

**OPEN FIRST!**

# Installation Instructions

15.3121

**Rear Control Arm Bushing Set  
AUDI / VOLKSWAGEN FWD/AWD**

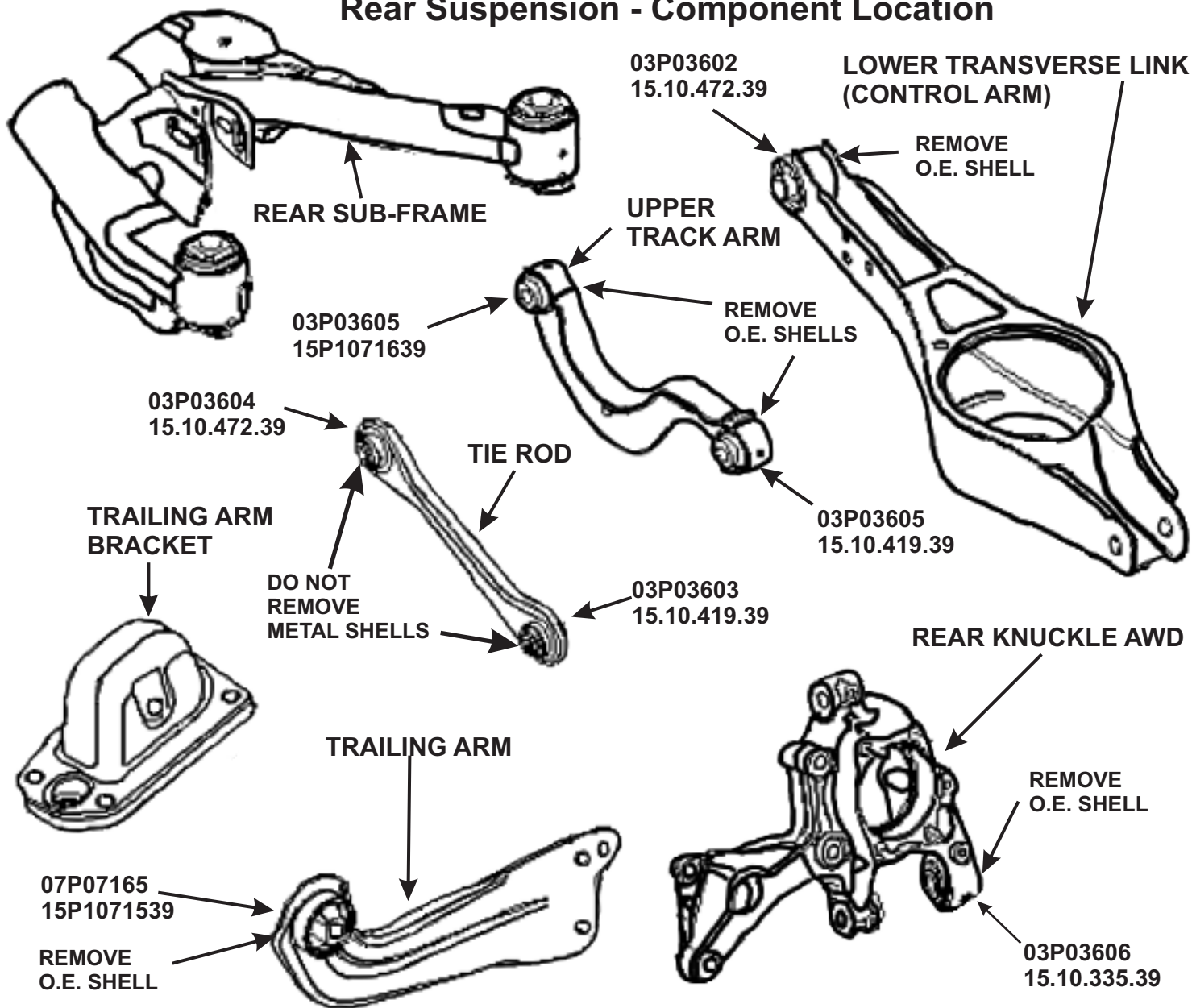


1131 VIA CALLEJON, SAN CLEMENTE, CA 92673

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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 top mechanical condition and that there are no suspension or steering related problems. These parts have 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.

