## Installation instructions For set # 11.3111

2016 Mazda MX-5 Miata ND Front Control Arm Bushing Set

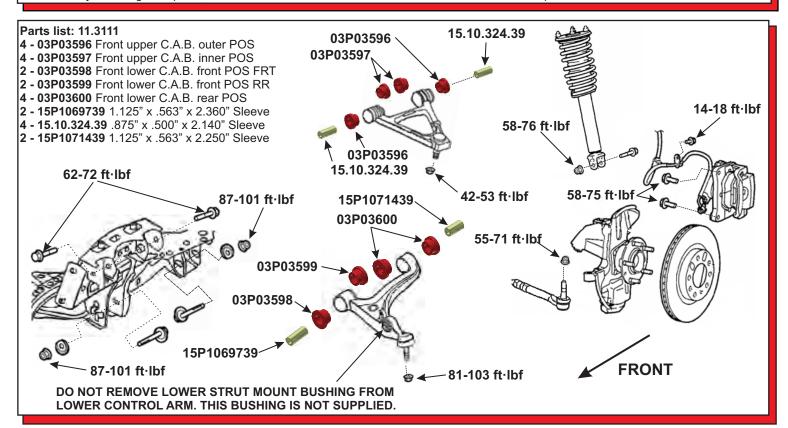


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It is recommended that if you are unfamiliar with this type of work that you refer to a qualified service center specializing in this type of work. It is also recommended that if you choose to do this work yourself that a factory service manual be 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. Wheel alignment is almost always disturbed when suspension components are removed or replaced. It is recommended that you have the alignment checked on your vehicle at a qualified alignment shop. Energy Suspension recommends that you read over all the installation instructions and check all P/N's and quantities in the parts list before you start. Call customer service at 949-361-3935 if the parts in your kit do not match this parts list. Prior to installation, make sure that your vehicle is in excellent mechanical condition and that there are no suspension or steering related problems. This part has been designed to work only with a vehicle that is in good state of repair. No matter how carefully we design our parts, this is one area we have no control over and cannot be held responsible.



## FRONT CONTROL ARM BUSHINGS REMOVAL/INSTALLATION

**ATTENTION:** We recommend acquiring a Mazda factory workshop manual for all warnings and procedures to safely remove and install the upper and lower control arms.

**REMOVAL:** Properly lift and support the vehicle with jack stands. Remove both front wheels. Remove the front lower control arm. The front position bushing has no metal shell to remove. The bushing is not bonded, **Fig.1.** To remove the factory rubber bushings from the front position you will have to support the control arm and press down on the inner sleeve and push the rubber bushing out. WD-40 under the rubber flange helps removal, **Fig.2.** Bushing removal on the rear position will be similar to the front position. The outer metal shell must be removed from the rear position for this bushing kit to fit properly, **Fig.1.** To remove the factory outer metal shell from the rear position you will have to support the control arm and press down on the outer metal shell. The I.D. of the rear position is Ø1.860" (47.2mm). Use something smaller than Ø1.860" to press the outer metal shell out. Use a cross support plates with a hydraulic press to support the control arm and press the outer metal shell out, **Fig.2.** To remove the metal shells from the upper control arms first use a hammer and chisel between the control arm and the flange of the metal shell bending the flange away from the control arm. Do this two places 180° from each other, **Fig.3.** Next place the control arm in a vice with the bent flanges inline with the jaws of the vice. Tighten the vice to further bend the flanges 90° from the control arm, **Fig.4.** The I.D. of the control arm is Ø1.488 (37.8mm) Support the inside of the outer metal shell with a piece of tubing that has a 1mm smaller O.D. to push out the metal shell. Stack metal blocks on the control arm where the flanges are bent up and press down on the control arm pushing the flanged metal shell up and out, **Fig.5.** 

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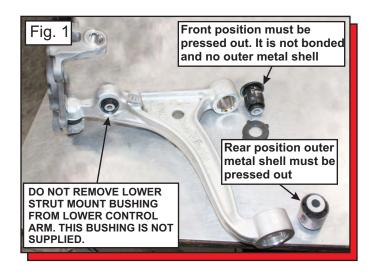
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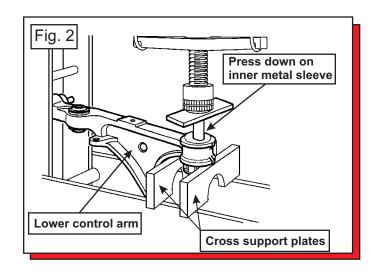


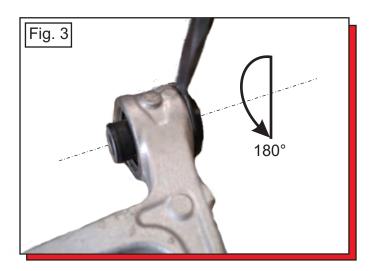
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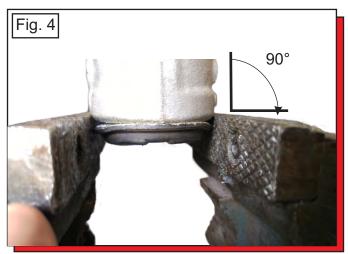
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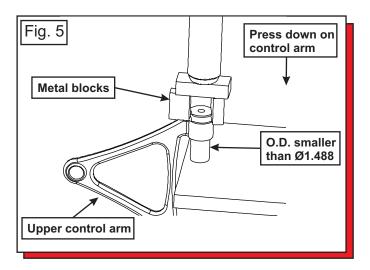
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Use emery paper or a deburring tool to remove the sharp edges from the control arms that will contact the polyurethane bushings. Grease the I.D. of the control arms, the I.D. & O.D. of the new polyurethane bushings and the O.D. of the new sleeves. Use an arbor press to install the new polyurethane bushings. Reinstall the control arms into the vehicle and torque all nuts and bolts to factory specs. It is recommended that you have the alignment checked on your vehicle at a qualified alignment shop after replacing the bushings.