

1. Drain Power steering



2. Remove pitman arm.

3. Remove Steering box, note you may not need to do this, depending on location and clearances.

4. Hit the Front cap with a soft dead blow hammer, this will make removing the front cap a lot easier

5. Drive an 1/8" punch in thru the hole to start the snap ring out.

6. Using a pair of screwdrivers, pry snap ring out. You must not distort the snap ring too much.



7. After snap ring is removed. The following is very important not to go too far; if you do you will have to disassemble the entire box to insert the re-circulation balls. Turn steering all the way to the left on a Jeep style box (ie mounted inside the frame with the sector shaft on the right, your style may require you to turn it to the right.) Once it stops you will then slowly turn it further. This will push the front cap out of the box. You only want the cap to start pushing out, until you can get a hold of it and pull it out. If you want to make sure you don't go too far, you can drill a hole in the front cap and thread in a large screw to pull the cap out. Once you get the cap out you will lose some more power steering fluid. Turn the input shaft so the piston goes back into the box.

8. Clean the snap ring groove and the area inside the box.



9. Lube the o-ring inside the box with a little fresh power steering fluid.

10. Insert new EMS Offroad cap into the box.

11. Reinstall snap ring Make sure the snap ring goes back into the groove.

12. Let's move on to the top cap.



13. Remove the lock nut from the adjuster screw.

14. Remove the four bolts.

15. Turn the adjuster screw in a few turns.

16. Spin the top cap off.

17. Remove the seal from the top cap.

18. Drill and tap your top cap to 1/4" NPT, see pic where to drill and tap. You will be drilling between the the two bolt holes on the non adjuster side. You will want to draw a line thru the center of the holes and drill on the side of the line away from the adjuster threads.

19. Spin top cap back on.



20. Replace 4 bolts

21. Set the Bearing preload/ Backlash, with adjuster screw.

22. Tighten lock nut back down.

23. Insert desired fittings into ¼ NPT holes.

24. Reinstall the box.

25. Reinstall the pitman arm.



26. Attach hoses to fitting and to ram. The Top hose will power the side of the ram that will make you

turn the same way that you turned the box in order to remove the front cap. For a stock jeep setup; the front will power the ram to make you turn right, the top will power the ram to make you turn left.

27. Refill the pump. I recommend Valv. Synpower.

28. Try the steering out, with the front tires in the air, if the steering is binding against the ram; switch the lines.