

CNC71 E46 LOCK KIT - PRO KIT

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Introduction

This PRO KIT is designed for the BMW E46 series.

The purpose of an angle drift kit is to modify the steering geometry, allowing for greater steering angle and better handling during maneuvers such as drifting.

Product not for road use. Installation must be done by professionals.

The knuckle requires an **E90 OEM hub**, which is not included in the set.

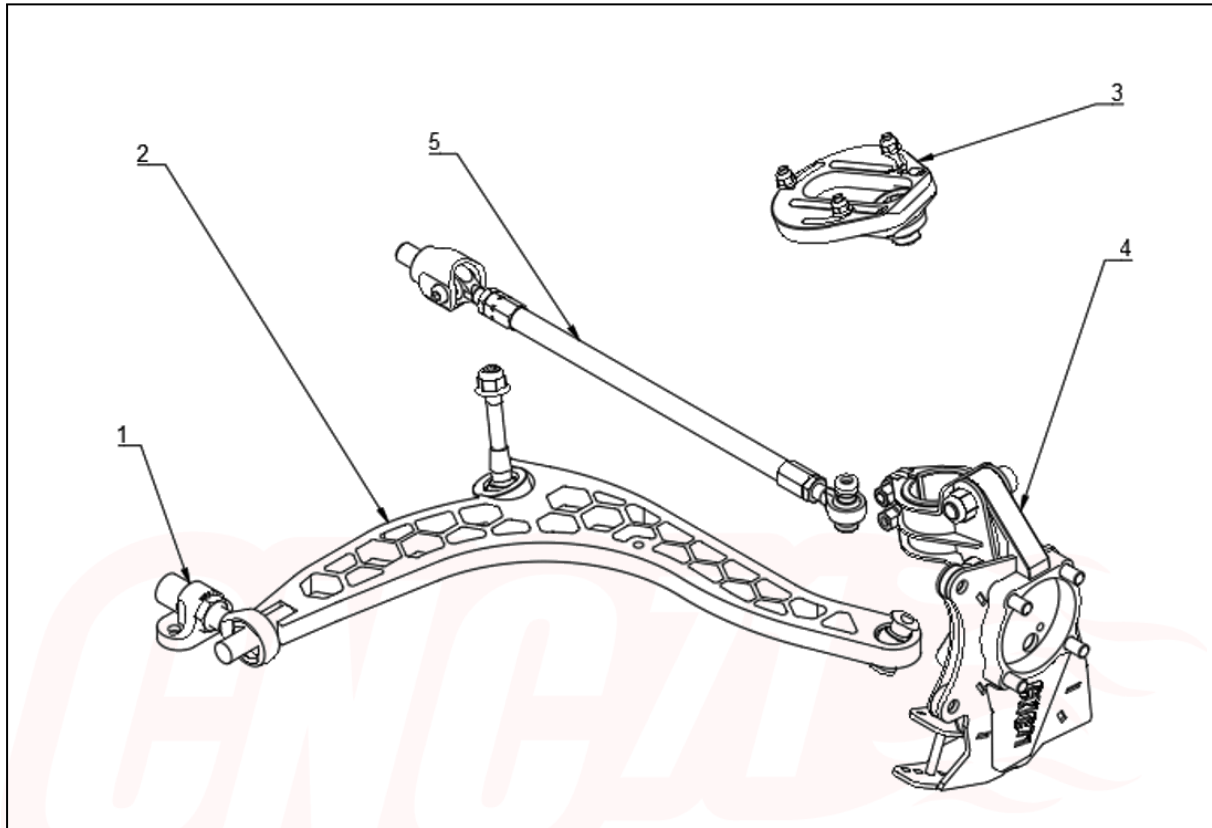
All parts come pre-assembled by the CNC71 team.

Please adjust the settings according to the instructions below to obtain the proper initial setup.

Recommended base alignment settings - to be individually adjusted for the driver:

- Camber -4 degrees
- Caster 4.5 degrees
- Toe 0 degrees

Overview

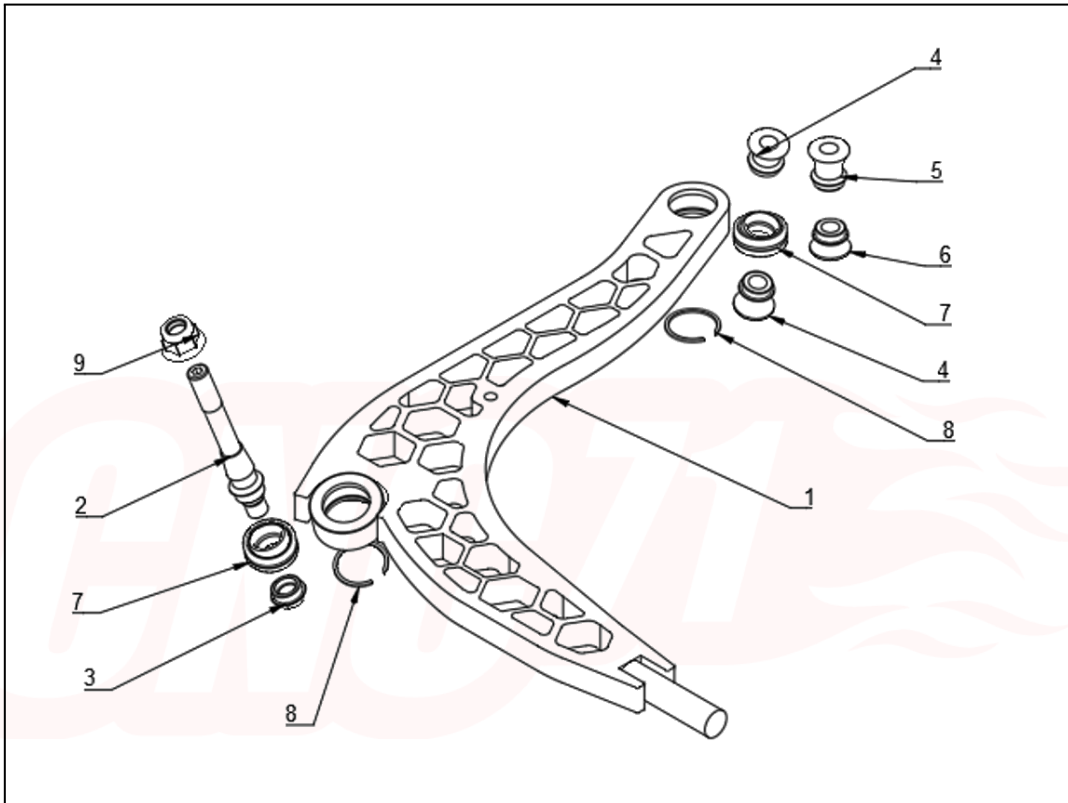


1. Front Arm Lollipop
2. Lower Control Arm
3. Camber plate
4. Knuckle
5. Tie-rod assembly

Before installing or adjusting the kit, loosen all the counterbolts. After adjustment and installation into the car, tighten all counterbolts into position. Make sure to assemble the spacers attached to uniballs in the **exact** same way as they come shipped.

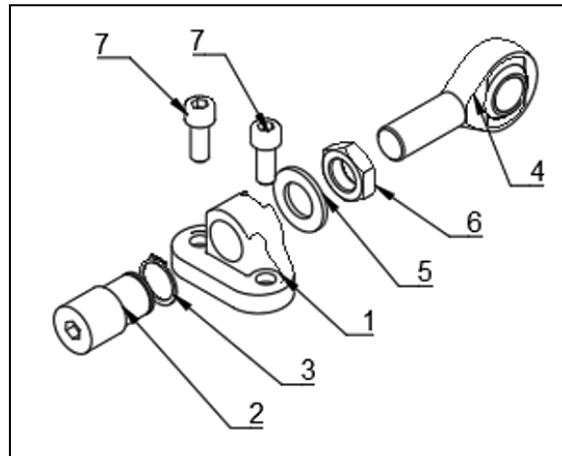
Lower arm

Our lower arm has a determined length, not adjustable. You can set the caster through a lollipop bolted into the chassis. No need to unbolt it from the car in order to make an adjustment.



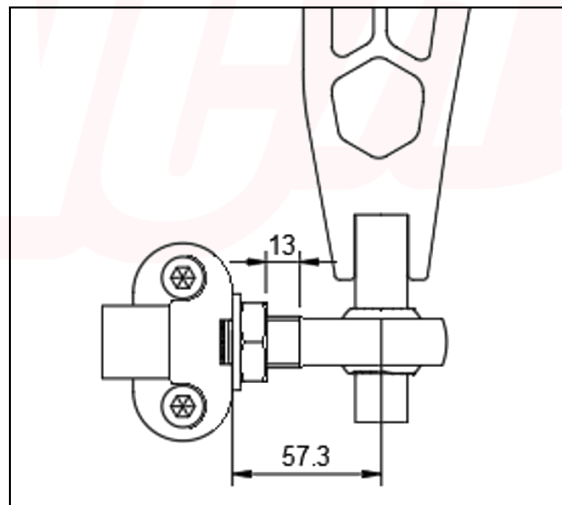
Before changing the setting, loosen nuts 11 and 12 in the rear adjustment and in the front adjustment nuts 9 and insert 4 using an Allen key.

