

FLAMING RIVER

800 Poertner Drive
Berea, OH 44017
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www.flamingriver.com

INSTALLATION BULLETIN # 2007

DESCRIPTION: FR1509M Manual Shaft kit, FR1509P Power Shaft Kit

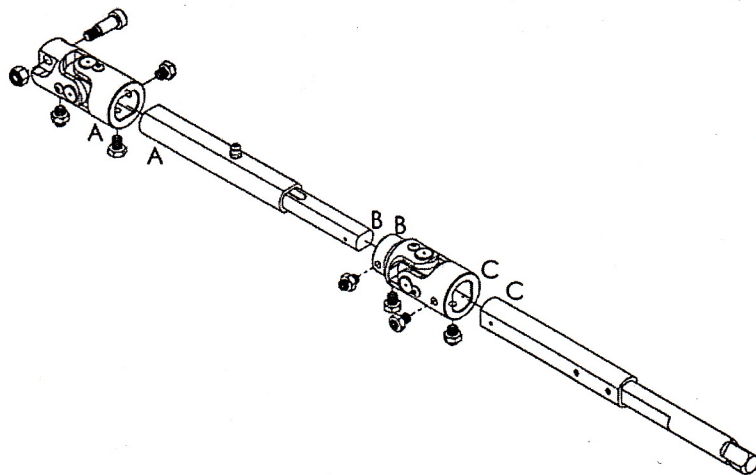
WARRANTY: 1 YEAR FROM DATE OF PURCHASE
REPLACEMENT OF PRODUCT DEEMED BY FACTORY TO BE DEFECTIVE ONLY.
LABOR NOT INCLUDED.

Original Shaft Removal:

- 1) Lock the steering wheel with the tires straight
- 2) Remove retaining bolt from rack and pinion rag-joint. Set the bolt aside, it will be reused.
- 3) Remove retaining bolt from the steering column universal joint under the dash
- 4) Slide the rag joint off of the rack and pinion.
- 5) Remove the shaft from the steering column universal joint. Slide shaft through the firewall to remove from the vehicle. Set aside the upper nylon cover – it will be reused.

Installation of Flaming River Shaft Kit:

- 1) Measure and mark 7/8" in from each end of the steering shaft
- 2) Assemble shaft kit by matching the letters on shaft to the letters on universal joints. Align the proper end of each u-joint the 7/8" mark made on the shaft. This ensures proper phasing.
- 3) Snug each set screw assuring it makes a mark into the shaft.
- 4) Remove the universal joints. Dimple each set screw mark using a 1/4" drill bit. **WARNING! Do not dimple the Rack and Pinion shaft; this will cause damage to your rack and pinion, which IS NOT covered by warranty.**
- 5) Reassemble the shaft kit. Be certain to match the letters on the shaft to the letters on the universal joints and that each u-joint yoke lines up to the 7/8" mark on the shaft.
- 6) Apply red thread locker on all set screw threads
- 7) Tighten each set screw. Use a torque wrench to tighten to 25 ft-lbs. Tighten the jam nuts.
- 8) Remove upper nylon cover from factory shaft and place onto new Flaming River shaft. This cover provides support through the firewall.
- 9) Slide shaft kit through firewall, install shaft into the factory universal joint and install the bolt removed from step three of shaft removal.
- 10) Slide bottom universal joint on to rack and pinion and install bolt provided with the kit. Using a torque wrench, tighten this bolt to 15-18ft lbs. Tighten set screw to 25 ft-lbs and tighten jam nut. **NOTE:** Periodic inspection of set screws is recommended to ensure that they stay tight.



Warranty Disclaimer

Because of their intended usage, the manufacturer makes no warranties whatsoever expressed or implied, oral or written, to purchasers of their products regarding performance, safety, fit, merchantability or length of service. Purchasers are responsible for selection of proper goods and must rely on their own skill or judgment that such goods are suitable for the purchaser's application.



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INSTALLATION BULLETIN #2003

DATE: Modified on 15 FEB 08

WARRANTY: 1 YEAR FROM DATE OF PURCHASE

SUBJECT: RACK AND PINION INSTALLATION

DESCRIPTION: FR1508, FR1508Q, FR1892, FR1892D, FR1892V 94-99 MANUAL RACK

Warranty Disclaimer

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Removal

- 1) Remove outer tie rod ends from spindles
- 2) Disconnect power steering rack lines and drain system.
- 3) Disconnect rag joint flange from pinion shaft
- 4) Disconnect shaft from column and remove from car.
- 5) Remove the bolts retaining the rack and pinion to the cross member.
- 6) Remove power steering pump, brackets and lines.

Note: It will be necessary to replace the serpentine belt with a shorter size once the power steering system is eliminated.

Installation

- 1) Install rack bushings with the flange between the rack and the cross member.
- 2) Install new tie rod ends on to manual rack and pinion
- 3) Mount rack on to cross member using the original nuts and bolts.
- 4) Install tie rod ends into spindle
- 5) Install either original shaft with new adapter or the Flaming River Shaft Kit according to the instructions included with shaft kit.

Adapter Installation (FR1509)

- 1) Remove the rag joint from the original shaft by cutting it off as close the flange as possible.
- 2) Position the u-joint onto the shaft and tighten the set screws so to leave a mark on to the shaft.
- 3) Remove the u-joint and slightly counter sink using a 1/4 drill bit at each mark.
- 4) Re-install the universal joint tightening the set screws to no more than 25 ft lbs. Apply loc-tite to the threads and tighten the jam nuts.

Note: A front end alignment must be performed for proper operation and Performance of the Flaming River Rack and Pinion.