DENSO

SPARK PLUGS CATALOGUE

2024

Data up to October, 2023

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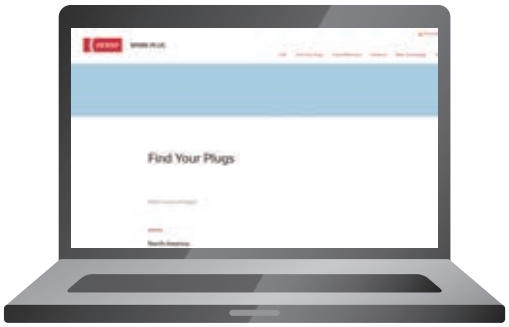

DENSO spark plugs

DENSO Spark Plugs Website

https://www.denso.com/global/en/products-and-services/automotive-service-parts-and-accessories/plug/

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Be Sure to Read Through These Warnings and Precautions

IN NO EVENT SHALL DENSO BE LIABLE FOR ANY LOSSES, EXPENSES OR DAMAGES WHATSOEVER RESULTING FROM ANY OF THE FOLLOWINGS;
- FAILURE TO COMPLY WITH THE WARNING OR PRECAUTIONS DESCRIBED IN THIS CATALOGUE AND WEBSITE,
- ANY USES OTHER THAN THE APPLICABLE USE DESCRIBED IN THIS CATALOGUE AND WEBSITE, and
- ANY TROUBLE NOT ATTRIBUTABLE TO DENSO SPARK PLUGS.

※"Spark plugs" means any type of DENSO's spark plugs, including but not limited to Iridium Power, Iridium TT, Iridium Racing, Iridium Plus, Iridium Saver, Iridium Tough, Iridium Long Life, Double Platinum, U-Groove, Resistor, Standard, Nickel TT, Platinum TT, Two-Tops.

WARNING (Prohibited Usage)

Be sure to turn off the engine and disconnect the battery or power source before replacing or adjusting the plugs. Failure to heed this warning may result in a fire, an electric shock and/or bodily harm.

- Never use DENSO spark plugs in the engines for any aircraft, including airplanes, helicopters, gliders and drones. The DENSO spark plugs sold are not designed and manufactured for any aircraft: use may result in a plane crash or other accidents due to engine malfunction.
- Never use DENSO spark plugs, listed in this catalogue or website, in the engines for generator and gas heat pump air conditioning system or co-generation, except DENSO spark plugs specially designed for such use. The DENSO spark plugs we sell are not designed and manufactured for such use, so that such use may result in accidents, including power generation stop or heat generation stop.
  A separate catalogue for DENSO spark plugs specifically designed for co-generation is available for limited regions. Please contact your DENSO representative for more information.
- Never use DENSO spark plugs for gas burner ignition. The DENSO spark plugs we sell are not designed and manufactured for such use, so that such use may result in ignition failure or equipment damage due to overheating.
- Use genuine spark plugs for special applications such as ambulances, police cars, emergency vehicles, and others.

Spark Plug Handling Precautions

- Carefully read the instructions and precautions on the package, catalogue and website.
- Do not drop spark plugs. This may cause the spark plug to crack internally or the gap to be narrowed, preventing it from functioning correctly.

Precautions for Tuning and Modified Vehicles

- DENSO will not bear any responsibility whatsoever for any trouble arising from mechanically or electronically modified engines or vehicles.
- It is the user's judgement and responsibility to check the specifications required for modified engines or any engines or vehicles those are not listed in DENSO spark plugs catalogue and website, which includes and not limited to, gapping, heat ranges, reach, projection, and/or clearances with valves and/or pistons.

Catalogue & Website Precautions

- Precautions for cross reference and product tables listing other manufacturer's spark plugs:
  - Use for reference only. Table does not guarantee the performance of spark plugs when installed in the vehicles even plug was specified in cross references. Always check the applications section for DENSO recommended spark plugs.
  - The spark plug specifications (construction, material, etc.) differ by manufacturers.
  - Select a suitable type of spark plug from the vehicle application table. If not listed on the table, please check with your regional DENSO Representative.
- The contents of the catalogue and website are updated on a regular basis, however, the information and data may change after updating or publishing. Please note that this catalogue and website does not include models that will be release after last updating or publishing.
- Consumption tax and installation fees are not included in the price of the product.
- Some spark plugs on this catalogue and website are manufacturer's genuine parts and reference only. Those cannot be sold directly from DENSO. Please contact your regional DENSO representative for further assistance.
- The appearance and specifications of the product are subject to change without prior notice.
- The images of spark plugs indicated in the catalogue and website are conceptual diagrams, and sometimes differ from the actual products.
- Data given in this catalogue are those as of October 2022. The information and data may change after updating or publishing. Please note that this catalogue does not include models that will be release after that.

Precautions for Selecting Spark Plugs

Select appropriate spark plugs with the correct dimensions and heat range by checking vehicle manual, maintenance manual and this catalogue's or websites' application table.

