



1970-81 TRANS-AM POWER RACK AND PINION INSTALLATION INSTRUCTION MANUAL

8011160-01 & 8011110-01

UniSteer offers a 2-year, unlimited mile warranty against all manufacturer defects of their kits and supplied parts. UniSteer will not honor any warranty on any parts that have been modified or improperly installed. Full refund will NOT be granted to any kits that are damaged, scratched, or altered in any fashion. UniSteer will not reimburse any labor money to the customer to change out the part even under a warranty repair.



Please note: This particular installation used a Pontiac 455 with Dynomax Ceramic Coated Headers, part #86114.

- *USE ONLY POWER STEERING FLUID IN SYSTEM. DO NOT USE ATF.**
- *ALTHOUGH THIS KIT IS FAIRLY SIMPLE TO INSTALL SOME MODIFICATIONS MAYBE NECESSARY TO YOUR VEHICLE.**
- *IF YOUR VEHICLE HAS A LONG STYLE FUEL PUMP IT MUST BE REPLACED WITH A SHORT STYLE FUEL PUMP.**
- *BEFORE STARTING BE AWARE OF THE MODIFICATIONS NEEDED.**
- *ALSO BE AWARE THAT THERE ARE APPLICATION/PROVISIONS NEEDED IN ORDER TO INSTALL. PLEASE READ ALL INSTRUCTIONS FIRST.**
- *DUE TO VARIABLES OUTSIDE OUR CONTROL THESE KITS MAY NOT FIT ALL APPLICATIONS. ALSO, PLEASE VERIFY KIT WILL FIT YOUR APPLICATION BEFORE ALTERING VEHICLE.**

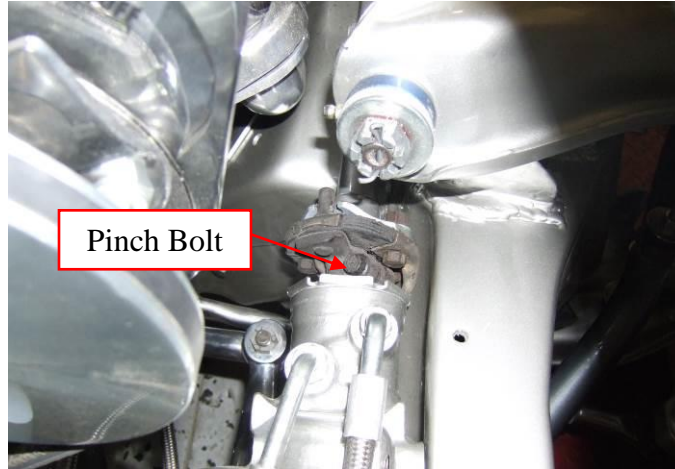


Kit Contents:

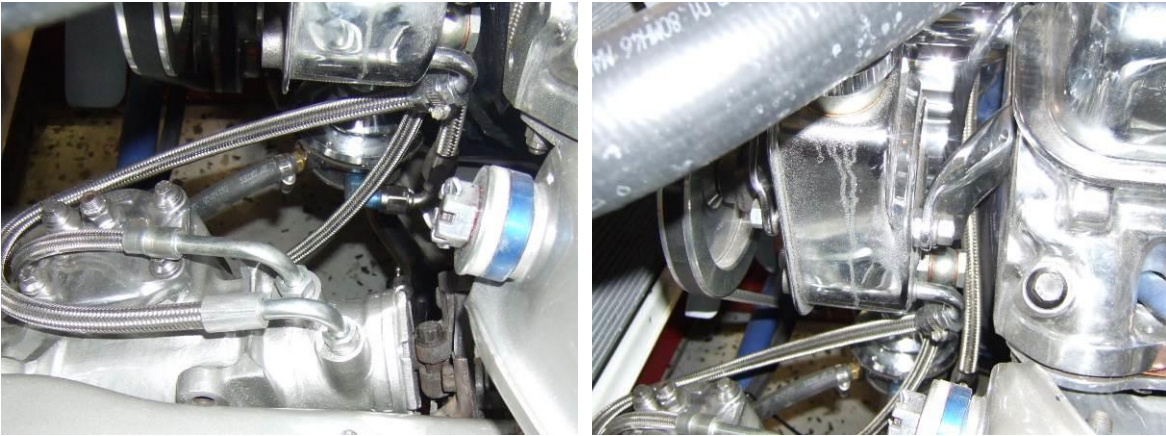
| # | Part Number | Description | Included in Kit | Qty | Inspected By |
|----|-------------------|---|-----------------|-----|--------------|
| 1a | 8011100-01 | 70'-74' Rack & Pinion | 8011160-01 | 1 | |
| 1b | 8011170-01 | 75'-81' Rack & Pinion | 8011110-01 | 1 | |
| 2a | 8024190 | 70'-74' Parts Kit | 8011160-01 | 1 | |
| | --8060920 | - Pump Kit | | 1 | |
| | ----8060470 | --- C-5 Pump w/ Reservoir | | 1 | |
| | ----8020630 | --- V-Belt Pulley | | 1 | |
| | ----8024110 | --- Mounting Bracket | | 1 | |
| | ----8024120 | --- Stabilizer Bracket | | 1 | |
| | ----621130 | --- Pump Install Kit | | 1 | |
| | --8024000 | - Line Kit | | 1 | |
| | --8051830 | - Shaft Kit | | 1 | |
| | ----545240 | --- 13.125" DD Shaft | | 1 | |
| | ----545250 | --- 4.5" DD Shaft | | 1 | |
| | ----8024100 | --- Shaft Support Bracket | | 1 | |
| | ----8050250 | --- U-Joint 9/16"-30 x 3/4"-DD (Middle) | | 1 | |
| | ----8050350 | --- U-Joint 1"-48 x 9/16"-30 (Column) | | 1 | |
| | ----8050760 | --- Shaft Support w/ Nut | | 1 | |
| | ----8050880 | --- U-Joint 3/4"-36 x 3/4"-DD (Pinion) | | 1 | |
| | --621120 | - Install Kit | | 1 | |
| | ----120410 | --- 7/16"-14 Lock Nut | | 2 | |
| | ----120490 | --- 3/8"-16 Lock Nut | | 2 | |
| | ----200850 | --- 5/16" Flat Washer | | 4 | |
| | ----200860 | --- 7/16" Flat Washer | | 4 | |
| | ----231430 | --- 7/16"-14 x 5" Hex Bolt | | 2 | |
| | ----231490 | --- 3/8"-16 x 1 1/2" Hex Bolt | | 2 | |
| | ----621710 | --- 16mm x 18mm Banjo Fittings | | 1 | |
| 2b | 8024160 | 75'-81' Parts Kit | 8011110-01 | 1 | |
| | --8060920 | - Pump Kit | | 1 | |
| | --8024000 | - Line Kit | | 1 | |
| | --8051800 | - Shaft Kit | | 1 | |
| | ----545240 | --- 13.125" DD Shaft | | 1 | |
| | ----545250 | --- 4.5" DD Shaft | | 1 | |
| | ----8024100 | --- Shaft Support Bracket | | 1 | |
| | ----8050250 | --- U-Joint 9/16"-30 x 3/4"-DD (Middle) | | 1 | |
| | ----8050340 | --- U-Joint 1"-DD x 9/16"-30 (Column) | | 1 | |
| | ----8050760 | --- Shaft Support w/ Nut | | 1 | |
| | ----8050880 | --- U-Joint 3/4"-36 x 3/4"-DD (Pinion) | | 1 | |
| | --621120 | - Install Kit | | 1 | |
| | ----120410 | --- 7/16"-14 Lock Nut | | 2 | |
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| | ----231490 | --- 3/8"-16 x 1 1/2" Hex Bolt | | 2 | |
| | ----621710 | --- 16mm x 18mm Banjo Fittings | | 1ea | |

