



# ADJ. SOLID SUBFRAME BUSHING KIT INSTALLATION INSTRUCTIONS:

# 13-UP SCION/TOYOTA FRS/GT86/86 ZN6 13-UP SUBARU BRZ ZC6

PART NUMBER: SBSC-0100

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!

#### **NEED HELP?**

Our representatives are here to help you with any questions concerning the operation of this product.

#### CALL 480-889-0812

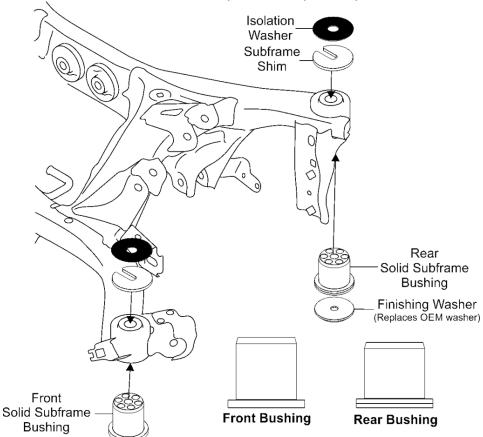
Monday thru Friday 8:30am to 5:30pm MST

## RECOMMENDED TOOLS AND SUPPLIES

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

#### 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 the manufacturer before anyone goes underneath the car (unless using a vehicle lift with safety locks).
- **Step 2:** Using the 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 bolts 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. 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.
- **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 and line up the holes before screwing the subframe bolts back in.
- **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 the 1 slide-in shim below the solid subframe bushing.
- **Step 8:** Once all slide-in shims are installed, one by one, remove the rear bolts and install the finishing washer (for rear mounts) and bushing adapter with the factory subframe bracket (for front mounts). Re-install the bolts and torque to 107 ft-lb.
- **Step 9:** Re-install all parts removed per the FSM (brakes, exhaust, drive shaft, etc).

**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.

### WARRANTY

All products sold are subject to the following warranty:
Voodoo13 offers a Limited Lifetime Warranty for our products to the original retail
consumer against defects and workmanship when used on light truck and car
applications under normal operating conditions. This warranty does not apply to parts
that have been improperly installed or wearable items such as, but not limited to, worn
bushings or bearings unless proven to be defective from the manufacturer.

Exterior finish on all Voodoo13 products is not considered a valid warranty; consumers are responsible for the maintenance of paint, anodize or raw metal finish.

The consumer will be responsible for the removal and freight costs both to and from the Distributor from which the product was originally purchased. Proof of purchase and product registration through the Voodoo13 website is mandatory in order to receive warrantee replacement; original invoice from the Distributor from which the product was purchased must accompany the product in question for warrantee.

Voodoo13 has the right to refuse a warrantee claim if procedures are not met by the original consumer. All returns must have an R.M.A. approval from Voodoo13 prior to shipping direct to the Voodoo13 facility. Exclusions from this warranty are sales outside of the United States, the finish, dents, rust, or any condition caused by abnormal use or neglect.



High performance parts. For off-road use only. Installation should be carried out by a qualified facility. Improper use or installation may result in injury or death.



#### **VOODOO13**

115 N Sunway Drive Gilbert, AZ 85233 Ph: 480.889.0812

Fax: 480.829.8103 www.VOODOO13USA.com