## Rear Suspension - Component Location



**NOTE:** 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

### Parts List:

#### Rear trailing arm position:

- 2 EA 07P07165 Trailing arm bushing
- 2 EA 15P1071539 Sleeve (.1000" x .500" x 2.520")

#### Lower transverse link at subframe position:

- 2 EA 03P03602 Transverse link bushing
- 2 EA 15.10.472.39 Sleeve (.875" x .500" x 2.355")

#### Lower transverse link at knuckle position:

- 2 EA 03P03606 Knuckle bushing
- 2 EA 15.10.335.39 Sleeve (.875" x .500" x 1.943")

#### Upper track arm to subframe position:

- 2 EA 03P03605 Track arm bushing
- 2 EA 15P1071639 Sleeve (.875" x .500" x 1.750")

#### Upper track arm to knuckle position:

- 2 EA 03P03605 Track arm bushing
- 2 EA 15.10.419.39 Sleeve (.875" x .563" x 1.750")

#### Lower tie rod at subframe position:

- 2 EA 03P03604 Tie rod bushing
- 2 EA 15.10.472.39 Sleeve (.875" x .500" x 2.355")

#### Lower tie rod at knuckle position:

- 2 EA 03P03603 Tie rod bushing
- 2 EA 15.10.419.39 Sleeve (.875" x .563" x 1.750")

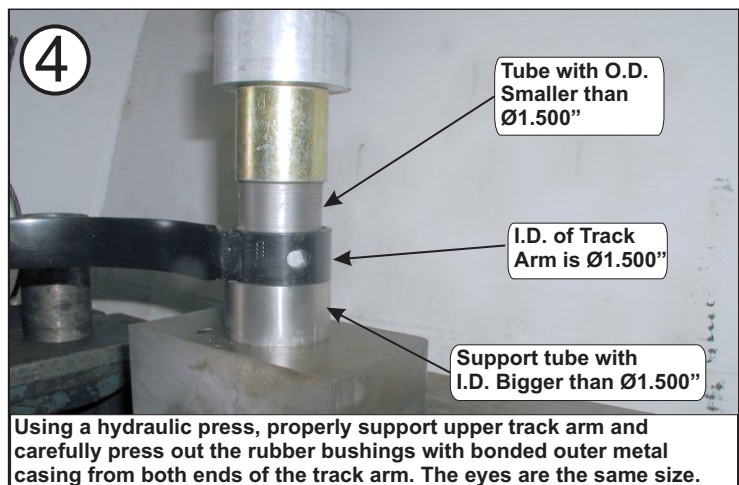
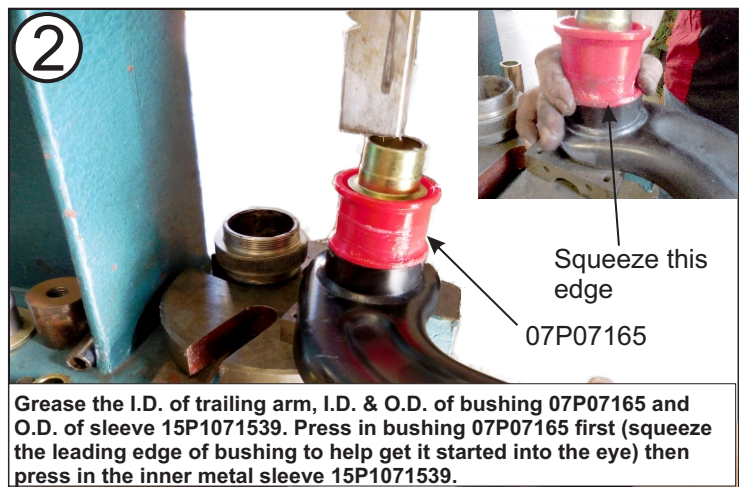
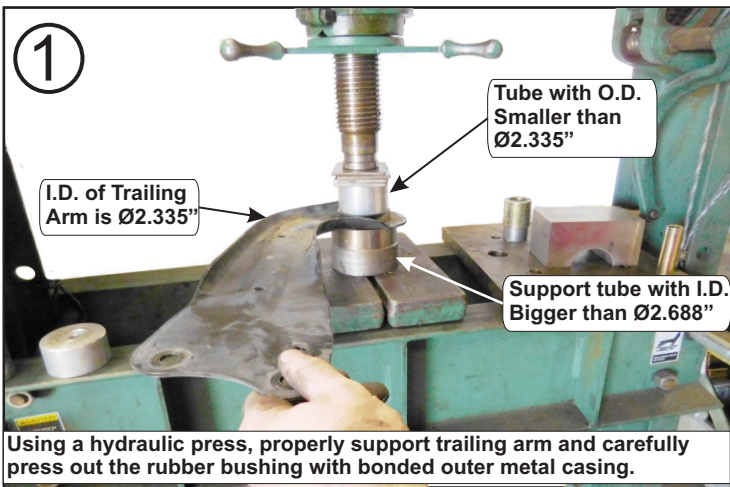
## FASTENER TIGHTENING SPECIFICATIONS

