Spark Plug Wires — Corvette 1955-62

—Courtesy of Lectric Limited and Ken Hanna

Spark plug wires perform a unique function under extreme conditions and only a few original sets have survived the rigors of daily use. Very little is known about the actual appearance and specifications of the original sets of ignition wires. Due to this fact, they are one item which most enthusiasts and restorers overlook. In the mid- to late seventies, while I was restoring my '57 Corvette, I touched on this specific area quite briefly and found that no one had any information on what the correct wires looked like. I finally did what most restorers did and are probably still doing: I purchased a set of current AC Delco wires. My car was shown at most of the shows, where every detail was scrutinized and low and behold, no points were deducted. All was fine and I slept very well in the years to come until one day, my friend San Robbins purchased a 2,500 mile (That's right—2,500 miles) '56 Corvette.

As an avid '56-'57 enthusiast, I couldn't wait to crawl all over this car. There under the hood were the original spark plug wires. now you wouldn't think that they would jump out at you but this was a no-radio car without ignition shielding covering the wires. I found that this '56 Corvette used bright orange 90 degree silicone spark plug boots of a different design than I had ever seen. Needless to say, my curiosity got the best of me. I had to know more. So began the saga of my research into the history and development of the spark plug wires used on '55-'70 Chevrolets and Corvettes.

Details of the research tend to be rather complex. For purposes of simplicity, I have only included data on '55-'62 Corvettes.

1955: In 1955, the spark plug wires used on Corvettes were shielded with metallic braiding, much like the later ignition wires used on '65-'74 Big Block Corvettes. The spark plug boot was of 70-degree configuration and was identified with the part #2962019. The terminals used with the spark plug boot was part #2962018. (See Figure 1).

One item of interest about both of these components is that while I have several Packard component catalogs which were used between '55 and '62, this boot and terminal are not listed as a regular Packard component. This boot and terminal was also used on all V-8 powered '55 and "first design" '56 passenger cars, so it did have extensive use. I have been told that it may have been an AC Delco component, but I have not been able to confirm this.

It should also be mentioned that 180-degree (straight) terminals and nipples were used on the distributor end of the wires. The coil wire also had 180 degree terminals and nipples at both ends.

1956-1968: In 1956, the 90-degree spark plug boot part #2962928 (Figures 2 and 4), made its appearance. It was constructed of orange silicone rubber. This was probably one of the first applications to utilize this new silicone rubber compound. It was used for this hi-performance application due to its ability to withstand higher temperatures. It was also more expensive which probably led to its being discontinued for production use at the end of 1958. The original samples I have obtained attest to their resiliency. They all look and feel like new. This boot was used in conjunction with spark plug terminal number 2962929.

During the '56-'58 time frame, all ignition sets used the 180-degree straight configuration (Figure 2), at the distributor end with the exception of those equipped with fuel injection which used 90-degree boots and terminals at the distributor end (Figure 3). The coil wire also used a 90-degree boot and terminal at both ends on the FI cars while the carburetor cars used a 180 degree nipple and terminal at both ends.

1959-1962: In 1959, Chevrolet switched from the 90-degree orange silicone boot number 2962928 to the less expensive black hypalon boot number 2962927. These boots are identical in configuration (Figure 4), with the only difference being the color and rubber compound used. The spark plug terminal used was still number 2962929.

In 1958, Chevrolet changed the routing of the spark plug wires further away from the exhaust manifolds and by 1959, the engineers apparently felt that the more expensive orange silicone boot which could withstand the higher temperatures was no longer necessary. I can only guess that they continued with the orange boot in '58 to use up existing inventory or perhaps did catch the extra cost for a year. The elimination of the crescent-shaped spark plug shield which was used behind the exhaust manifold in 1957 also helped to cut costs.

Another item of interest is the fact that there were no special wires used on the FI cars from '59-'62. Since the FI ignition top shield did not change significantly between 1957 and 1959, the only apparent reason for the change was to cut costs. The 90-degree terminal and boot is costly to both produce and install. Perhaps in 1958, they were using up existing inventory of 1957 FI wire sets as well.

When I restored my '57 Corvette, which was equipped with Fuel Injection, I mistakenly used a wire set with 180 degree (straight) terminals and nipples at the distributor end and had very little trouble installing the ignition top shield over the distributor. Chevrolet may have made the same discovery.

All Corvettes used the 180 degree nipple and terminal at the distributor end from 1959-1962. The 90-degree distributor boot did not appear again until 1963 when it was again used only on FI cars and continued on until the end of the FI option in 1965. The coil wire used on all Corvettes from 1959-62 had 180-degree nipples and terminals at both ends.

SPARK PLUG WIRE

The specification for the wire on all of the drawings I have gathered reads as follows: Cable: 7 MM Black H.T. spec. 58404R

The specifications for this wire are shown below and on the facing page and is drawn directly from a Packard catalog. The specifications were the same from 1955 through January of 1960, beyond that I have no data.

SUPPRESSOR IGNITION CABLE — "T.V.R.S. Type"

Packard T.V.R.S. (Television-Radio Suppressor) cable is insulated in the same manner as "Four-forty" type cable. However, a special non-metallic conductor developed by packard is used to minimize electrical interference created by the ignition system. T.V.R.S. cable minimizes ignition interference with the reception of television sets, radios, airport electronic equipment and mobile two-way communication systems on vehicles and boats.

