



## STOP SIGNS ARE NOT SUGGESTIONS

**FOUR-WHEEL DRUM BRAKES MAKE STOPPING A FINGER-CROSSING EXPERIENCE. CPP FRONT DISC BRAKES CHANGE ALL THAT AND ADD PIECE-OF-MIND.**

By Mike Ficacci | Photography by the author

**Imagine you are** cruising in your '57 Chevy, still trying to make sense of the three-on-the-tree manual gear changing, arm hanging out the window, content with the notion that you are driving one of the most sought-after, recognizable cars on the planet. Suddenly you find yourself at 45 mph, 100 feet from a street light that just changed from "green" to "yellow". You instantly react, deciding the best course of action is to feed a little lead foot to your original small-block when out of the corner of your eye, you see a police officer that needs to make his monthly quota. You two-foot the brake and clutch pedal, hoping to find some stopping power but come up empty when you reach down to the e-brake bar in frantic distress.

This is one of the worst-case scenarios for any of us. Not being able to stop can cause you, your hot rod, and innocent bystanders harm as you are

going for your Sunday drive. Remedying this problem is a matter of safety and piece of mind behind the wheel, especially since New Jersey townships enjoy placing "short yellows" on the bottom of large hills. Our pal Ron Godel got his hands on a beautiful '57 Two-Ten a while back and has lost confidence with his hot rod as he was forced to make some evasive maneuvers, pushing the manual four-wheel drum brakes to the absolute limit. We had to act and called Classic Performance Products for some power-assisted help.

We got our hands on one of its front disc brake kits for the '55-'57 Chevy, complete with everything needed to make the swap including 10.8-inch drilled and slotted rotors, calipers, brake pads, bearings, wheel nuts, master cylinder with vacuum-assisted 8-inch power brake booster, pre-bent brake lines, and all the hardware to make it go together.

A few modifications needed to be made along the way, but the process moved quickly, and we were able to add countless years to Ron's life expectancy (and that of the car). The pre-made lines actually fit as they snaked through much of the factory frame, bearings sealed around the stock spindles, and no shims were needed to center the brake pads.

Along with CPP's front suspension kit installation (see on the previous pages of this issue), we were able to overhaul both the ride quality and braking capabilities of our finned-machine. This is one overhaul that is an absolute must on any automobile as it is a matter of safety. Keeping a car as it was from the factory has its place in a museum, in a garage, or under a tarp, but once you take it on the road, there is nothing more important than having a set of brakes that can save both your life, and some kids. Follow along as we modernize our '57. 📺





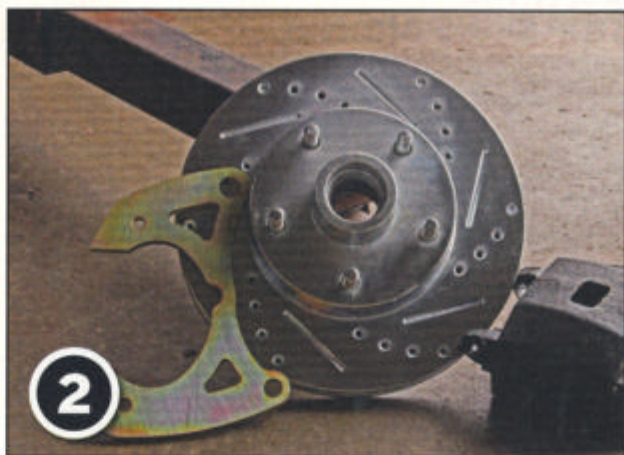
▲ We started our installation with a bare spindle. At this point, we had our complete front suspension kit from CPP on the car and ready for the alignment rack. This kit re-uses the factory spindle and drops the front end with a set of shorter springs. We made sure to clean all of the mating surfaces of the factory spindle as they had accrued over 50 years of grease and grime.



