



UNISTEER *Performance Products*

MOPAR E Body Rack & Pinion Kit Instructions

8010670-01 & 8010660-01

*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.

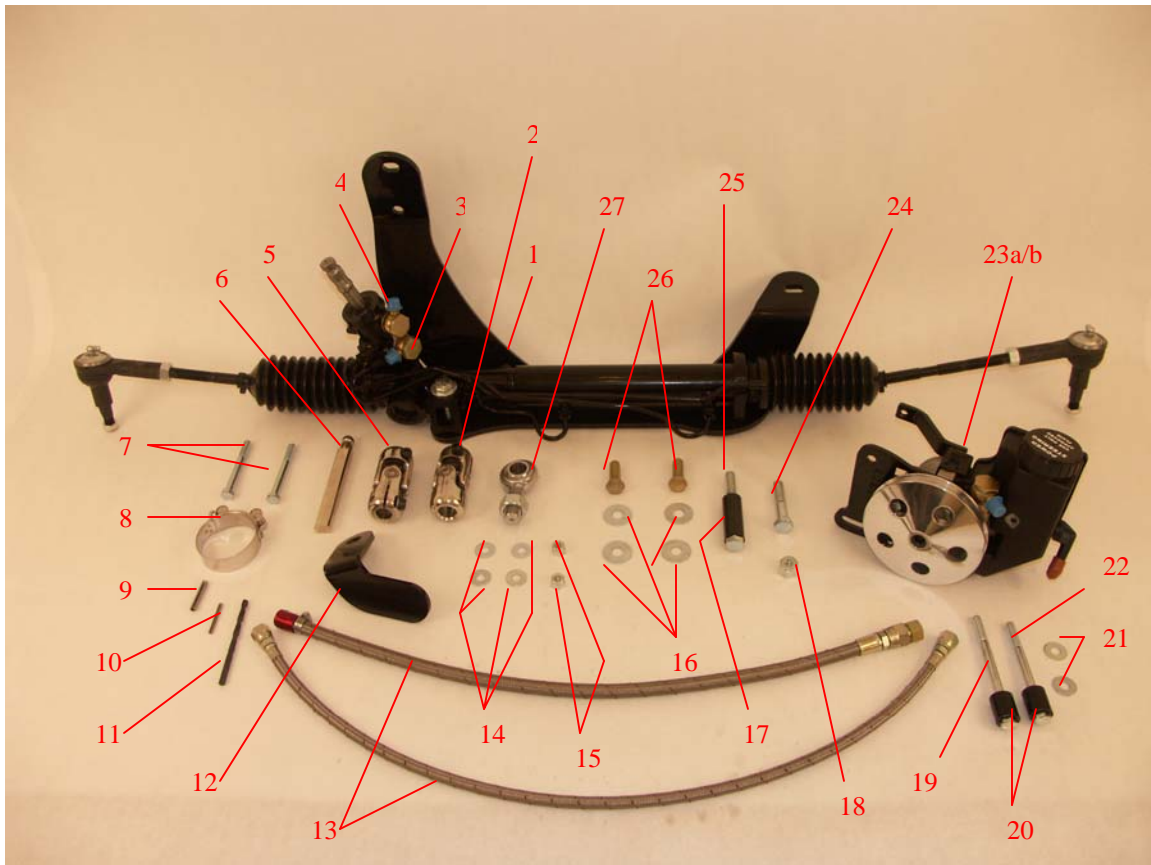
*BE AWARE OF THE SPECIFIC APPLICATIONS THAT THIS KIT WILL FIT AS OUTLINED IN SECTION #1.

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

Full refund will NOT be granted to any kits that are damaged, scratched, or altered in any fashion.



KIT CONTENTS:



#	Part #	Description	Quantity
1	8010870-01 (-02)	Rack and Pinion Unit (-02=Chrome Finish)	1
2	8050360	Upper U-joint, 3/4 smoothx3/4dd	1
3	8021560	#6 AN x 16 Banjo Fitting, (already installed on R&P)	1
4	8021570	#6 AN x 18 Banjo Fitting, (already installed on R&P)	1
5	8050240	Lower U-joint, 3/4-36x3/4dd	1
6	543090	Steering shaft, 9/16-30 spline x 3/4dd	1
7	231280	Steering Shaft Support Bracket Mounting Bolts	2
8	130330	Column Clamp	1
9	220060	1/4 x 1 1/2 roll pin	1
10	220070	5/32 x 1 1/2 roll pin	1
11	230600	1/4 drill bit	1
12	8021880	Steering Shaft Support Bracket	1
13	8021310	Pump Line Kit	1
14	200850	5/16 Flat Washers for Support Bracket Mounting Bolts	4
15	120490	3/8-16 Locknuts for Support Bracket Mounting Bolts	2
16	200860	7/16 Flat Washers for Rack and Pinion Mounting Bracket	4
17	205880	Passenger Side Standoff	1
18	120480	Passenger Side Mounting Bracket Locknut	1
19	231220	5 1/2" Pump Assembly Mounting Bolt	1
20	8021280	Pump Assembly Standoffs	2
21	200850	5/16 Flat Washers for Pump Assembly	2
22	231210	4 1/2" Pump Assembly Mounting Bolt	1
23a	8060380	Pump Assembly for Big Block	1
23b	8060450	Pump Assembly for Small Block	1
24	231340	Passenger Side Mounting Bolt for Single Tab K-member	1
25	231350	Passenger Side Mounting Bolt for Double Tab K-member	1
26	231120	Driver Side Mounting Bracket Bolts	2
27	8050760	Steering Shaft Support Joint	1

(1) Applications/Provisions

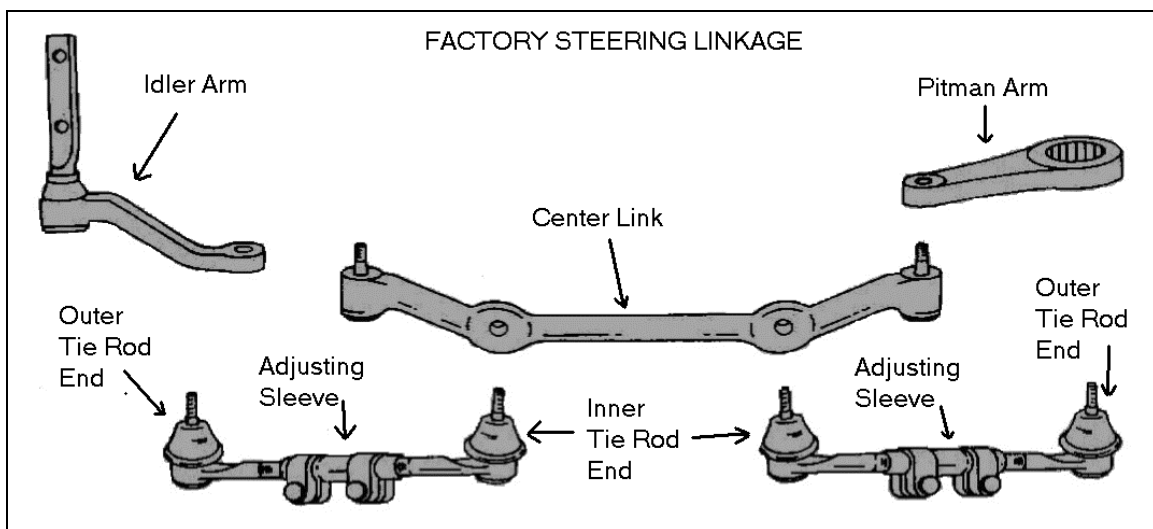
This rack & pinion kit and instruction sheet is designed for the E Body Mopars only. These kits are for use in cars with big block, and small block motors with stock suspension. As far as exhaust is concerned stock manifolds and TTI headers will work with this kit; other headers may work but are not 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 properly. This kit also includes a new shaft kit to work with 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 nylon lock nut. See picture below for an example of the outer tie rods installed.



(4) Shaft Kit Installation

This kit includes two U-joints, a small spline shaft, and a shaft support bracket and heim joint. During our R&D we found that with stock manifold exhaust or TTI headers, this kit was 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.