- ABS Wheel Speed Sensor to Wheel Bearing Housing Bolt: 5.9 lb.ft (8 Nm)
- Brake Disk Bolt: 2.9 lb.ft (4 Nm)
- Coupling Rod to Stabilizer Bar Nut: 33.2 lb.ft (45 Nm) 1
- Coupling Rod to Trailing Arm Nut: 33.2 lb.ft (45 Nm) 1
- Cover Plate to Wheel Bearing Housing Bolt: 8.8 lb.ft (12 Nm)
- Drive Axle to Rear Final Drive Flange Shaft Bolt: 29.5 lb.ft (40 Nm) 1, 3
- Drive Axle to Wheel Bearing Housing Bolt: 51.6 lb.ft + 90° turn (70 Nm + 90° turn) 1
- Final Drive to Subframe Bolt: 44.2 lb.ft + 90° turn (60 Nm + 90° turn) 1
- Left Rear Level Control System Sensor Bolt: 3.7 lb.ft (5 Nm)
- Lower Transverse Link to Subframe Nut: 70 lb.ft (95 Nm) 1
- Lower Transverse Link to Wheel Bearing Housing Nut: 66.4 lb.ft + 90° turn (90 Nm + 90° turn) 1
- Shock Absorber to Body Bolt: 36.8 lb.ft + 45° turn (50 Nm + 45° turn) 1
- Shock Absorber to Shock Absorber Mount Nut: 18.4 lb.ft (25 Nm) 1
- Shock Absorber to Wheel Bearing Housing Bolt: 132.7 lb.ft (180 Nm) 2
- Stabilizer Bar to Subframe Bolt: 18.4 lb.ft + 45° turn (25 Nm + 45° turn) 1, 2
- Stone Protection Plate to Lower Transverse Link Bolt: 5.9 lb.ft (8 Nm)
- Subframe to Body Bolt: 66.4 lb.ft + 90° turn (90 Nm + 90° turn) 1
- Tie Rod to Subframe Nut: 66.4 lb.ft + 90° turn (90 Nm + 90° turn) 1
- Tie Rod to Wheel Bearing Housing: 1
  - Nut, FWD: 95.8 lb.ft + 90° turn (130 Nm + 90° turn)
  - Bolt, AWD: 95.8 lb.ft + 90° turn (130 Nm + 90° turn)
- Trailing Arm Mounting Bracket to Body Bolt: 36.8 lb.ft + 45° turn (50 Nm + 45° turn) 1
- Trailing Arm to Mounting Bracket Bolt: 66.4 lb.ft + 90° turn (90 Nm + 90° turn) 1
- Trailing Arm to Wheel Bearing Housing Bolt: 66.4 lb.ft + 45° turn (90 Nm + 45° turn) 1, 4
- Upper Transverse Link to Subframe Nut: 70 lb.ft (95 Nm) 1
- Upper Transverse Link to Wheel Bearing Housing: 1
  - Nut, FWD: 95.8 lb.ft + 90° turn (130 Nm + 90° turn)
  - Bolt, AWD: 95.8 lb.ft + 90° turn (130 Nm + 90° turn)
- Wheel Hub to Wheel Bearing Housing Bolt: 1
  - FWD: 132.7 lb.ft + 180° turn (180 Nm + 180° turn)
  - AWD: 51.6 lb.ft + 90° turn (70 Nm + 90° turn)

