

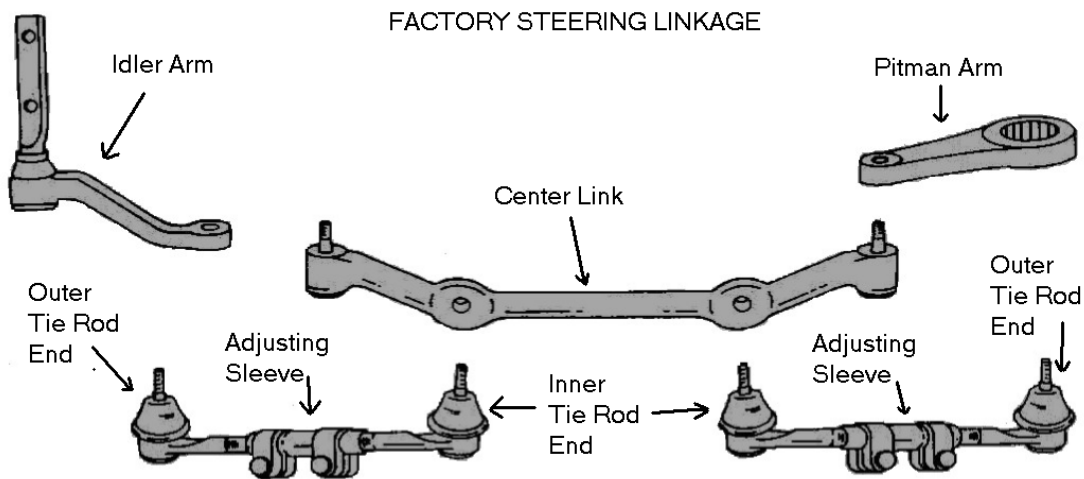


## Disassembly

In order to perform this installation the front end of the car must be off the ground. A lift works best, but jack stands will work.

### Remove Factory Steering Linkage

- 1) Remove wheels so you're down to bare spindle. There is no need to disconnect the caliper.
- 2) Remove the two bolts holding each of the factory steering arms. Pull the steering arms with the steering linkage still attached away from the spindle.
- 3) Remove the pitman arm from the steering box; a puller will be needed,
- 4) Remove the two bolts holding the idler arm, The entire steering linkage should now be free to be removed from the car.



### Column and Steering Box Removal

**If you are using the stock column:** The stock column assembly consists of 3 different parts; the column shaft, which runs to the steering box, the column shift tube, found on all stock columns but only used with column shifting cars, and the column sleeve, which encompassed the column shaft and column shift tube. The column must be taken apart and modified to work with the kit

#### Column Sleeve



#### Column Shift Tube

- 1) Remove the steering wheel from the column. Disconnect the column tube from the floor/ firewall, disconnect all electronic wiring.
- 2) Remove the column sleeve and column shift tube. Note: your car should have a column shift tube even if it was a floor shift model. The best way to remove is to pull off the column shaft,

through the passenger compartment of the car.

3) Unbolt the steering box from the frame and remove, pulling the column shaft down through the firewall as you remove the steering box.

4) Disassemble the column completely, save all pieces of the column assembly.

**If you are using an aftermarket column:** Disconnect the column from the steering box, unbolt the steering box from frame and remove. Note the spline on the end of the column for the U-joints you will need to connect to the steering linkage to the rack

## ***Installation***

### **Installing the Rack & Pinion**

This kit will arrive to you preassembled, mounted to its bracket. The rack and pinion comes centered with a yellow mark on the pinion (output shaft) and the housing. Make sure these marks are lined up.

1) The mounting bracket hangs on the four(4) motor mount bolts. Four(4) new longer bolts are provided. **The stock bolts must be removed and replaced 1 BOLT AT A TIME.** Replace the bolts on both the driver side and the passenger side, again One at a Time; make sure the threads point to the rear of the car.





2) Place the four (4) stand offs (spacers) provided on the new motor mount bolts and hang the rack & pinion mounting bracket on the 4 new motor mount bolts. Install lock nuts, tighten, torque to 40 ft/lbs.



3) Insert the provided bolts onto the spindle and attach new steering arms. Note depending on breaks, spacers are provided and a combination of the spacers may be needed for the steering arm to clear the wheel rim when the outer tie rod is installed into the steering arm. Bolt down the new steering arms and torque to 85 ft/lbs. Adjust the outer tie rods ends and insert into the tapered hole of the steering arm. Make sure there is clearance with the rim. Tighten lock nuts on the outer tie rod ends to 35 ft/lbs.

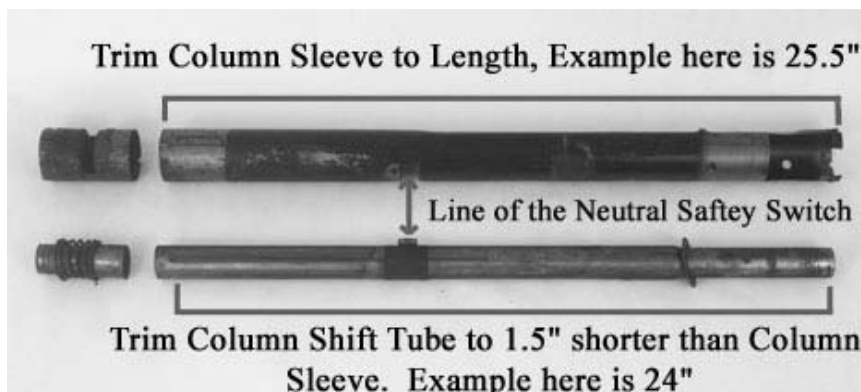
### **Column Modification (for STOCK COLUMN only) and Installation**

If you are using the factory column you must cut the steering box off the column shaft, cutting and trimming the column shaft, the column shift tube, and the column sleeve. The objective of the column modification is to have the column assembly protruding into engine compartment just through the firewall and to have the steering wheel position in a comfortable location.

1) Mock Up: Reinsert the column sleeve into the firewall through the passenger compartment. Loosely reattach the bracket that holds the column sleeve to the underside of the dash. Adjust the column tube to location best fitted for the driver.

2) In the engine compartment, the column sleeve is protruding from the firewall. Use a marker to mark the column sleeve 1" from the firewall. This is where you will trim the column sleeve and the column shift tube.

3) Remove the column sleeve. Cut the column sleeve off where it was marked. During Unisteer's install, we cut the column sleeve to 25.5", your column sleeve modification should be about the same.

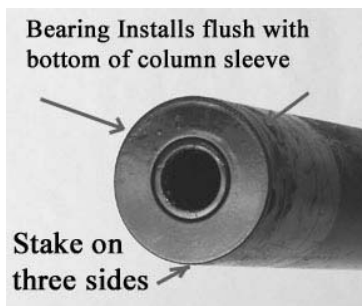
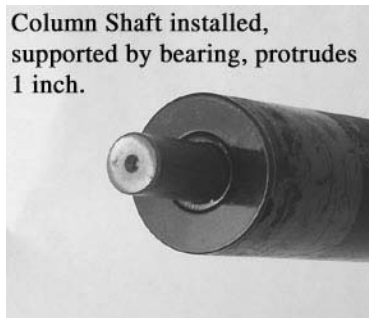
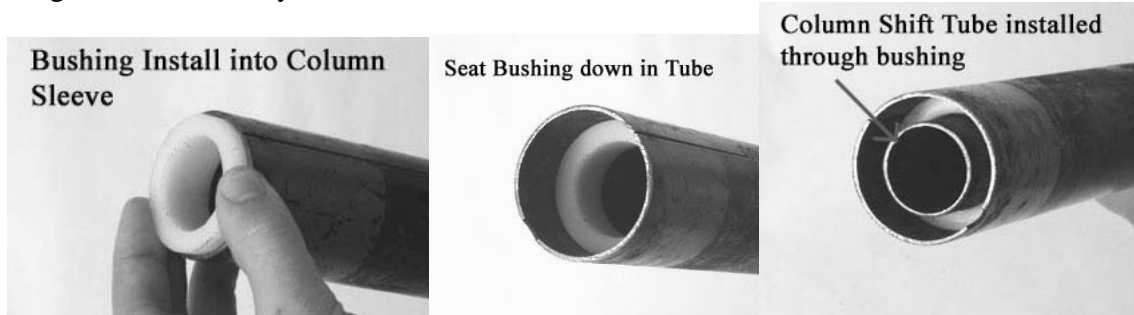


4) Line up the Column Shift tube with the Column Sleeve aligning the Neutral Safety Switch (as shown below) as a reference. Mark and cut the Column Shift Tube 1.5" shorter than you cut the Column Sleeve. During Unisteer's install, we cut the column shift tube to 24", your column shift tube modification should be about the same.

5) Cut the column shaft off the steering box, about 2 inches above the steering box; this will allow

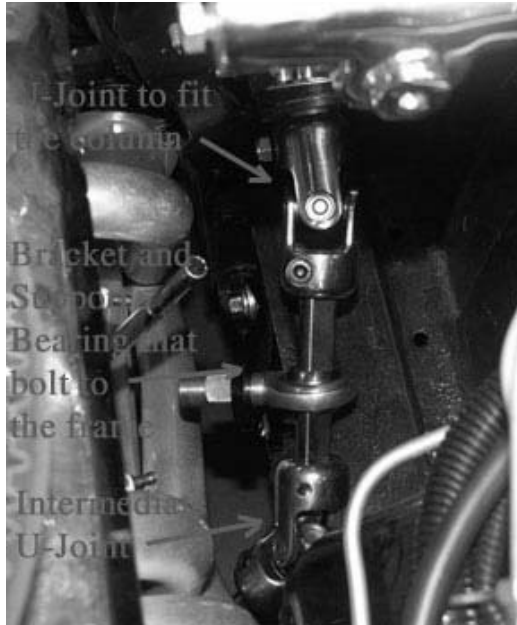
you to more freely measure the column shaft to proper length. Install the column shaft into the modified column sleeve. Align the column shaft by making sure you can reattach the steering wheel, and then mark and trim the column shaft 1.5" below the bottom of the column sleeve. This allows enough room to attach a U-joint onto the end of the column shaft.

6) Install the provided bushing into the column sleeve. This bushing holds the column shift tube within the end of the column sleeve. Next, seat the bushing about 1.5 inches into the bottom of the column sleeve. Install the column shift tube into the column sleeve and bushing, again align using the neutral safety switch.



7) Put the provided bearing into the bottom of the column sleeve so that the bearing is flush with the end of the tube. This bearing will support the bottom of the column shaft within the column assembly. Using a center-punch and hammer, stake the bearing in the tube on three sides, this will hold the bearing in the column sleeve. Do a final Mock-up by installing the column shaft back into the column sleeve and column shift tube, attach the steering wheel to align the column shaft within the column assembly, and then make sure the column shaft is supported by the bearing and that about 1" of the column shaft protrudes from the end of the column sleeve/support bearing.

8) Install the column floor bracket and gasket on the interior. The tabs on the hole for the column should face into the fire wall, and may have to be bent more to accommodate the column sleeve. On the inside of the fire wall slip the column clamp over the two tabs. Reassemble the column completely. This may be a convenient time to attach a U-Joint to the end of the column shaft.



9) Reinstall the assembled column, the column sleeve and bushing should protrude from the fire wall about 1". Slip the clamp over column sleeves and the tabs of the column floor bracket and then tighten the clamp. Reattach any factory brackets under the dash

### ***Steering Shafts***

A steering shaft is required to make this kit work; a steering shaft is not included with this kit due to the variances in column, engine, and header combinations. Generally, three U-joints and two sections of shaft and a support are needed. Unisteer has three different shaft kits available for this rack and pinion kit depending on what column (factory or an aftermarket) you are using. Each kit includes three U-joints, two sections of shaft, and a bracket with support bearing. The bracket has been made to bolt to the frame rail.

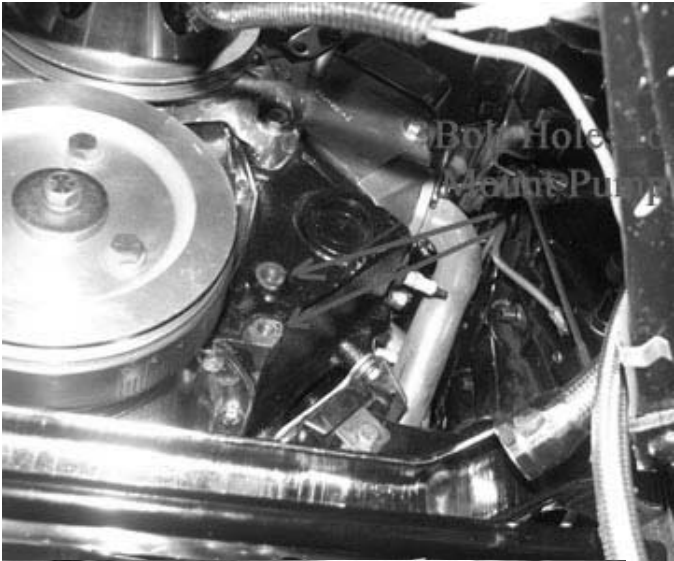
If you decide to get your shafting elsewhere, the pinion size on the rack is GM 17mm DD.

### ***Pump Installation***

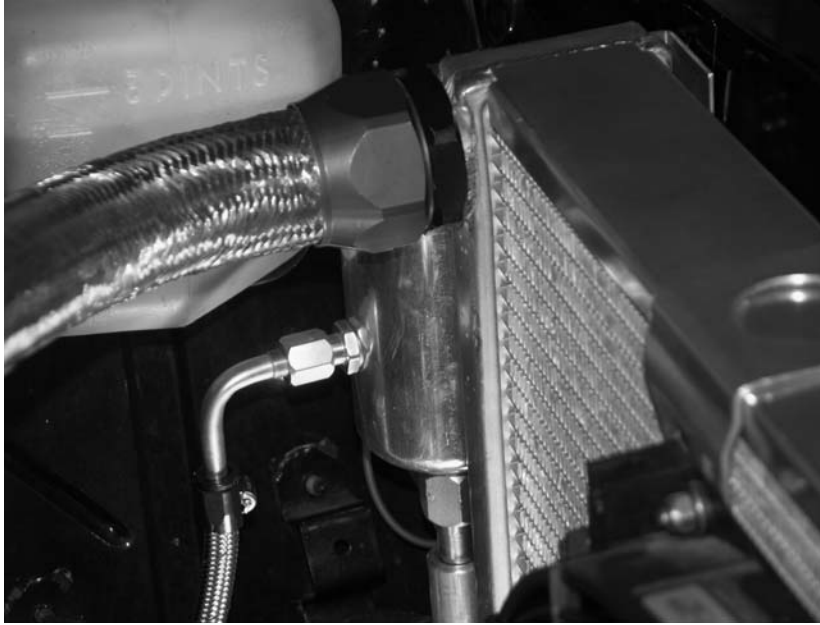
A new GM style Type II TC pump, made with the correct pressure and flow to run with this rack & pinion is included in this kit. The pump comes with the pulley and mounting bracket installed onto the pump.

1) The Pump Assembly bolts onto the lower driver side of the engine block. Use the bolts provided along with the spacers. The longer spacer is for the upper bolt hole and the shorter spacer goes in between the two brackets for the lower bolt hole. The lower bolts holes on the

pump assembly are grooved to allow for adjustment.

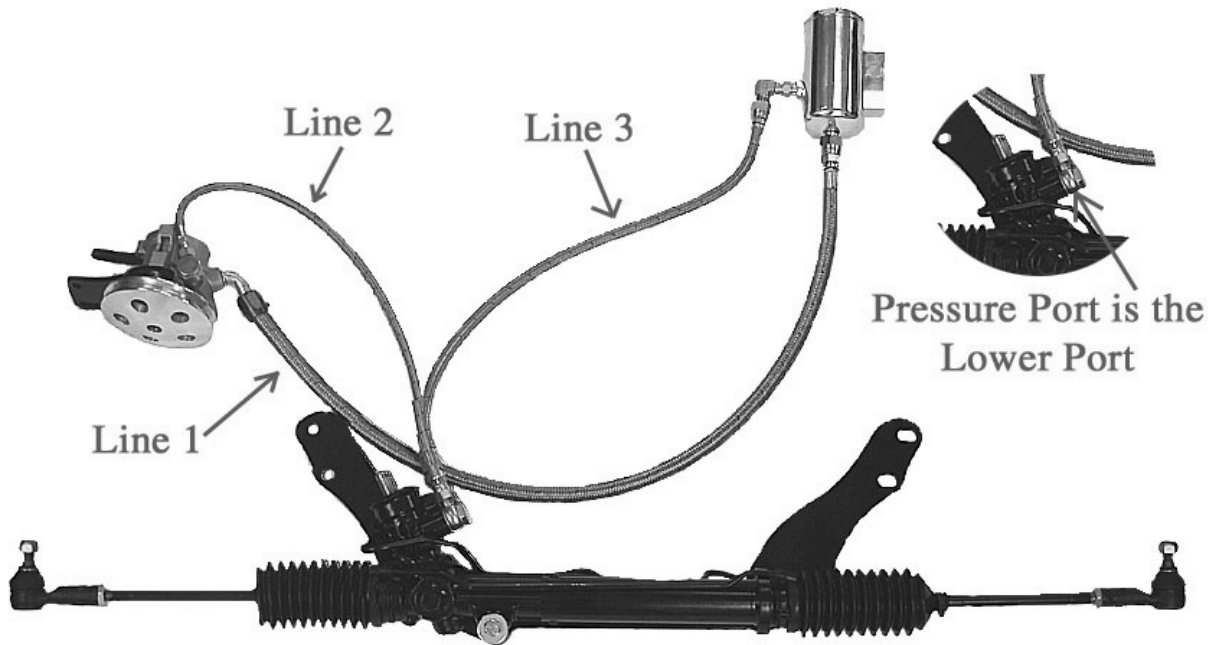






2) Establish a convenient location for the Remote Reservoir that is within reach of the lines. You will need two (2) 1/4"-20 Bolts of a length appropriate for what you are bolting the remote reservoir too. For example, during Unisteer's install, the remote reservoir was bolted beside the radiator (shown to the right)

3) Install the stainless lines. The lines are attached as seen in the mock up diagram below. The large line (Line 1) runs from the elbow of the pump to the bottom port of the remote reservoir. The small line (Line 2) with two straight fittings is the pressure line and runs from the banjo fitting on the pump to the lower port of the rack & pinion. The other small line (Line 3) with the 90° fitting runs from the side fitting on remote reservoir to the upper port of the rack & pinion. Warning, make sure you have the lines running to the correct ports on rack & pinion, if you reverse the lines you will blow out the seals on the rack & pinion at it will leak, such a repair is not covered by the warranty.



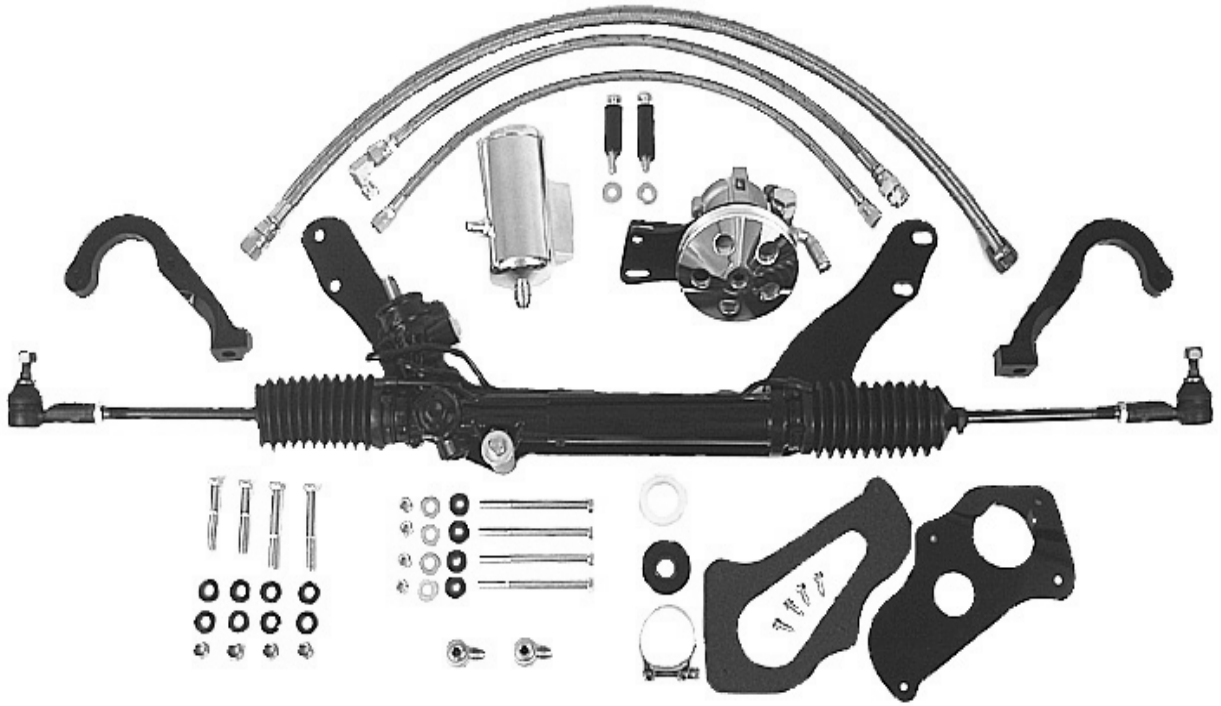
***set Alignment***

**Toe: 1/16 to 1/8 inch in**

**Camber: ¼ degree positive**

**Caster: 1.5 – 2 degree positive**

Chevy II Power Rack & Pinion 8010650-01



	Description	Part Number	Quantity
1	Rack and Pinion Assembly	8010640-01	1
2	Steering Arm (LH)	8021390	1
3	Steering Arm (RH)	8021400	1
4	Outer End Lock Nuts M12 x 1.5	120220	2
5	Outer Tie Rod Ends	100270	2
6	Reservoir, Remote	8020790	1
7	Pump Assembly	8060430	1
8	Pump Bolt 3/8"-16 x"	231270	2
9	Pump Stand Off, 1 7/8"	205820	1
1 0	Pump Stand Off, 2 1/8"	205830	1
1 1	Pump Flat Washer	200850	2
1	Pressure Hose		1
1	#8 Return Hose		1
1	#10 Return Hose		1

1	Short Steering Arm Bolt 7/16"-20 x 2 1/2"	231290	2
1	Long Steering Arm Bolt 7/16"-20 x 3"	231300	2
1	Steering Arm Lock Nut 7/16"-20	120620	4
1	Steering Arm 1/4" Shim	200970	8
1	R&P Bolts 3/8"-16 x 4 1/4"	231210	4
2	R&P Lock Nuts 3/8"-16	120490	4
2	R&P Washer 3/8"	200850	4
2	R&P Frame Stand Offs 3/8"	205800	4
2	R&P #6AN x 16 Banjo Fitting	8021560	1
2	R&P #6AN x 18 Banjo Fitting	8021570	1
2	Column Clamp	130340	1
2	Column Bushing Assembly	205860	1
2	Column Bushing	205890	1
2	Column Gasket	205840	1
2	Column Support Bracket	8021450	1
3	Column Support Bracket Screws	231130	4