Spark Plug Selection Know-How

Normal Vehicle

- Use standard heat range plugs. However, if you often drive at low speeds or short distances and the carbon fouling recurs, you might able to avoid carbon fouling recurs by selecting a low heat range spark plug.
- Do not use a non-register type spark plug for a model specified a register type spark plug (spark plug with resistance). Noise associated by spark discharge may cause engine trouble.
- If the extended type spark plugs (J, QJ, KJ, PKJ, SKJ, VKJ, TJ, etc.) are installed to any other designated engine, it will interfere with valves and pistons and may damage the engine and plug.

Select the Optimum Heat Range

Heat Range	Applications
31	Prevent plug overheating
27	
24	
22	
20	Prevent carbon fouling/oil fouling

Low ◄——► High
Tuning Level

Tuning or Modified Vehicle

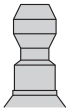
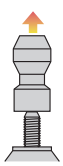
- If the engine is modified, or if the tuning or modified vehicle uses an aftermarket muffler, ignition coil, plug cord, turbo installation, electronic ignition system, NOS (*), etc., the heat range of the spark plug must be increased according to the level of tuning. If the spark plug is not selected correctly, the vehicle may be damaged by carbon fouling, oil fouling or pre-ignition (the natural phenomenon of spontaneous combustion occurring faster than spark plug ignition), etc.
  (*) NOS: a device that increases engine power by injecting nitrous oxide with gasoline into the air intake
- Select the heat range at your own discretion and responsibility when using the spark plugs in a tuning or modified vehicle.

When Using Iridium Racing Plugs

- Iridium Racing plugs are intended for racing and also for tuning up. Select the heat range of the spark plugs according to the tuning level, based on the heat range of the standard spark plugs or Iridium Power plugs.
- Generally, a plug that protrudes into the combustion chamber has superior ignition performance, resulting in improved engine performance. On the other hand, this type of plug is more susceptible to exposure to hot combustion gases and the longer ground electrode makes it less heat-resistant and durable. Therefore, the higher the level of tuning, the greater the need to use a type with recessed electrodes.
- Generally, the higher the level of tuning, the greater the need for high-heat range spark plugs.
- Use of Iridium Racing plug is at your own discretion and responsibility.

Use of Spark Plug with Terminal Nut

**Using a spark plug with a terminal nut with the terminal nut loose may cause engine malfunction.
When using a spark plug with a part number marked "R" alongside "Terminal Shape" or "NUT" and a terminal nut attached, securely tighten the nut by using pliers or the like. For spark plugs with part numbers marked "RC" alongside "Terminal Shape" or "NUT," the terminal nut is caulked and does not loosen under normal use. However, it may loosen in rare occasions when the engine and or plug cord vibrates intensely. If such a situation is expected, inspect the nut regularly and if it is loose, tighten it again securely.**

S: Solid (Integrated Type)	R: Nut Type (Not Caulked)	RC: Nut Type (Caulked)	T: Screw Type
			
The terminal nut cannot be removed.	The terminal nut can be easily removed	The terminal nut can be removed by using pliers or the like.	No terminal nut.

Precautions for Installing Spark Plugs

Recommended Torque and Tightening Angle

It is necessary to install the plugs in the engine using the correct torque.

- Too low torque: may cause damage to the engine and the plugs due to leakage of combustion gas or vibration.
- Too high torque: may cause airtight leakage or break of the mounting screws due to the caulking of the insulator and housing become loosened.

Thread Size	Applicable Models	Recommended Torque	Recommended Tightening Angle	
			New Plug	Previously Used
M 8	All Types	8 -10N·m	About 1/3 turn	About 1/12 turn
M10	Types other than the ones shown below	10-15N·m	About 1/3 turn	About 1/12 turn
M10	UFE, IUH, VUH, VNH Types	10-15N·m	About 2/3 turn	About 1/12 turn
M10	Stainless Gasket Type (*1)	10-15N·m	About 3/4 turn	About 1/12 turn
M12	All Types	15-20N·m	About 1/3 turn	About 1/12 turn
M14	Types other than the ones shown below	20-30N·m	About 1/2 turn	About 1/12 turn
M14	Stainless Gasket Type (*2)	20-30N·m	About 2/3 turn	About 1/12 turn
M18	All Types	30-40N·m	About 1/4 turn	About 1/12 turn
M14 Taper seat	All Types	10-20N·m	About 1/16 turn	About 1/16 turn
M14 (Gas)	If the cylinder head material is cast iron	20N·m	-	-
M14 (Gas)	If the cylinder head material is aluminum	17.5N·m	-	-
M18 (Gas)	If the cylinder head material is cast iron	30N·m	-	-

(*1) VUH27ES, U24FER9S
(*2) IK16G, IK20G, IK22G, K20PR-U8S, K20PR-U9S, KJ20DR-M11S, PK22PR-L11S, SK20PR-N9S, SK22PR-M11S, SKJ20DR-M11S, VK16G, VK20G, VK22G

Spark Plugs Installation

⚠ Always refer to the vehicle manufacturer's repair manual for specific installation procedures.
Do not apply screw thread lubricant to the spark plug since it may make you over tighten the spark plug and cause the screw to break.
However, screw thread lubricant is already applied to some plugs for LPG engines. In such case, tighten the plug according to the maintenance manual.

