BMW E30/E36 Greasable Front Control Arm Bushing Installation

Thank you for purchasing a quality Turner performance product! Before beginning installation of these control arm bushings, please read through these instructions completely, and familiarize yourself with the bushing components and control arm bracket construction, as well as their respective installed positions.
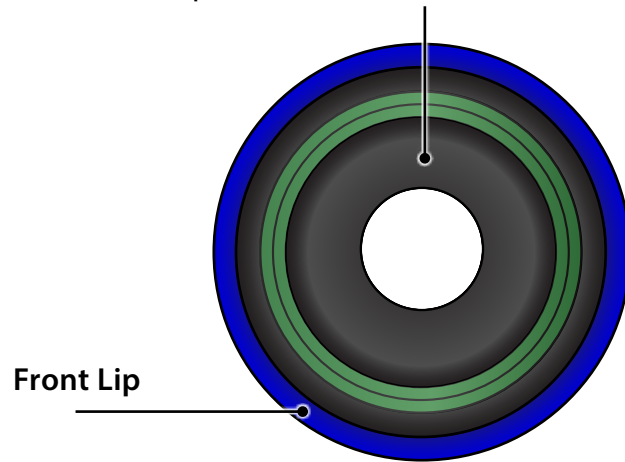
The Bushings:

Note that the spherical bearing in the center of each bushing rotates smoothly. It is important to make sure this same feel is present after installation.

The left and right bushings are the same, and the front of each one has a lip that is a larger diameter than the body.   On the vehicle, this side of the bushing will face towards the front of the car.

Front Lip

The rear of each bushing is quickly identified by the grease fitting. You will also see the knurled section around the entire circumference of the body. On the vehicle, this side will face the rear of the car.

Knurling
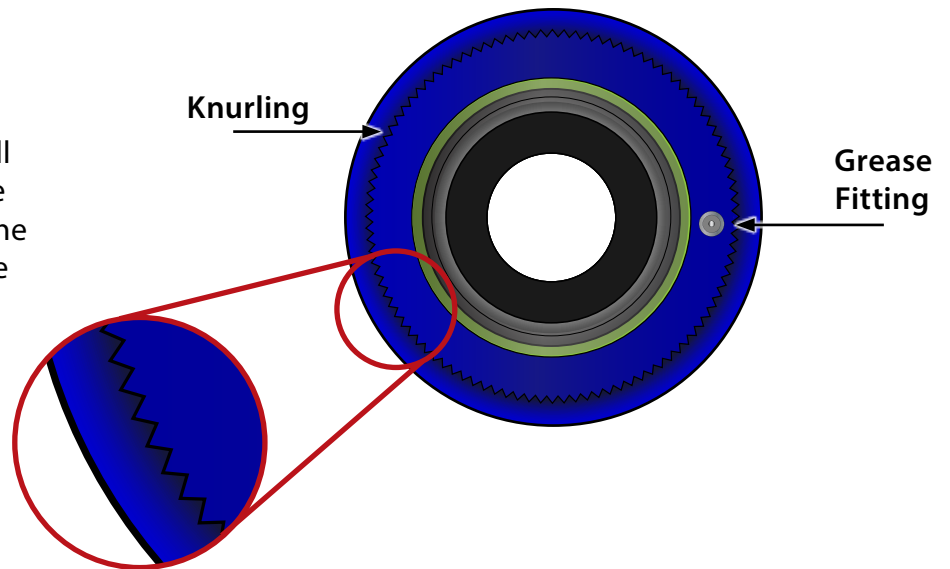
Grease Fitting

Looking at the side view, you can see the larger diameter lip on the front side, the knurling around the circumference, and the grease fitting on the rear.