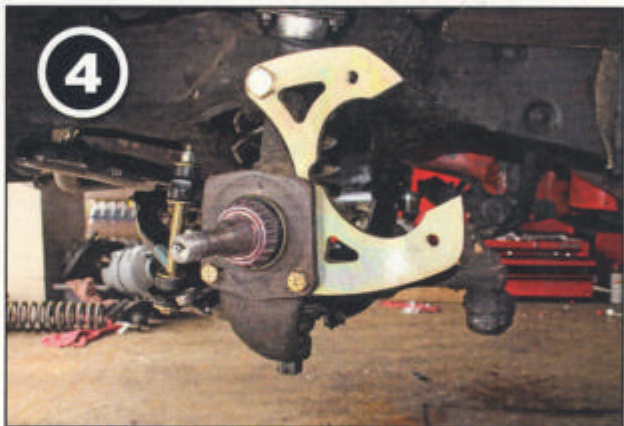
▲ The installation begins by packing the rear bearing with grease and installing it on the spindle. Packing a bearing with grease is made much easier with a purpose-built grease packer. Make sure that both the outside of the roller bearings and inside are fully packed with grease, then place it on the spindle, and give it a roll. While rolling the bearing you should not feel any sort of resistance that can be caused by dirt or small rocks.



▲ Next, we greased the mating surfaces on the one-piece hub/rotor and placed it on the spindle, followed by the outside bearing, washer, and spindle nut. The kit comes with a few spindle nuts, all of varying depths to meet the needs of your tri-five. On the driver side, we were forced to find a spindle nut that was shorter than the ones supplied. This meant a quick trip to the local hardware store. The spindle nut is followed up by the cotter pin to hold it all in place. One thing you do not want to do is tighten the spindle nut down on the assembly. I like to rotate the nut with a pair of pliers till it stops, back it off a quarter turn, and ensure that the disc is still spinning on a straight and true path. Then, I install the cotter pin.



▲ Here is the CPP front disc brake essentials: rotor, caliper and caliper bracket. For over 32 years, Classic Performance Products has been adding stopping power to Chevrolet hot rods and also sells steering, suspension, and chassis components for many vehicles. We hope our front disc brake and suspension components are merely a start to our '57 as CPP has the components to help us out back as well.



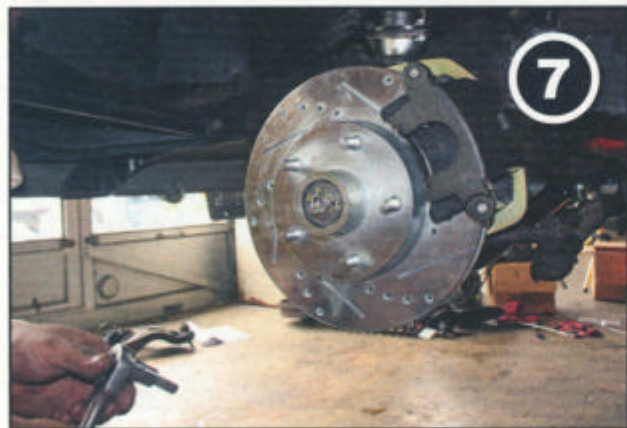
▲ Now is the best time to install the caliper mounting bracket to the spindle. Using the supplied hardware, the caliper bracket mounts to the top of the spindle using a large bolt threaded into the spindle itself, and to the two lower mounting locations that also secure the steering arms. In the kit is a supplied washer that must be installed to make up for the added material of the caliper bracket.



▲ At this point, we are ready for the caliper. The brake caliper installs using two six-inch bolts with a hex-head on the end. Once tightened down, there is little room between the caliper bolt and rotor itself. Make sure the two are not touching and that the rotor is still spinning freely. Take a look at how the rotor sits between the pads as shimming may be needed to center the rotor. We did not have to make any changes. Also, ensure that you put the pads on correctly so that the bleeder valve is facing up towards the fender well.



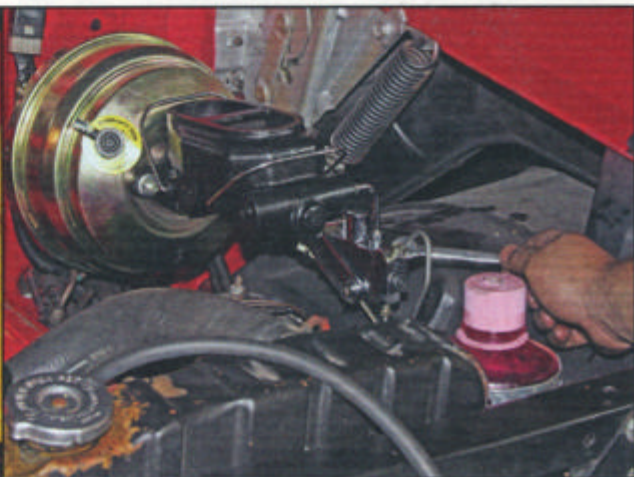
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▲ At this point, the main hardware of our disc brake assembly is complete. The pads and rotors can be replaced at the local parts store, and we have made leaps and bounds over our factory drum brakes. These 10.8-inch rotors will accept a 15-inch wheel and we left the Rallys on since they look so sweet.



