

## Installation instructions For set # 3.3101

It is recommended that if you are unfamiliar with this type of work that you refer to a qualified service center specializing in this type of work. It is also recommended that if you choose to do this work yourself that a factory service manual be obtained for the proper procedures pertaining to removal, replacement and proper torque specifications for your vehicle. This instruction set is intended as a guideline for the safe installation of Energy Suspension's polyurethane bushings, once you have removed the factory components from your vehicle.

### POLYURETHANE BUSHING INSTALLATION UPPER/LOWER

**GENERAL NOTE:** Due to the age and manufacturing practices back in the late 60's, we have included this specific instruction sheet. It shows the specific dimensions of the cross shaft and outer width of the control arms that these polyurethane bushings were designed for. (Pics 1,2) Please note that our polyurethane bushings are designed with exact tolerances for fitment. OEM rubber bushings stick out past the end of the sleeve because as the bolts are tightened down the rubber squishes into place. Keep this in mind as you are taking your measurements.

#### UPPER CONTROL ARM CROSS SHAFT & BUSHING DIMENSIONS

**REMOVAL:** Before removing old bushing from upper control arm measure the (outside of shell to outside of shell) distance of the metal flanges of the shells with the end cap washers removed and record this dimension for later use. (Pic 2) This is the "relaxed" state of the arm. This should be the same measurement after the new metal shells are pressed in. Note the locations of any washers on cross-shaft prior to removal. In the event your control arm does not match the listed dimensions, more then likely you have mis-matched parts.

**NOTE:** Some vehicles have their shells tack welded to the arm, some do not. IF your shells are tack welded, you must grind the welds in order to remove the shell from the arm.

**INSTALLATION:** To keep from bending the flanges of the arm during installation of the new shells, use a piece of angle iron or channel cut to the size of the inside width of the flanges. These flanges must remain parallel to each other, otherwise the new bushings will bind on the cross-shaft. (Pic 3) To ease installation of the new shell, first take apart the assembly. The new bushing is not bonded and will push apart fairly easy. Using this method will ensure that you don't damage the new polyurethane bushings when pressing in the new shells. Now before installing the shells, **the cross-shaft MUST BE in place**, you cannot slide the shaft thru once the shells are installed!! **Also, note any washers and locations that were currently installed on cross shaft.** These washers must be reused. Once the cross-shaft is in place, install the shells into the arm. **NOTE:** If your original shells were tack welded to the arm, you must now tack weld the new shells to the arm in the correct position. Grease I.D. of shell. Grease bushing and install in the shell. Grease sleeve and install in bushing. **TECH NOTE:** Depending on the condition, usage, and age of your cross shaft fasteners, it is recommended that you replace them with grade 8 or higher hardware. Stretched bolts are a major cause of them coming loose. Use red lock tight thread fastener adhesive on fasteners. Re-torque hardware to factory specifications.

#### LOWER CONTROL ARM

**REMOVAL:** Before removing old bushing from lower control arm measure the (outside of shell to outside of shell) distance and record this dimension for later use. Measure the inside width of both flanges. (Pic 4) You will need to find something to put between the flanges before pressing out the old bushings. This is to keep from bending and distorting the control arms. Distorting the arms will stretch the metal and oval the eyes. The eyes/flanges of the control arm need to remain parallel and inline to each other for proper fit upon installation. Use either metal channel, tubing, or thick wall PVC tubing for spacers, it's easiest to work with the PVC. (Pic 4)

**INSTALLATION:** To ease installation of new shell, First take apart the assembly. The new bushing is not bonded and will push apart fairly easy. Using this method will ensure that you don't damage the new polyurethane bushings when pressing in the new shells. Now install just the shell into the arm. Grease I.D. of shell. Grease bushing and install in shell. Grease sleeve and install in bushing. Re-torque to hardware to factory specifications.

1 This set was made for a cross shaft with these dimensions.

Upper cross shaft

Ø.671

8.375"

If you need to replace old hardware, use grade 8 bolts and lock washers with red thread locker to prevent any chance of them backing out.

2 Upper Control Arm

With the end cap washers removed, measure the outside width of shell to shell before pressing out old bushings. At this relaxed state the measurement is approximately 11" ± 1/16"

3 Upper Control Arm

Shell

Spacer tube

Support tube over shell

The upper arm needs support between the flanges when pressing the new shells in. The inside width of flanges is 9-11/16" ± 1/16".

9-11/16" inside width of flanges.

4 Lower Control Arm

Prior to removing O.E. rubber bushing, measure the inside width of flanges for size of spacer.

A spacer must be used to keep the flanges parallel when pressing out the old bushings and pressing in the new shells.