⚠ WARNING: This product is not road approved and is intended exclusively for use on closed facilities.



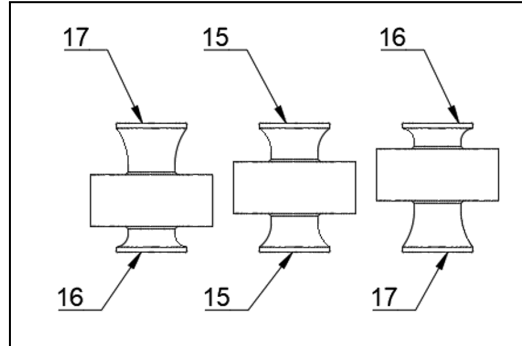
To adjust the lollipop, you need to loosen the counter nut (No. 6) and turn the screw (No. 2). 1 turn equals 1.5mm change in length.

To achieve initial settings adjustment should be set as shown below:



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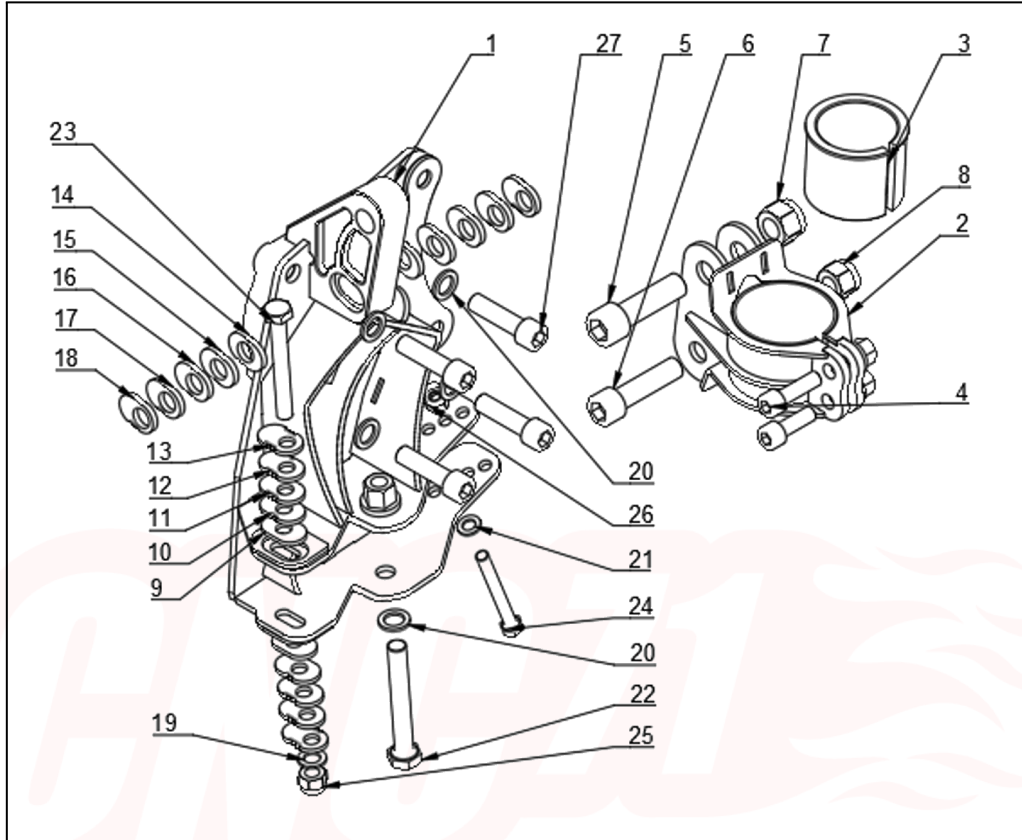
Change arm position in the knuckle and KPI



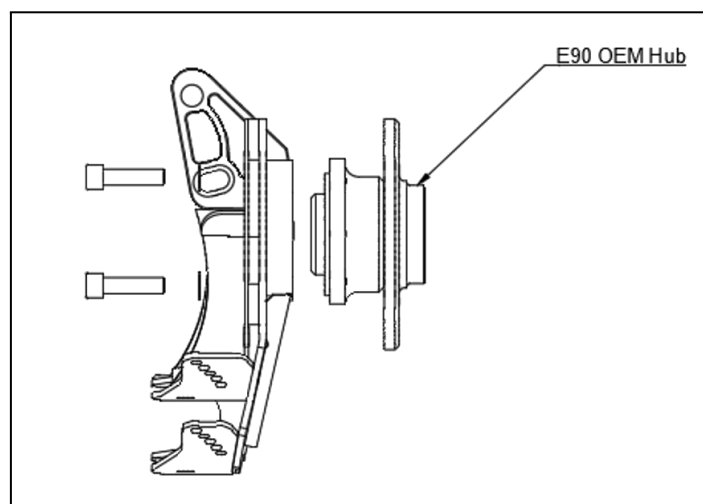
You can change the mounting position of the control arm in the knuckle by changing the bushings included in the kit. By inserting the longer bushing numbered 17 and at the top and the shorter bushing numbered 16 at the bottom, you lower the point of suspension overhang and change the KPI. Of course, if that's what suits your needs, you can insert them in reversed order raising the pivot point.

When you have reached the correct distances, **tighten all the counterbolts.**

Knuckle



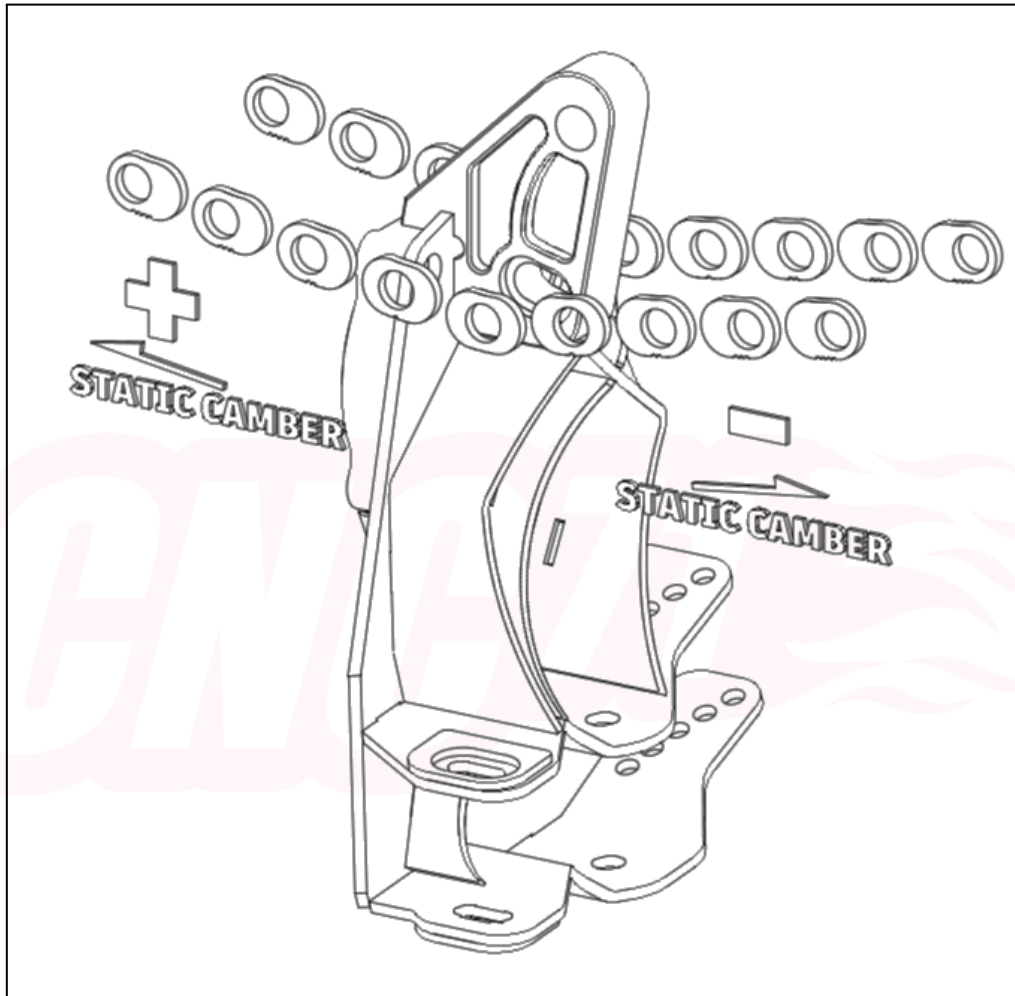
Install the E90 OEM hubs to the steering knuckle (not included in the set).



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Static camber adjustment

You can adjust the position of the static camber using inserts as shown in the diagram below



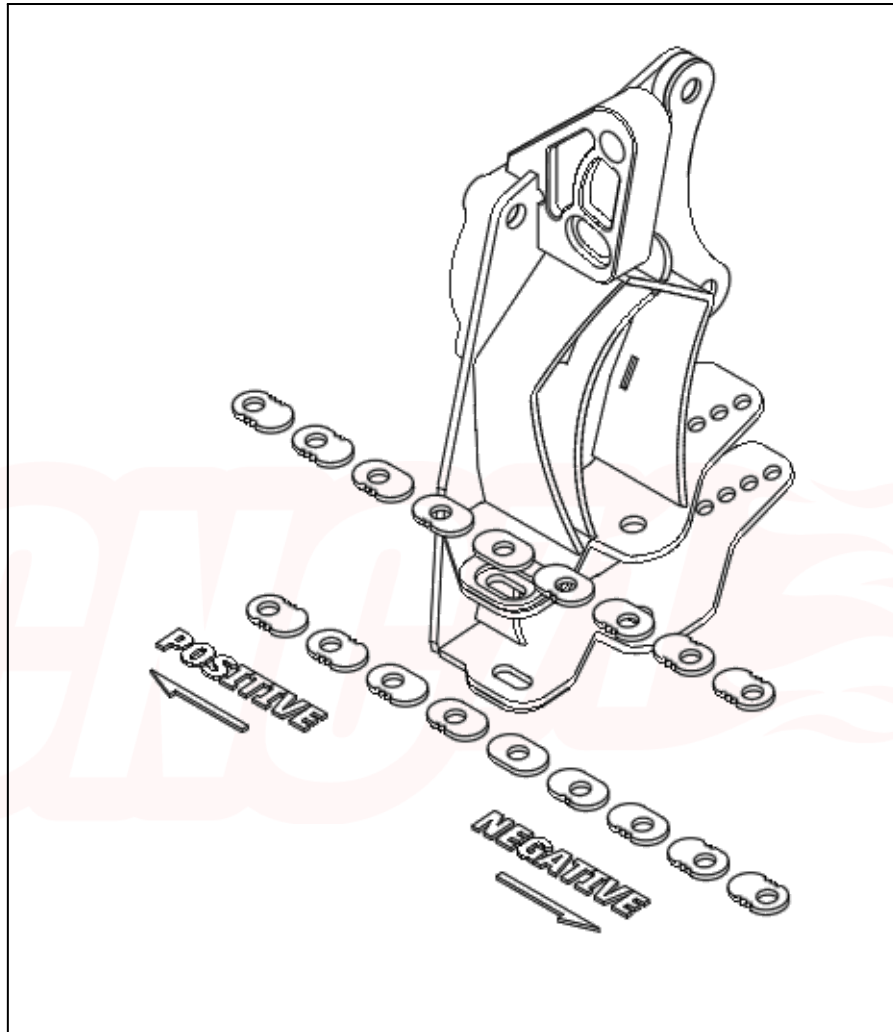
For the E46 setup, use a spacer with a 0 offset (without notches) for the initial settings.

The number of notches corresponds to an angular change in the steering knuckle. Each notch between the knuckle and the shock absorber represents a 1-degree change in the steering knuckle angle, which translates to approximately 0.5 degrees of camber adjustment.

