



## BMW E46 M3 Bump Steer Correction Kit Installation

### Features and Benefits:

- 6061-T6 billet aluminum adjuster sleeves
- Zinc-coated Class 10.9 hardware
- Virtually eliminates bump steer
- Adjustable caster correction (through the use of included 1mm thick shims)
- Includes high-quality FK rod ends
- Easy installation



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**Section 1: Bump Steer Correction Kit Installation**

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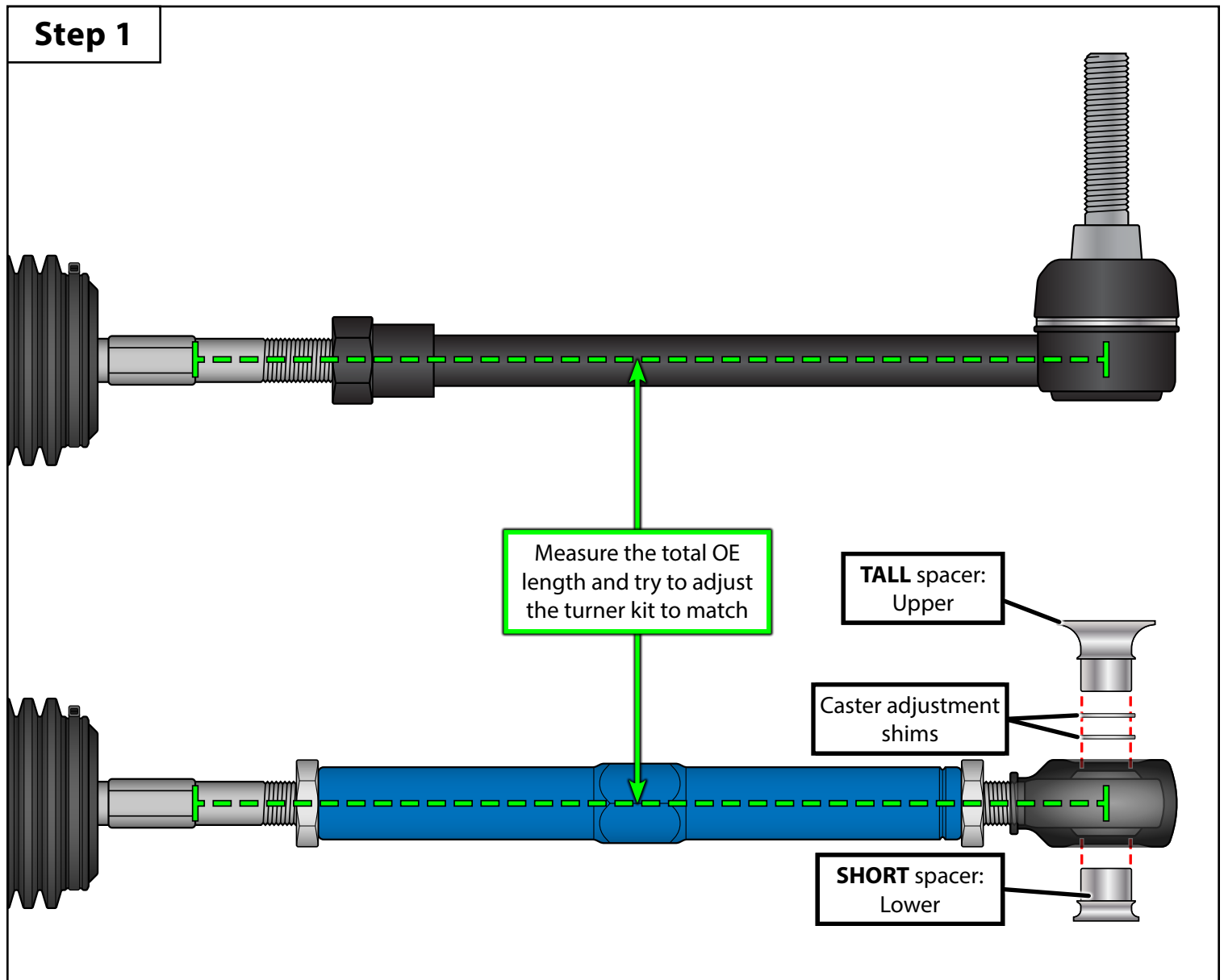
**Section 2: Adjustment Guidelines**

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**Be sure to completely read these instructions before installation.**