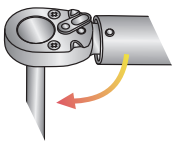
1 Check the gasket ring.

⚠ When cleaning the mounting seat on the engine side, be sure that oil, dust and foreign objects in the vicinity of the cylinder head to not fall into the engine.

2 Hold the spark plug vertically to plug hole and lightly tighten it by hand or by using a plug wrench.

⚠ Use plug wrench that fits to the plug's hexagonal housing

3 Using a plug wrench, tighten the plug to the recommended torque or the recommended tightening angle.



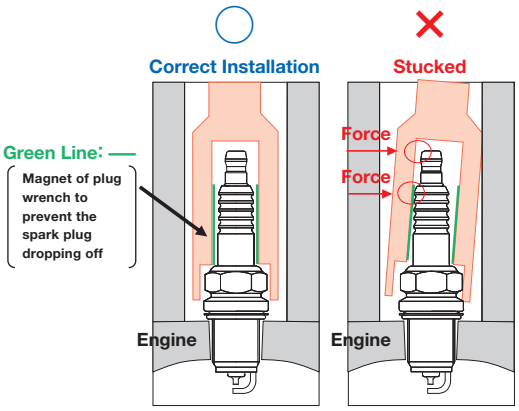
⚠ Be careful not to hold the wrench obliquely.

⚠ Tighten the plug to the recommended torque or the recommended tightening angle.

Insulator Cracking

The spark plugs of recent engines are installed in deep plug holes, and it is difficult to notice the tilted wrench when installing and removing the spark plugs. However, if you turn the wrench in this condition, the head of the insulator may become stuck. By applying excessive force, resulting in cracking.

*The mode of occurrence differs depending on the difference in the structure and the dimensions of the plug hole by vehicle and the type of wrench.



Spark Plug Replacement Timing

The electrode progressively wears, causing the spark gap to increase, along with the increasing number of spark discharges. When the gap exceeds a certain limit, the sparking performance deteriorates, which may prevent stable ignition of the gas mixture. When this happens, the horsepower of the engine falls, the fuel economy deteriorates and also the quality of the exhaust gas is adversely affected, so it is necssary to replace the plugs.

The table below shows our recommended plug replacement timing as a rough guide to the economic life of the plugs. The economic life may be reduced depending upon the vehicle running condition and the sparking characteristics**.

	IRIDIUM POWER Ni-TT Plugs Conventional Plugs	IRIDIUM TOUGH IRIDIUM PLUS Platinum Plugs
Automobile	15,000 ~ 20,000km	~ 100,000km *
Motorcycle	3,000 ~ 5,000km (No settings for Ni-TT Plugs)	No Settings

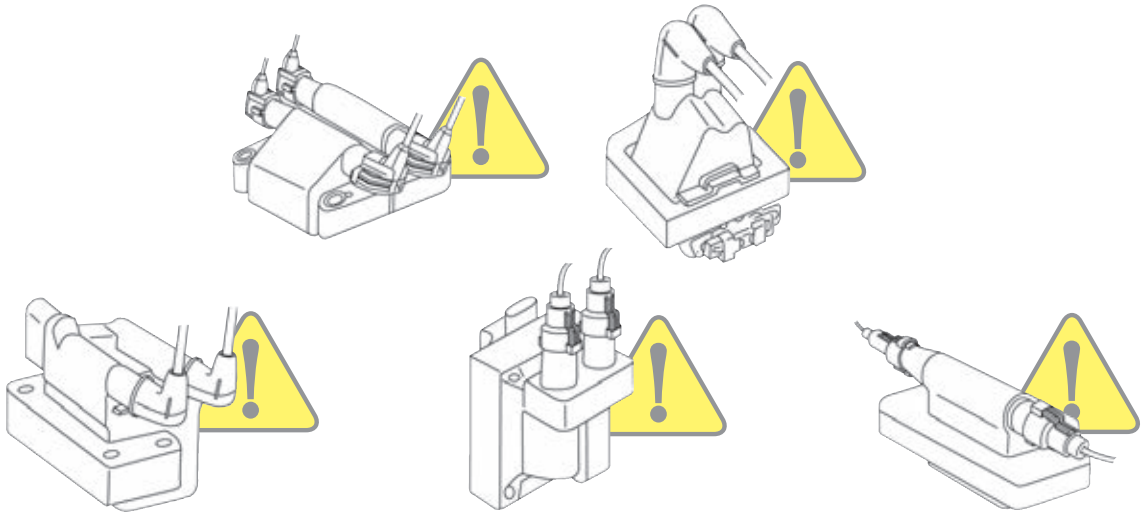
* The small engine vehicle, a tuned vehicle or a vehicle that uses a simultaneous ignition coil is often used at high speed. This may cause the life of the plugs to be reduced.

**Factors which shorten life

- Running condition: High-speed driving, high-load driving, hill climbing, extended idling (taxi), etc.
- Ignition characteristics: Simultaneous ignition, positive discharge, use of high-energy coil, etc.