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Ackermann adjustment

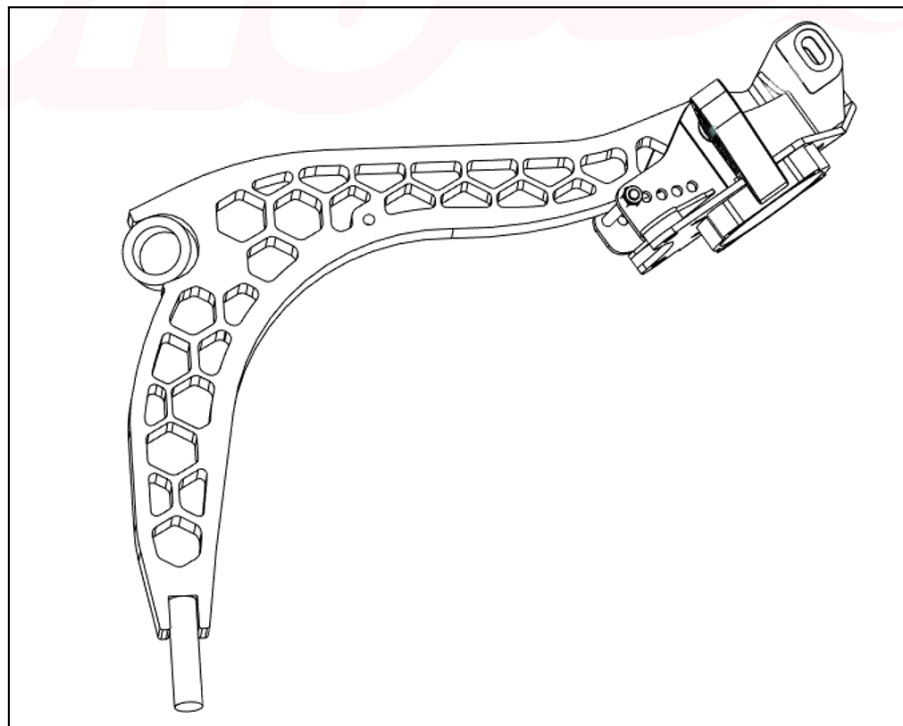
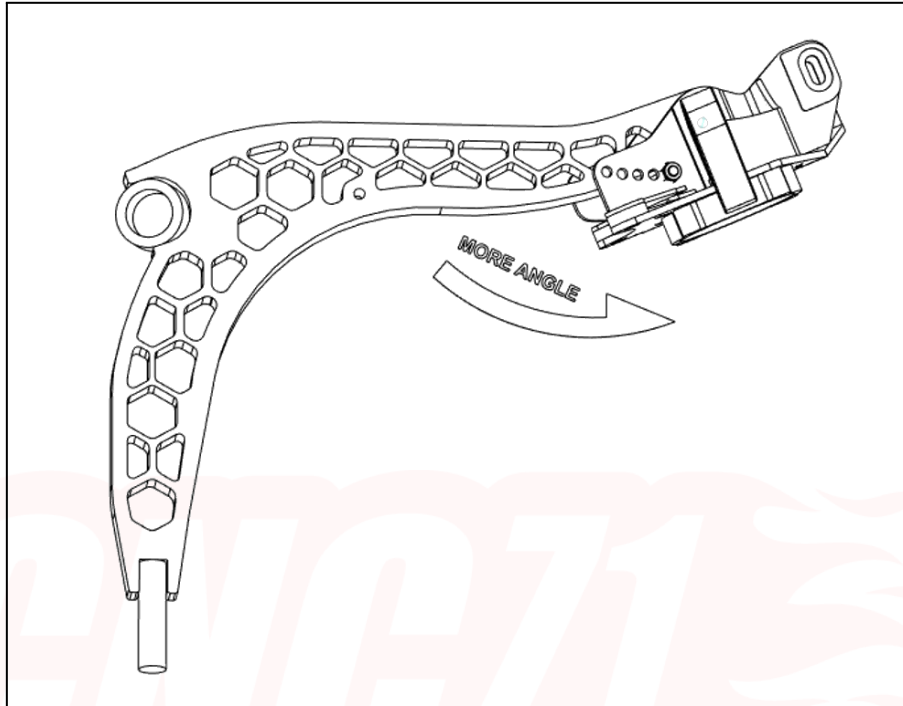
The set includes Ackerman adjustment inserts with offsets.



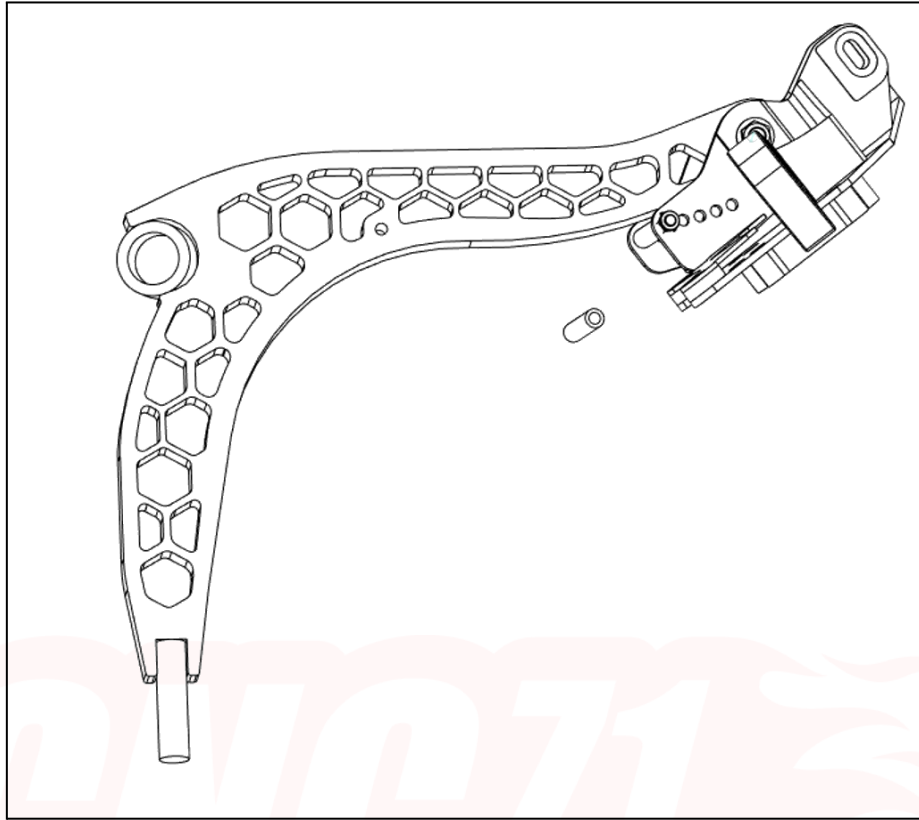
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Steering limiter adjustment

The steering limiter allows you to limit the steering angle of the wheels: in the range from 55 to 70 degrees, depending on the car's specifications and the adopted adjustment settings.



