

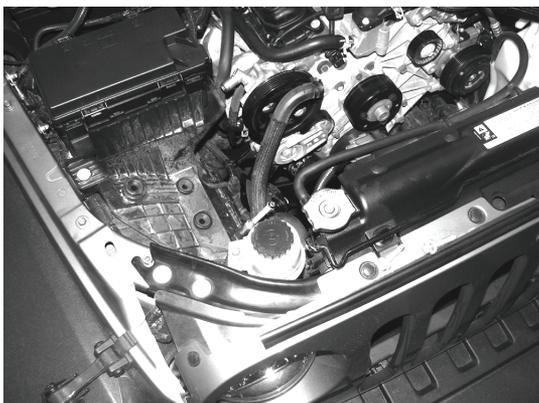


Installation Instructions: Jeep JK Assist Cylinder

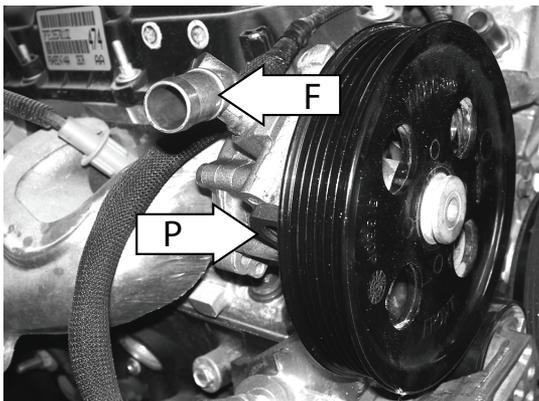
*****IMPORTANT:** These instructions apply to factory equipped, non-modified vehicles. Modified vehicles may require special consideration.

Please read through and understand these directions fully before beginning. Do not attempt if you are not 100% comfortable performing the operations outlined below.

Phase 1: POWER STEERING PUMP



Remove the air cleaner assembly and hose.
Remove the accessory drive belt.



Using a 16mm wrench, remove the pressure line from the pressure port (P).
Remove the feed line from the feed port (F).

With a ratchet and a 13mm socket, remove the 3 bolts holding the pump to its mount.

Remove the pump.

Remove the power steering fluid reservoir using a 10mm wrench.

Install the pump on the factory mount with the factory hardware in the 2 o'clock and the 8 o'clock positions. **USE THE SUPPLIED HARDWARE IN THE 4 O'CLOCK POSITION.**

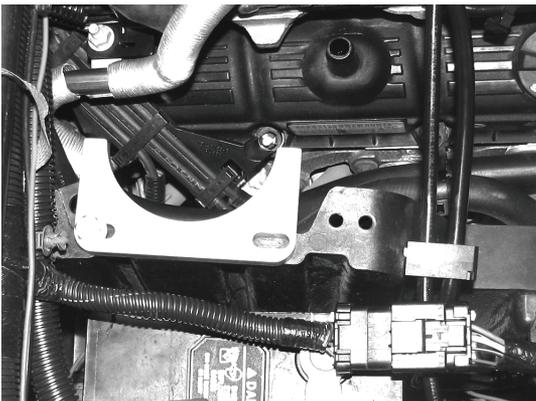
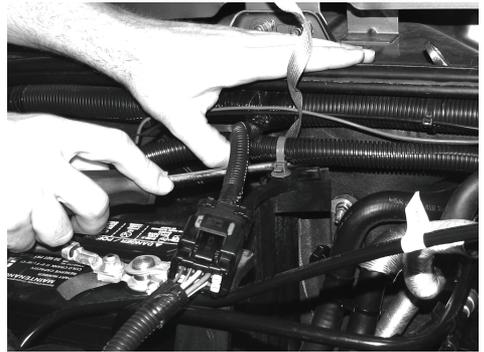
Install the factory pressure line into the new pump.

Install the supplied idler pulley in place of the factory idler pulley.

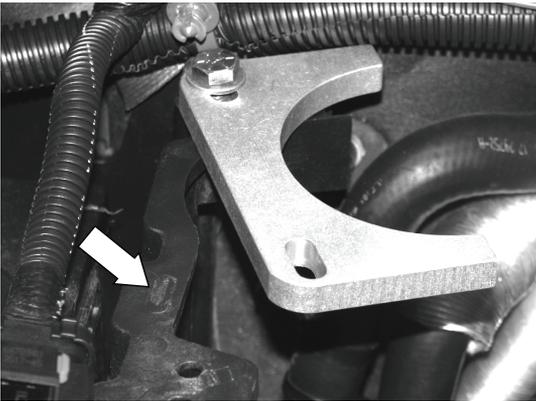
Install the factory belt - replace if worn.

Phase 2: RESERVOIR AND HOSES

Gently pry the wire loom retainer from the edge of the battery box in two locations.

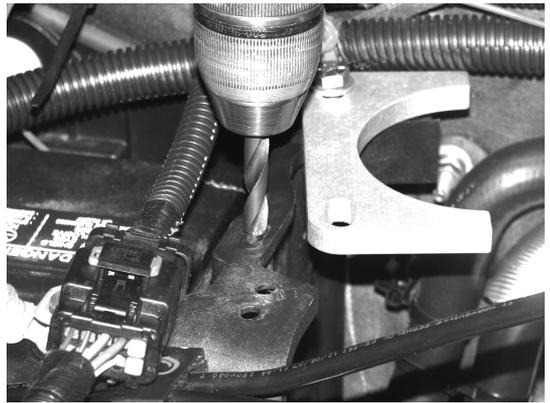


Enlarge the rear most hole using a 5/16 drill bit.
Loosely bolt the reservoir mounting bracket in place.

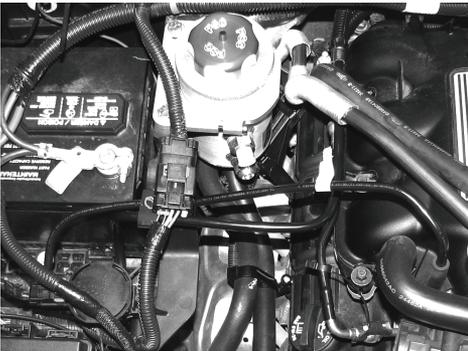


Mark the location for the second hole.

Drill the second hole with the 5/16 drill bit.



Fully install the bracket with the supplied hardware using a 1/2" wrench.
Mount the reservoir in the bracket with a 5/32" Allen key.
CHECK HOOD CLEARANCE!



Apply a little power steering fluid to the barbed end of a feed line push-on fitting and slide the hose over the fitting making sure it is fully seated. Install the included 90 degree AN-10 fitting to the feed port of the pump.

Attach the second push-on fitting to the 90.

Install the hose assembly onto the feed port of the reservoir.

Lay the feed line next to the fitting on the pump and mark the location to cut the hose.



Remove the hose assembly from the reservoir and the fitting from the pump.

Cut the hose at the marked location.

Apply power steering fluid to the barbed end of the loose fitting and slide the hose over it.

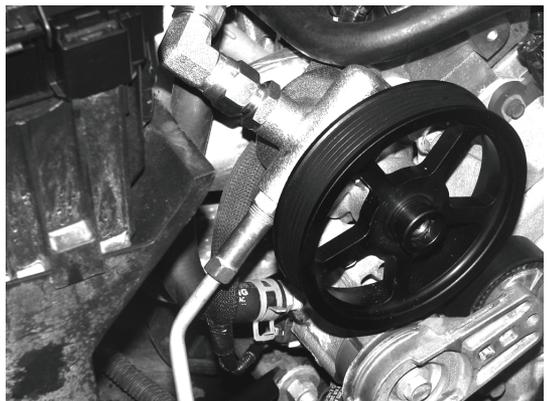
Attach the 90 to one end of the hose assembly.

Attach the other end of the

assembly to the feed port of the reservoir.

Attach the 90 end of the hose assembly to the feed port of the pump.

Attach the factory pressure line to the pressure port of the pump.





Cut the factory return line just below the first bend on the reservoir end.
Apply some power steering fluid to both small hose fittings and insert one into the factory return line.
Insert the other fitting into the supplied return line.

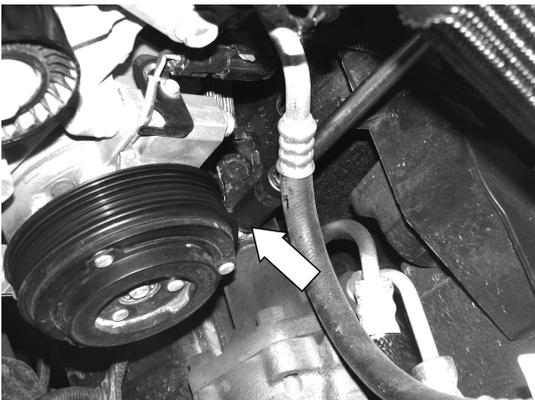
Connect the two fittings with the supplied adapter.
Zip-tie the return line to the pressure line.



Mark and cut the other end of the supplied return line where it meets the reservoir.

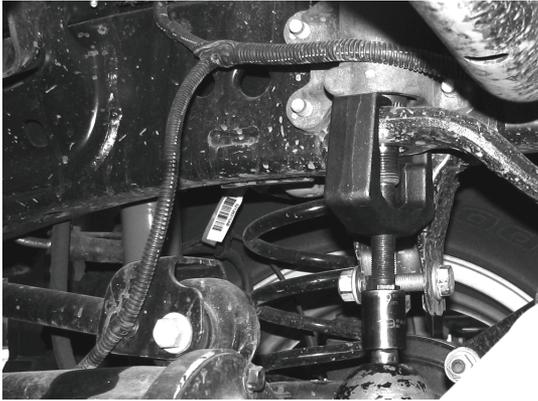
Install the hose onto the fitting as outlined above and attach to the reservoir.
Install factory belt and air cleaner assembly.