Disassembly

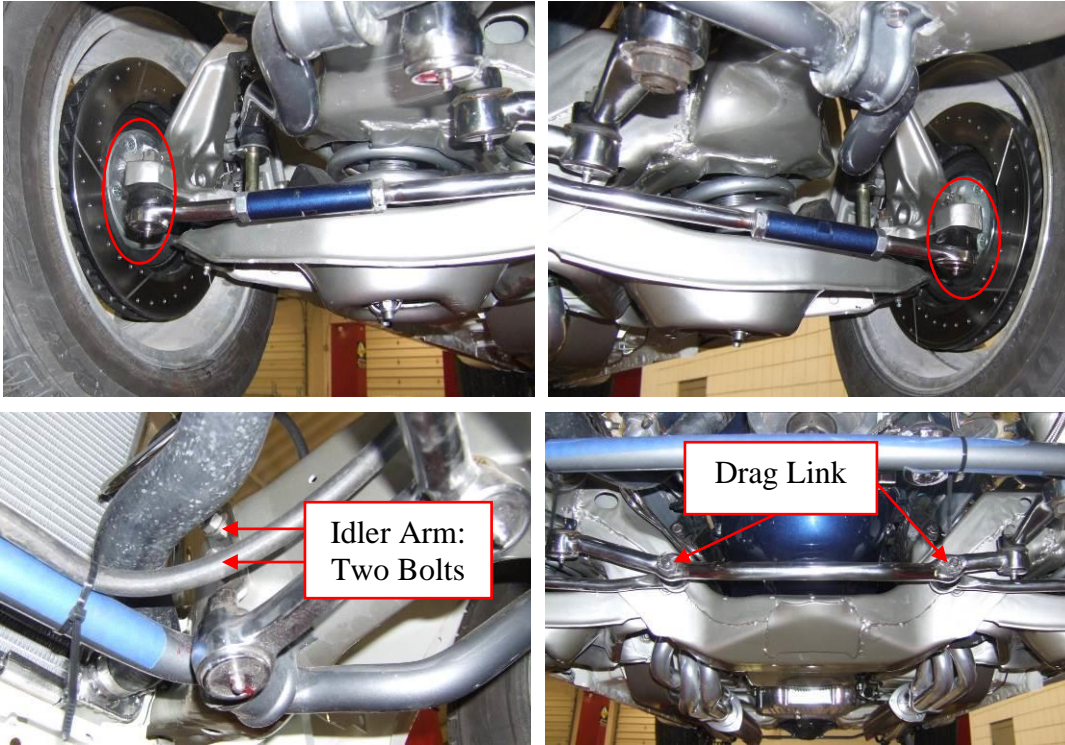
1. Raise hood and remove pinch bolt at shaft and gearbox connection.



2. Disconnect pressure and return line from pump. Remove power steering pump and brackets from the engine.



3. Raise the vehicle and remove the outer tie rod ends and cotter pins from steering arms. Remove idler arm assembly from passenger side of the vehicle. Remove drag link from pitman arm. Remove stock steering linkage from the vehicle.



4. Remove the 3 bolts on the outside of the driver side frame that holds the gearbox to the vehicle and then remove the entire gearbox. Note: this may require wiggling the box off of the steering shaft.