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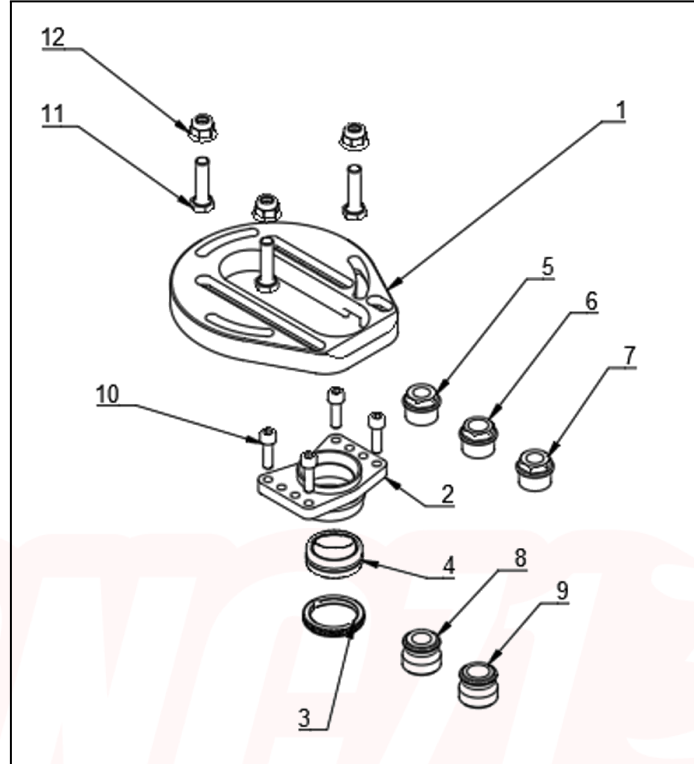


To adjust the steering limiter position, change the mounting hole for the screw. The greatest steering angle by using a hole closest to the swingarm pivot point. The difference between each position of the holes is approximately 1.5 degrees. To further reduce the steering angle, install the bushings included in the kit. The bushing reduces the angle by approximately 2 degrees in any chosen position.

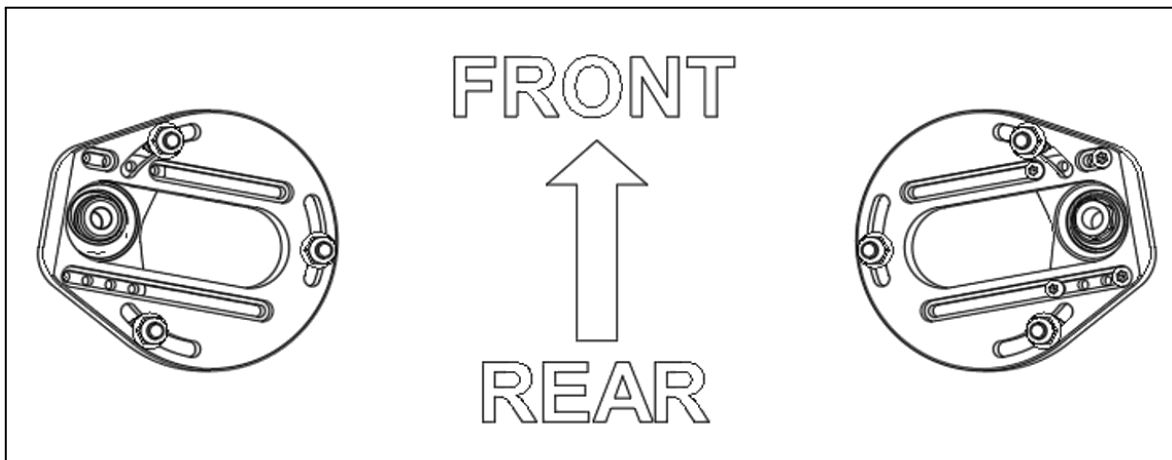
Set the limiter in such a way that the wheel does not collide with the vehicle's chassis.

Final settings depend on the car's specifications and the adopted adjustment settings.

