brake lines or other items out of the way to prevent any interferences while lowering the assembly. Remove from under the car.

Step 4: Remove the factory OEM rubber subframe bushings from the S14 subframe. The bushings can either be cut out or pressed out. Many methods are available online, but be sure to remove all parts (including inner rings/shells), other than the subframe structure itself.

Step 5: From the bottom side of the subframe, and using a rubber mallet, lightly start the main subframe bushing into the subframe structure. Once started and aligned straight, hammer the bushing all the way down to the bushing flange. If the rubber mallet is insufficient, use a wood block and a solid metal hammer to keep the shape and finish intact. It is recommended to place main bushings into the freezer overnight to help with installation as it will shrink the part marginally.

FRONT OF VEHICLE



TOP VIEW



REAR OF VEHICLE

FRONT OF VEHICLE




BOTTOM VIEW



REAR OF VEHICLE

Step 6: With the subframe assembly right side up again, raise the subframe back up the bottom of the car. If you are concerned with vibrations, place the optional rubber isolation washers on top of the bushings. Raise the subframe onto the chassis studs enough to hand tighten the factory lock nuts.

Step 7: If the OEM location is required (such as Formula D rules), install both slide-in subframe shims on top of the solid bushings but below the rubber isolation washers (if installed). If you would like raise the subframe, install either 1 or both slide-in shims below the solid subframe bushing depending on your desired setup.

 **NOTE:** If you run the subframe in the factory location, the front support braces will not fit without the use of 6.5mm (or .25 inch) spacers or washers and longer bolts.

Step 8: Once all slide-in shims are installed, one by one, remove the lock nut and install the finishing washer (for rear mounts) and bushing adapter with the factory subframe bracket or bushing cup (for front mounts). Re-install the lock nuts and torque to 72-87 ft-lb.

Step 9: Re-install all parts removed per the FSM (brakes, exhaust, drive shaft, etc). Rear stock toe arm can't be reused with the S14 subframe. Source S14 rear toe arms. If you currently run Voodoo13 toe arms, you may order replacement misalignment spacers to fit a S14 subframe.

Step 10: Lower vehicle safely back to the ground and perform a vehicle alignment. You may need to re-torque the lock nuts after driving the car (settling may occur). You are finished!

SUBFRAME TUNING USING ADJ SUBFRAME SHIMS

When lowering your car, the roll center (and thus your roll couple: the distance between the roll center and the center of gravity) of your car will change. To compensate, you can "raise" the inner suspension pickup points on the subframe in relation to the wheel and tire putting it closer to where the OEM engineer's intended. You do this by changing the position of the slide-in subframe shims that are included in our kit from the top position (OEM) to the bottom position. Some racing sanctioning bodies do not allow such changes (such as Formula D), so you **MUST** run the shims on the top to keep the OEM geometry.

Raising the subframe relative to the chassis for a constant ride height will also increase "anti-squat", by raising the instantaneous center relative to the center of gravity. This will reduce squat during hard acceleration, which can reduce rear traction.