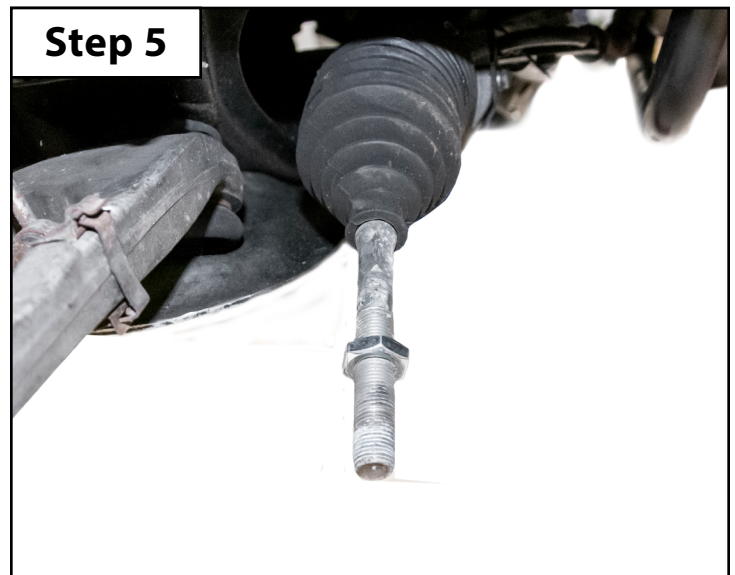
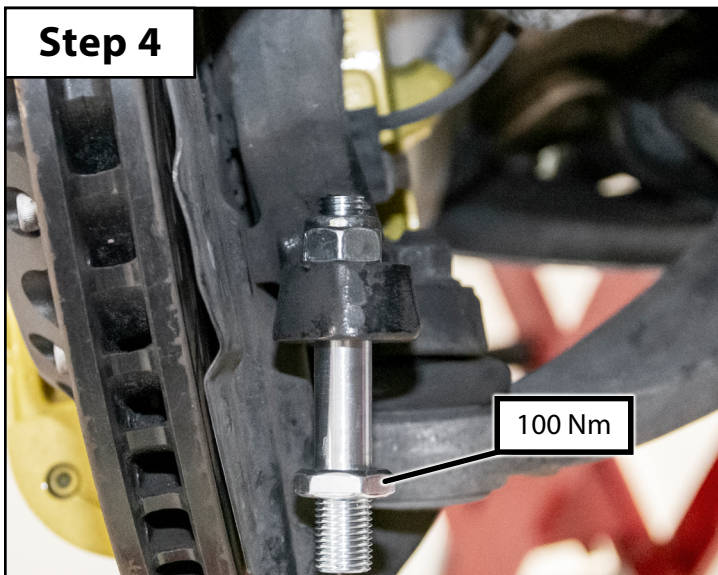
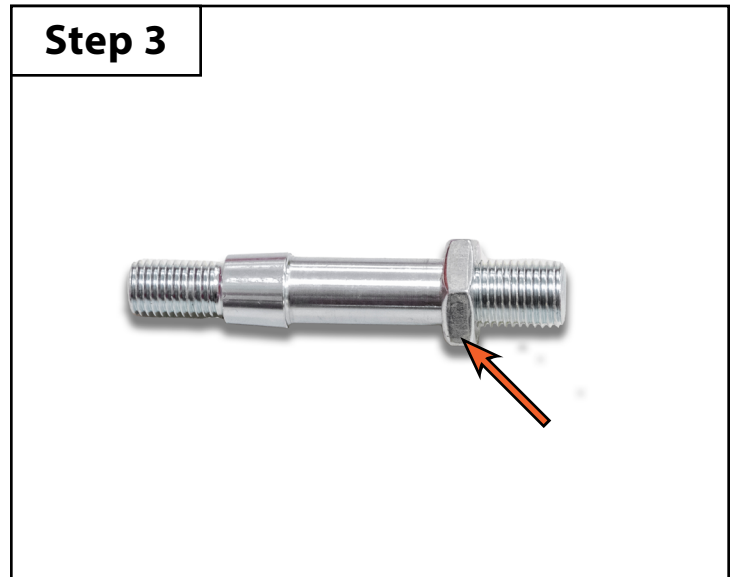
## Section 1: Bump Steer Correction Kit Installation

- Step 1**
- Prior to removal, measure the length of each tie rod assembly (as shown in the illustration below) so you can adjust the turner kit to match that length after installation.
  - Take a moment to review the illustration of the turner kit shown below, note that the upper spacer is taller than the shorter spacer, and that the caster adjustment shims will be installed between the upper spacer and the rod end.



## Section 1: Bump Steer Correction Kit Installation

- Step 2**
- Safely lift and support the vehicle.
  - Remove the front wheels.
  - Remove the outer tie rod end from the knuckle.
  - Remove the outer tie rod end and jam nut from the inner tie rod.
- Step 3**
- Install the supplied M14 jam nut (arrow) onto the tapered stud as shown.
- Step 4**
- Install the tapered stud into the knuckle from below.
  - Counter-hold the stud from below and tighten the M12 lock nut until it is tight enough to prevent the stud from spinning. Torque the M12 lock nut to 100 Nm.
- Step 5**
- Remove the jam nut from the stud and install it onto the inner tie rod by hand as far as it will go.





