PolyBronze™ Spring Plate Bearings - Installation Instructions

Part Number 2061501 Protected by US Patent 7,325,796

Cars applicable:

'68 – '89 911/912/930
'67 911 from Chassis Serial Number 307 325
'67 912 from Chassis Serial Number 354 938
'67 911 S from Chassis Serial Number 305 101 A

In all cases above equipped with aftermarket Sway-A-Way or Weltmeister brand adjustable spring plates

Parts list:

Qty	Description
2	Inner Bronze Bearing
2	Outer Bronze Bearing
2	Inner Bearing Race
2	Outer Bearing Race
32	1.9 mm Spacers

Required but not included:

2 part steel epoxy (or equivalent)
Adhesive caulk (usually not needed)

Introduction –

PolyBronze Spring Plate Bearings replace factory rubber spring plate bushings. The bearings provide precise suspension movement without deformation under heavy corner loads. They are very low friction to provide excellent ride quality and will not squeak.

PolyBronze Spring Plate Bearings are provided with integrated grease fittings making periodic re-lubrication easy.

Note – PolyBronze Spring Plate Bearings should be lubricated at installation and 3,000 mile intervals or annually. Race cars should lubricate more frequently. Use quality moly grease.

Step-by-Step Installation -

1 – Clean up spring plate tube.

Smooth any surface irregularities or ridges on the spring plate tube using a file or fine sandpaper.

The spring plate shaft should be clean and grease free. Use degreaser as needed to ensure good adhesion in step 3.

2 – Fit bearing races onto spring plates.

Inner and outer races have different inside diameters (ID). The large ID races are fit to the large half of the spring plate (inner). The small ID races are fit to the small half of the spring plate (outer).

To accommodate for manufacturing variation in spring palte shaft, races are made slightly oversize. Races are glued to the spring plate and the gap filled using a two-part steel epoxy, not included.

Coat the inside of the race with a thin layer of epoxy. Similarly apply a thin coat to the entire mating surface of the spring plate. Your goal is smooth thin layer on both mating surfaces that will completely fill the space between race and control arm with no voids.

Note - Do not glue race to the flat portion of the spring plate, this would interfere with height adjustment

Press race on with a twisting motion until race butts against the spring plate flat section.

VERY IMPORTANT – Be sure to clean ALL adhesive off the race. Even a tiny amount will interfere with the bearing fit.

Allow the epoxy to cure.

3 - Install bearings into the spring plate cover plates.

Clean any dirt and grease out of the inside of the cover plate.

Use a bearing marked “O”. BE SURE TO WET THE POLYURETHANE with a soap and water solution to lubricate and ease installation. Press the bearing into the cover plate. The press fit should require about 75-150 lbs. Tip – use a bench vise to press until bearing flange is flush against the mount.

If the bearing is loose in the cover plate, the fit can be assisted using adhesive caulk (urethane based). Apply a layer between the red polyurethane surface and the spring plate cover.

Align grease nipple in spring plate cover as shown.

4 – Install bearings into the torsion bar tube.

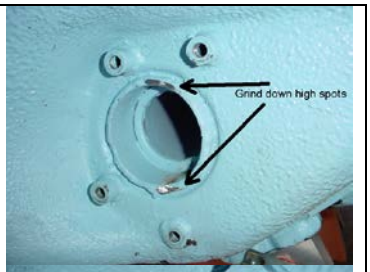
Clean any dirt and grease out of the inside of the torsion bar tube.

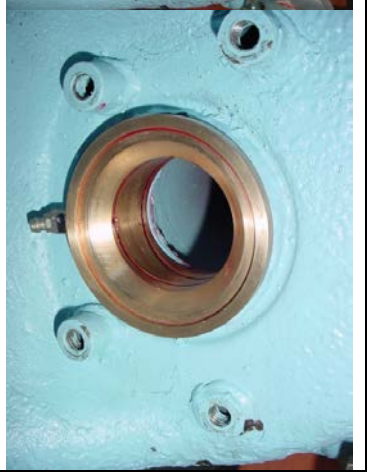
It may be necessary to smooth the outer lip of the torsion tube. Any welds that stand proud of the tube should be ground down. Touch up with paint to prevent rust.

Use a bearing labeled “I”, BE SURE TO WET THE POLYURETHANE with a soap and water solution to lubricate and ease installation. Orient the grease nipple such that it is facing the front of the car as shown.

Press the bearing into the torsion bar tube. Tip – get the bearing started, then use the cover plate and bolts to press the bearing into place. Use a piece of wood between cover plate and bearing. DO NOT USE A HAMMER or other striking tool.

If the bearing is loose in the torsion tube, the fit can be assisted using adhesive caulk (urethane based). Apply a layer between the red polyurethane surface and the torsion tube.





5 – Determine spacer requirement

Due to chassis variation, spacers are required between chassis and spring plate cover. Spacer requirement for driver and passenger sides may vary and are typically 0 to 3 spacers under each spring plate cover bolt.

Test-fit spring plates into car without torsion bars. Lubricate PolyBronze bearing surfaces with quality moly grease. Install cover plate using 3 spacers under cover plate at each bolt as a first attempt. Tighten cover plate bolts.

Check that spring plate moves freely without binding. The spring plate should have 1.5mm ± .75mm of lateral play. DO NOT ELIMINATE THIS PLAY. Add or remove spacers as needed to achieve target lateral play.

Add or remove spacers as needed to achieve desired lateral play.

6 – Install spring plates with torsion bars.

Using the same spacer stack determined in step 5, install spring plates with torsion bars.

7 – Lubricate PolyBronze spring plate bearings.

Using a grease gun loaded with quality moly grease, inject grease into each nipple. Inject enough grease so that a bit squeezes out of each bearing.

Re-lubricate annually or every 3,000 miles. Race cars should lubricate more frequently.