Knurling
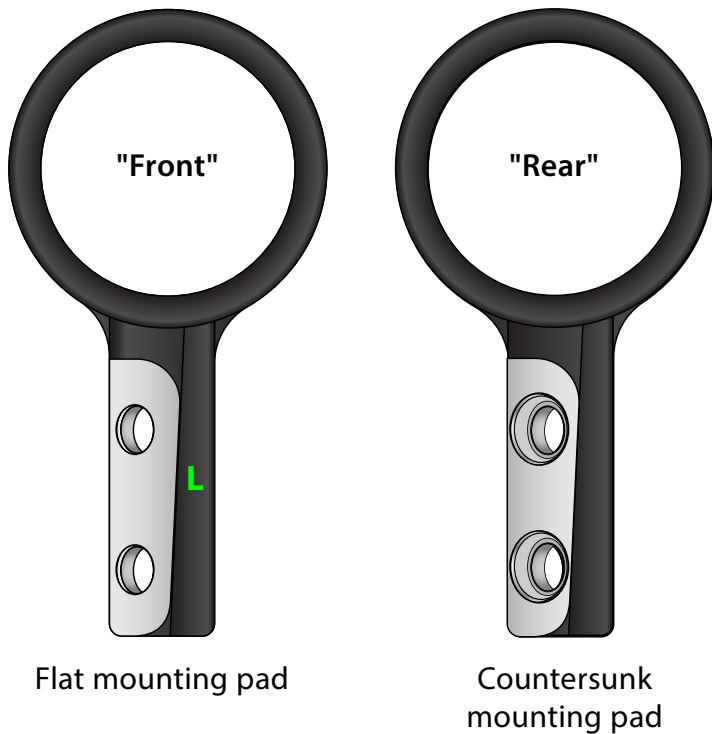
Front Lip

Grease Fitting
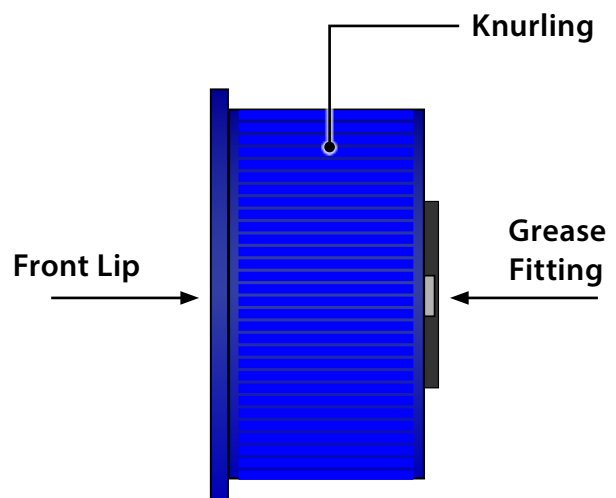
The Control Arm Brackets:

In order to properly install the bushings, a "front" and "rear" position must be identified for each of the control arm brackets.
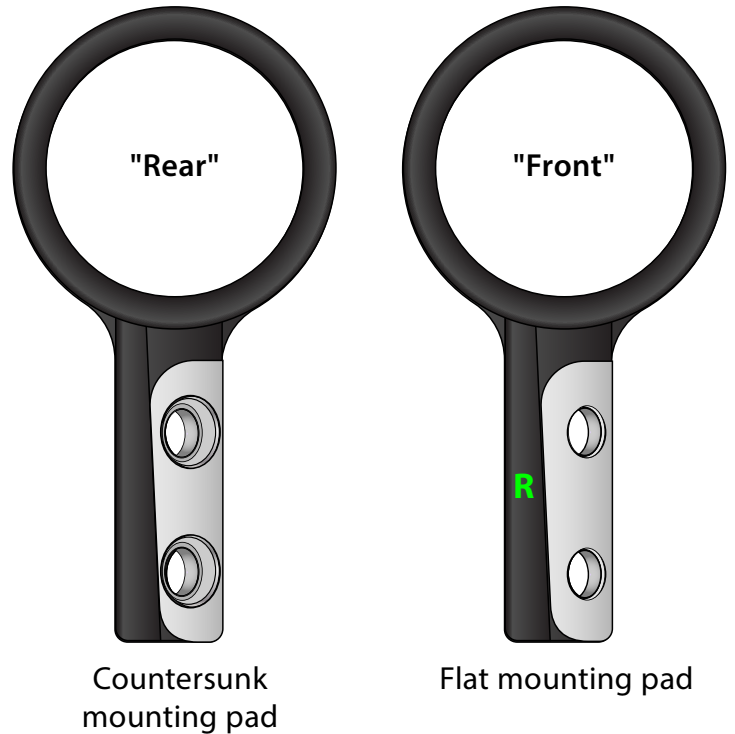
The left and right control arm brackets are different, and are generally marked with an "L" or an "R". In order to determine the "front" and "rear" positions, lay them flat on a table.

The primary difference is the mounting pad of the bracket. The flat side faces downward when installed, and the side with the counter sunk holes faces upward, fitting over the locating dowels on the body. When mounted, the angle of the pad results in the bushing bore being in a vertical position, allowing you to determine which side of the bracket faces the front of the vehicle, and which side faces the rear.

Left Control Arm Bracket: ## Right Control Arm Bracket:

"Front"   "Rear"   "Rear"   "Front"

L   R

Flat mounting pad   Countersunk   Countersunk   Flat mounting pad
   mounting pad   mounting pad

Preparing for Installation:

The bushings must be pressed into the control arm brackets, however you must first observe a critical design feature of these brackets.

When these brackets are made, the machined surfaces and angles are the only critical dimensions. As a result the castings themselves are made with somewhat "loose" tolerances. The factory bushings do not rely on the edge of the brackets for position, so these tolerances vary, and the edges may not be parallel. Also, since the factory bushings are rubber inside a steel cage and can withstand a varying amount of crush during installation, the bore dimension in the bracket carries a loose tolerance as well.

