

TMS Camber arms for E46 and E36 chassis PART # TSU9940001

TMS Camber arms are a true racing product. We set out to make a control arm that is lightweight, has a large range of adjustability, and is very simple to adjust. We have achieved all of our goals.

By utilizing a simple double shear design we were able to concentrate on the details of the product. The double shear allows either a stock bushing to be used for better street use (no noise or harsh ride), or an aftermarket bushing for more performance oriented use.

TMS camber arms are dual adjustable. The wheel hub side (easy to get to) allows approximately +2° to -4° adjustment on a stock car. On the subframe side, the adjustable rod end allows even more adjustment. This high range of adjustment allows a full race car setup or a heavily 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 always allow easy adjustment. The rod end flanges are made of steel to prevent crushing.

Each camber arm weighs only 2.4 lbs making for a total of 4.8 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. Three per Camber Arm.**
To remain within safety tolerances, *minimum engaged thread length* needs to be .6 inches on each side of the stud and rod end. Tightness of nuts and overall assembly should be checked and maintained as any race part should be.

Parts list for kit: 2 main casings, 2 end forks, 2 double sided studs, 4 RH 5/8-18 nuts, 2 LH 5/8-18 nuts, 2 Rod ends, 4 Rod end extensions

Pre-Install - Initial setup is important. Reference chart below.

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
4. Remove outer control arm bolts and let arms hang down
5. Remove inner control arm bolts
 - Slide Differential back to give room
 - Remove both bolts and remove control arms
6. Place Camber arms
 - Make sure the arm is at its shortest length (i.e. no threads showing on stud or rod end)
 - Use reference chart below to decide what min/max camber adjustment range you want and adjust only the rod end accordingly, and tighten jam nut.

For example:

If you are satisfied with a camber adjustment range of +2° to -3.5° then leave the rod end tight. If you want +1° to 4.5° lengthen the rod end .18”.

-The stud will be adjusted later for fine tuning as it needs to be done on the car.

***Note: If you try and adjust the rod end side while on the car by turning just the main rod/tube, improper thread engagement will occur. This will cause one side of the stud to have less thread engagement when the stud length is set.

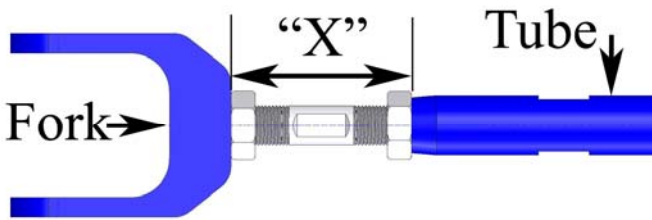
- Slide camber arms into place in the subframe
- Align each extension hole with the subframe hole

7. Install each inner bolt -Torque to 77N-m (57ft-lb)
 - The differential has to be carefully and precisely positioned to allow enough room to install the bolts.
 - Optional: If cannot install bolts with differential in place, it is possible to remove differential or just the drive shaft to have required space.
8. Install outer control arm bolts. At this time the stud should still be in the fully locked position (i.e. no threads showing). Use bolts and hardware provided.
 - Torque to 110N-m (81ft-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, and recheck thread engagements.
10. Have proper setup or alignment done to assure proper adjustment.

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 main casing and fork. Chart is for when rod end is in locked position.



Degrees	"x"
+2°	1.74" (full lock)
0°	2.1"
-1.5°	2.37"
-2.5°	2.55"
-3.5°	2.73" (approaching max)
-4.0°	2.82" (over limit)

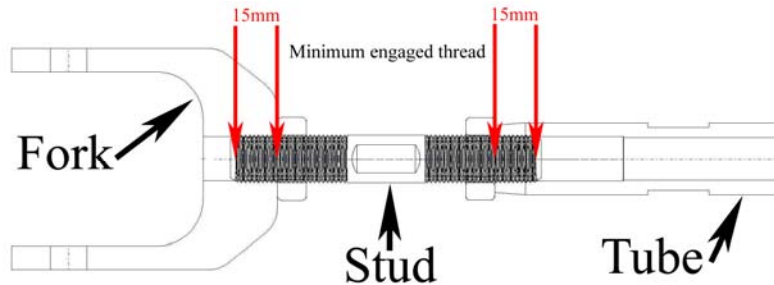
-To add more Camber, simply adjust the rod end. As a rule, adjusting the rod end out by $\approx .18''$ will add 1° of camber. Total amount of camber allowed is $\approx -7^\circ$ although not recommended. Each car will vary on how much camber range is actually available.

We **recommend adjusting the rod end for more camber before getting to the minimum thread engagement limit on the stud (when "x" = 2.73).

***Each complete 360° turn of the stud will be a difference of approximately .323°

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* 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.

