

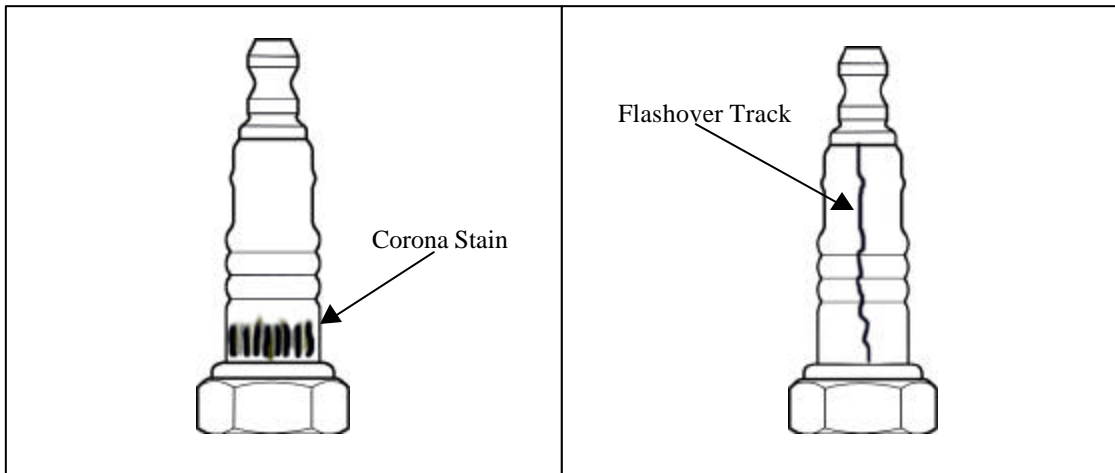


## SPARK PLUG FACTS "Corona vs. Flashover"

Federal-Mogul Document #1518

When changing Spark Plugs, people often find a yellowish or brown stain below the plug wire boot on the plug insulator. This stain is found around the insulator base near the top of the spark plug shell and is often mistaken as "leakage". Nothing could be further from the truth. This condition is called "Corona" and will not affect ignition output or engine performance. Corona does not indicate a faulty spark plug.

Under certain atmospheric conditions, a pale bluish glow or "Corona" may be observed around any conductor carrying high voltage. You may have noticed while driving at night, high-tension cross-country power distribution lines have an eerie blue glow around them. You may also notice this glow on spark plug insulators if the engine is running in a darkened room. Don't be alarmed; this glow is "Corona", and it will not affect ignition output or engine performance.



You may never see Corona; however, it may leave a telltale, non-conductive, yellow or brown stain around the insulator base below the plug wire boot near the top of the shell. This stain should not be interpreted as leakage between the shell and insulator.

Neither should Corona be confused with flashover, a situation where voltage actually tracks down the outside of the insulator, resulting in misfire. Corona is harmless and is characterized by a hissing sound, much different than the familiar "snap" caused by flashover.

Champion's insulator, combined with good plug boots, will prevent harmful flashover. Corona however, can occur under any condition where high voltage is present.