

6109**INSTRUCTIONS FOR TIE ROD ENDS MUSTANG II TAPER**

<u>ITEM</u>	<u>QTY</u>	<u>PART NO.</u>	<u>DESCRIPTION</u>
1	4	1000	Misalignment bushing 1/2
2	2	1230	Spindle stud Mustang II 1/2-20 for 1/2 rod end
3	4	3200	Locknut 1/2-20
4	2	3206	Jam nut 1/2-20
5	2	3219	Washer 1/2 x 1 3/8 OD flat
6	2	3229	Aircraft washer 1/2 x .88 OD
7	2	3324	Female rod end 1/2 x 1/2 teflon-lined

These tie rod ends are not for street use. Tie rod ends are designed to adapt '71-'72 style Pinto racks with 1/2-20 threads on the tie rods, to '74-'78 Mustang II spindles.

1. Assemble the upper and lower A-arms, spindles, and coilovers assembly with the shock but not the spring. If the spring is already installed remove it at this time and reinstall the shock.
2. Insert the tapered end of the stud into the spindle steering arm and secure it with the 1/2" aircraft washer and locknut provided.
3. Install the rod end, misalignment bushing, flat washer and locknut onto the straight portion of the stud to complete the assembly. This needs to be done on both the driver and passenger sides before going to the next step.
4. Set the spindle at ride height, and align the front end. On the Chassisworks A-arm front suspension the setting are as follows: Camber 0 degrees, Caster 6 to 8 degrees positive, and 1/16 to 1/8 inch of Toe-in. Be sure you set these at ride height. If the stock tie rods are not the correct lengths, use Chassisworks part #6106 Tie Rod Adapters to lengthen or shorten them.
5. Next, check for bind. Move the A-arm assembly through its full travel (full compression to full extension of the shock absorber). Also move the rack & pinion lock to lock, making sure the rod end does not bind at any point. Add misalignment bushings as needed to eliminate any binding.
6. The next step is to check the bump steer by measuring for a change in toe-in during suspension travel. 1) Move the A-arm assembly to full shock compression travel and measure the toe-in; 2) Move the A-arm assembly to ride height, and measure the toe-in; 3) Move the A-arm assembly to full shock extension travel and measure the toe-in. The maximum toe-in change is 1/8 inch. If you have a greater change than 1/8 inch, put a misalignment bushing above the rod end on the stud and recheck the toe-in change. You can add and remove bushings or spacers (washers work good too) as needed until the toe-in change is within tolerance.

Note: If the change is increasing toe-in this is okay but you do not want it to decrease (toe-out) during the suspension travel.

Definitions:

Camber is the angle between the tire and the ground when viewed from the front. Zero degrees is when the angle is 90 degrees or straight up and down from right to left. If the angle is greater than 90 degrees this is negative camber. If the angle is less than 90 degrees this is positive camber. In most drag race applications you will want 0 degrees of camber.

Caster is the relationship between the upper and lower balljoint when viewed from the side. Positive caster is when the upper balljoint is toward the rear the car. Negative caster is when the upper balljoint is towards the front. The more positive caster you have the more the car will tend to track straight forward, however, the steering will be slower.

Toe-in is the relationship of the tire to the chassis centerline as viewed from directly above. When the center to center measurement of the tires is a narrower at the front than the rear, you have toe-in. When the center to center measurement of the tires is a wider at the front than the rear, you have toe-out.

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