Simultaneous Ignition System

A simultaneous ignition system is an ignition system in which two plug cords are connected from one coil, as shown in the figure. Generally, a single coil provides high voltage to a single spark plug, and negative (-) discharge is used so that it reduces electrode wear and tear. Simultaneous ignition systems, on the other hand, a single coil provides voltage to two spark plugs, which are negative (-) and positive (+) discharge. It resulting the generation of waste fire that is not related to combustion, which causes electrode wear and tear, especially in positive (+) discharges.



Adjustment of the Plug Gap

- If the center electrode becomes rounded or the ground electrode wears unevenly, replace the spark plug with a new one.
- Do not adjust the gap of a spark plug that has a fine electrode, such as a platinum plug or an iridium plug. It may result in damage of the center electrode.

The plugs configuration

φ12 × L26.5 × ⬡14
Thread diameter × length × Hex size

Iridium plug
Super ignition, φ12 mm long-reach shroud iridium plug

EX. FXE20HE11

- Super Ignition Plug
- The needle-shaped ground electrode of this iridium plug features DENSO's technology, resulting in reduction of quenching effect.
- Equipped as original parts on NISSAN's Tiida and Note
- φ12×L26.5×⬡14
- NISSAN

Iridium plug
Super ignition, long-reach iridium plug

EX. FK20HR11

- Super Ignition Plug
- By pairing an ultra-fine 0.55 mm diameter iridium alloy tip on the center electrode with a platinum tip on the ground electrode, this iridium plug will realize a very long lifetime.
- Equipped on TOYOTA's Sienta and Crown as genuine parts since 2003.
- φ14×L26.5×⬡16
- TOYOTA

Iridium plug
Super ignition, iridium plug

EX. FK16R11・FK16PR11

- Super Ignition Plug
- φ14×L19×⬡16
- TOYOTA
- MAZDA

Iridium plug
Long-reach iridium plug

EX. SK16HR11・SK20HPR-L11

- φ14×L26.5×⬡16
- HONDA / TOYOTA

Iridium plug
New triple-electrode iridium plug

EX. SK20BR11・SK20BGR11

- Under normal operating conditions the main electrode sparks, but if it becomes fouled, side electrodes generate the spark to burn off any carbon - this plug is the optimum design for direct fuel-injection engines. Equipped as original parts for 3000 cc direct injection engines (D-4) on TOYOTA's Crown and other models.
- φ14×L19×⬡16
- TOYOTA

Iridium plug
Iridium plug

EX. SK20R11・SK16R-P11・SK20PR-A11・SK20PR-B11・SK16PR-E11・SK20PR-F8・SKJ16CR-L11・SKJ16CR-A8

- We developed a 0.7 mm diameter ultra-fine iridium alloy electrode, the first in the world. Ignitability and lifetime have improved. The SK16R-P11 is equipped as original parts on TOYOTA's Century.
- φ14×L19×⬡16
- TOYOTA / HONDA / MAZDA / MITSUBISHI / HYUNDAI / SUZUKI

Iridium plug
Iridium plug with stainless steel gasket

EX. SK22PR-M11S・SK20PR-L9S

- φ14×L19×⬡16
- HONDA

Iridium plug
Extended shroud iridium plug

EX. SKJ20DR-M11S・SKJ20DR-M11

- φ14×L20.5×⬡16
- HONDA
- * SKJ20DR-M11S with stainless steel gasket

Iridium plug
φ12 mm long-reach iridium plug

EX. SXU22HR9・SXU22HDR8・SXU16HPR9

- φ12×L26.5×⬡16
- DAIHATSU / ISUZU / MITSUBISHI

Iridium plug
φ12 mm long-reach iridium plug

EX. ZXE20HR13

- By joining an ultra-fine 0.55 mm diameter iridium alloy tip on center electrode and platinum tip on ground electrode, this iridium plug has realized a very long lifetime.
- φ12×L26.5×⬡14
- NISSAN

Iridium plug
φ0.4 mm iridium plug with platinum tip ground electrode

EX. SVK20RZ11・SVK20RZ8・VK16PR-Z11・VK20PR-Z11・VK22PR-Z11・VK24PR-Z11・VK27PR-Z11

- φ14×L19×⬡16
- DAIHATSU / MITSUBISHI / HONDA

Iridium plug
φ0.4 mm iridium plug with platinum tip ground electrode

EX. VNH27Z・VNH24Z

- φ10×L(6.3 + 12.7)×⬡16
- HONDA Motorcycles

Iridium plug
φ0.4 mm iridium plug with platinum tip ground electrode

EX. VUH27D・VUH27ES・VUH24D・

- φ10×L(6.3 + 12.7)×⬡16
- HONDA Motorcycles
- * VUH27ES with stainless steel gasket

Iridium plug
φ0.4 mm iridium plug

EX. IXU22C

- φ12×L19×⬡16
- SUZUKI

Iridium plug
φ0.4 mm iridium plug

EX. IUH27D・IUH24D

- Supplied 0.4 mm diameter iridium plugs to Honda Motorcycles for the first time in the world.
- φ10×L (6.3 + 12.7)×⬡14
- HONDA Motorcycles CBR900RR