Phase 3: GEARBOX



Rotate the steering wheel to provide access to the coupler bolt. Note - tie the steering wheel in place with a bungee or similar. Failure to do so could cause problems with the steering wheel position sensor.
Remove coupler bolt and coupler from gearbox with a 13mm socket.

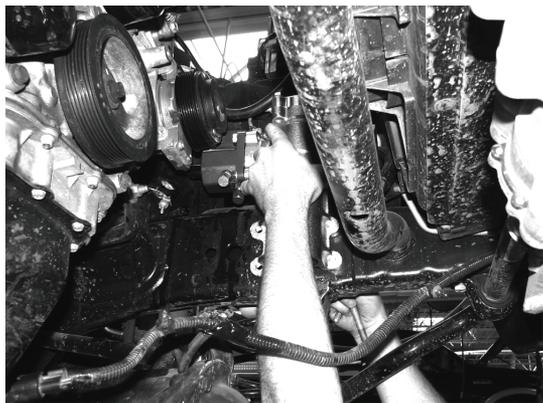
Remove the pressure and return lines from the gearbox with an 18mm wrench.
Remove track bar from vehicle using a 21mm socket.



Remove pitman arm nut with a 32mm socket.
Remove pitman arm with a pitman arm puller.

Remove gearbox with an 18mm socket. (It may help to pull the wheel sensor at the left upper shock mount)





Install the new gearbox in the stock location using the factory hardware.

Attach the pressure and return line to the new gearbox.
Install the old pitman arm on the new gearbox. (The pitman arm should go straight forward from the box then hook to the driver side)
Re-attach the wheel sensor, if removed.

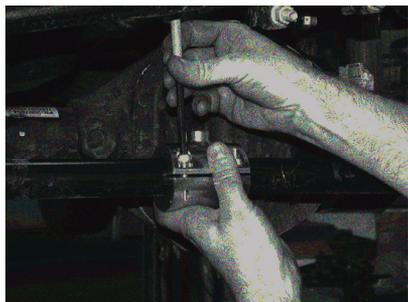
Phase 4: ASSIST CYLINDER

Remove the steering stabilizer.
13 and 18mm socket required
Cut the lower stabilizer brackets from the axle housing. (These may alternatively be bent out of the way with a hammer)



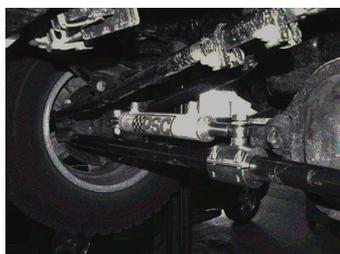
Mount the cylinder bracket to the axle housing at the track bar mount, the right shock, and around the axle tube with the supplied hardware while installing the track bar.



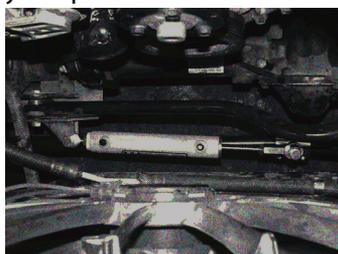


Loosely bolt the tie-rod bracket to the tie rod.

Install the rod ends on the cylinder making sure they are parallel with one another.



Install the cylinder.
***See cylinder installation instructions**

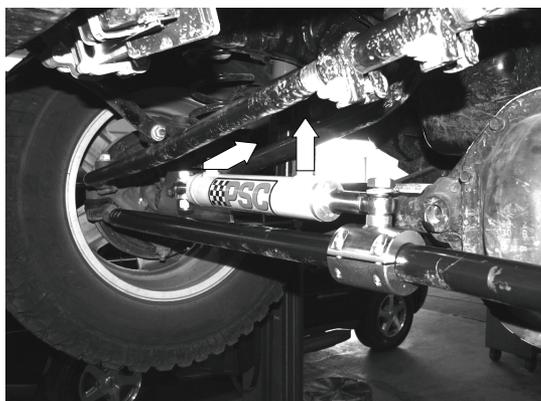


Turn the wheels full right and bottom out the cylinder.

Tighten the cylinder tie-rod clamp.

Install hoses: Make sure that the hoses will not be over-extended when the suspension is at full droop. It may help to set the hoses up with the suspension at full droop. Install pressure hose on a 45 degree fitting ***see fitting instructions** and place on the right side of the cylinder so that the hose will angle up and to the left. Install pressure hose on the straight fitting and place on the left side of the cylinder. Cut the hose to the proper length and install onto the remaining two 45 degree fittings. Attach these hose assemblies to the

gearbox so that the hoses angle down and slightly forward - refer to the ***cylinder assist hose routing diagram** for correct port configuration.



The hoses should be routed over the track bar. The hoses can be zip-tied together for a neater installation.

Bleed the system according to the ***bleeding instructions**.