



Ireland Engineering
2086-B Central Ave.
Duarte, CA 91010

Contact:
626-359-7674 (Mon-Fri, 9-5:30pm PST)
andrewadams@iemotorsport.com\

**Disclaimer. We are not responsible for any damages or injury that is incurred during installation and use of this product. It is understood that the installer is a professional (with applicable ASE certifications) and abides with standard safety protocols while working on automobiles. Any warranty does not cover installer errors. If the installer has any questions they are welcome to call or email.

Thank you for purchasing our

Adjustable Rear Camber & Toe Kit – Positive Lock Style

When BMWs equipped with semi-trailing arm rear suspension are lowered, there is significant rear camber and toe-in gain, which must be corrected to restore proper geometry and handling traits. This excessive rear negative camber and toe can cause undue tire wear, and negatively affects handling due to incomplete tire contact with the road surface.

Prior to installation of our rear camber and toe kits, alignment readings should be taken from your car in order to establish your baseline geometry – the more radically lowered the car, the more correction may be needed.

We typically recommend a finished wheel camber reading of -1 to -1.5 degrees for most applications (some applications may call for more, or less – Please feel free to call us if you have any questions on your setup). Rear toe should typically be set to factory specification, or about $1/8$ " overall toe-in ($1/16$ " per-wheel). The overall adjustment range of our camber and toe kits is approximately 2.25 degrees. Dependent upon your baseline camber and toe readings, the adjuster hardware may be biased on installation to move the useful adjustment range where you need it most. By default, we recommend using the original trailing arm mounting bolt hole as your "zero" reference point, and setting up the plates so that all adjustment is corrective from the "zero" point. There may be situations in which it is desirable to set up the adjustment hardware asymmetrically.

Installation of this kit requires removal of the rear subframe, and basic cutting and welding work. If you are unable to perform this work yourself, we can offer installation on your subframe for a nominal labor charge.

We recommend temporarily mocking up the adjuster hardware on the subframe prior to final installation, using either clamps or a light tack-weld. This will allow you to scribe the adjustment path of the trailing arm mounting bolts onto the original subframe pickup tabs, which can then be easily slotted and/or notched with the adjuster tabs removed.

If you are using our urethane rear subframe mounts, you may need to cut a small "pie-slice" from the top flange of the subframe mount to make clearance for the adjustment bolt head or nut. This will not adversely affect the function or durability of the subframe mount.

We use the inner trailing arm pickups on the subframe (the pickups closest to the differential) to make our **CAMBER** adjustments. The adjuster plates overlay the original pickup tabs on the subframe, with the slotting oriented **VERTICALLY**. For reduction of negative camber, we want our adjustment range to extend **UPWARD** from the original mounting point as installed in the car. We normally recommend locating the bolt head for the **CAMBER ADJUSTER** toward the "outside" of the car, and the locking nut toward the "inside" of the car, in order to facilitate removal of the trailing arm should it be required for future service.

For **TOE** adjustment, we mount our adjustment tab hardware to the outer subframe pickups (closest to the road wheels). For reduction of toe-in, we orient our slotted adjustment tabs **HORIZONTALLY**, with our adjustment travel extending **AFT**, toward the rear of the car as installed. The adjustment tabs for toe correction should be oriented at 90 degrees relative to the camber adjustment tabs. We recommend locating the bolt head for the **TOE ADJUSTER** toward the "inside" of the car, and the locking nut toward the "outside" of the car, in order to facilitate removal of the trailing arm should it be required for future service.

**On the 2002 it is best to grind the Toe bolt down about 5mm for optimal frame clearance.

Once installed, adjustments may be made by loosening the locking nut used for the trailing arm mounting bolts, and disengaging the serrated locking plate from the serrated slotted adjustment plate. With the suspension unweighted, the locking plate and bolt may be moved up/down, or forward/back as required to alter your adjustment.

Estimated Camber Plate Position:



Example photo showing the slotting:



Camber Reinforcement Plate positioning:



Estimated Toe Plate Positioning:



Example of finished subframe:

