



**\*ALTHOUGH THIS KIT IS FAIRLY SIMPLE TO INSTALL, SOME MODIFICATIONS ARE NECESSARY.**

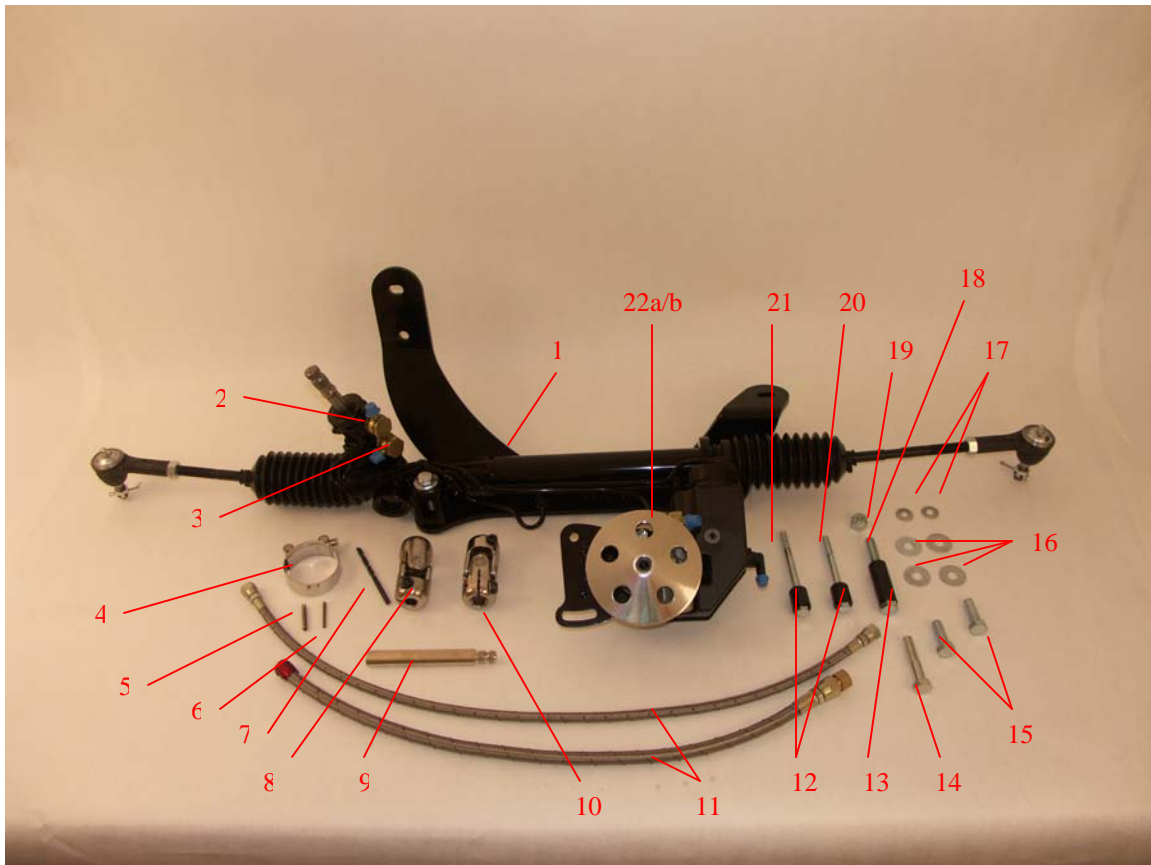
**\*BEFORE STARTING INSTALLATION, PLEASE BE AWARE OF THE MODIFICATIONS THAT ARE NEEDED TO INSTALL.**

**\*BE AWARE OF THE SPECIFIC APPLICATIONS THAT THIS KIT WILL FIT AS OUTLINED IN SECTION #1.**

**DUE TO VARIABLES OUTSIDE OUR CONTROL THESE KITS MAY NOT FIT ALL APPLICATIONS. ALSO, PLEASE VERIFY KIT WILL FIT YOUR APPLICATION BEFORE ALTERING VEHICLE.**

A complete front suspension assembly for a vehicle, laid out on a light-colored surface. The main component is a black-painted metal frame with two control arms extending outwards. Each control arm has a steering knuckle at its end, which is equipped with a ball joint and a shock absorber. The shock absorbers are black and have a coiled spring at the top. Various bolts, washers, and other small components are scattered around the main assembly, including a large circular metal plate with four holes, several small metal pins, and two long metal rods. The entire assembly is shown from a top-down perspective.

## KIT CONTENTS:



#	Part #	Description	Quantity
1	8010620-01(-02)	Rack & Pinion Unit (-02=Chrome Finish)	1
2	8021570	#6 AN x 18 Banjo Fitting, (already installed on R&P)	1
3	8021560	#6 AN x 16 Banjo Fitting, (already installed on R&P)	1
4	130330	Column Clamp	1
5	220060	1/4 x 1 1/2 roll pin	1
6	220070	5/32 x 1 1/2 roll pin	1
7	230600	1/4 drill bit	1
8	8050360	Upper U-joint, 3/4 smooth x 9/16-30 spline	1
9	543090	Steering shaft, 9/16-30 spline x 3/4dd	1
10	8050240	Lower U-joint, 3/4-36 spline x 3/4dd	1
11	8021310	Pump line kit	1
12	8021280	Pump standoffs	2
13	205880	Passenger side standoff	1
14	231340	Passenger side mounting bolt for single tab k-members	1
15	231120	Driver side mounting bracket bolts	2
16	200860	7/16 Flat washers for rack and pinion mounting bracket	4
17	200850	5/16 Flat washers for pump assembly	2
18	231350	Passenger side mounting bolt for double tab k-members	1
19	120480	Passenger side mounting bracket lock nut	1
20	231210	4 1/2" Pump assembly mounting bolt	1
21	231220	5 1/2" Pump assembly mounting bolt	1
22a	8060380	Pump assembly for big block	1
22b	8060450	Pump assembly for small block	1

## **(1) Applications/Provisions**

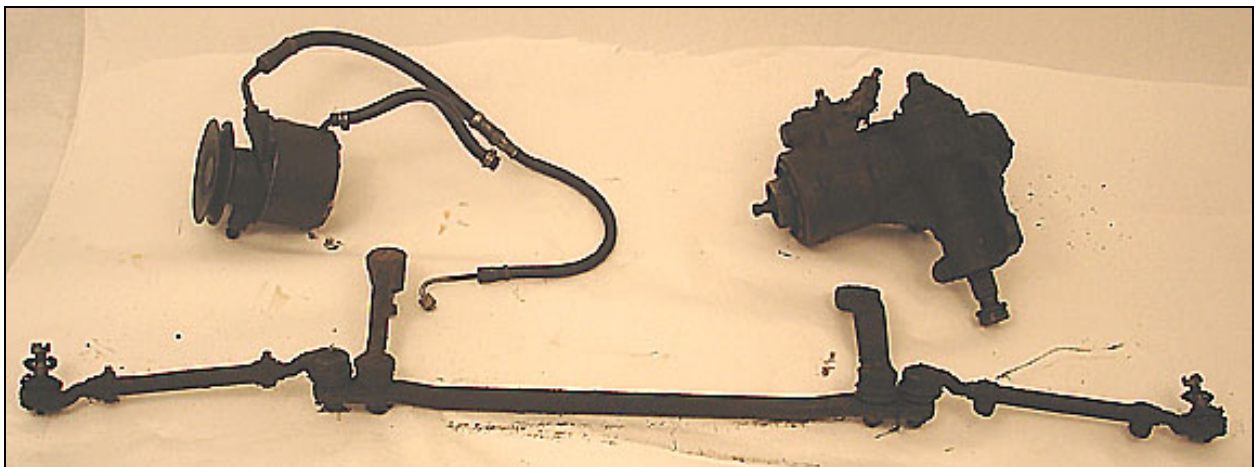
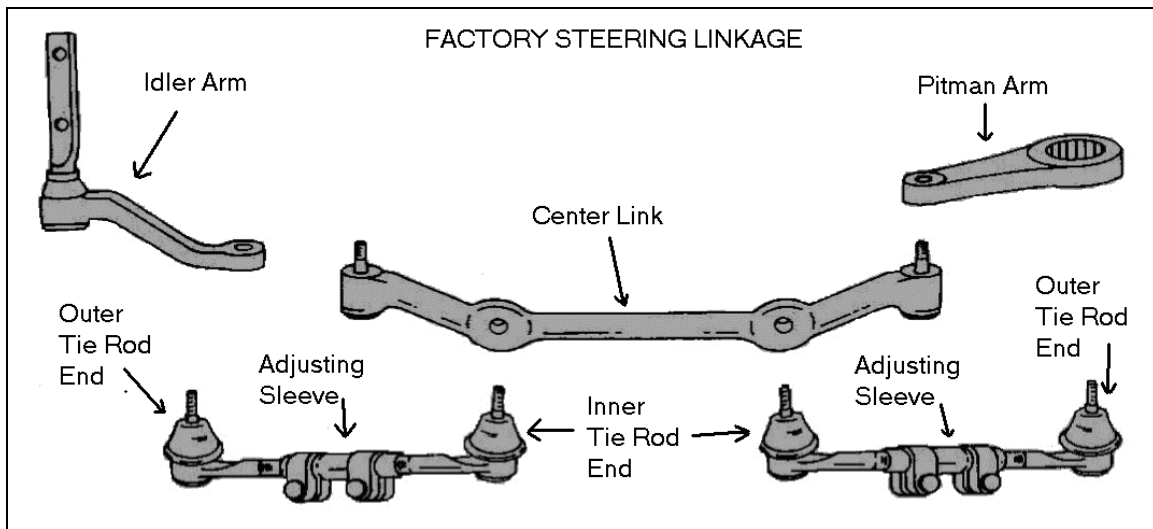
This rack & pinion kit is designed for the B Body Mopars. This instruction sheet is laid out for the B Body Mopars only. These kits are for use in cars with big block, and small block motors with stock suspension. As far as exhaust is concerned stock manifolds and TTI headers will work with this kit; other headers may work but are not guaranteed to work with this kit.

A new Power Steering Pump kit is provided with this kit; the use of this pump kit is necessary to ensure that the rack & pinion performs optimally. This kit also includes a new shaft kit to work with the stock column of these cars.

## **(2) Disassembly**

The easiest way to install this kit is to have the car on a lift or at least on jack stands. There is no need to have the front wheels off of the ground. In fact, if you do not lift the wheels off of the ground the alignment should not be affected by the installation.

**Take a minute to familiarize yourself with the stock steering components of your car:**



- 1) Detach the steering coupler from the steering box. A roll-pin holds the coupler to the steering box, remove this roll pin to detach the steering box from the column linkage.
- 2) Unbolt the outer tie-rod ends from the steering arms and remove the outer tie-rods.
- 3) Unbolt the idler arm from the passenger side of the vehicle.
- 4) Unbolt the steering box from the frame; the entire stock steering set up should pull freely out of the vehicle.

### **(3) Installation**

The rack and pinion unit arrives to you pre-assembled and centered, do not turn the pinion off of center. The mounting bracket of the rack mounts to the same mounting holes for the stock steering.



**1)** Maneuver the driver side of the bracket up to the two stock mounting holes and loosely bolt in with the provided hardware (see below).



**2)** Bolt in the passenger side bracket so that the tab on the bracket is flush with the bottom of the tab on the frame. Use supplied lock nut and bolt\* to secure in place.

\*Some applications have a double tab on the passenger side. If the car is equipped with the double tab it will be necessary to use the supplied spacer 205880 and longer 231350 mounting bolt. Place the spacer between the tabs and secure the bracket in place. See picture below for an example of the double tab frame.





3) Leave Mounting Hardware loosely bolted in for the shaft installation later.

4) Adjust the thread on outer tie-rods equally until the studs line up with the steering arms. Bolt the studs to the steering arms, tightening the castle nut and inserting the coder pin.



## (4) Shaft Kit Installation

This kit includes two U-joints & a small spline shaft. During our R&D we found that with stock manifold exhaust or TTI headers, two U-Joints and a very small section of  $\frac{3}{4}$ " DD shaft were more than adequate. The pinion size on the Mopar rack is  $\frac{3}{4}$ "-36; for the stock column, the column shaft is  $\frac{3}{4}$ " Smooth. If you have an aftermarket column, a U-joint of the appropriate size will be required.

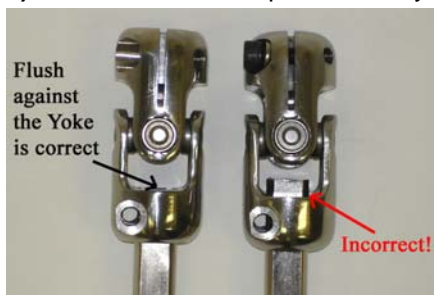
1) When using the stock column, cut the column shaft off just above and as close to the factory U-Joint as possible. The column does not even have to be removed for this step. Install the column clamp over the column and position on the column tube, then tighten down.. Make sure the cut on the end of the shaft is even and then drill and pin the Upper U-joint #8050360 to the column shaft.

2) Place the second lower U-joint #8050240 onto the pinion of the rack, insert & loosely tighten pinch bolt, use this to mock up & measure the length of  $\frac{3}{4}$ " DD shaft needed.

**MEASURE CAREFULLY!**

Trim the  $\frac{3}{4}$ "DD shaft accordingly, making sure the shaft is flush with the edge of the inner yoke (see illustration on next page). Then grind a groove for the pinch bolt.

3) You are now at the point where you need to line up the U-joints on the shaft so that they are 45° out of phase. This will help insure that there will be no binding when turning. 45° out of phase looks as pictured below: the Grooves or slots for the U-Joint pinch bolts are off set by 45°. The lower U-joint which fits to the rack and to the DD side of the shaft, can only fit on one way, the Groove of the U-Joint lines up in the middle round side of the DD shaft. The Upper U-Joint #8050360 which fits the column and the splined end of the shaft can be rotated to fit on the splined at various degrees.



**To Mis-Phase the U-Joints, the Groove of the upper U-Joint must be aligned or rotated 45° away from the Groove of the lower U-joint as shown in the illustration below.**

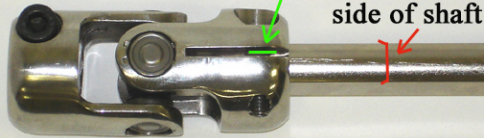
To Mis-Phase U-Joints, line up the grooves of the U-Joints (red), 45 degrees opposite of each other



**Lower U-Joint**  
Fits the DD end of shaft

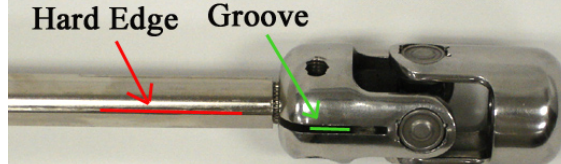
**Upper U-Joint**  
Fits the Spline end of shaft

Lower U-Joint goes to Rack  
U-Joint Groove  
Rounded side of shaft



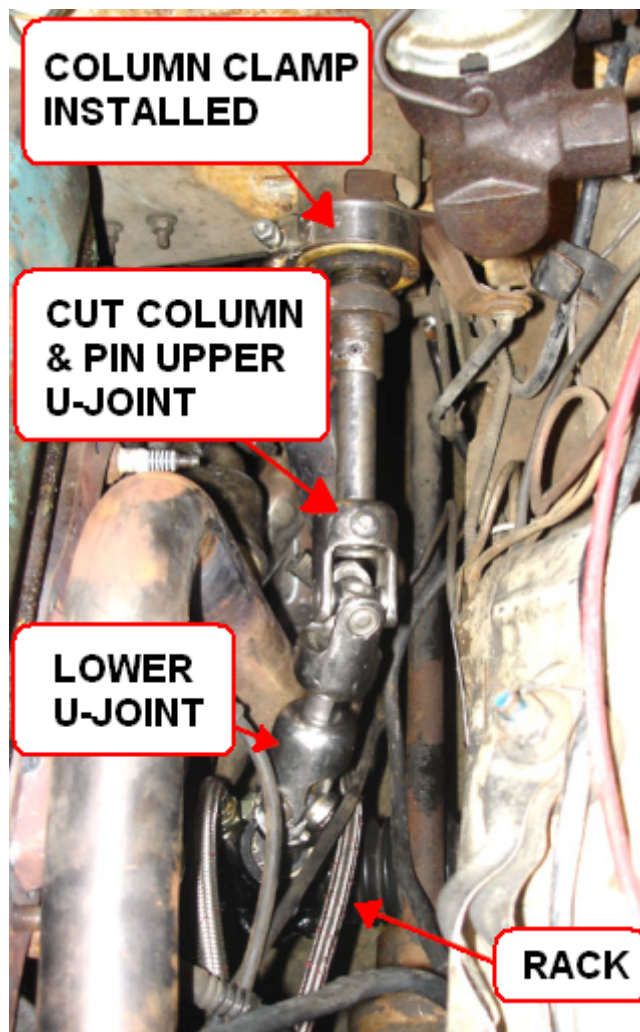
The lower U-Joint can only fit on one way; the groove of the U-Joint lines up with the rounded side of the DD shaft.

Upper U-Joint to Column  
U-Joint Groove  
Hard Edge



Twist the upper U-Joint on its spline, line the groove of the U-Joint up with the hard edge of the shaft.

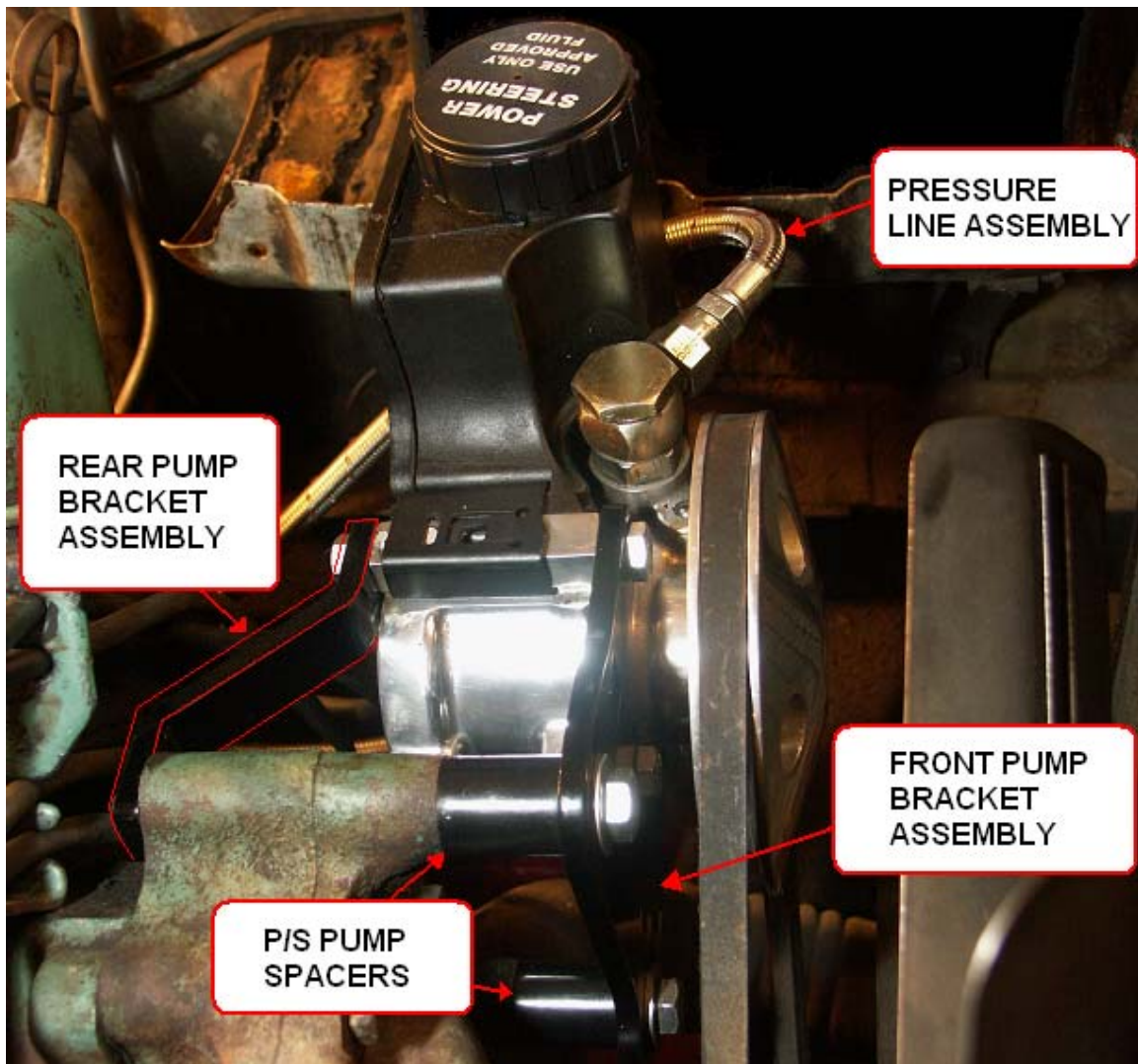
4) Reinstall the shaft with the U-Joints 45° out-of-phase, then tighten Pinch Bolts of U-Joints to **20 ft/lbs.** Be sure to remember to tighten up the mounting hardware for the rack. Torque the mounting bolts to **45 ft/lbs.**





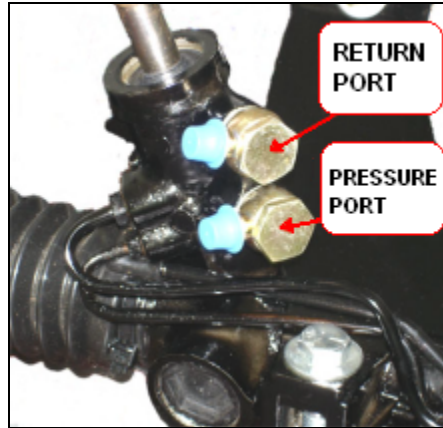
## Pump Install

1) The pump assembly comes with brackets made to mount to the big and small block Mopar motor, depending on the kit you ordered. Install the pump assembly to the motor as seen in the illustrations. Use the 5.5" Bolt **#231220** for the upper bolt hole, with the spacer installed this bolt is long enough that it threads into the rear bracket. Use the 4.5" Bolt **#231210** for the lower mounting hole. Tighten the mounting hardware to **35 ft/lbs.**



2) The banjo fittings are pre-installed on the rack. **DO NOT LOOSEN OR TIGHTEN THEM!** Next, install the braided stainless lines. The longer line goes from the AN fitting on the pump to the pressure port of the rack. The shorter line goes from the side of the reservoir to the return port on the rack.

**DO NOT REVERSE THE LINES! THIS WILL BLOW THE SEALS OUT OF THE RACK AND VOID YOUR WARRANTY.**



If you have any questions or problems regarding this product please contact:

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