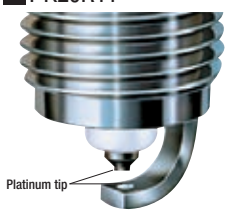
Iridium plug
φ0.4 mm iridium plug

EX. IU27D

- φ10×L19×⬡16
- YAMAHA Motorcycles YZFR-1
- SUZUKI GSX1300R B-KING

Platinum plug
Platinum plug

EX. PK20R11



- Platinum is used for both the center and ground electrodes.
- Mileage, drivability, and durability are improved by using a finer center electrode with a platinum tip.
- φ14×L19×⬡16
- TOYOTA / DAIHATSU

Platinum plug
Double-electrode platinum plug

EX. PK20TR11・PK20PTR-S9

- Platinum tip is mounted on both the center and ground electrodes.
- The double-electrode structure reduces the voltage required for positive discharges.
- φ14×L19×⬡16
- TOYOTA / DAIHATSU

Cars & trucks plugs
Long-reach plug

EX. K20HR-U11・K16HPR-U11

- φ14×L26.5×⬡16
- TOYOTA

Cars & trucks plugs
ISO-compatible small hex plug

EX. K16R-U11・K16PR-U11

- Compatible with ISO standards
- * SKJ20DR-M11S with stainless steel gasket
- φ14×L19×⬡16
- TOYOTA, and others

ISO TYPE

Cars & trucks plugs
Small hex plug

EX. Q16R-U11・Q16PR-U11

- By reducing the hex size (16 mm), this plug is lighter in weight.
- φ14×L19×⬡16
- TOYOTA, and others

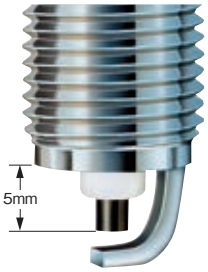
Cars & trucks plugs
Extended shroud plug

EX. KJ20DR-M11・KJ20DR-M11S

- φ14×L19×⬡16
- HONDA

Cars & trucks plugs
Extended plug

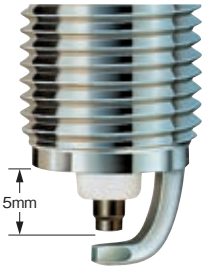
EX. KJ20CR11・KJ16CR-U11



- KJ20CR11: no U-Groove
  KJ20CR-U: with U-Groove
- φ14×L19×⬡16
- MAZDA, MITSUBISHI

Cars & trucks plugs
Extended plug

EX. KJ20CR-L11



- The tip of the ground electrode has a taper-cut, and the center electrode is made finer for improved ignitability.
- φ14×L19×⬡16
- HONDA

Cars & trucks plugs
Double-electrode semi-surface plug

EX. W20ETR-S11

- With this new supplementary gap, resistance to fouling is improved.
- φ14×L19×⬡20.6
- TOYOTA, DAIHATSU

Cars & trucks plugs
Triple-electrode plug

EX. K22PB・W20EPB

- Durability is improved with three ground electrodes.
- φ14×L19×⬡16 (K22PB)
- AUDI / VW / CITROEN / FIAT / MERCEDES-BENZ / RENAULT

Cars & trucks plugs
φ12 mm long-reach plug

EX. XU22HR9

- φ12×L26.5×⬡16
- DAIHATSU

Cars & trucks plugs
φ12 mm plug

EX. XU22EPR-U

- By reducing the hex size (16 mm), this plug may be used in light vehicles. Thread diameter is 12 mm.
- φ12×L19×⬡16
- SUZUKI / MITSUBISHI

Cars & trucks plugs
φ12 mm long-reach plug with 14 mm hex size

EX. XE20HR-U9

- φ12×L26.5×⬡14
- RENAULT

Cars & trucks plugs
Taper seat plug

EX. T16EPR-U

- This plug may be installed only in non-Japanese cars and has no gasket.
- φ14×L17.5×⬡16
- GM, FORD

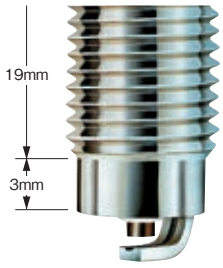
Motorcycle plugs
Compact head plug

EX. W27EMR-C

- Plug with compact insulator head
- φ14×L19×⬡20.6
- HONDA / SUZUKI

Motorcycle plugs
φ12 mm shroud plug

EX. X24GP-U



- φ12×L (19 + 3)×⬡18
- HONDA

Motorcycle plugs
φ12 mm ×19 mm plug

EX. X24EPR-U

- φ12×L19×⬡18
- HONDA / SUZUKI / YAMAHA

Motorcycle plugs
φ10 mm plug with half-sized threads and stainless steel gasket

EX. U24FER9S

- φ10×L (6.3 + 12.7)×⬡16
- HONDA

Motorcycle plugs
φ10 mm plug with half-sized threads

EX. U27FER9

- With its wider spark gap of 0.9 mm compared to conventional plugs (0.6 to 0.7 mm), this plug has improved ignitability.
- φ10×L (6.3 + 12.7)×⬡16
- HONDA

Motorcycle plugs
φ10 mm double-electrode plug

EX. U31ETR

- With two ground electrodes, heat resistance is improved.
- φ10×L19×⬡16
- KAWASAKI / SUZUKI

