



Factory Five Racing, Inc.

Part Number: 11269      Revision: F      Effective Date: 5/5/16      By: J. INGERSLEV

Document Type (indicate):

- Bill of Material
- Drawing (may be attached)
- Specification
- Operating Procedure
- Other
- **Assembly Instructions**

## Bump-Steer Kit

### Installation Instructions

BUMP STEER KIT					
FFR #	Part Name	Unit	Qty	Check-Off	Status
12078	<b>BUMP STEER KIT</b>				
11270	ROD END	EA	2.00		
11271	SLEEVE, OUTER TIE ROD, THREADED BOTH ENDS	EA	2.00		
11272	LOCK NUT, NYLON, GRADE 8, 5/8"	EA	2.00		
11273	BOLT, SOCKET HEAD CAP, GRADE 8	EA	2.00		
13337	ROD END SPACER	EA	6.00		
12089	JAM NUT	EA	2.00		
12387	5/8" WASHER	EA	2.00		
OPTION					

- $15/16$ " Wrench,  $3/4$ " Socket or Wrench, Adjustable Wrench,  $5/8$ " Drill bit,  $1/2$ " Allen Key, jack, jack stands, pliers, hammer
- Bump steer kit
- The Bump steer kit is designed to be adjusted the same way as a regular Tie Rod End. To adjust the Toe-in of the car, only loosen the inside jam nut and TURN THE INNER TIE ROD. The inner tie rod is a ball pivot and is designed for this. Note, you may need to loosen the outer boot clamp so that the boot does not twist.
- If you are going to use the FFR bump steer kit, the steering arms need to be drilled out to  $5/8$ ". If not done during the spindle installation, do this now.
- An alignment will be needed after the installation of the Bump steer kit.

Jack the front of the car up and place on jack stands.

Remove the Front wheels


Using a pair of Pliers, remove the cotter pin from the Tie Rod ends.

Remove the Crown nut using a  $3/4$ " wrench

Use a hammer knock the Tie Rod ends out of the Spindles.

Use an adjustable wrench and a  $15/16$ " wrench to loosen and remove the Tie Rod ends.


Drill out the hole for the Tie Rod end using a  $5/8$ " drill bit, make sure the hole is straight. Take your time and drill slowly as the spindle is very hard and will dull a fast bit.

 It is a lot easier and faster to take the spindle off if using a stock Mustang spindle and use a drill press to do this.


Wipe the spindle clean.

Screw the new outer Tie Rod Arm onto the Inner Tie Rod Arm approximately 1¼”.


Screw the Rod End into the new Outer Tie Rod Arm approximately ¾”.

 The location of the rod end, above the steering arm or below, depends on the alignment used on the car.

- A car with **power steering** will use more caster which raises the steering arm so the rod end will go under the steering arm.
- A car with **manual steering** will use less caster so the rod end will go on top of the steering arm.

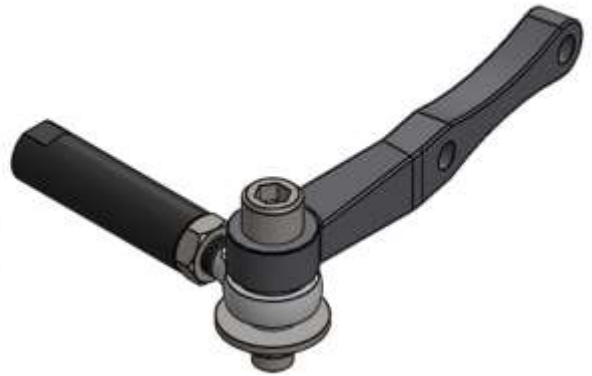
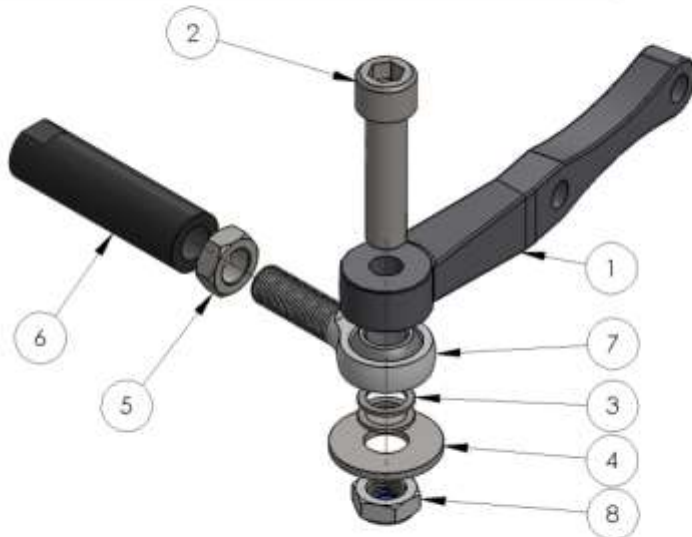
 These instructions are written using a power steering set-up with high caster.

Insert the 5/8” bolt from the top through the steering arm and then the rod end, two spacer shims, washer and then the lock nut.

 Extra spacers are included. The number needed depends on the caster being run.

ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	14849	ROADSTER PASSENGER SIDE STEERING ARM	1
2	HX-SHCS 0.625-18x2.5x1.75-N	11273 5/8"-18 BOLT	1
3	13337	SPACER SHIM	2
4	Preferred Wide FWD.625	5/8" WASHER	1
5	HJNUT0.6250-18-D-H	12089 5/8" JAMNUT	1
6	11271	OUTER DE ROD SLEEVE	1
7	11270 5-8 ROD END		1
8	11272	5/8"-18 NYLON JAMNUT	1

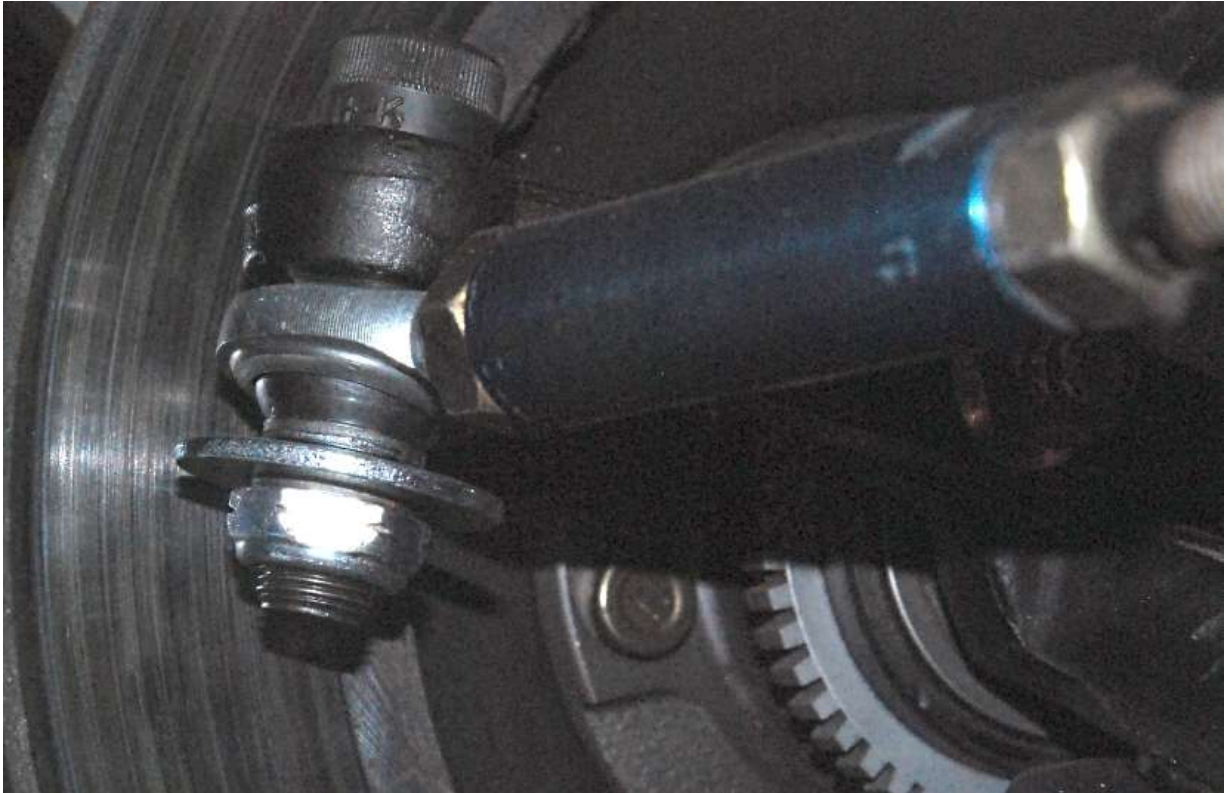
REV.	REVISION	DATE	APPROVED
A	INITIAL RELEASE	1998	
B	WASHER AND SHIMS ADDED	11/30/11	



**PROPRIETARY AND CONFIDENTIAL**  
 THE INFORMATION CONTAINED IN THIS  
 DRAWING IS THE SOLE PROPERTY OF  
 FACTORY FIVE RACING, INC. ANY  
 REPRODUCTION IN PART OR AS A WHOLE  
 WITHOUT THE WRITTEN PERMISSION OF  
 FACTORY FIVE RACING, INC. IS  
 PROHIBITED.

UNLESS OTHERWISE SPECIFIED:		NAME	DATE	 <b>Factory Five Racing, Inc.</b> TITLE:
ROADSTER	DIMENSIONS ARE IN INCHES	DRAWN	11/30/11	
COUPE	TOLERANCES:	COMMENTS:		
SPEC CAR	TWO PLACE DECIMAL ±0.01 THREE PLACE DECIMAL ±0.005 FOUR PLACE DECIMAL ±0.001			
USED ON	MATERIAL			SCALE: 1:2 WEIGHT:
APPLICATION	FINISH			SHEET 1 OF 1
STEERING		PRINTED	11/30/2011	

Use a 1/2 inch Allen key and a 15/16" wrench to tighten the lock nut onto the bolt.



Mount the wheels on the car.  
Using a jack, return the front of the car to the ground.  
Take the car to an Alignment shop.

## **Alignment Specifications**

### **MANUAL STEERING**

Camber:  $-0.5^{\circ}$  (street) to  $-1^{\circ}$  (race)  
Caster:  $3^{\circ}$   
Toe In:  $\frac{1}{16}$ " total

### **POWER STEERING**

Camber:  $-0.5^{\circ}$  (street) to  $-2.5^{\circ}$  (race)  
Caster:  $7^{\circ}$  -  $8^{\circ}$   
Toe In:  $\frac{1}{16}$ " total