Champion Spark Plug Resistor Test

There is no separate resistance check for Champion Aviation spark plugs. The silicon carbide resistor is a high voltage device and cannot be tested with a standard ohm meter. It requires high voltage such as the CT475 cleaner/tester. The CT475 high voltage test does two things. It is looking for internal insulator cracks and making a high voltage resistor check at the same time. As long as there is an intense, bright blue spark under pressure the plug is serviceable. If the spark is intermittent, or yellow or orange in color the plug is not serviceable.

The silicon carbide resistor is voltage dependent. The higher the voltage, the lower its resistance. These devices exhibit high resistance until the voltage across them reaches a certain threshold, at which point their resistance drops to a lower level and maintains this level until the applied voltage drops. You cannot measure a silicon carbide resistor with a standard ohm meter. High voltage is required for this type of test.