Motorcycle plugs
φ10 mm ×19 mm plug

EX. U27ESR-N

- Increasing the projection length by 0.5 mm improves resistance to fouling.
- φ10×L19×⬡16
- YAMAHA / KAWASAKI / SUZUKI

Motorcycle plugs
φ10 mm ×12.7 mm plug

EX. U20FSR-U

- φ10×L12.7×⬡16
- HONDA / YAMAHA / SUZUKI

Motorcycle plugs
φ8 mm plug

EX. Y27FER-C

- φ8×L (6.3 + 12.7)×⬡13
- HONDA

Cross Reference

NGK Ni/Pt/Ir	NGK TYPE		PLATINUM	IRIDIUM	DENSO
Ni	B5EB11	W16TT	PW16TT	IW16TT	W16EKR-S11
	B6EB	W20TT	PW20TT	IW20TT	W20EKR-S11
	B6EB11	W20TT	PW20TT	IW20TT	W20EKR-S11
	B6EB-L11	W20TT	PW20TT	IW20TT	W20EKR-S11
	B6EFS	T20TT	PT20TT	IT20TT	T20EP-U
	B7EB	W22TT	–	–	W22EKR-S11
	B7EB11	W22TT	–	–	W22EKR-S11
	BCP4ES	Q16TT	PQ16TT	IQ16TT	Q14R-U11
	BCP4ES11	Q16TT	PQ16TT	IQ16TT	Q14R-U11
	BCP5E	Q16TT	PQ16TT	IQ16TT	Q16P-U11
	BCP5E11	Q16TT	PQ16TT	IQ16TT	Q16P-U11
	BCP5ES	Q16TT	PQ16TT	IQ16TT	Q16-U
	BCP5ES11	Q16TT	PQ16TT	IQ16TT	Q16-U11
	BCP5ET	K20TT	PK20TT	IK20TT	K20PBR
	BCP5EY11	Q16TT	PQ16TT	IQ16TT	Q16-U11
	BCP6E	Q20TT	PQ20TT	IQ20TT	Q20P-U
	BCP6E11	Q20TT	PQ20TT	IQ20TT	Q20P-U11
	BCP6ES	Q20TT	PQ20TT	IQ20TT	Q20-U
	BCP6ES11	Q20TT	PQ20TT	IQ20TT	Q20-U11
	BCP6ET	K20TT	PK20TT	IK20TT	K20PBR
	BCP6EY11	Q20TT	PQ20TT	IQ20TT	Q20-U11
	BCPR4ES11	Q16TT	PQ16TT	IQ16TT	Q14R-U11
	BCPR4EY11	Q16TT	PQ16TT	IQ16TT	Q14R-U11
	BCPR5E	Q16TT	PQ16TT	IQ16TT	Q16PR-U
	BCPR5E11	Q16TT	PQ16TT	IQ16TT	Q16PR-U11
	BCPR5ES	Q16TT	PQ16TT	IQ16TT	Q16PR-U
	BCPR5ES11	Q16TT	PQ16TT	IQ16TT	Q16PR-U11
	BCPR5ET	K20TT	PK20TT	IK20TT	K20PBR
	BCPR5EY	–	PQ16TT	IQ16TT	Q16R-U
	BCPR5EY11	Q16TT	PQ16TT	IQ16TT	Q16R-U11
	BCPR5EY-N11	Q16TT	PQ16TT	IQ16TT	Q16PR-U11
	BCPR5EY-N11	Q16TT	PQ16TT	IQ16TT	Q16R-U11
	BCPR6E	Q20TT	PQ20TT	IQ20TT	Q20PR-U
	BCPR6E11	Q20TT	PQ20TT	IQ20TT	Q20PR-U11
	BCPR6ES	Q20TT	PQ20TT	IQ20TT	Q20PR-U
	BCPR6ES11	Q20TT	PQ20TT	IQ20TT	Q20PR-U11
	BCPR6ET	K20TT	PK20TT	IK20TT	K20PBR
	BCPR6EY	Q20TT	PQ20TT	IQ20TT	Q20R-U
	BCPR6EY11	Q20TT	PQ20TT	IQ20TT	Q20R-U11
	BCPR6EY-N11	Q20TT	PQ20TT	IQ20TT	Q20PR-U11
	BCPR6EY-N11	Q20TT	PQ20TT	IQ20TT	Q20R-U11
	BK5E	K16TT	PK16TT	IK16TT	K16P-U
	BK5E11	K16TT	PK16TT	IK16TT	K16P-U11
	BK6E	K20TT	PK20TT	IK20TT	K20P-U
	BK6E11	K20TT	PK20TT	IK20TT	K20PR-U11
	BKR4ESA11	–	PK16TT	IK16TT	–
	BKR5E	K16TT	PK16TT	IK16TT	K16PR-U
	BKR5E11	K16TT	PK16TT	IK16TT	K16PR-U11
	BKR5E11	K16TT	PK16TT	IK16TT	K16PR-U11
	BKR5E-E	K16TT	PK16TT	IK16TT	K16PR-UR
	BKR5EK	K20TT	PK20TT	IK20TT	K20TXR
	BKR5EKB11	K16TT	PK16TT	IK16TT	K16TR11
	BKR5EKC	K16TT	PK16TT	IK16TT	K16TNR-S9
	BKR5EKU	K20TT	PK20TT	IK20TT	K20TXR
	BKR5EKUP	K20TT	PK20TT	IK20TT	K20TXR
	BKR5EN	K16TT	PK16TT	IK16TT	K16PR-U

