



Steering, Brake & Suspension Specialists

#CP50005NV Installation Instructions

1962-1966 Nova 400 Series™ Power Steering Box

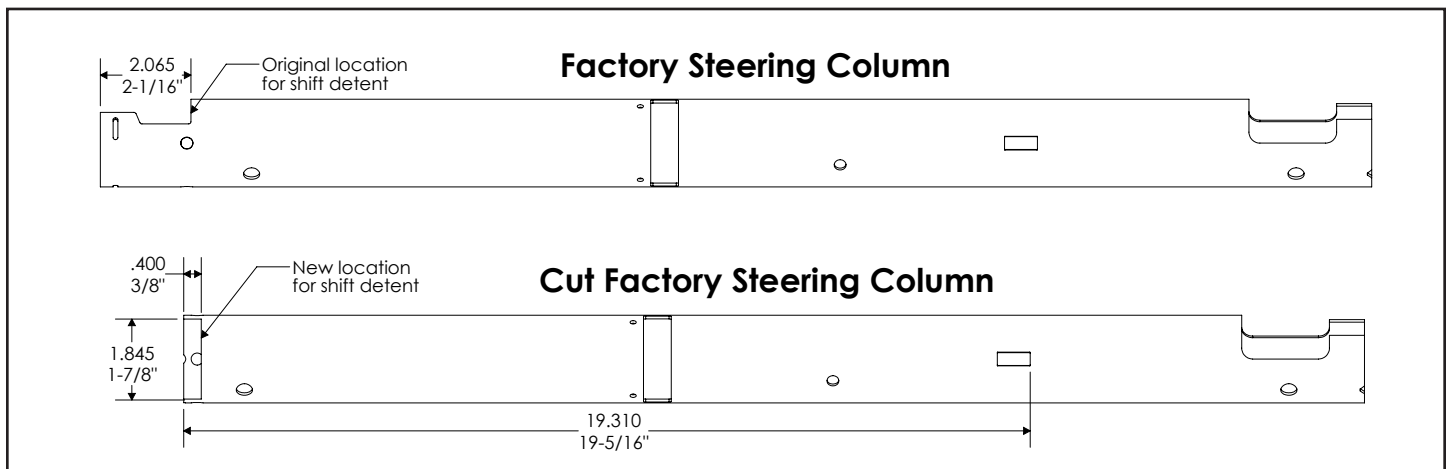
Notes:

This kit works with 1962-1967 manual steering pitman arms.

This kit requires modifications to the original steering column, or replacing the original steering column.

Instructions:

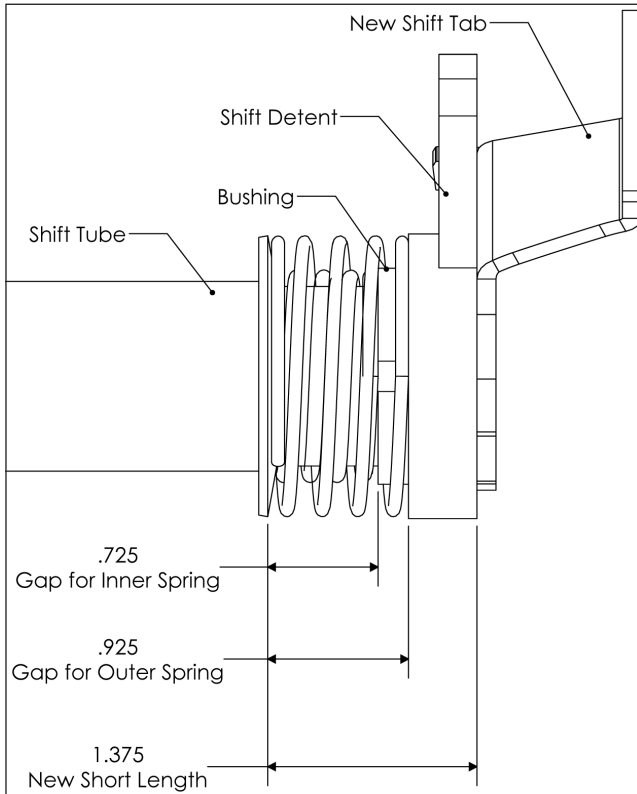
1. You will need to safely jack or lift the front of the car off the ground to gain access to steering linkage.
2. Remove the pitman arm from the original steering box. You will need to use a pitman arm puller. CPP offers a pitman arm puller, part # LTRP.
3. Disconnect the battery.
4. Remove the horn button.
5. Remove the steering wheel.
6. Disconnect the wires from the steering column.
7. Remove the clamp at the bottom of the steering column. This clamp secures the bottom of the column to the steering box.
8. Remove the clamp at the top of the column. This clamp secures the top of the column to the bottom of the dash.
9. Remove the steering column from the car. The column will slide over the inner shaft. The inner shaft is part of the steering box.
10. Remove the sheet metal fire wall plate and fire wall gasket.
11. Remove the 3 bolts that mount the steering box to the chassis.
12. Remove the steering box from the car. Depending on the exhaust and other equipment used, you may need to remove other parts before the steering box can be removed.
13. Enlarge the 3 steering box mounting bolt holes in the chassis to 7/16". A simple hand drill works well for this.
14. Using the 3 new 7/16-20x3 and 3 lock washers, attach the steering box bracket to the chassis.
15. Using the 4 new allen bolts (socket head cap screws) and 4 lock washers, attach the steering box to the mounting bracket.
16. Connect the hoses to the steering box. There are arrows cast into the valve body to show the fluid direction. The port closest to the fire wall is the return port. The other is the pressure port.
17. Connect the pitman arm to the steering box.
18. Install the new fire wall plate, fire wall gasket, and column mount. The top and bottom screws will secure the firewall plate and the firewall gasket. The left and right screws will secure the column mount, fire-wall plate, and gasket. Leave the left and right screws loose until the column has been mounted.
19. Install the rag joint onto the steering box. The steering box input shaft is a 3/4"-30 spline.
20. Install the steering shaft onto the rag joint. You will need to use an aftermarket steering column, or modify the original steering column.



#CP50005NV Installation Instructions (Continued)

MODIFYING THE ORIGINAL SHIFTER TYPE STEERING COLUMN:

- Engage the shifter to park, and mark on the outer tube where the hole on the shifter tab lines up. Mark the outer tube where the round hole in the lever is located. This position will be used to align the new tab later on.
- Remove gear selector pin and lever.
- Remove Neutral Safety Switch.
- Remove three 1/4" bolts (7/16" wrench) at the bottom of column holding the shift tube to the outer tube.



Removing and Modifying the Shifter Tube: (see illustration above)

- Carefully remove the shifter tube from the column by tapping the detent out of the bottom of the tube.
- Once the shifter tube is out, mark on the tube where the round hole in the shift lever is located. Also mark the position of the gear indicator (at the top portion of the column.)
- Push the shifter detent back to compress the springs and cut the shift lever off as close to the lever as possible.

- Remove the shifter detent, springs, and bushings.
- Cut the inner tube 1.4" (1-3/8") from the outer diameter of the spring perch.
- Reinstall the springs and bushings in the order they were removed.
- Compress the springs and clamp the shifter detent down. With the round hole in the shift tube aligned with the mark you made earlier, weld the new CPP shifter tab to the shift tube.

Outer Tube:

- Shorten the bottom of the outer tube by 2-1/16". A straight cut is important to keep the shifter detent square.
- With the shift detent and lever aligned in the park position, re-insert the shifter tube back into the outer tube. Line up the shifter hole to where the mark where the factory hole was aligned.
- Mark on the outer tube where the shifter detent sits as well as the location of the three screw holes.
- Cut a notch into the outer tube so the bottom of the shift detent is flush with the bottom of the column.
- Drill the three holes on the outer tube.
- Fit the shift detent inside the tube and re-install the three 1/4" bolts (7/16" wrench).
- Re-install the gear selector lever.
- Test that gear selector lever moves the shifter through the detents correctly. If the gear indicator is not correctly aligned with the shift detents, you may need to slot the three screw holes in order to adjust the rotation of the shift detents. If the shift lever is too hard to pull, or does not pull back all of the way, remove a coil from the outer spring near the detent. A flat screw driver works well to remove the spring after the shift lever has been installed.
- Temporarily install the outer steering column tube into the car. Position the shifter so the lever is resting on its tallest detent and is not touching the rag joint.
- If you are re-using the original steering shaft, cut the steering shaft approximately 3/4" from where it enters the steering box. The finished length of the steering shaft will be approximately 30-1/4".
- Loosely (finger tight) connect the steering wheel to the steering shaft.