Factory u-joint



1) The column will **not** need to be removed for this step. When using the stock column, disassemble the factory u-joint (shown above) by removing the metal retainer and pulling the outer shell off exposing the roll pin used to hold the joint on the shaft. Cut the shaft as close and evenly to this roll pin as possible. Next slide the heim joint 8050760 over the shaft and assemble the joint to the support bracket 8021880; leaving roughly three to four threads exposed on the bottom of the nut. This will give you a reference point to mount the support bracket to the frame rail. Support bracket should be positioned as shown in the picture below. Attaching the bracket will require drilling two 7/16 holes through the bracket and the frame rail. Use the supplied hardware, 231280 (2), 200850 (4), and 120490 (2) to mount the bracket. Depending on your application it may be necessary to fine-tune the height of the shaft by simply adjusting the support bearing up or down, utilizing the threaded portion of the support bracket. Finally slide the upper U-joint 8050360 over the shaft, drill and pin the joint to the shaft.

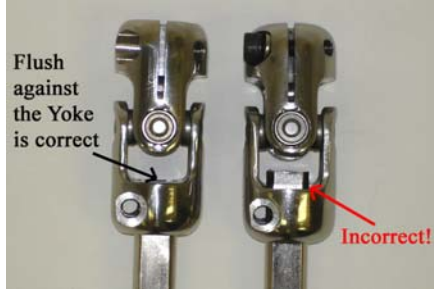


2) Place the second lower U-joint #8050240 onto the pinion of the rack, insert & loosely tighten pinch bolt, use this to mock up & measure the length of 3/4" DD shaft needed.

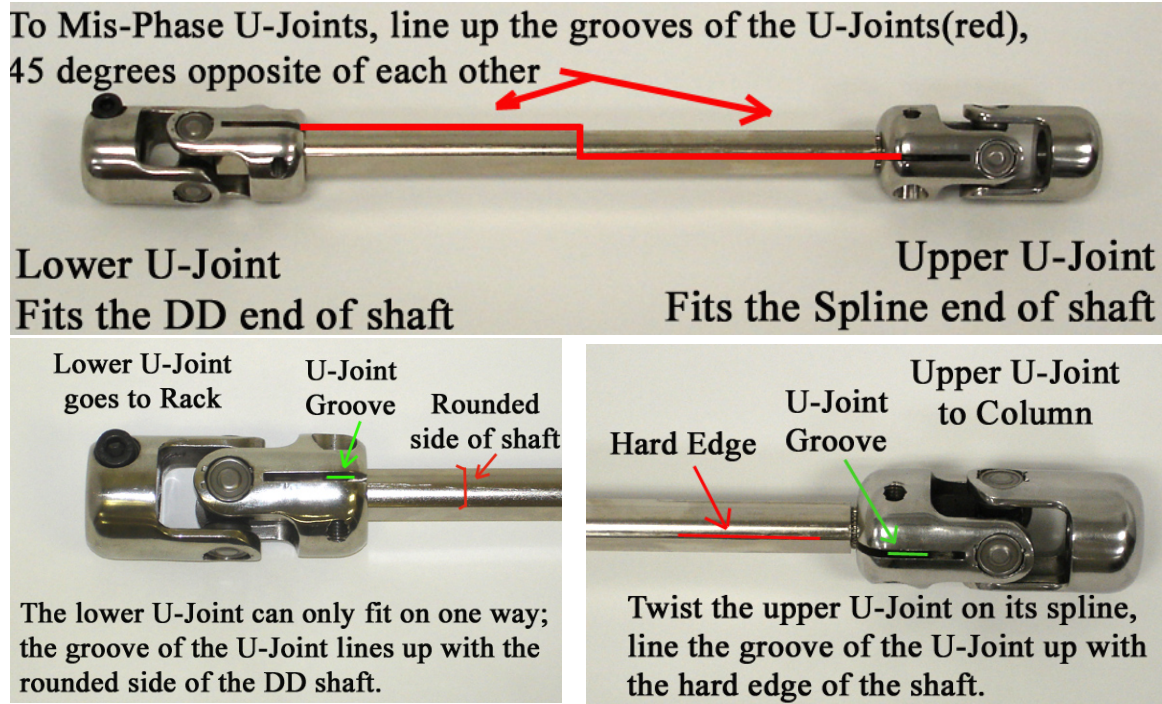
MEASURE CAREFULLY!

Trim the 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.



