

**⚠ CAUTION:** Proper service and repair procedures are essential for the safe and reliable installation of chassis parts and require experience and tools specially designed for the purpose. Installation of these parts **MUST** be performed by a qualified mechanic, otherwise an unsafe vehicle and/or personal injury could result.

**⚠ CAUTION:** Prior to servicing the steering and suspension system, the S.I.R. (Supplemental Inflatable Restraint) must be disabled. Failure to do so may result in an accidental air bag deployment and/or personal injury.

**NOTE:** The parts in this kit are designed to replace the worn or non-functioning original equipment parts in the vehicle as produced by the car factory. These parts are not designed for installation on vehicles where the vehicle suspension and/or steering systems have been modified for racing, competition, or any other purpose.

### DISASSEMBLY

1. Disconnect negative battery cable from battery.
2. Unlock steering column. Raise and support the vehicle.
3. Remove front wheel and tire assembly.
4. Disconnect the outer tie rod from the spindles using a suitable tool such as a taper breaker.

5. Carefully loosen the bellows clamps on the left and right side bellows. Pull back bellows to gain access to the inner tie rod housing.
6. Loosen outer tie rod jam nut and remove outer tie rod, jam nut and bellows.
7. Removal of the inner tie rod ends is difficult in this application since the original inner tie rods do not have wrench flats. **If sufficient clearance is not present to access the tie rods with a pipe wrench or plumbers type pipe wrench, removal of the rack & pinion assembly may be required. For the procedure to remove the steering gear refer see steering gear removal below. If sufficient clearance can be obtained, remove the inner tie rod end.**
8. Remove plastic stop-out from old inner tie rod for use on new unit. **NOTE:** To avoid internal gear damage, hold the rack from rotating with a wrench placed across the rack teeth. These teeth are accessible only on the driver's side.

### ASSEMBLY

1. Clean the internal threads of the rack. Be sure to remove all adhesive sealant remaining from the prior installation. Do not scratch rack. Using a clean cloth with a solvent, clean out all grease, dirt

and oil from the internal rack threads.

2. Install the plastic stop-out onto the new inner tie rod assembly and apply the thread locking compound provided to the male threads of the new inner tie rod end housing.
3. Assemble the inner tie rod end onto the rack. The new tie rod has wrench flats and can be tightened using a 1 3/8 crow's foot if the rack is on the vehicle. Torque to 60 Ft.-Lbs. (81 N-M). **NOTE:** The rack should be held from rotating to avoid internal damage to the gear. Use a wrench placed across the rack teeth.
4. Reinstall bellows and clamps.
5. Install the jam nut on the inner tie rod end threads and reinstall the outer tie rod end.
6. Reassemble outer tie rod end to spindle tighten the outer tie rod end nut to 40 Ft.-Lbs. (55 N-M).
7. Re-install the front wheel and tire assemblies.
8. If power steering cooler and leak detection pump for emission vapor canister was removed or repositioned reinstall in original position.
9. Lower vehicle, turn off ignition key and install negative battery cable. If the gear assembly has been removed, perform the refill

and air purging procedure at this point.

10. Align front end to specifications. Tighten jam nut against outer tie rod to 55 Ft.-Lbs. (75 N-M). Straighten bellows if they have become twisted during alignment.

## STEERING GEAR REMOVAL AND INSTALLATION

**Removal: Before performing removal center the steering wheel and gear and lock steering wheel. In the passenger compartment remove the steering column coupling retainer pin, loosen the pinch bolt nut and remove the pinch bolt (nut is not removable. Disconnect the upper and lower steering column.**

1. Disconnect power steering fluid pressure switch at gear. Be sure to release locking tab before pulling connector free.
2. Disconnect power steering lines at steering gear and let drain.
3. For the return hose, on vehicles with a power steering fluid cooler disconnect the hose at the cooler. For vehicles without a power steering fluid cooler loosen the retaining clamp and disconnect hose at the gear and remove the hose from the routing clamps on the outside of the gear.
4. Remove the pressure hose from the routing clamps and if equipped with a power steering fluid cooler remove it from the top right clip. Remove the cooler if present accessing the two retaining screws above and behind the cooler. Position the cooler out of the way.
5. Remove the engine torque strut mounting bolt in the front right corner of the crossmember.
6. Mark the position of the front suspension crossmember with a scribe mark in preparation for

lowering it. Failure to do so may result in improper positioning of the crossmember during reassembly.

