

## **TMS Camber arms (Polyurethane Style)** **E36/E46/Z4 chassis** **PART # TSU-99-40-D88** **Race Only – Not For Street Use**

**Note:** These camber arms must be used with a ball joint style bushing in the rear lower trailing arm BMW part # 33 32 6 775 551. This style bushing is stock on most M3 (Not 1995 M3). The 1995 M3 and all other non-M 3-series had stock rubber bushings and must upgrade to this ball joint-style bushing before using polyurethane camber arms

TMS Camber Arms (Polyurethane Style) are a true track product. We set out to make a camber arm that is BMW CCA Prepared legal, light weight, and has a large range of adjustability, and is also very simple to adjust. We have achieved all of our goals.

TMS camber arms allow approximately +2° to -4° adjustment on a stock car. This high range of adjustment allows a full race car setup or any lowered car to maintain factory specifications.

Only high quality and high strength materials and components are used. Every piece is CNC machined, coated for protection, and works together to resist corrosion and allow easy adjustment.

Each camber arm weighs only 2.5 lbs making for a total of 5 lbs for the assembly. All hardware is included with the kit.

**Safety Note:** **Make sure all Jam-Nuts are tight when finished installing camber arms. Two per Camber Arm.**  
**To remain within safety tolerances, minimum engaged thread length needs to be 15mm/.6in on each end of the adjustment stud. Tightness of nuts and overall assembly should be checked and maintained as any race part should be.**

**Parts list for kit:** 2 Tubes, 2 Forks, 2 double sided studs, 2 RH 5/8-18 nuts, 2 LH 5/8-18 nuts, 2 Bushing housings with bushings, 2 Bolts, washers, and nuts

**Install time:** 3 hours (not including resetting camber)

### **Directions:**

1. Properly lift and support the car to access the rear lower control arms
2. Remove rear sway bar
  - remove top swaybar nut on upper control arm
  - remove swaybar brackets
  - remove entire swaybar
3. Partially Remove Differential
  - Support differential
  - Remove the front and the rear differential bolts
  - Optional: If you cannot remove inner camber arm bolts with differential in place, it is possible to remove differential or just the drive shaft to have the required space.
4. Remove outer camber arm bolts and let stock camber arms hang down
5. Remove inner camber arm bolts
  - Slide Differential back to give room
  - Remove both bolts and remove control arms

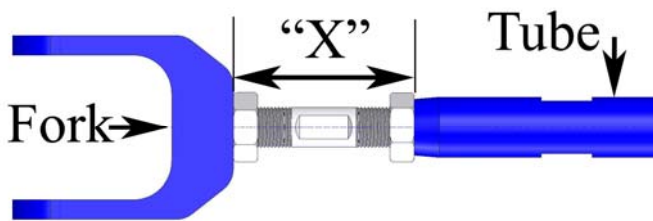


6. Install Camber arms
  - Make sure the arm is at its shortest length (i.e. no threads showing on stud)
  - The stud will be adjusted later when the car is being aligned
  - Slide camber arms into place in the subframe
  - Align each bushing hole with the subframe hole
7. Install each inner bolt. Torque to 110N-m (81ft-lb)
  - The differential has to be carefully and precisely positioned to allow enough room to install the bolts.
  - Optional: If you cannot install bolts with differential in place, it is possible to remove differential or just the drive shaft to have the required space.
8. Install outer camber arm bolts. At this time the camber arm should be fully shortened (i.e. no threads showing). Use bolts and hardware provided.
  - Torque to 122N-m (90ft-lb)
9. Adjust camber for fine tuning
  - Use reference chart below to adjust the stud to the approximate camber you want
  - Do this while the car is still up in the air if not, un-needed stress will occur on the threads.
10. Have proper setup or alignment done to assure proper adjustment and recheck thread engagements.
 

*Note: Do not adjust without lifting the car. This will cause added stress to the arm.*

**Degree Chart** (Approximate, based on stock car)  
*Note: x= distance between tube and fork.*

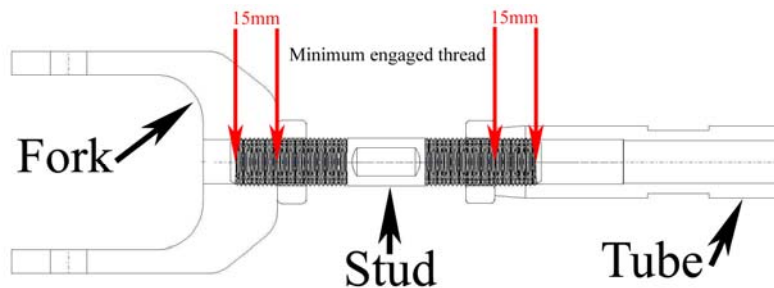
\*\*\*Each complete 360° turn of the stud will be a difference of approximately .323°  
 As a rule, each car will vary on how much camber range is actually available.



Degrees	"x" inch or millimeters
+2°	1.74" or 44.2mm (full lock)
0°	2.10" or 53.34mm
-1.5°	2.37" or 60.20mm
-2.5°	2.55" or 64.77mm
-3.5°	2.73" or 69.34mm (approaching max)
-4.0°	2.82" or 71.88mm (over limit)

**Safety Note:**

**Make sure all Jam-Nuts are tight when finished installing camber arms. Two per Camber Arm.**  
 To remain within safety tolerances, *minimum engaged thread length* needs to be 15mm/.6in on each end of the adjustment stud. Tightness of nuts and overall assembly should be checked and maintained as any race part should be.



**Please note on the diagrams below:** after the camber arms are fully installed and the Jam-Nuts have been tightened, your threads should match the diagram on the left. The diagram on the right shows an incorrect assembly.

