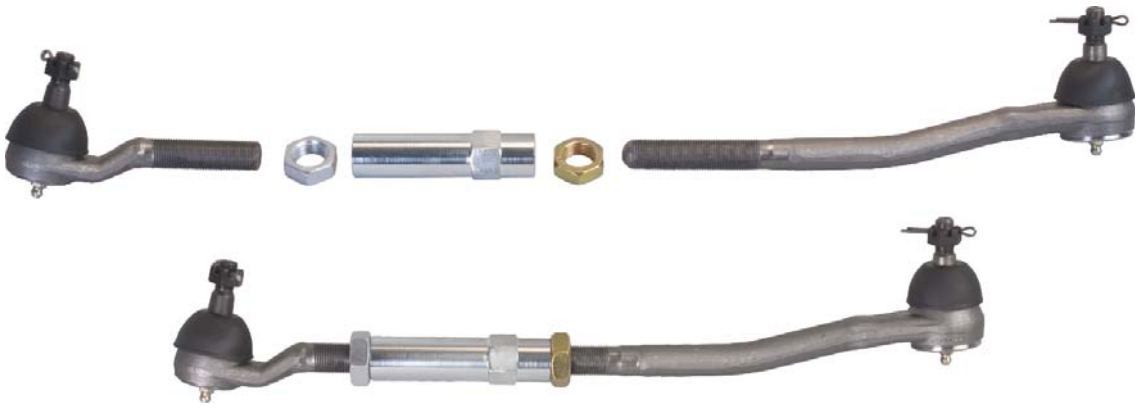
READ ALL INSTRUCTIONS COMPLETELY AND THOROUGHLY UNDERSTAND THEM BEFORE DOING ANYTHING.
CALL TOTAL CONTROL PRODUCTS TECH SUPPORT (916) 388-0288 IF YOU NEED ASSISTANCE.

INSTALLATION GUIDE

TCP TIER-17

Tie Rod and Billet Adjusting Sleeve Conversion Set
'67-69 Mustang to '70-73 Mustang Disc Brake Spindle



Description: Billet Adjusting Sleeve, Inner Tie-Rod and Outer Tie-Rod.

Applications: Cougar 67-69, Mustang 67-69

Note: Excludes Cougar Eliminator and Boss Mustang

Note: For use with TCP SPND-01 or '70-73 OEM Disc Brake Spindles.

PARTS LIST

TCP TIER-17 Tie Rod Set '67-69 Mustang to '70-73 Mustang Disc Brake Spindle

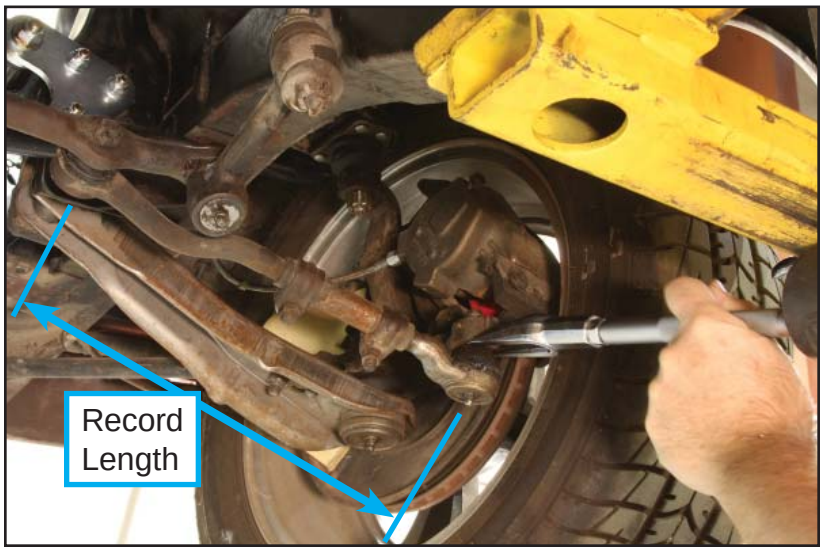
Qty	Part Number	Description
2	7900-206	Tie Rod Inner 11/16-18 LH , 10.46 OAL, 7/16-20 Stud
2	7900-209	Tie Rod Outer 11/16-18 RH , 4.47 OAL, 1/2-20 Stud
1	TCP TIER-04	HD billet tie rod adjuster sleeve

TCP TIER-04 HD Billet Adjuster Sleeve

Qty	Part Number	Description
2	3102-069-18LY	Jam Nut 11/16-18 Left, Yellow Zinc Plated 1" Hex x .40 Tall
2	3102-069-18RC	Jam Nut 11/16-18 Right, Clear Zinc Plated 1" Hex x .40 Tall
1	7900-173	Tie-Rod Sleeve 3.50" x 11/16-18 with RH & LH Threads with 1" Hex

INSTRUCTIONS

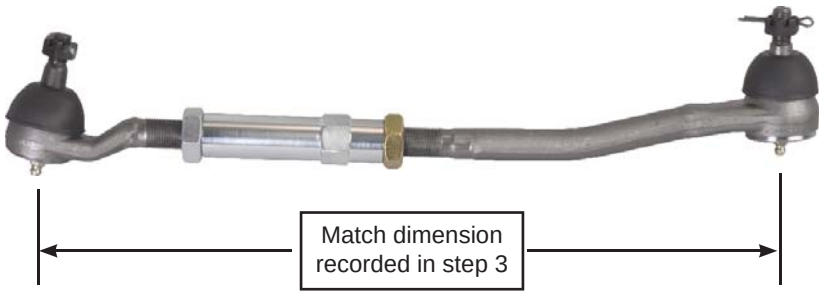
1. Raise the front end of car and secure with jack stands. Wheels must not be in contact with ground.
2. Measure the length of each tie-rod assembly (pivot-to-pivot) for adjustment starting point. Record results.
3. Remove the cotter pins and castle nuts from the outer and inner tie rods, then separate them from the steering arm and drag/center link. A balljoint fork or similar tool may be required to separate the joints.