Camber plates



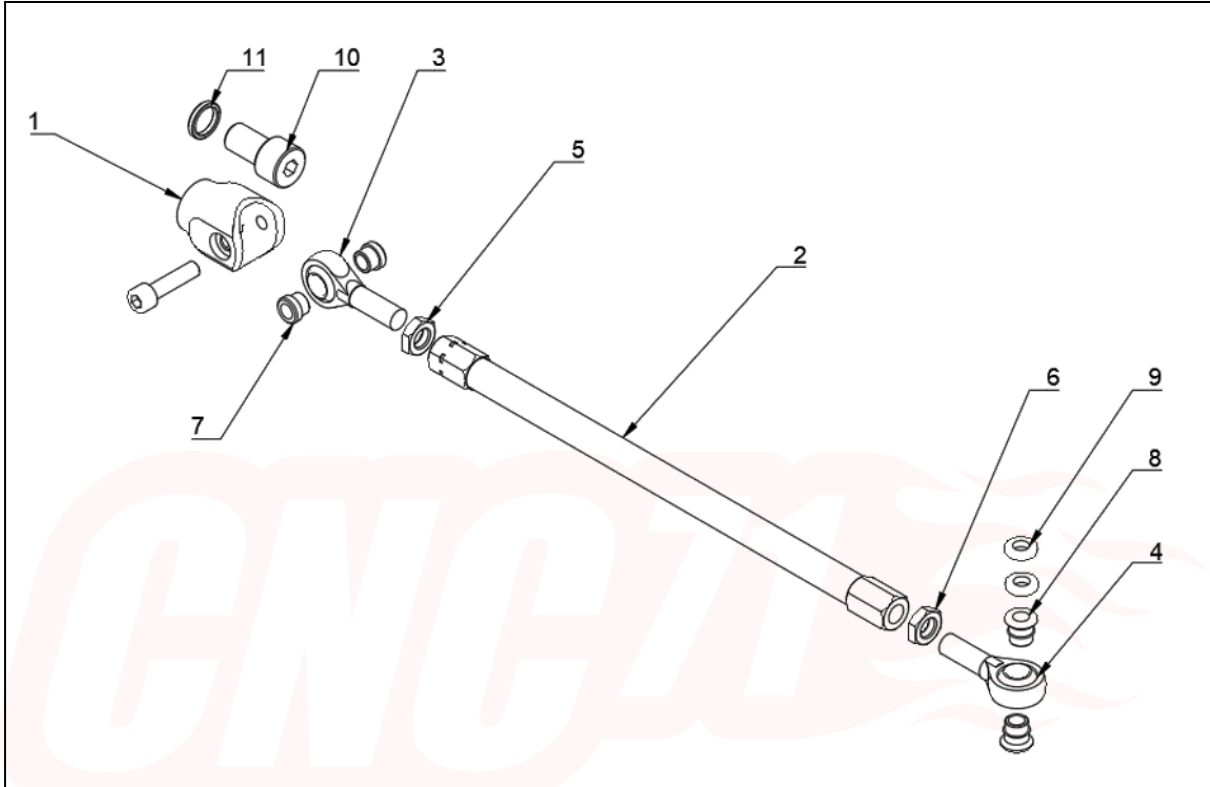
The set includes upper shock absorber bushings with thread pitch M12x1.25; M12x1.5; M14x1.5 and bushings with diameters of 12 and 14 - choose the appropriate one according to the thread on your shock absorber
Set a shock mount using this preset.



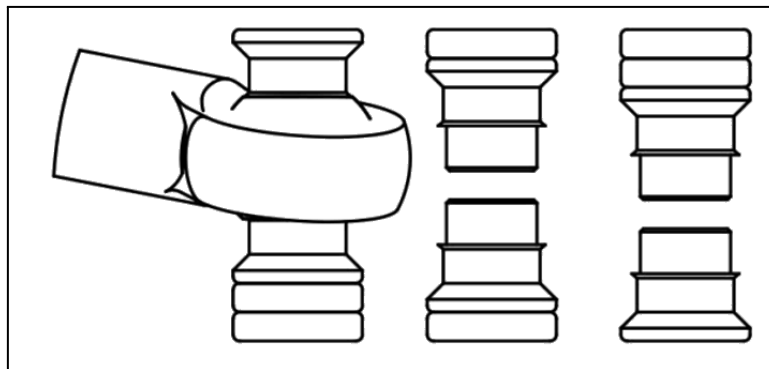
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Tie rods

Clean all surfaces before installation. Use a blue thread locker.



Bushing No. 11 allows you to increase the working range of the steering rack.



Using the supplied spacers (5mm), adjust the position of the rod end so that the steering rod is as horizontal as possible, relative to the initial position.