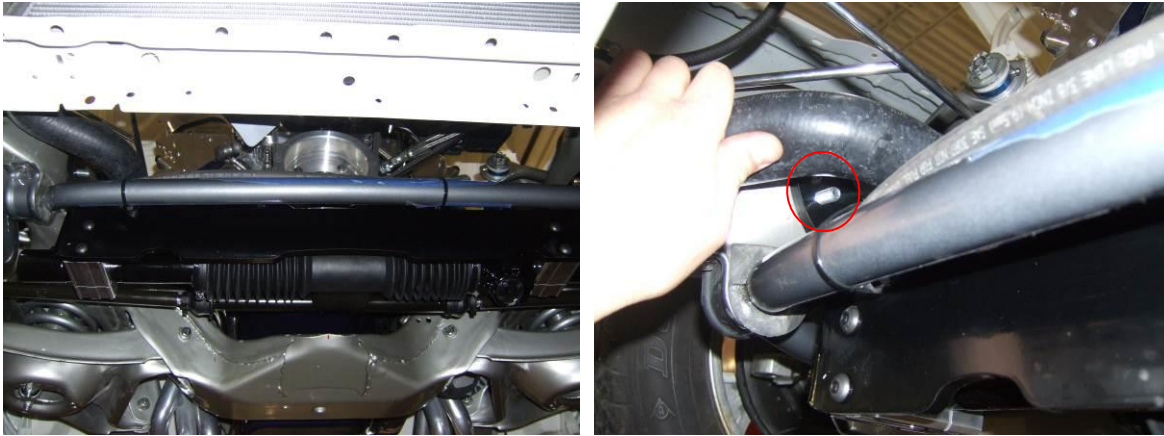
5. From under the hood, remove the pinch bolt at the top of the steering column. Slide the stock shaft off of the column.



6. You are now ready to install the new system.

Installation

7. From under the vehicle, install the new rack and pinion assembly between the frame rails. The passenger side uses the supplied 3/8 hardware and bolts in the place where the idler arm used to be.



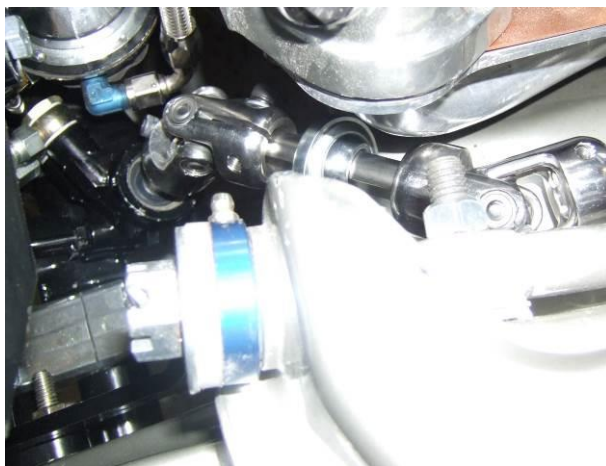
8. The driver side uses the supplied 7/16 hardware and uses 2 of the 3 mounting holes where the gearbox used to be. Once the rack is hanging in the car leave the hardware loose. Make sure the rack is in the center of the car and the pinion is also centered.



9. Install the heim joint by threading it into the hole on the shaft support bracket and start with the joint about 1/2 way through the threads for adjustment. Slide the support bracket over the driver side mounting bolts and leave loose.
10. Install the upper u-joint onto the column shaft and paying attention to the flat surface of the shaft, place u-joint set screw over flat. Loctite the set screw and tighten to 25 ft. lbs. Then tighten jamb nut.



11. Next install the pinion joint onto rack and leave loose. Slide intermediate shaft through heim joint and into pinion u-joint. Install bolt and leave loose.



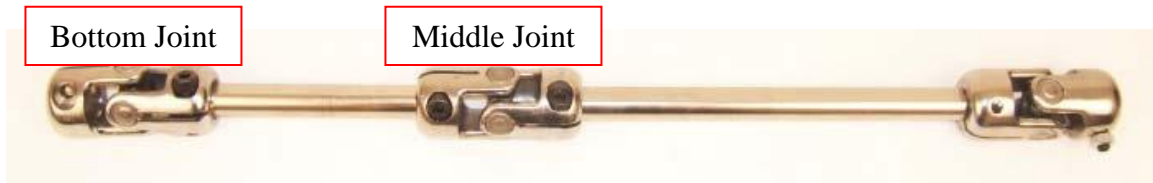
12. Install long primary shaft into column joint and into middle joint. It will be necessary to adjust the heim joint and tilt of the shaft support bracket to obtain clearance and correct adjustment of linkage.