Some systems provide suppression at only one point—usually at the spark plug or distributor.

T.V.R.S. cable, however, provides suppression throughout most of the length of the ignition circuit, thereby giving more complete and thorough suppression.

Since terminals cannot be attached to the non-metallic conductor in the usual manner, terminals are attached by special process at the Packard Electric factory.

TABLE 52

CORE	PACKARD PART NO.	APPROX. RESISTANCE PER FT.	FINISHED CABLE O.D.	FINISH	PRINTING
Non-Metallic	58404R	4000 OHMS	.270 to .290	BLACK	RADIO T.V.R.S. G.M.

Available on Packard-made cable assemblies.

D-7

packard electric
LIVE WIRE division of general motors warren, ohio

AUTOMOTIVE AIRCRAFT APPLIANCE RADIO ORDNANCE

One point of special interest is the printing on the wire. This specification calls for it to be RADIO T.V.R.S. G.M., however, all of the early wire I have examined appears to be printed with RADIO G.M. TVRS. Beyond 1960, I have secured photos of wire with different printing. I also must mention that in 1961 and perhaps earlier, Packard began quarterly dating of wires. This appeared for example as 2Q61 for the second quarter of 1961. I should also mention that this dating took place when the wire was manufactured and not when it was terminated into a spark plug wire assembly.

I am reasonably certain that dating did not appear before 1961, but I need more information on this and would also like to see any original sample wires that anyone has beginning with 1958. Anyone wishing to contribute information to this project please feel free to forward them to Ken Hanna, c/o Lectric Limited, 7322 S. Archer Road, Justice, IL 60458, or phone (312) 563-0400.

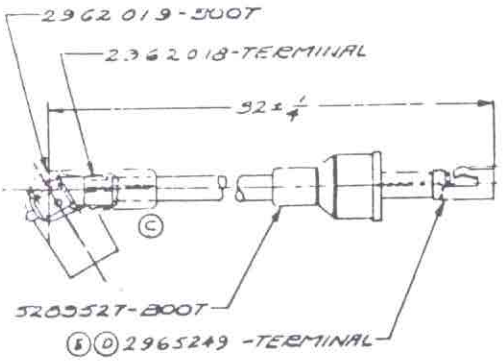


Figure 1 — '55 Corvette

G. M. PART NUMBER	MATERIAL
2962927	BLACK HYPALON
2962928	ORANGE SILICONE

Figure 4

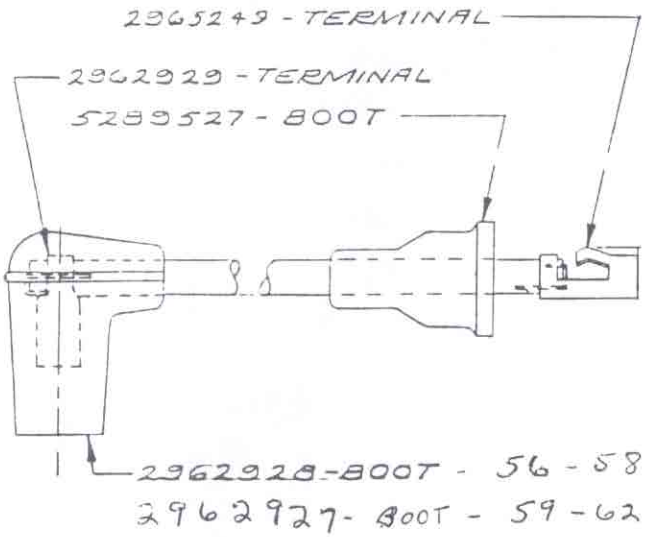
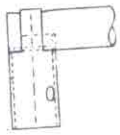
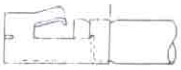


Figure 2 - '56-'62 Corvette (All Excluding FI)

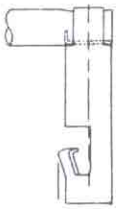


G. M. PART NUMBER
2962929*



G. M. PART NUMBER
2965249

Figure 4 — 90-degree Spark Plug Terminal **180-degree Distributor Terminal**



G. M. PART NUMBER
2962993

90-degree Distributor Terminal

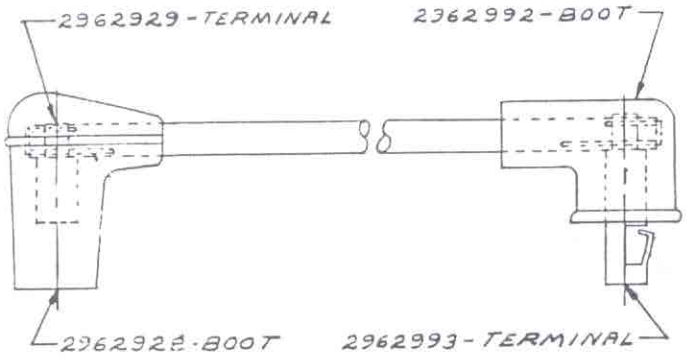


Figure 3 - '56-'62 Corvette (All Excluding FI)

CORVETTE V8 ENGINE SMALL BLOCK ONLY		
Application	Spark Plug Boot	Distributor
55 V8 - All	70 Black	180 Nipple
56-58 Carb	90 Orange	180 Nipple
57-58 FI	90 Orange	90 Boot
59-70 Carb All Sm Block	90 Black	180 Nipple
63-65 FI	90 Black	90 Boot