◀ We then unbolted the factory manual brake master cylinder from the firewall via four bolts. Also, you need to slide out the pin holding the brake rod to the brake pedal itself. This requires getting under the dash and into the pedal assembly. This was made much more difficult due to the three-on-the-tree manual transmission linkages on the column. I was forced to hold the clutch pedal to the floor in order to remove the cotter pin and detach the brake rod.



▲ Next, we placed the 8-inch vacuum-assisted master cylinder assembly in place and bolted it down. The kit comes with both fine thread and coarse thread bolts to match your application. Make sure to take a look at the threads on the firewall and use the correct set of bolts. Tightening them into place takes some time, as one will tighten, "loosening" the rest. Once you have them tightened, take one more lap around the four bolts just to make sure.

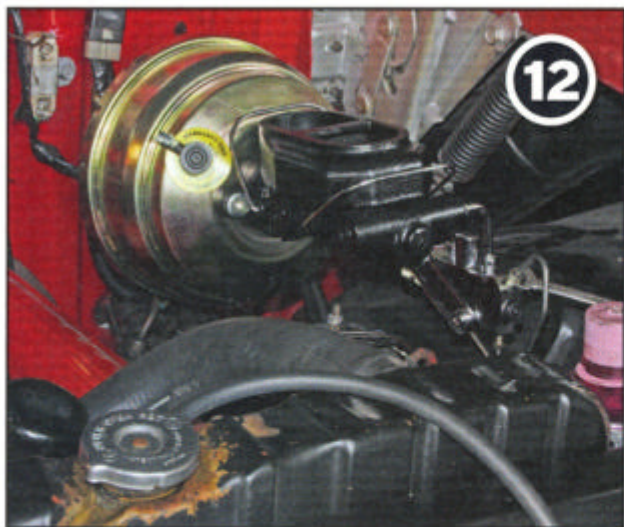


▲ Under the firewall, we had to drop the rod mounting location on the pedal down approximately one-inch to increase rod throw and help with the mechanical advantage of the system. Not the most fun part of our assignment. None of my drill guns fit and I was not ready to remove to the entire assembly to drill the hole. I used a pneumatic, 90-degree drill to make the 3/8-inch hole I needed. Here you can see the rod in its new location with the clutch shaft directly next to it. Once you install the rod, depress all three pedals in varying motions to ensure that none of them come in contact with another through the range of operation.



▲ At this point, we could start working on the brake lines. The supplied flexible lines connect the calipers to the frame and allow for the range of motion in the steering wheel. They connect to the caliper using a banjo bolt that consists of a hole to allow for fluid movement internally. The fluid is then transferred to the braided brake lines' slotted ring, which seals itself and makes a leak-free connection.





▲ We then tightened down the brake lines to the proportioning valve. All of the lines supplied by Classic Performance Products are made out of stainless steel. While increasing strength and durability, getting the ends to seal took a bit of work on two of the lines. We were forced to tighten them into place, loosen, and repeat till we had made a seal between the line and proportioning valve. This meant tightening, depressing the pedal, and looking for leaks quite a few times. We could then bleed the brakes from the back of the car forward and see if we had a pedal. As expected, the stopping power from before and after was like night and day. We were able to lock up the wheels if need be, and dramatically decreased stopping distance.



▲ Check out the '57 Chevy in all its glory. I couldn't let you guys go without seeing the finished product. This Tri-Five is one of the most recognizable cars on the planet, as well it should be. Classic lines, great history, and a gas cap in the tailfin to boot. Ron likes to drive this car and we had to make sure it was safe for him. If one so desires, you could put everything back to factory spec.

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