



*Steering, Brake & Suspension Specialists*

# #CP3022, #CP3022 MCPV-C, #CP3022 MCPV Hydraulic Brake Assist System Instructions for 1970-79 Camaro/Firebird

## 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. Disconnect the battery.
4. Remove the brake pedal rod clip carefully, disconnect the pedal rod from the brake pedal.
5. Remove the existing high side power steering line and allow the ps system to drain.
6. Remove the master cylinder attachment nuts and carefully secure the master cylinder approximately 4 -6 inches forward of existing mounting and secure, if brake line routing / integrity permits. Installation of any power assist unit into a vehicle originally equipped with manual brakes may require adjusting the length of the brake lines to the master cylinder. (9/16 wrench needed)
7. Inspect the master cylinder at this time for any signs of brake fluid seepage at the rear seal, and check for any sludge accumulation in fluid reservoirs. Replace the master cylinder if necessary.
8. If power brake equipped, remove the power brake booster to firewall attachment nuts, then carefully remove the power brake booster from the vehicle. (9/16 wrench)
9. Install the brake pedal rod adapter onto the hydraulic assist unit threaded pedal rod, insuring proper thread engagement – 8 thread minimum.
10. Install the hydraulic brake booster carefully into the firewall, with the hydraulic fittings facing downward, while aligning the brake pedal rod connection.
11. Lubricate and connect the brake pedal rod to the brake pedal, install the retaining clip.
12. Using the 4 supplied replacement attachment nuts and washers, securely fasten the brake assist unit to the firewall studs. (1/2 wrench needed)
13. Connect the master cylinder to the hydraulic brake assist unit firmly, using the supplied replacement nuts. (17mm wrench)
14. Adjust the brake pedal height approximately 1/2 inch lower than prior configuration, or to your liking / stock, by spinning the brake pedal rod. (7/16 and 9/16 wrench)
15. Double check for appropriate thread engagement at the pedal rod adapter, tighten the brake pedal rod to clevis jam nut.
16. Adjust the brake pedal switch to match revised pedal height if changed. Reconnect the brake lamp switch connector.
17. Connect the longer pressure line to power steering pump (3/8 flare style fitting) and then connect the other end to the inlet / driver's side AN style fitting of the hydraulic assist unit. (5/8 wrench and 11/16 wrench)
18. Install the AN -6 adapter into the inlet port of the steering box. (3/4 wrench)
19. Remove the plastic port plug, then connect the shorter pressure line direct fit 3/8 flare style fitting to the outlet / passenger side port of the hydraulic assist unit, then connect the other end to the power steering box AN style adapter. (5/8 and 11/16 wrench needed)
20. Inspect the existing power steering return line, from the steering box to ps pump, replace if marginal.
21. Cut the existing power steering return line approximately 3 inches from the ps pump reservoir, then install the brass "T" STRAIGHT INLINE with supplied hose clamps.
22. Connect the chromed "hosenut" end of return line to the brake assist unit hose nipple, then to the brass "T" installed in the ps return line – trim hose to length as necessary.
23. Reconnect the battery, verify for proper brake light operations.
24. Verify that all prior steps have been successfully completed!
25. With the engine off, fill the power steering reservoir with Valvoline Synpower, Genuine GM, or equivalent high quality power steering fluid only. With the front wheels raised off the ground, slowly turn the steering wheel back and forth approximately 20-25 times, while occasionally rechecking the fluid level. \* Never use poor quality ps fluid or ATF because it foams in use causing noisy pump operation and erratic system operation.
26. Disable the ignition system, then crank the engine for five full seconds to initiate proper system priming.
27. Recheck the fluid level, topping off as necessary, and crank the engine for five more seconds. Repeat this procedure as necessary until the fluid level remains consistent.
28. Cap the fluid reservoir and restore the ignition system operations.
29. Start engine briefly, check for any signs of fluid leakage. Do not depress brake pedal yet.



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## **Hydraulic Brake Assist System Instructions (Continued)**

30. Shut the engine off and recheck the fluid level, topping off as needed. Pump the brake pedal a few times to purge any air trapped in the accumulator. If fluid appears foamy and pump operation was noisy in prior run sequence, allow vehicle to sit for 15 – 20 minutes.
31. Start the engine, allowing to warm up to full operating temperature while idling.
32. With the engine warmed up and idling, check for proper power steering operations by steering the vehicle from “lock to lock” approximately 5 –10 full sweeps.
33. If all prior steps have been performed successfully, now apply moderate pressure to the brake pedal slowly 5 – 6 times. Shut the engine off and recheck the fluid level.
34. Start engine, apply full pedal pressure 2 or 3 times to verify proper systems integrities.
35. Carefully road test the vehicle to verify proper operations, and to get accustomed to the new brake systems response.
36. Allow the vehicle to sit overnight. Next day, when the vehicle is still cold, recheck all connections and lines for proper torque, recheck fluid levels and top off as needed.
37. 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.**

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