Side View of Bracket: Front view of Bracket:

Edges may not be parallel

Dimension (tolerance) may vary

L
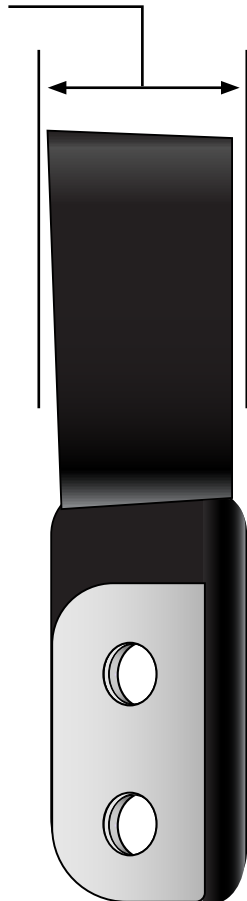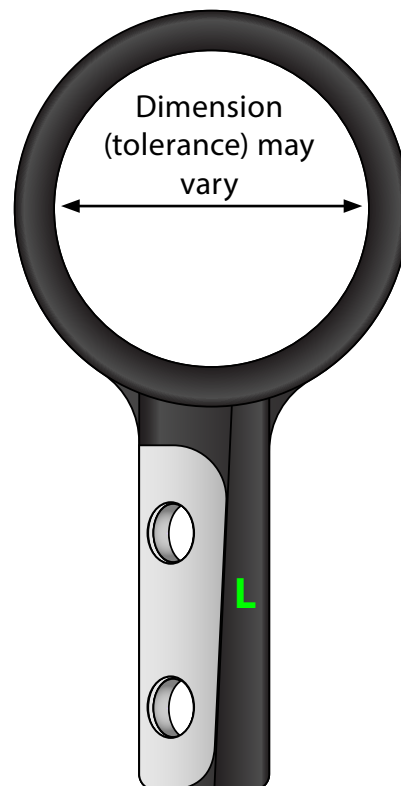
Preparing for Installation:

The installed position of the bushings is shown below. The lip of each bushing should be located at the "front" of the control arm bracket, which puts the grease fitting at the "rear". Also note that the grease fitting should be oriented at a 90⁰ angle to the centerline of the bracket, and positioned so that when the brackets are installed in the car, the grease fitting is located on the bottom.

Installed Position of Bushings (LH Bracket Shown)

Lip located on front of bracket

L

Grease Fitting located at rear of bracket, oriented at 90⁰ angle, and positioned so when brackets are installed, it is located on the bottom
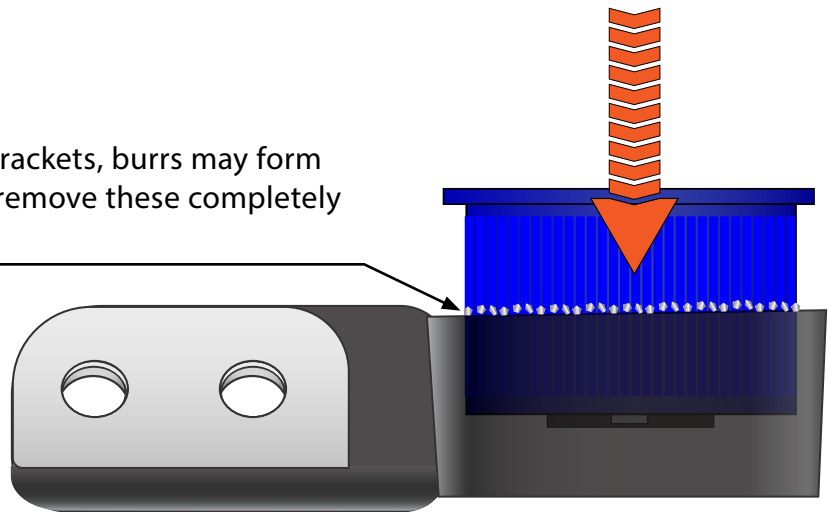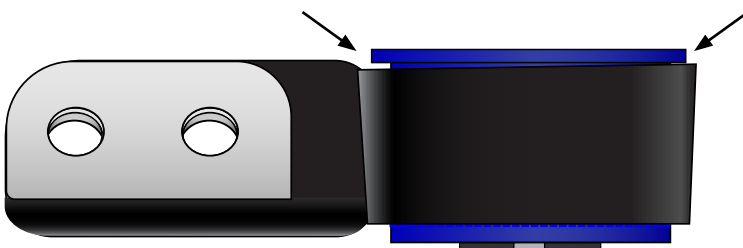
Installing the Bushings:

While pressing the bushings into the brackets, burrs may form at the edge of the bracket. Be sure to remove these completely as you go.

If the edge of the bracket is not parallel and one side of the bushing lip contacts before the other, **STOP!** This is normal, and a small gap on one side is **OK.** Pressing this flush will cause the spherical bearing to bind.

If the spherical bearing is binding after installation, press it back out, thoroughly clean all burrs from the bushing and bushing bore, then press the bushing back into place. In some cases, you may have to do this more than once, depending on variations in bracket tolerance.