## Section 1: Bump Steer Correction Kit Installation

- Step 6**
- Install the jam nut (arrow) onto the rod end, then thread the rod end into the adjuster sleeve as shown.
- Step 7**
- Thread the adjuster sleeve onto the inner tie rod as shown.
- Step 8**
- Skip to the next page for information regarding the use of the included caster correcting shims. If using, install the shims now.
  - Slide the two supplied spacers into the rod end and slide it onto the stud.
  - Tighten the M14 lock nut to 100 Nm.
- Step 8**
- Rotate the adjuster until there is approximately 15mm of threads exposed between the outer jam nut and the rod end.
  - Tighten the outer jam nut until fully snug
  - Rotate the inner tie rod to lengthen or shorten the total length until it matches the OE measurement taken in step 1.
  - Tighten the inner jam nut until fully snug.
  - Reinstall the wheels and torque them to specification.
  - Immediately have a 4-wheel alignment performed.

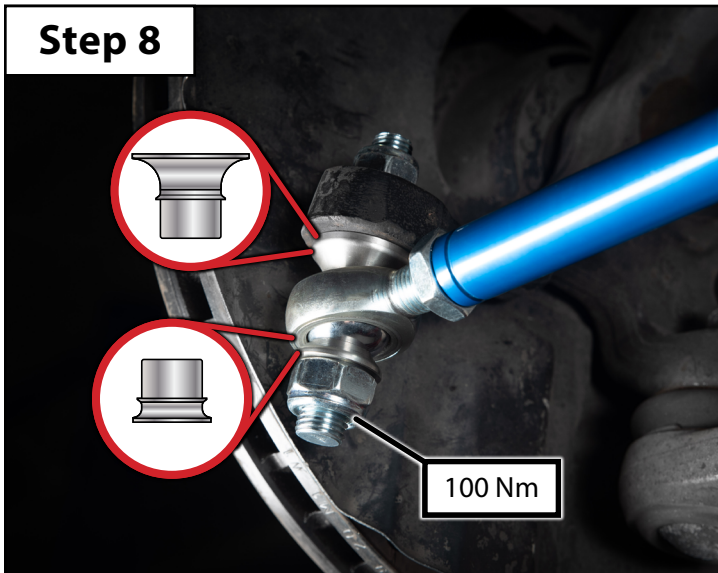
**Step 6**



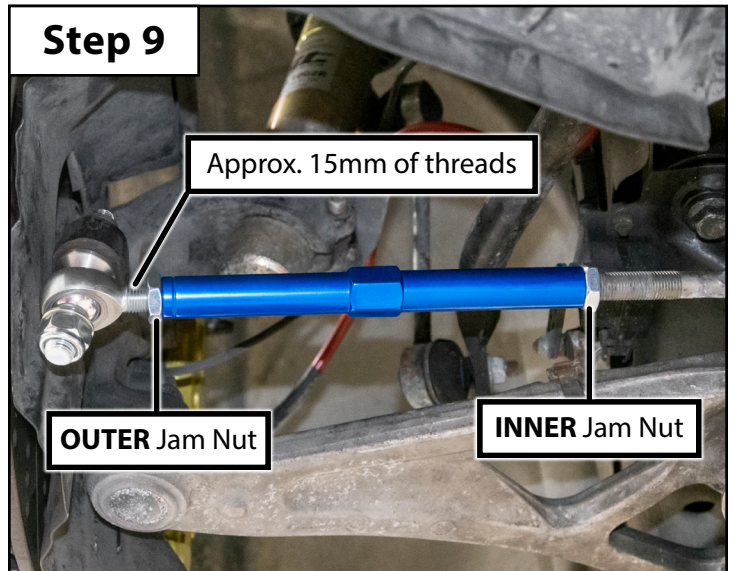
**Step 7**



**Step 8**



**Step 9**



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## Section 2: Adjustment Guidelines

### Caster Correction Adjustment

- [Bump steer](#) is defined as the tendency of the wheel to steer itself as the suspension travels up and down.
- Changes in caster may increase the amount of bump steer.
- Depending on your suspension geometry, you may experience bump toe-in (**Fig. 2a**), or bump toe-out (**Fig. 2b**).
- Caster correction can be adjusted with the 1mm shims (arrows) which are included with the kit.
- These shims are installed between the rod end and the upper tie rod spacer (**Fig. 2c**). They alter the angle at which the tie rod connects to the knuckle.
- If with zero spacers you find that you have bump toe-in, add spacers one at a time to get closer to zero bump toe-in.
- This adjustment should be made after the initial alignment has been performed.

