

## A-Frame Bushing Kit, Front

**Fitment:** 911 and 912 (69-89), 930, 914

**Tools and materials required:** JB Weld (small pack of two 1 oz. tubes will work fine), 60 grit sandpaper, brake parts cleaner, 17mm socket, 19mm socket, 13mm socket, torque wrench, rubber mallet.

**If you have already removed the A-arms skip to step 6.**

1. Raise front of car and support with jack stands or lift. Remove front wheels and disconnect front sway bar at the A-arm on early cars.
2. Remove strut from ball joint at lower attachment. This will be a pinch bolt style for early cars and wedge pin style for later cars. Both will need 13mm socket.
3. Unthread front ride height adjustment bolt from torsion bar end cap and remove cap from torsion bar splines. \*Be sure to mark or make reference to the threaded position of the bolt and the cap arm, also the angle of the arm and its spline position. These will need to be put back as they were found.
4. Remove the large cross-member support bolt (one per side of car) using 19mm socket and the front bushing hanger bolts (3 per side of car) using a 17mm socket.
5. The A-arms can now be removed from the car. A pry bar may be helpful if placed behind the rear bushing housing but be careful not to damage the cross-member.
6. Now that the A-arms are removed it would be a good time to remove the torsion bar for inspection and re-lubrication of the front splines.
7. The front and rear rubber bushings will need to be removed from each arm. A press is the best tool for this but it can also be accomplished by heating up each housing until the rubber begins to melt, then twisting off each bushing and housing.
8. Use the 60 grit sandpaper to clean up each of the four A-arm ends. Try and make a rough surface finish so the JB weld makes good adhesion. Clean with brake parts cleaner.

9. Mix up the JB weld following their instructions and apply to each of the A-arm ends. Apply a nice thin uniform layer covering all the way around each end about the length of the stainless steel inner race.
  10. Clean the inner bore of each inner race with brake cleaner and slide onto the JB welded ends. Wipe off any excess on bearing race. Allow appropriate time for curing of the JB Weld.
  11. Now you can install the rear bushing housings by sliding them into the suspension cross-member. It helps if this area is clean. The RSR logo will be right side up and the flange of the bushing facing the front of the car.
  12. Re-install the cross-member bolts you removed with the 19mm socket. DO NOT tighten them yet.
  13. The bushings contain Teflon and other dry lubricants so there is no need for additional lubrication as it will only attract dirt and block the intended lubricants.
  14. Re-install the A-arm into the rear bushing housing and install the front bushing housings making sure that their proper side is facing upwards (indicated by decal).
  15. Re-install the two front bushing support bolts and lightly tighten them while making sure minimal binding is occurring. Now rotate the A-arm up to horizontal position. When installed properly the arm should have almost no resistance and swing down to the 6 o'clock position under its own weight. If it does not then the front housing may need to be shimmed so that both ends are co-linear. Bring it back up to horizontal and slowly unthread each of the two front hanger bolts until the A-arm falls down to the 6 o'clock position. This should give you an idea of how thick the shims should be and where to put them. We suggest using thin washers to accomplish this. Repeat this process until a co-linear relationship is established and friction is minimal. If this is not possible then the chassis front pan is likely damaged and you will need to use the optional spherical self-aligning washer set.
- 15 B. (For installation with optional spherical washer set).** Now install the spherical washer sets, 2 above and 2 below each front bushing housing using the supplied longer bolts to support the front housing. The convex (male) washers should be against the aluminum housings on both top and bottom. Using the same procedure as above in step 15 slowly tighten the two front bolts on each housing.
16. Important: slightly loosen the two front bushing housing bolts and with the plastic or rubber mallet tap the entire front bushing assembly toward the rear of the car so that the bushing flanges are tight against their thrust surfaces. All final tightening should be done with the car on the ground.
  17. Re-install the 2 front steel skid protection supports with a 17mm socket.
  18. With the car on the ground torque the 19mm hex rear bolts (one per side) to 60 ft-lbs, then the 17mm hex front bolts (three per side) to 34 ft-lbs.

For any further questions, please do not hesitate to write to us at [sales@design911.com](mailto:sales@design911.com)