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(Continued)

- w. Insert the steering shaft thru the steering column. With the bottom of the steering shaft touching the rag joint, measure the gap between the steering wheel and the top of the steering column. This gap should be 3/4". (The steering shaft will go into the rag joint 5/8" and leave a 1/8" gap between the steering wheel and the top of the steering column.) Shorten the steering shaft as needed until the gap is 3/4".
- x. Remove the steering wheel from the steering shaft. Cut 2 flats approximately 3/4" long onto the bottom of the steering shaft so the steering shaft fits snugly into the rag joint.

MODIFYING THE ORIGINAL STEERING COLUMN WITHOUT A SHIFTER:

- a. Shorten the bottom of the outer tube by 2".
- b. Temporarily install the outer steering column tube into the car.
- c. If you are re-using the original steering shaft, cut the steering shaft approximately 3/4" from where it enters the steering box. The finished length of the steering shaft will be approximately 30".
- d. Loosely (finger tight) connect the steering wheel to the steering shaft.
- e. Insert the steering shaft thru the steering column. With the bottom of the steering shaft touching the rag joint, measure the gap between the steering wheel and the top of the steering column. This gap should be 3/4". (The steering shaft will go into the rag joint 5/8" and leave a 1/8" gap between the steering wheel and the top of the steering column.) Shorten the steering shaft as needed until the gap is 3/4".
- f. Remove the steering wheel from the steering shaft. Cut 2 flats approximately 3/4" long onto the bottom of the steering shaft so the steering shaft fits snugly into the rag joint

21. Install the steering shaft onto the rag joint.

- 22. Tighten the top clamp for the steering column to the bottom of the dash.
- 23. Tighten the bottom of the steering column clamp to the floor mount. Tighten the left and right screws on the firewall plate.
- 24. Re-connect the wiring to the steering column.
- 25. With the front tires pointing straight ahead, attach the steering wheel, and horn button.
- 26. Re-connect the battery.
- 27. Put the car back on the ground.
- 28. Fill and bleed the power steering system. It is recommended the tires are on the ground when the engine is started. If the hose connections are crossed the box can violently turn the steering wheel; there is less chance of causing damage if the tires on the ground. Fill the reservoir with new high quality power steering fluid. After filling the reservoir replace the cap on the reservoir. Start the engine and let it idle for 10-15 seconds. Stop the engine. Check the fluid level, add fluid as needed. Continue to run the engine for 10-15 seconds and add fluid until the fluid level remains the same (you don't need to add any more fluid). Then, with the engine at idle begin to steer the box to the end of its travel. Stop the engine immediately if the pump starts to make any noise, or if the steering effort starts to get heavier. Add more fluid and replace the cap on the reservoir. With the engine at idle continue to steer the box to the ends of its travel, and add fluid as needed until the fluid level remains the same (you don't need to add any more fluid).
Note: Lower quality fluids are more likely to foam, cause noises, and create steering pulses.

GENERAL TORQUE SPECIFICATIONS:					
1/4"	grade 5	10lb/ft	1/4"	grade 8	14lb/ft
5/16"	grade 5	19lb/ft	5/16"	grade 8	29lb/ft
3/8"	grade 5	33lb/ft	3/8"	grade 8	47lb/ft
7/16"	grade 5	54lb/ft	7/16"	grade 8	78lb/ft
1/2"	grade 5	78lb/ft	1/2"	grade 8	119lb/ft
9/16"	grade 5	114lb/ft	9/16"	grade 8	169lb/ft
5/8"	grade 5	154lb/ft	5/8"	grade 8	230lb/ft

NOTE: With 18" and larger wheels we recommend 1/2" wheel studs. The larger the wheel diameter, the greater the force is on the wheel studs. Please inquire about replacement wheel stud kits available from CPP.

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