

<https://www.ncrs.org/forums/showthread.php?97360-L-79-distributor-blueprint-overhaul&highlight=L-79+dist.+blueprint+overhaul>

NCRS Forum thread re Distributor overhaul by Duke Williams.

[L-79 distributor blueprint overhaul](#)

I posted the following in the nearby distributor ID thread, but feel it deserves its own thread with some additional editing. Given the poor condition of the breaker plate ground wire on this relatively low miles car, it's something owners should be aware of. If this wire breaks, you are stranded. The distributor is the most overlooked component on the engine, but if it doesn't deliver properly timed spark under all operating conditions, the engine will never achieve peak performance and fuel economy. We set up this distributor using the spark advance map I recommended in my San Diego presentation for the L-79 to achieve peak performance and fuel economy.

I did a "blueprint overhaul" on a '65 L-79 1111087 single point distributor, today, for a local chapter member. Jim purchased the car about a year ago - 90K miles, and it had been stored for quite sometime, but was unmolested.

One glitch was the breaker plate ground wire broke off the terminal that is secured with the forward VAC mount screw as I was removing the screw, and the wire was rock hard. We had to improvise a fix. I had some black 12 gauge wire and some generic terminals. Don made a new lead using the fresh wire with a generic lug on the end that's secured with the VAC mounting screw. He was able to loosen the crimp on the terminal that's soldered to the breaker plate and re-crimp the new wire.

My advice: Buy a NAPA LW42 breaker plate ground repair wire and install it now. It costs about two bucks and has indexed terminals on both ends. It can be installed with the distributor in the car between the forward VAC mounting screw and a breaker point mounting screw. The ground wire is constantly flexed by VAC action, so it work hardens and will eventually fatigue and break, which can leave you stranded. In a pinch, a test lead with alligator clips can be secured to the breaker plate through the window to a ground. Disconnect the VAC and plug the hose so the breaker plate doesn't move around and knock the test lead off. This will get you home.

There was virtually no detectable shaft side play, so the housing bushings were not worn. End play was only .043" (I typically recall .060-.090"), and there was some visible spark scatter. The football was "71", cam assembly "730 CCW". The weights had no numbers, but looked OE, not aftermarket. They had a hole drilled on the big ends as in the post #42 photo. (<http://www.ncrs.org/forums/showthrea...-a-Distributor>)

There was a "56" on the inside base of the housing under the breaker plate, and an O or zero externally with what looked like a square symbol.

The breaker plate fit nice and snug with no wobble, and the advance bushing was okay. The

upper bushing grease well had some wet solid flakes, but at least the tach drive gears still had grease and were in good shape.

Once we got everything cleaned up I packed GM 1960954 distributor and starter motor grease into the upper bushing grease well, and also used it on the tach drive gears. We replaced the OE 236 8" VAC with a B26 (12") VAC, and Jim had already installed the gold springs from the Mr. Gasket 928G kit that we believe are the lightest. (BTW, compared to these the OE springs look like they came off a dump truck.) A .030" and .010" shim from the shim kit brought end play down to the .004-.005" range. Jim had already installed the Echlin CS7860 32 oz. point set with the trick little lubricator wick, and I dabbed on some of the 1960954 grease. This is exactly how I recommended setting up an L-79 distributor in my San Diego presentation.

It fired right up after having to tweak the oil pump drive to get the distributor to seat. Centrifugal starts at about 700 and is all in at 3000-3500. The L-79 centrifugal is 30 maximum (at 5000 OE), but it's non-linear, so most of it is in by about 4000. Of course, the gold springs quicken it so it's nearly all in at 3000.

I set the total WOT advance at 39 @ 3500 and the initial is 9. The timing mark is dead steady at any RPM. That's what tight end play does - gets rid of the spark scatter that the sloppy OE assembly produces, which can result in a noticeably smoother engine. Idle mixture screws are out one turn from the seat, and it pulls 14-15" at 750, so I have no reason to believe it doesn't have the correct L-79 cam.

Given the car's history I thought the heads may have never been off, but the gasket measured .036", so they have been off. In my brief road test I couldn't get it to detonate lugging up some steep hills. Start up from a dead stop with minimal clutch slippage was smooth with no stumble, and it was tractable down to less than 1000 revs. Low end torque was a little weak (as expected compared to the 300 HP engine), but it was strong and linear from 3500-6000 even though it might have lower than OE compression ratio. Jim's next step is to do a regular unleaded fuel test to see if it will run detonation free on regular.

Jim and Don have reported that the engine ran smooth and strong on the trip back up the world's busiest freeway to the San Fernando Valley.

Duke