



Q&A about Motorcycles

Q.1 How is the compatibility with trial Motorcycle?

A The "IW series" is well suited for most trial vehicles. Though these vehicles frequently use a low heat range, the heat ranges available for **IRIDIUM POWER** starts with IW16, so choose one that matches the type of driving you do. Better accelerator response and torque can be expected with **IRIDIUM POWER**, which has excellent ignitability. Recently, with downsizing of the space to install plugs in trial vehicles, demand for miniature plugs is increasing. In these cases, try the IK types. However, the space between the plug cable and the insulator will require waterproofing.

Q.2 What is the difference in the life of an **IRIDIUM POWER** used under 2-cycle conditions and one used under 4-cycle conditions?

A ●In 4-cycle engines, a spark is produced for every 2 revolutions of the crankshaft, resulting in explosion and combustion in the engine. ●In 2-cycle engines, a spark is produced for each revolution of the crankshaft, resulting in explosion and engine combustion in the engine. This simple comparison may lead you to conclude that 2-cycle engines simply have twice the wear; however wear is made up of not only wear from sparking, but also wear from high temperatures (oxidation). Thus, the amount of wear depends on the driving conditions of the vehicle, how the rotations of the engine are applied (that is, how the shift is used), and whether the resulting combustion temperature is high or low. 2-cycle engines have a higher level of electrode wear. This electrode wear is estimated at approximately 1.5 to 2 times that of 4-cycle engines, and plug life is also shorter with 2-cycle engines. Iridium has a high melting point; however, it will undergo wear from sparking and wear from high temperatures (oxidation). To our knowledge, 2-cycle engines are only found in 2-wheel vehicles, our recommended value in this catalog for lifetime is 3000 to 5000km. (This value is based on a variety of conditions, and, racing use may require even more frequent replacement.) From the above, it is recommended that plugs for 2-cycle engines be replaced about every 3000km. However, the condition of wear depends on operating conditions and the typical engine rpms, so it is also possible to take out the plugs occasionally to confirm the amount of electrode wear and judge when the best time is to replace the plug.

Q.3 Is it true that installation on Ducati watercooled 4-valve engines is not possible?

A Since the 996R, the interior of the Testastretta (narrow head) engine's plug holes have been very narrowly machined, and with regular plug wrenches, the socket OD hits the wall and thus the plugs cannot be fully tightened. (Not possible with a 21.5mm OD) In this case, a thin-wall plug wrench is required. [We recommend the "NB3-16SP (nepros)" or the "B3A-16SP" by KTC.]



Q.4 The terminal on the end of the plug is frequently unnecessary on motorcycle, so why is this included with all types?

A **IRIDIUM POWER** comes standard with a plug terminal (not including combined types). This is because some of the other companies' plug cords require a terminal, and at DENSO we decide our product specifications keeping in mind every customer.

Q.5 I see that **IRIDIUM TOUGH** plugs, such as VUH27D and VK24PRZ11, are available for Honda vehicles. Will they last 100,000 km? Also, can **IRIDIUM POWER** be substituted here?

A Plugs for motorcycle vehicles with a "V" in the part number have a platinum tip welded to the ground electrode, the same as in 4-wheel vehicles. They have more durability than Iridium Power, but do last 100,000 km. Thus we do not offer them as Iridium Tough products. You can choose the Iridium Power plug for those vehicle types with a compatible Iridium Power plug shown in the Model Chart; however, please understand that it will be not as durable.

Q.6 I installed **IRIDIUM POWER** on to my motor cycle vehicle. Sometimes when I start it, there is a loud, explosive "pop." With regular plugs this did not happen. Why is the reason for this?

A A loud explosive "pop" pop sound can have the following two causes:

- (1) An afterfiring muffler
- (2) Backfiring due to blowback from the carburetor

If it is the same vehicle and these symptoms were not there before changing to the new plugs, the reason for this is (1) afterfiring. The causes of afterfiring are:

- (1) An abnormally elevated intake pressure, the combustion becomes unsteady (during engine brake)
- (2) A problem with an ignition device (improper ignition timing, misfiring)
- (3) The fuel-air mixture is too rich (problem with the carburetor, too much choke)
- (4) The valve timing is off

If the problem is during starting, (2), (3), or (4) are thought to be the reason. A specific example for (2) is "ignition timing that is off" and specific examples for (3) include "a dirty air cleaner" and "pulling the choke too much."

We often hear that Iridium plugs improve ignitability so much that people "don't have to pull the choke to start the engine." If you are pulling the choke to full, try pulling it to the "halfway" point and see if this solves the problem.