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# Steering Column Kit Instructions

**Part #2710**

**#2710A**

**Parts List:**

- |                                    |   |
|------------------------------------|---|
| 1...Steering Column Tube w/Bushing | 2...Half Moon Mounting Plates           |
| 1...Steering Hub                   | 3...5/16" Flat Washer                   |
| 2...T-Bolt Clamps                  | 3...5/16" X 3/4" Bolts                  |
| 1...Splined Female Adapter         | 8...Feet 3/4" X .095 Tubing 1-3' / 1-5' |
| 1...3/4" X 3/4" U-Joint            |   |

- 1...Mount the steering wheel to the steering hub with the 5/16" bolts supplied.
- 2...Bolt the female splined adapter on the rack and pinion. Insert the short piece of 3/4" tubing into the splined adapter. Cut this piece of tubing off so the U-joint is lined up with the center of the driver's seat (In some cases a second U-joint may be Necessary). Place the long piece of tubing into the U-joint. Mark and cut off the tubing so the driver can set in the seat.
- 2...With the driver seated in the car slide the aluminum column, steering wheel and hub onto the steering shaft. Have the driver hold the steering wheel at the correct angle, height, and the steering wheel at the right distance. (See Drawing #1 for maximum working angle of the U-Joint)
- 3...Measure and cut the left over 3/4" tubing for supports to hold the column up at this angle and height using the half moon tubing and t-bolt clamps.
- 4...Mark the steering shaft at the top of the steering hub. Cut and weld both top and bottom of the hub adapter even with the top of the shaft or pins can be used instead of welding. (See Drawing #2)
- 5...Center the rack and pinion from side to side. You can do this by turning the output shaft from one stop to the other counting the turns. The center will half this distance. With the rack and pinion centered and the steering wheel centered fasten the U-joint and the splined adapter to the 3/4" tubing in one of these ways. (Pinning, Bolting or welding)



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**Pinning:**

Common practice is to use two 3/16" diameter roll pins in each yoke at right angles to each other and approximately 3/8" apart. An even stronger connection can be made by using hardened shear pins. This method can be used when the shaft can be removed from the vehicle and properly supported when inserting the pins. Driving the pins in while in the vehicle could cause some damage. The major drawback to pinning is that a 3/4" diameter shaft is weakened by 30%.

**Bolting:**

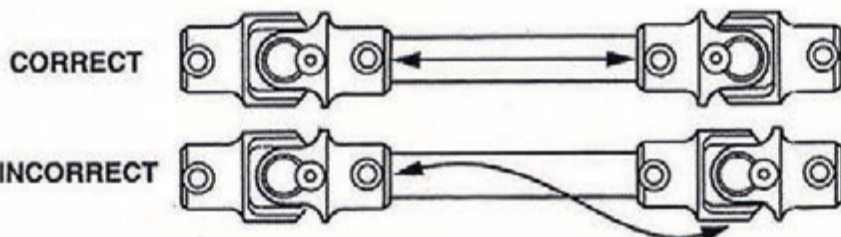
Common practice is to use two 1/4" diameter Grade 8 bolts in each yoke at right angles to each other and approximately 7/16" apart. (See Drawing #2) The major drawback to bolting is that a 3/4" diameter shaft is weakened by 30%.

**Welding:**

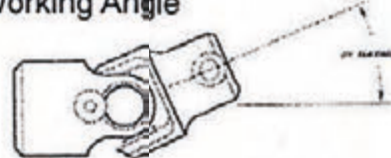
Welding of the joints is a common practice in racing, however it is not a method we would recommend. Hairline cracks, which may all but invisible to the unaided eye, could cause a weld to fail under severe stress. It may be also illegal in some states to weld steering system components on a car used on the street. If welding is acceptable, it should be done only by a qualified welder. Improper grounding can cause a pin to be welded to a yoke which will result in the failure of the steering. Over heating, which can occur at relatively low temperatures (1400 F), can distort the yoke and melt the grease out of the needle bearings or damage the seals. This can prevent the U-joint from operating freely and it may fail. Cooling the weld to quickly can cause cracks, leading to sudden failure. Also, welding is a permanent connection that makes disassembly almost impossible should it become necessary.

**U-Joint Orientation:**

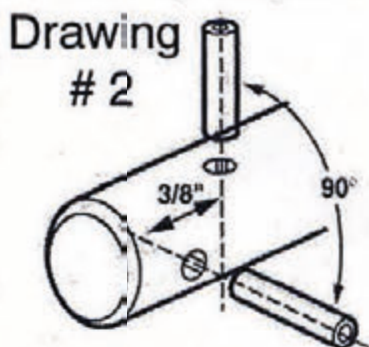
When two U-Joints are used on a shaft, the forks of the closest to each other should be in line, not out of phase. Premature wear or binding can result if U-Joints are not phased properly.



30 Degrees Maximum Working Angle



**Drawing #1**



**Drawing #2**