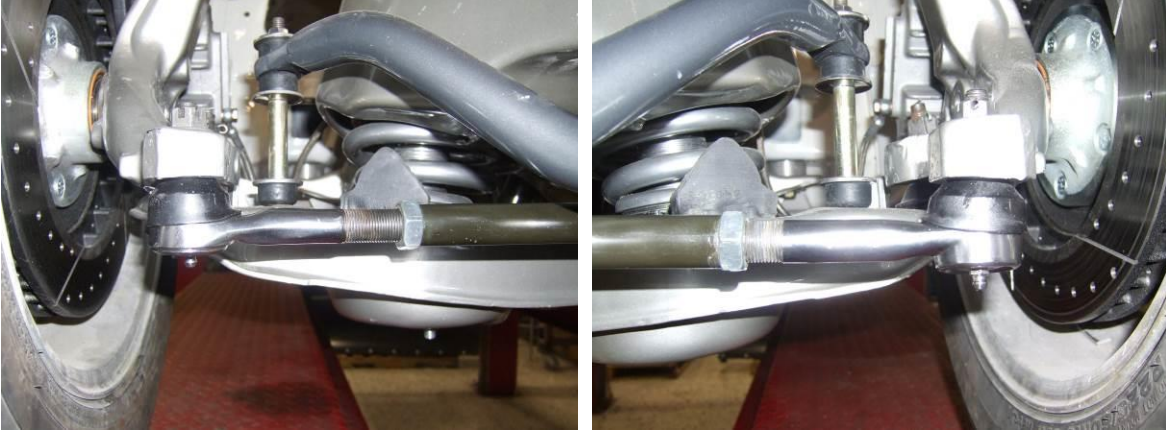
13. Once you think you are close to your final adjustment tighten main mounting bracket bolts to 65 ft. lbs. Make sure your adjustment for clearance has not changed, if it did you will need to adjust heim joint and shaft support to get proper alignment and clearance.



14. Pay special attention to your u-joint phasing. The middle (intermediate) and bottom (pinion) joints need to be out of phase by 90 degrees or yokes need to be opposite of each other. Make sure your rack and pinion are centered and make sure your steering wheel is in the center position before connecting all the shafts together.



15. Once your adjustment is complete, install your old outer tie rod ends and torque to 30 ft. lbs. Also install cotter pins.



16. Tighten all u-joint pinch bolts to 35 ft. lbs.

17. Install the supplied brackets and hardware for the power steering pump assembly to the engine. Your pump has come preassembled. The top of the bracket goes to the upper hole on the alternator and uses the bolt under the alternator for the slot adjuster.



18. The stabilizer bracket goes on to the driver side cylinder head accessory hole with the supplied standoff. Measure and purchase a new length belt to go around and drive your new pump assembly.



19. Make sure you tighten all hardware when belt is on and tight.
20. Once you have the pump mounted and the belt installed and tight. You may now connect your pressure and return line. The pressure line goes from the bottom port on the rack to the top port on the pump. The return line goes from the upper port on the rack to the slip-on portion of the reservoir. Tighten all fittings to 30 ft lbs. Tighten hose clamp on reservoir.
21. Top off power steering fluid and start vehicle. Turn wheel back and forth to purge out any air in the system. Turn off vehicle and let it sit for a while, top off fluid and recheck.
22. Check your toe adjustment by trying to eye up how straight your tires are in the straight-ahead position. Set your toe by turning your tie rods in or out as needed to position.
23. You will need your car aligned by a professional shop. The above adjustment is to get your car to the shop to get it aligned.

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

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