NGK Ni/Pt/Ir	NGK TYPE		PLATINUM	IRIDIUM	DENSO
Ni	BKR5EN11	K16TT	PK16TT	IK16TT	K16PR-L11
	BKR5ES	K16TT	PK16TT	IK16TT	K16PR-U
	BKR5ES-11	K16TT	PK16TT	IK16TT	K16PR-U11
	BKR5ESA-11	K16TT	PK16TT	IK16TT	K16PR-U11
	BKR5EY	K16TT	PK16TT	IK16TT	K16R-U
	BKR5EY11	K16TT	PK16TT	IK16TT	K16R-U11
	BKR5EYA	K16TT	PK16TT	IK16TT	K16R-U
	BKR5EYA11	K16TT	PK16TT	IK16TT	K16R-U11
	BKR5EZ	K16TT	PK16TT	IK16TT	K16PR-U
	BKR6E	K20TT	PK20TT	IK20TT	K20PR-U
	BKR6E	K20TT	PK20TT	IK20TT	K20PR-U
	BKR6E11	K20TT	PK20TT	IK20TT	K20PR-U11
	BKR6E-E	K20TT	PK20TT	IK20TT	K20PR-UR
	BKR6EK	K20TT	PK20TT	IK20TT	K20TXR
	BKR6EKB11	K20TT	PK20TT	IK20TT	K20TR11
	BKR6EKC	K20TT	PK20TT	IK20TT	K20TNR
	BKR6EKC-N11	K20TT	PK20TT	IK20TT	K20TNR
	BKR6EKE	K20TT	PK20TT	IK20TT	K20TXR
	BKR6EKU	K20TT	PK20TT	IK20TT	K20TXR
	BKR6EKUB	K20TT	PK20TT	IK20TT	K20TXR
	BKR6EKUE	K20TT	PK20TT	IK20TT	K20TXR
	BKR6EN	K20TT	PK20TT	IK20TT	K20PR-U
	BKR6EN11	K20TT	PK20TT	IK20TT	K20PR-L11
	BKR6EQU	K20TT	PK20TT	IK20TT	K20TXR
	BKR6EQUA	K20TT	PK20TT	IK20TT	K20TXR
	BKR6EQUB	K20TT	PK20TT	IK20TT	K20TXR
	BKR6EQUP	K20TT	PK20TT	IK20TT	K20TXR
	BKR6EQUPA	K20TT	PK20TT	IK20TT	K20TXR
	BKR6ES	K20TT	PK20TT	IK20TT	K20PR-U
	BKR6ES11	K20TT	PK20TT	IK20TT	K20PR-U11
	BKR6ESZ-10	K20TT	PK20TT	IK20TT	K20PR-U11
	BKR6ETA10	K20TT	PK20TT	IK20TT	K20PBR
	BKR6ETUB	K20TT	PK20TT	IK20TT	K20PBR-S10
	BKR6EY	K20TT	PK20TT	IK20TT	K20R-U
	BKR6EY11	K20TT	PK20TT	IK20TT	K20R-U11
	BKR6EYA	K20TT	PK20TT	IK20TT	K20R-U
	BKR6EYA11	K20TT	PK20TT	IK20TT	K20R-U11
	BKR6EZ	K20TT	PK20TT	IK20TT	K20PR-U
	BKR6EZB	K20TT	PK20TT	IK20TT	K20PR-U
	BKUR5EK9	K16TT	PK16TT	IK16TT	K16TNR-S9
	BKUR5ET	K16TT	PK16TT	IK16TT	K16TNR-S9
	BKUR5ET10	K16TT	PK16TT	IK16TT	K16TNR-S9
	BKUR5ETC10	K16TT	PK16TT	IK16TT	K16TNR-S9
	BKUR5ETZ10	K16TT	PK16TT	IK16TT	K16TNR-S9
	BKUR6E	K20TT	PK20TT	IK20TT	K20PR-SU9
	BKUR6EK	K20TT	PK20TT	IK20TT	K20TNR-S
	BKUR6EK9	K20TT	PK20TT	IK20TT	K20TNR-S9
	BKUR6ET	K20TT	PK20TT	IK20TT	K20PBR-S10
	BKUR6ET10	K20TT	PK20TT	IK20TT	K20PBR-S10
	BKUR6ETB	K20TT	PK20TT	IK20TT	K20PBR-S10
	BP4E	W16TT	PW16TT	IW16TT	W14EX-U
	BP4EA11	W16TT	PW16TT	IW16TT	W14EX-U11
	BP4EFS	T16TT	PT16TT	IT16TT	T16EPR-U
	BP4ES	W16TT	PW16TT	IW16TT	W14EP-U
	BP4ES	W16TT	PW16TT	IW16TT	W14EX-U
	BP4ES11	W16TT	PW16TT	IW16TT	W14EX-U11

