



Q.5 Can I replace my double, triple, or quadruple electrode plugs to **IRIDIUM POWER** or **IRIDIUM TOUGH**?

A This is possible. The reason: because of the 0.4mm center electrode in Iridium Power and Iridium Tough plugs, they have a lower spark voltage compared to double, triple, and quadruple electrode plugs. Please refer to the Standard Resistor Model Quick Chart.

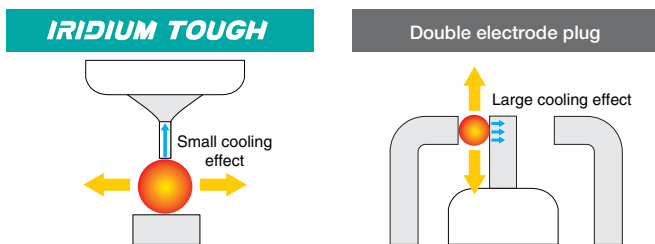
Spark Voltage

The thinner the electrode is, the stronger the electrical field is. Because the electrical field affects spark voltage, a thinner electrode lowers spark voltage. If each type of electrode shape is modeled as shown below, Iridium Tough has a lower voltage than double electrode plugs.

		IRIDIUM TOUGH	Double electrode plug	Normal Plug
Plug				
Electrode model	Ground			
	Center			
Required voltage		Low		High

Ignitability

The more the contact area between the flame kernel and the electrode is minimized, the smaller the cooling action from the electrodes and the better ignitability is. Because of the 0.4mm center electrode, the contact area between the flame kernel and the electrode is small, resulting in excellent ignitability.



Service lifetime of plugs

The service lifetime of a spark plug may be shortened due to driving conditions or ignition properties when used in a vehicle equipped with a simultaneous ignition system (plus-minus discharge and D-DL methods). Please ask your dealer to check if your vehicle is equipped with a simultaneous ignition system. The simultaneous ignition system fires the plug at the top dead center point not only of the compression stroke, but also the exhaust stroke.



Q.6 What kind of vehicles are surface gap plugs used for?

A These are plugs developed for racing, and there are many people who use these plugs in the All-Japan Road Race Championship JSB1000 class and in drag racing. Because the ground electrode is gone, there are the following advantages and disadvantages.

Advantages

- [1] When the engine is tuned so that the compression ratio is increased, these can avoid interference with the piston.
- [2] Because there are no excess projections into the combustion chamber, the combustion efficiency at high revolutions is improved.
- [3] Difficulties due to the ground electrode can be prevented.

Disadvantages

- [1] The ignitability becomes worse, and thus feeling and response at low and mid-revolutions deteriorates.
- [2] For peak engine characteristics demanded under the most severe operating conditions. In the popular ST600 class, many drivers use a plug with a ground electrode.

Q.7 How is the compatibility with plug cords such as Nology?

A There are no particular issues with compatibility. In fact, there are some cord manufacturers who sell products "especially for iridium plugs."

Q.8 When changing plugs, is there any need to change the settings?

A For normal vehicles, there is no need to change the settings. It is advisable to reset vehicles with modified exhaust systems, though in most cases adjusting the air screw is sufficient. (Except for racing carburetors such as FCRs)

Q.9 Is there a way to tell them apart when replacing them?

A This can be done by confirming the level of wear (the gap width) on the ground electrode. DENSO's Iridium electrodes are different from conventional products in that their center electrodes hardly wear, and because of this it is better to check for wear on the ground electrode.

Q.10 The vehicle seems to be running worse now that I've installed them?

A In most cases there is a problem with the vehicle. Scooters are often run for long periods of time without maintenance, and it is common to see them with richer fuel-air mixtures from dirty air cleaners. Our investigations have found that these vehicles tend to be susceptible to carbon fouling, and when replacing plugs also remember to inspect and clean the air cleaner. The effectiveness of the change should become even more apparent.