**VW USES TORQUE TO YIELD HARDWARE  
"ONE TIME USE"  
HARDWARE NOT SUPPLIED.**

### FASTENER TIGHTENING NOTES:

- 1 Always replace after removal.
- 2 Always tighten threaded connections in curb weight position.
- 3 Observe tightening sequence.
- 4 Pre-tighten to 10 Nm in a diagonal sequence, then tighten to tightening specification in a diagonal sequence.



**5**

Grease the I.D. of track arm, I.D. & O.D. of bushing 03P03605 and O.D. of sleeve 15P1071639 (inner position) and sleeve 15.10.419.39 (outer position). Press in bushing 03P03605 first, then press in the inner metal sleeves 15P1071539 and 15.10.419.39.

**6**

Do not remove tie rod outer metal shell, it must be reused for this bushing to work. To remove rubber bushing, evenly apply heat to outside metal shell. This heat will break the glue bond and the bushing will push out. At no time should the rubber catch fire, only slight smoke from the bond breaking.

Use a wire brush to remove any remaining rubber and spray paint exposed raw metal to prevent rust.

**7**

Grease the I.D. of tie rod, I.D. & O.D. of bushing 03P03604 and O.D. of sleeve 15.10.472.39 (inner position) and 03P03603 and sleeve 15.10.419.39 (outer position). Press in bushing 03P03604 and 03P03603 first, then press in the inner metal sleeve 15P1071539 and 15.10.419.39, respectively.

**8**

Before removing the lower transverse link, place matchmarks on the front and rear of the adjusting cam bolts. You will need to use these matchmarks to reinstall the transverse link back in the same position after the new polyurethane bushings are installed.

**9**

I.D. of Transverse link is  $\text{\O}1.657''$

Tube with O.D. Smaller than  $\text{\O}1.657''$

Support tube with I.D. Bigger than  $\text{\O}1.657''$

Using a hydraulic press, properly support transverse link and carefully press out the rubber bushing with bonded outer metal shell.

**10**

Grease the I.D. of transverse link, I.D. & O.D. of bushing 03P03602 and O.D. of sleeve 15.10.472.39. Press in bushing 03P03602 first, then press in the inner metal sleeve 15.10.472.39.

**11**

Tube with O.D. Smaller than  $\text{\O}1.428''$

Support tube with I.D. Bigger than  $\text{\O}1.428''$

I.D. of Knuckle is  $\text{\O}1.428''$

Using a hydraulic puller properly supported on the knuckle, carefully pull out the rubber bushing with bonded outer metal shell.

**12**

Tighten the nuts (3/8-16) to draw in the bushing. Do the same with the sleeve.

The rough aluminum casting has seam lines that are askew from the molding process. These casting lines along with the I.D., have sharp edges that need to be filed down and square with the I.D. to a clean, smooth finish. The casting should be close to 1.187" (1-3/16") wide when finished. Grease the I.D. of knuckle, I.D. & O.D. of bushing 03P03606 and O.D. of sleeve 15.10.335.39. Using some all-thread, nuts and flat washers, press in bushing 03P03606 first, then press in the inner metal sleeve. 15.10.335.39.