



## BAVARIAN AUTOSPORT

# Rear Suspension Adjustable Camber Bushings Installation Instructions

**SAFETY NOTE:** The rear of the vehicle must be raised and supported in such a way that the rear suspension is hanging free. Use proper methods and safety precautions for lifting and securely supporting the vehicle.

<b>2002</b>	<b>PART NUMBERS:</b> 192026	<b>Bavaria/CS</b>	<b>PART NUMBERS:</b> 192026	<b>5 Series</b>	<b>PART NUMBERS:</b>
<b>3 Series</b>		<b>5 Series</b>		83 thru 96	
thru 91	192026	thru 82	192026	Except M5 91 on	193326
<b>318ti</b>	192026	<b>6 Series</b>		<b>6 Series</b>	
<b>Z3</b>		thru 4/82	192026	5/82 on	193326
Roadsters		<b>7 Series</b>		<b>733i, 735i/il</b>	
& Coupes	192026	thru 82	192026	83 thru 94	193326

### INSTALLATION ASSUMPTIONS:

These instructions will assume that the installer is either familiar with the procedures for replacing standard BMW trailing arm bushings OR has access to the applicable repair manuals and an appropriate level of experience to perform this task. Repair manuals for the above listed vehicles are available from Bavarian Autosport. You will need to take your BMW to an alignment facility immediately after installation.

### PROCEDURE:

1. Remove the rear wheels.
2. Disconnect the swaybar links from the trailing arms.
3. For BMWs with coil-over rear spring/shock assemblies. Remove the lower shock mount bolts and allow the assemblies to hang free of the trailing arms. On CS, 2002, 3 series thru '91, 318ti and Z3 models remove the lower shock mount bolts and allow the shocks to hang free, then remove the springs.
4. Remove the trailing arm bushing mounting bolts and pull the trailing arms to the rear in order to access the bushings.
 

**NOTE:** Kit# 192026 - The trailing arm bushings should be accessible without removing the axle shafts or disconnecting the flexible brake hose from the body to the trailing arm. If the bushings can not be reached it may be necessary to remove the brake lines, parking brake cables and axle shafts in order to move the trailing arms further rearward, or totally remove them from the vehicle (which would require that the E-brake cables, pad wear sensor wire and ABS wires be disconnected).

**NOTE:** Kit# 193326 - The trailing arms must be removed from the vehicle and a hydraulic press must be used to remove the bushings. In order to remove the trailing arms, it will be necessary to disconnect the axle shaft C.V. joints from the trailing arms at the outer ends, disconnect the rubber brake hoses from the body to the trailing arms, disconnect the parking brake cables, disconnect the ABS sensor wires and disconnect the pad wear sensor wire.
5. Remove the original trailing arm bushings.
 

**NOTE:** Kit# 192026 - Using the supplied bushing removal tool, pull the bushings out of the trailing arm eyelets (Figure 1).

**NOTE:** Kit# 193326 - Using a hydraulic press and the supplied press arbor, press the bushings from the trailing arm eyelets.



6. Make sure the trailing arm eyelets are clean and free of burrs. Disassemble the urethane bushing halves from the steel sleeves. Insert the urethane bushing halves into the trailing arm eyelets.  
**NOTE:** Kit# 192026 - The steel sleeves should be inserted so that the flange end faces away from the center of the trailing arm. The flange for the inner leg is to the center of the car, the flange for the outer leg is to the outside of the car, (Figure 2).  
**NOTE:** Kit# 193326 - The bushings that have the larger center steel sleeve are to be installed in the outboard trailing arm eyelets, (Figure 3). The bushing halves with the thicker flange go toward the inside of the vehicle on the inner leg of the trailing arm and toward the outside on the outer leg of the trailing arm.
7. Lubricate the inner holes of the urethane bushing halves and the outer surfaces of the steel bushing sleeves with the supplied grease. Using slip-joint pliers (or other similar tool) insert the steel sleeves into the urethane halves.
8. Install the trailing arm eyelets and bushings into the brackets on the crossmember. Insert the supplied bolts through the brackets and bushings and thread on the supplied lock nuts (bolt heads facing each other, toward center of arms). "Eyeball" the camber settings, and tighten the nuts to 50 to 55 ft.lb. - Install cotter pins, if applicable.  
**NOTE:** Kit# 193326 - The thick serrated washers are applied under the bolt head and nut, on the outsides of the brackets (Figure 3).  
**NOTE:** Kit# 193326 - On some chassis, it may be necessary to slightly shorten the bushing through-bolts that are installed in the outer legs of the trailing arms, if they interfere with the subframe (crossmember) bushing housings.
9. Reassemble springs, shocks, swaybars, hoses, wheels, etc.  
**NOTE:** Kit# 193326 - When using urethane trailing arm bushings, the Pitman Links must be removed to prevent binding. These are the small "dogbone" shaped links that attach to the bottom of the subframe and the outer legs of the trailing arms.
10. It is now necessary to take your BMW to have the alignment set at the desired angle.

#### ADJUSTMENT TIPS:

In order to increase negative camber - Loosen the nuts on the bushing through bolts, use a wrench or socket on the bolt head to turn the bushings. Set the bushings so that the inner leg of the trailing arm is lowered in relation to the through bolt and/or the outer leg is raised in relation to the through bolt.

In order to decrease negative camber - Loosen the nuts on the bushing through bolts, use a wrench or socket on the bolt head to turn the bushings. Set the bushings so that the inner leg of the trailing arm is raised in relation to the through bolt and/or the outer leg is lowered in relation to the through bolt.

By combining the adjustability of the inner and outer bushings, you can achieve a high degree of camber tuning.



