

WARNING!

- 1) Do not exceed pressures on supplied gauge. Doing so will lead to pump or steering gear failure.
- 2) A power steering cooler must be used, or overheating will occur, resulting in pump or steering gear failure. The supplied cooler has been tested with the boost valve and other types may not cool enough to protect the system from overheating.
- 3) Power assist systems that have already been overheated or abused will most likely fail due to increased pressures.
- 4) As we cannot assure that the system was installed and pressure set properly, we cannot warranty or be held liable for the factory power assist system including hoses, pump and steering gear.
- 5) We have tested in harsh conditions over 30k miles and on 7 vehicles to test the capabilities and pressure limits of the stock system with great success. Heat is the enemy of hydraulics so periodically check the temperature after hard use. **Do not exceed 300f.**

Removal of stock parts is abbreviated. See Jeep® manual if needed. Video will show more details. 3.6 L version shown. Other models are similar.

Install difficulty
 low  high
 Professional install recommended
 Common tools
 4.0-5.5 hours install

- 1) Remove air cleaner box and cover all openings.
- 2) Remove plastic grill. This is to gain access to fresh air breather tube. Best to use a trim tool to remove push clips.
- 3) Remove breather tube fasteners from grill side.
- 4) Remove breather tube. You will need to bend and manipulate the rubber seal by the grill.
- 5) Remove the air box support. Now that the air box and support bracket is removed, you can easily remove the pump. The wire plugs have a safety clip, release prior to disconnecting. **(pull out on plug prior to depressing release tab).** Remove the two lower bolts and disconnect the fluid lines. There is a supplied red cap to cover the reservoir line, so it doesn't drain and make a mess. Fender liner removal is optional.



The pump MUST be removed from vehicle with valve port facing UP during removal and installation of boost valve! If not, YOU WILL have install problems. Do not attempt to install while pump in vehicle. It may seem like a shortcut, but IT IS NOT! The spool valve will fall out and most likely be lost, requiring a new pump. If you agree to this then please proceed with install.



Remove socket head, 5mm hex.
Must be pointed up prior to removal



Discard



Reuse

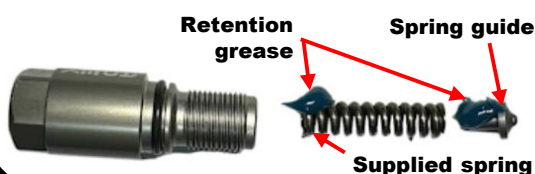
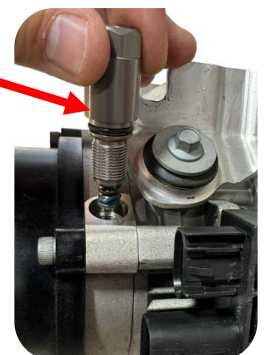
This part will remain in pump after cap removal. Use magnet or tweezers to remove

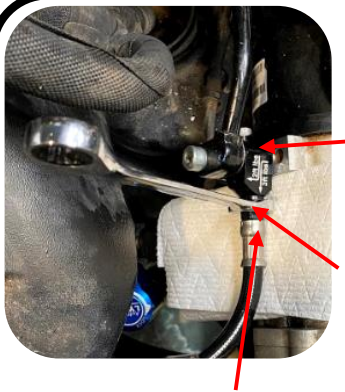
Spring guide

Warning! Ensure pressure set screw is backed all the way out (unscrewed) against snap ring. It will come shipped this way. With it screwed in, a high-pressure condition could exist prior to pressure setting. This could cause damage to pump.

Apply grease! to spring and spring guide to prevent parts from falling apart during assembly. Typical axle grease may be used. **If you fail to use grease to hold parts in place you will have install issues. The spring guide will fall sideways, and pump will fail to create pressure.**

Install boost valve being careful to not drop part into pump. Torque 15mm hex to 6 ft lbs.





Supplied pressure tap fitting is sandwiched between high pressure hose fitting and pump.

Do not over torque this fitting! Slightly over hand tight is all that is needed.

Assemble gauge. Use pipe dope or Teflon tape for gauge to hose assembly. Place gauge in location that is easy to read.

- 1) Reinstall pump in reverse order of removal
- 2) Add pressure tap fitting as shown. Ensure all O-rings are clean, or a leak may occur. Use supplied 8mm socket head screw. Do not force as O-ring damage may occur.
- 3) Reinstall all pump related parts and fill reservoir.
- 2) Leave air box off until pressure setting is complete. This gives you room to work and with verification that there are no leaks.
- 3) The steering will need to be cycled to be bled. **Keep in mind the pump does not pump unless there is steering movement, or it is at full lock.** Cycle steering wheel left to right, lock to lock. Check and fill until at cold level on reservoir.

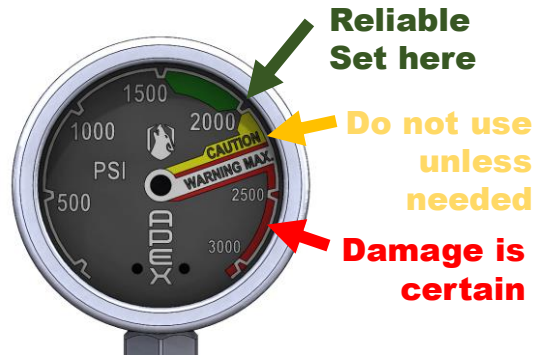
- 1) After system is bled, the pressure may be set.
- 2) **This is a two-person job.** With the Jeep's e-brake on and chocked, **start the engine and hold at full steering lock with pressure.** Gauge will not read any pressure unless you hold steering wheel with force against steering stop. Ask your assistant reading the gauge what the pressure is. It will be less than 1,000 psi. Turn vehicle off and screw in the adjuster one quarter turn (clockwise).
- 3) Check new pressure. Repeat until 2,000 psi is reached. Never turn more than 1/4 turn.
- 4) Remove sandwich plate and gauge. Install high pressure line as from factory. Reinstall everything else as per factory
- 5) 5 extra O-rings are supplied if a rough install caused the O-ring to be damaged.

Use 5mm hex to adjust pressure



Clockwise to increase

The factory setting is about 1300psi. The green zone is a very safe zone while the yellow may decrease pump longevity depending on how it is used. 2,300 is max allowable pressure. 2,000 psi is recommended.



MORE INFORMATION

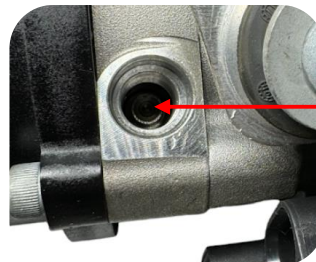
Recommended oils:

- Part # MOPAR 68088485AB
- Part # PENTOSIN CHF 11S
- Part # REDLINE 30404



If instructions were not followed and there is no or low pressure, the spool valve has fallen out. It is very small .150" dia X .330". If you can find the spool valve this is what it looks like. Make sure it is very clean as it may jam otherwise. If you cannot find this spool valve you will need a new pump. Please follow instructions.

Extra O-rings have been provided if the factory high pressure line fitting seal becomes damaged.



This side of spool valve has a pocket. This pocket faces spring guide

Spool valve location



Spool valve