7. Center a transmission jack under the center of the front suspension crossmember. Raise the jack to support the crossmember.
8. Remove the two front mounting bolts for the suspension crossmember. They are located above and slightly forward of the inner tie rods.
9. Loosen the two rear bolts until they are no longer in the threaded holes in the body. Note these bolts are designed to stay in the lower control arm bushing when the threads are disengaged.
10. Carefully lower the crossmember to provide room for removal of the steering gear. The weight still must be supported with the jack.
11. Remove the roll pin that secures the steering coupling to the steering gear with a drift pin or similar punch and push coupling off of the steering gear.
12. Disconnect the dash seal cover from the steering gear.
13. Loosen and remove the steering gear mounting bolts from the crossmember.
14. Remove the steering gear. Once the gear has been removed, the inner tie rods may be removed and replaced on the gear.

### Installation:

Installation is basically the reverse of the removal

1. Reposition the gear on the suspension crossmember and reinstall the gear mounting bolts. Torque to 45 Ft. Lbs. (61 N-M).
2. Reinstall the dash cover seal.
3. Install the roll pin partially in the steering shaft coupling. Align the coupling with the steering pinion shaft on the gear so that the roll

pin will match up with the flat or groove in the steering pinion shaft. Once aligned push together and push roll pin into its installed position.

4. Center the steering gear travel.
5. Raise the crossmember and guide the steering coupling through the hole in the dash panel. Raise the crossmember to its final position.
6. Start the rear crossmember bolts in their threaded holes. Install and start the front two bolts. Snug the bolts to no more than 20 In. Lbs. (2 N-M) Max.
7. Check the scribe position marks of the crossmember. If necessary use a soft faced hammer to adjust the position of the crossmember. Once the crossmember has been relocated in its original position tighten the front two bolts to 105 Ft. Lbs (142 N-M) and the rear bolts to 150 Ft. Lbs (203 N-M).
8. Reattach the engine torque strut to the forward corner of the crossmember. Torque to 87 Ft. Lbs (118 N-M).
9. Clean the power steering hose ends and gear ports. Replace the power steering line o-rings with new ones and lubricate the o-rings.
10. Attach the pressure hose to its port and start but do not tighten tube nut.
11. For vehicles with an oil cooler reconnect the cooler line to the gear but do not tighten.
12. Snap the lines in place on the steering gear routing clips.
13. Tighten the pressure hose fitting to 25 Ft. Lbs. (34 N-M). Do not over tighten or steering gear port may strip or crack.
14. For vehicles with the power steering fluid cooler reinstall the two mounting screws torque to 90 In. Lbs. (10 N-M). Attach the

return hose to the cooler and tighten clamp or fitting.

15. If vehicle does not have a power steering fluid cooler reconnect the return line to the gear, position line in steering gear mounting clips. Tighten the return hose fitting to 25 Ft. Lbs. (34 N-M). Do not over tighten or steering gear port may strip or crack.
16. Reattach pressure switch connector to switch.
17. Check to see that all clamps are in place and hoses properly routed.
18. Inside the passenger compartment reconnect the steering column lower coupling to the steering column upper coupling. Install the pinch bolt and tighten the nut to 250 In. Lbs. (28 N-M). Install the pinch bolt retainer pin.
19. Make sure dash seal is properly in place. Unlock steering wheel and rotate to check for rubbing or squeaking.

For vehicles which have had the power steering gear removed, refilling the power steering system with fluid and purging air will be required. This should be done after the complete installation of the tie rods and gear has been completed and before the vehicle is driven. To do this, fill the power steering fluid reservoir, start engine and turn lock to lock. Refill the reservoir if needed and repeat. This may need to be repeated several times in order to purge air from the system. If fluid becomes aerated and foams, allow the vehicle to sit until bubble are no longer present then repeat. Check system for leaks, especially connections which have been taken apart for gear removal.