4. Apply anti-sieze or similar thread lubricant to internal threads at each end of the adjusting sleeve.

5. Thread a right hand jam nut (3102-069-18RC, clear zinc) onto each outer rod end until 1” of threads are past the nut.
6. Thread the left hand jam nut (3102-069-18LY) (yellow zinc) onto the inner tie rod to end of the threads.
7. Screw the tie rod ends into the billet adjusting sleeves until the jam nuts contacts the sleeve. The hex on the billet sleeve is closest to the left-hand threads.
8. Hand tighten the adjuster-sleeve jam nuts.

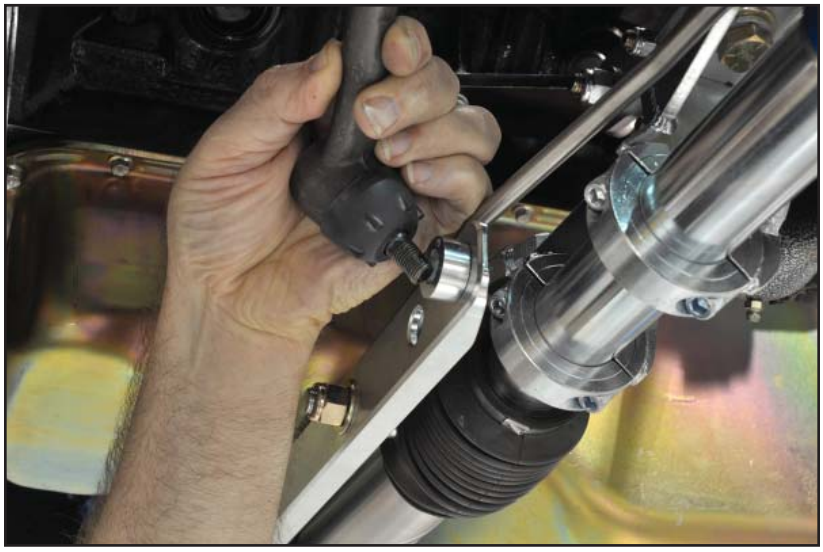
9. The assembly should be the same length as the OEM one removed, if not turn the adjuster to correct the length.



10. Install the grease zerk fitting into the tie rod ends and tighten.

11. Insert the tapered adapter into the end hole of the rack's center link or factory drag link.

12. Insert the inner tie rod into the adapter.



13. Place a 7/16" hardened flat washer over the tie rod stud, followed by a 7/16" locknut.

14. Tighten the locknut with a 5/8” wrench. You will have to push the tie rod into the tapered adapter while tightening the locknut.

15. Align the outer tie rod with the steering arm on the spindle and insert it into the tapered hole as shown.

16. Install the castle nut.

17. Tighten to 40 lb-ft. Then align the cross-hole with a slot in the castle nut, by tighten not loosening the castle nut.

18. Insert the cotter pin through the castle nut and bend the one leg over the tie rod end and the second around the castle nut.

19. Grease the tie-rod ends with a common grease gun until the boot starts to bulge.

20. Once you have the front end aligned tighten the jam nuts against the adjuster.

21. Installation is complete.

ALIGNMENT

The vehicle must be professionally inspected and aligned prior to regular use.
If a trailer is not available, your alignment will need to be somewhat close to final specs in order to safely drive your vehicle to the alignment shop. Visually determine if the front wheels look straight. They should not appear to “toe” (left to right) -in or -out. The outside of the wheels should be very close to vertical. A few degrees of negative camber (leaning in) is acceptable.

	Street Performance		Road Course		Drag Strip	
	Manual	**Power**	**Manual**	**Power**	**Manual**	**Power**
Caster	2-1/2° to 3° pos.	3-1/2° to 4° pos.	2-1/2° to 3° pos	3-1/2° to 4° pos	4° to 6° pos	4° to 6° pos
Camber	0° to 1/2° neg	0° to 1/2° neg	1-1/2° to 2° neg	1-1/2° to 2° neg	0°	0°
Toe (total)	1/16” to 1/8” in	1/16” to 1/8” in	1/16” out to 1/16” in	1/16” out to 1/16” in	1/16” to 1/8” in	1/16” to 1/8” in

Our recommended alignment specs serve as a starting point for your particular application. Installed components, driver preference, and specific application will have a great affect on the correct settings for your vehicle.

WARRANTY NOTICE:
There are NO WARRANTIES, either expressed or implied. Neither the seller nor manufacturer will be liable for any loss, damage or injury, direct or indirect, arising from the use or inability to determine the appropriate use of any products. Before any attempt at installation, all drawings and/or instruction sheets should be completely reviewed to determine the suitability of the product for its intended use. In this connection, the user assumes all responsibility and risk. We reserve the right to change specification without notice. Further, Chris Alston's Chassisworks, Inc., makes **NO GUARANTEE** in reference to any specific class legality of any component. **ALL PRODUCTS ARE INTENDED FOR RACING AND OFF-ROAD USE AND MAY NOT BE LEGALLY USED ON THE HIGHWAY**. The products offered for sale are true race-car components and, in all cases, require some fabrication skill. **NO PRODUCT OR SERVICE IS DESIGNED OR INTENDED TO PREVENT INJURY OR DEATH**.

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