Steering, Brake & Suspension Specialists

#CP3033, #CP3033 MCPV-C, #CP3033 MCPV Hydraulic Brake Assist System Instructions

for 1980-88 GM "A", "G", "B" Body

Note:
This system is intended for "off road use only"

Instructions:

1. Please carefully inspect the entire braking system thoroughly and replace any marginal items. Installation of braided steel, high performance brake lines is highly recommended, though not mandatory.
2. Please carefully inspect the entire power steering system thoroughly and replace any marginal items. This system will not function properly unless the power steering system operations are 100%
3. Remove the master cylinder attachment nuts and secure the master cylinder approximately 2-4 inches forward of the existing mounting, if brake line routing / integrity permits (otherwise remove the master cylinder).
4. Remove the brake pedal rod clip and washer carefully.
5. Remove the vacuum brake booster to firewall attachment nuts, then carefully remove the power brake booster from the vehicle - you may have to gently pry the unit loose of the firewall.
6. Apply a small amount of grease to the brake pedal rod eyelet of hydraulic assist unit.
7. Install hydraulic brake booster carefully into the firewall, with hydraulic fittings facing downward, accumulator to driver's side, while aligning brake pedal / pedal rod interface.
8. Using the 4 supplied attachment nuts, securely fasten the new assist unit to the firewall.
9. Connect the master cylinder to hydraulic brake assist unit firmly, using the supplied replacement nuts.
10. Double check for appropriate thread engagement at pedal rod adapter, (6 thread minimum) then tighten brake pedal rod jam nut down. (Do not overtorque!)
11. Connect the pedal rod to the brake pedal, install the washer and retaining clip securely.
12. Check for proper brake light switch operations and adjust if required. Note: Make sure that there is a small amount of free play in the adjustments when the brake pedal is at rest, as you do not want any preload of the brake pedal rod.
13. Remove the existing high side power steering line and allow the fluid to drain into a suitable container.
14. *If the PS pump output fitting is the later model o-ring seal design, install the supplied small brass seat adapter into the ps pump output fitting as shown:

BEFORE

AFTER

15. Connect the longer pressure line 90 degree 3/8 flare style hose end to power steering pump and then connect the other end of this hose to the inlet / driver's side AN style fitting of the hydraulic brake assist unit.
16. Install the supplied AN 18mm O-ring line adapter into the steering box inlet port.
17. Connect the shorter pressure line 45 degree fitting to steering box AN adapter, then to the outlet / passenger side port of the hydraulic assist unit.
18. Inspect the existing power steering low pressure return line, from the steering box to ps pump, replace if marginal.
19. Cut the existing power steering return line approximately 3 – 4" from steering box fitting, install the brass "T" STRAIGHT INLINE using the supplied hose clamps.
20. Connect the chromed hose nut end of the return line to the hose nipple on the assist unit, then run the hose from the brake assist unit hose nipple to the brass "T" – trim hose to length as necessary and clamp to the "T".
21. Verify that all prior steps have been successfully completed!
22. With engine off, fill the power steering reservoir with high quality Genuine GM or equivalent power steering fluid only. * Never use poor quality ps fluid or ATF because it foams in use causing noisy pump operation and erratic operation.
23. Disable the ignition system and then crank the engine for five full seconds (to initiate proper system priming).
24. Recheck the fluid level, topping off as necessary, then crank the engine for five more seconds. Repeat this procedure as necessary until the fluid level remains consistent.
25. Cap the power steering fluid reservoir and restore the ignition system operations.
26. Start the engine briefly, then shut it back off quickly. Check for any signs of fluid foaming. (Do not depress brake pedal yet).

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Hydraulic Brake Assist System Instructions *(Continued)*

27. Recheck the fluid level, topping off as necessary. Pump the brake pedal a few times to purge any air trapped in the accumulator. If the fluid appears foamy and pump operation was noisy, allow the vehicle to sit for 15 – 20 minutes.

28. Start the engine, allow to warm up to full operating temperature while idling.

29. With the engine warmed up and idling, check for proper power steering operations by steering vehicle from "lock to lock" approximately 5 full sweeps.

30. If all prior steps have been performed successfully, now apply moderate pressure to brake pedal slowly 5 – 6 times. Shut the engine off and recheck fluid level.

31. Start engine, now apply full pedal pressure 2 or 3 times to verify for proper overall systems integrities.

32. Carefully road test the vehicle to verify proper operations and to also get accustomed to the new brake systems response.

33. Allow the vehicle to sit overnight. Next day, while the vehicle is still cold, recheck all connections and lines for proper torque, recheck the fluid level(s), topping off as necessary.

34. Congratulations! You are now ready to "Stop on a dime and get two nickels change!" And, as always, please drive carefully!

IMPORTANT! NEVER APPLY THE BRAKES WHILE THE MASTER CYLINDER IS REMOVED, OR YOU WILL DESTROY THE BRAKE ASSIST UNIT!

- Perform brake bleeding procedures with the engine off for best results.

- If supplied with the optional slip fit replaceable master cylinder pushrod, simply gently twist and pull the existing master cylinder pushrod out, then slip on the alternate rod by reversing the procedure. The longer rod will accommodate most 1969 and earlier "deep style" master cylinders, the shorter rod supplied standard will accommodate most 1970 and newer "shallow style" master cylinders.

- Please note: The high quality Aeroquip power steering linesets have adjustable end fittings! If the preset angles require adjustment, simply use two 11/16 wrenches to slightly change the fitting angles. The gap between the stationary hose nut on the line and the end fitting itself should not exceed more than the thickness of a penny, or leakage may occur.

- Please allow up to 500 miles of operation for the systems to fully "settle / break in"! Until all the air pockets and "micro bubbles" settle out of the assist unit and power steering system, operations may be initially noisy, accompanied by some "pedal kickback" upon braking, and "stiff / slow pedal return" caused by air in the systems.

PLEASE REFER TO OUR AEROQUIP LINE ASSEMBLY INSTRUCTIONS WHEN INSTALLING NEW LINE SETS.

For technical help call Classic Performance Products Monday thru Friday 8:30am to 5:00pm at (714) 522-2000

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