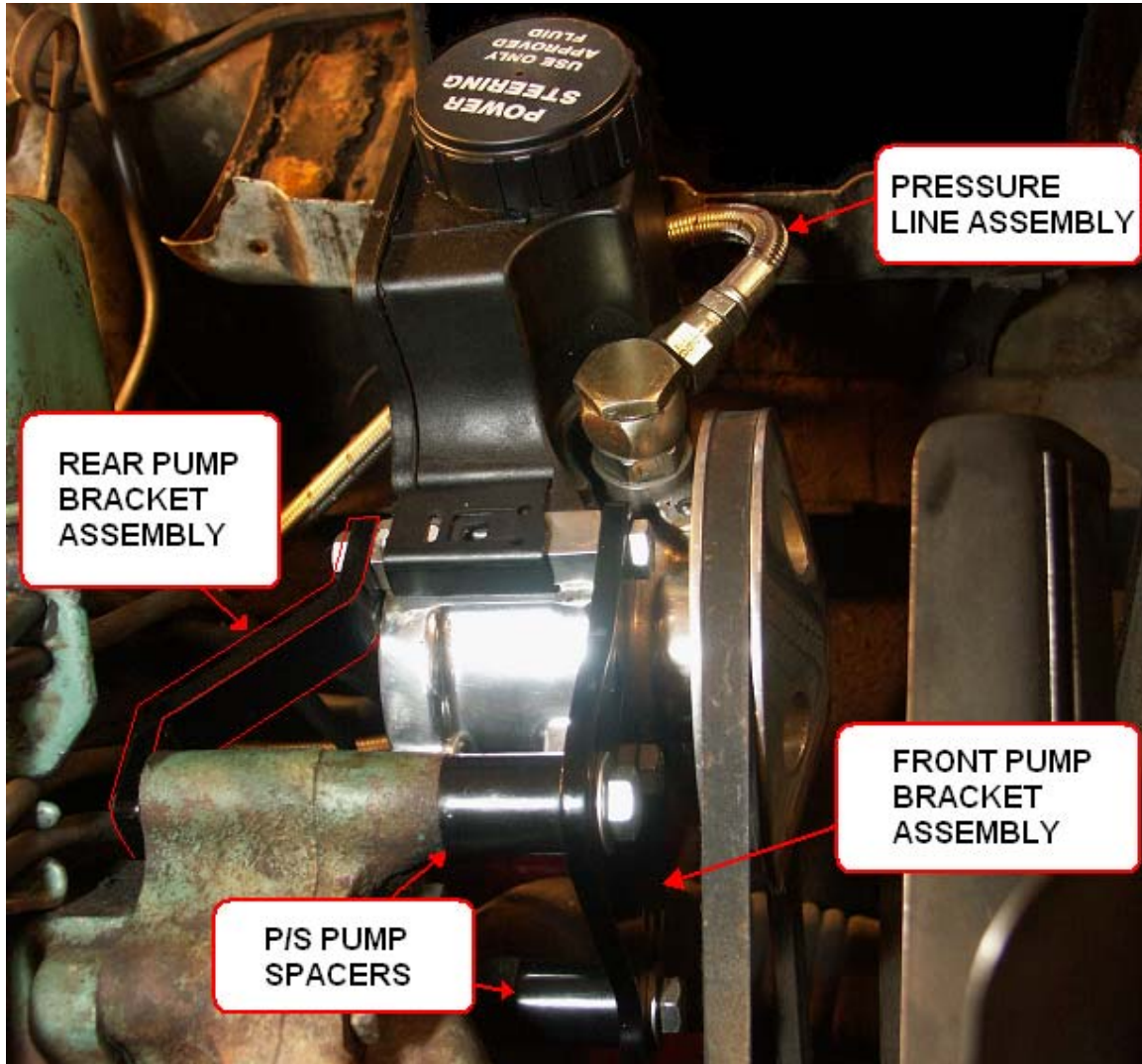
To Mis-Phase the U-Joints, the Groove of the upper U-Joint must be aligned or rotated 45° away from the Groove of the lower U-joint as shown in the illustration below.



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.**

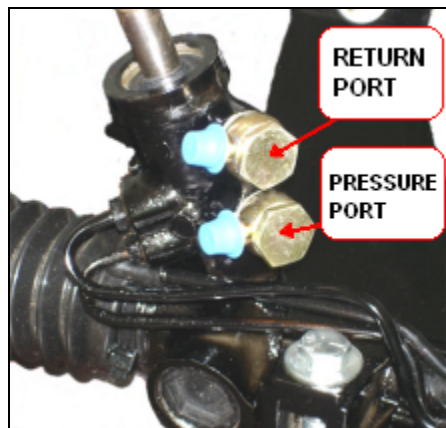
Pump Install

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 bolthole, 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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