Sphericals™ Spring Plate Bearings - Installation Instructions

Part #2061001

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 with factory fixed, factory adjustable, or QuickChange adjustable spring plates

Qty	Description
2	Inner housing
2	Outer housing
4	Race
8	M10 Schnoor washer
6	M10x1.5x30 SHCS
2	M10x1.5x40 SHCS

Recommended tool

2061002 Spring Plate Bushing Removal Tools - available separately from Elephant Racing.

Required but not included:

2 part epoxy (or equivalent)

Introduction –

Sphericals 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 and will not squeak.

Sphericals are permanently self lubricated and should not be greased.

Step-by-Step Installation -

1 – Remove rubber bushings from spring plates.

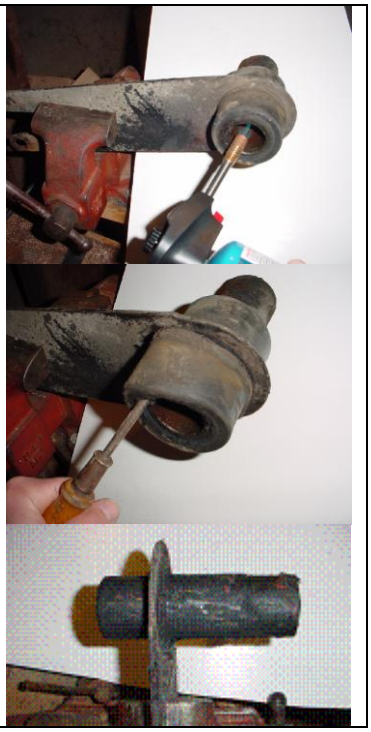
With spring plates removed from car, secure spring plate in a bench vise.

Use a propane torch to heat the inside of the spring plate tube until a small amount of rubber smoke is visible. The heat will allow the rubber to pull away from the metal easily.

Use a flat blade screwdriver to separate the rubber bushings from the spring plate. Pry the bushings off.

Use a razor knife to remove any remaining large bits of rubber.

Use sandpaper or a chemical paint stripper to remove the last bit of remaining rubber. The spring plate tube must be completely clean of rubber, dirt and grease.



2 – Clean up spring plate tube.

Smooth any surface irregularities or ridges on the spring plate tube using a file or fine sandpaper. This is an excellent opportunity to have your spring plates re-plated.

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

3 – Fit bearing races onto spring plates.

For two part spring plates, bolt the halves together.

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

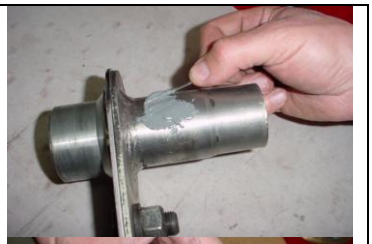
Coat the inside of the race with a thin layer of two-part epoxy. Similarly apply a thin coat to the entire mating surface of the spring plate. Your goal is smooth thin layer on both mating surfaces that will completely fill the space between race and spring plate with no voids.

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.

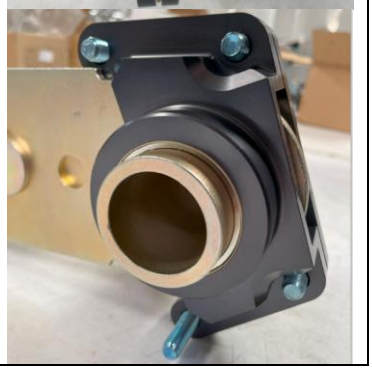


4 – Install Sphericals onto spring plate as shown.

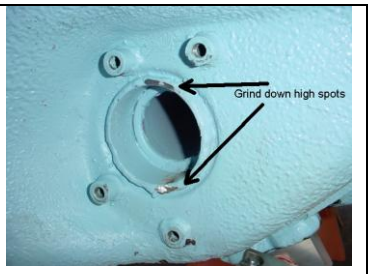
For each side be sure to put 4 spacers between the inner and outer housings, one on each screw hole.

For each side be sure to put 4 schnoor washers beneath each screw head, one per screw head.

Note the 50mm screw goes on the bottom rearmost mounting position. Reuse the factory spacer in this position.



5 – Installation into car



Clean any dirt, rubber residue, welding slag and grease out of the inside of the torsion bar tube.

Do a dry fit without torsion bars first.

Be sure the flat face of the inner housing rests flat against the factory mounting bosses. If not, 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.

Install spring plate and bearing assembly into the torsion bar tube. Make all screws snug. Check everything for smooth action and no binding.

If everything is working smoothly, remove the assemblies and install the torsion bars. Reinstall assemblies.

Torque screws to 35 ft lbs.