NGK Ni/Pt/Ir	NGK TYPE	TT	PLATINUM TT	IRIDIUM TT	DENSO
Ni	BP4ES-L11	W16TT	PW16TT	IW16TT	W14EX-U11
	BP4EY	W16TT	PW16TT	IW16TT	W14EX-U
	BP4EY11	W16TT	PW16TT	IW16TT	W14EX-U11
	BP4FS	–	PTF16TT	ITF16TT	T14PR-U
	BP5E	W16TT	PW16TT	IW16TT	W16EP-U
	BP5EA	W16TT	PW16TT	IW16TT	W14EX-U
	BP5EA11	W16TT	PW16TT	IW16TT	W14EX-U11
	BP5EA-L	W16TT	PW16TT	IW16TT	W16EX-U
	BP5EA-L11	W16TT	PW16TT	IW16TT	W16EX-U11
	BP5EFS	T16TT	PT16TT	IT16TT	T16EPR-U
	BP5EFS-13	T16TT	PT16TT	IT16TT	T16EPR-U15
	BP5EK-A	W16TT	PW16TT	IW16TT	W16ET-S
	BP5EKN	W16TT	PW16TT	IW16TT	W16ET-S
	BP5ES	W16TT	PW16TT	IW16TT	W16EP-U
	BP5ES	W16TT	PW16TT	IW16TT	W16EX-U
	BP5ES11	W16TT	PW16TT	IW16TT	W16EP11
	BP5ES11	W16TT	PW16TT	IW16TT	W16EP-U11
	BP5ES11	W16TT	PW16TT	IW16TT	W16EX-U11
	BP5ES13	W16TT	PW16TT	IW16TT	W16EX-U13
	BP5ES-A	W16TT	PW16TT	IW16TT	W16EP-U
	BP5ES-A	W16TT	PW16TT	IW16TT	W16EX-U
	BP5ESZ	W16TT	PW16TT	IW16TT	W16EP-U
	BP5ET	W16TT	PW16TT	IW16TT	W16EPB10
	BP5ET10	W16TT	PW16TT	IW16TT	W16EPB10
	BP5EY	W16TT	PW16TT	IW16TT	W16EX-U
	BP5EY11	W16TT	PW16TT	IW16TT	W16EX-U11
	BP5FS	–	PTF16TT	ITF16TT	T16P-U
	BP6E	W20TT	PW20TT	IW20TT	W20EP-U
	BP6EA	W20TT	PW20TT	IW20TT	W20EX-U
	BP6EA11	W20TT	PW20TT	IW20TT	W20EX-U11
	BP6EFS	T20TT	PT20TT	IT20TT	T20EP-U
	BP6EFS-13	T20TT	PT20TT	IT20TT	T20EP-U15
	BP6EK	W20TT	PW20TT	IW20TT	W20ETR-L
	BP6EK	W20TT	PW20TT	IW20TT	W20ET-S
	BP6EK-A	W20TT	PW20TT	IW20TT	W20ET-S
	BP6EKN	W20TT	PW20TT	IW20TT	W20ETR-L
	BP6EK-N	W20TT	PW20TT	IW20TT	W20ET-S
	BP6ES	W20TT	PW20TT	IW20TT	W20EP
	BP6ES	W20TT	PW20TT	IW20TT	W20EP-U
	BP6ES	W20TT	PW20TT	IW20TT	W20EX-U
	BP6ES11	W20TT	PW20TT	IW20TT	W20EP11
	BP6ES11	W20TT	PW20TT	IW20TT	W20EPR-U11
	BP6ES11	W20TT	PW20TT	IW20TT	W20EX-U11
	BP6ES13	W20TT	PW20TT	IW20TT	W20EX-U13
	BP6ESZ	W20TT	PW20TT	IW20TT	W20EP-U
	BP6ET	W20TT	PW20TT	IW20TT	W20EPB
	BP6EY	W20TT	PW20TT	IW20TT	W20EX-U
	BP6EY11	W20TT	PW20TT	IW20TT	W20EX-U11
	BP6FS	–	PTF20TT	ITF20TT	T20P-U
	BP6HS	WF20TT	–	–	W20FP-U
	BP6HS10	WF20TT	–	–	W20FP-U10
	BP6HSA	WF20TT	–	–	W20FR-L
	BP7E	W22TT	–	–	W22EP-U
	BP7EK-N	W22TT	–	–	W22ETR-L
	BP7ES	W22TT	–	–	W22EP-U
	BP7ES11	W22TT	–	–	W22EP11

NGK Ni/Pt/Ir	NGK TYPE	TT	PLATINUM TT	IRIDIUM TT	DENSO
Ni	BP7ES11	W22TT	–	–	W22EP-U11
	BP7ET	W22TT	–	–	W22EPB
	BP7EY	W22TT	–	–	W22EP-U
	BPR4EFS	–	PT16TT	IT16TT	–
	BPR4ES	W16TT	PW16TT	IW16TT	W14EPR-U
	BPR4ES	W16TT	PW16TT	IW16TT	W14EXR-U
	BPR4ES11	W16TT	PW16TT	IW16TT	W14EXR-U11
	BPR4ES13	W16TT	PW16TT	IW16TT	W14EXR-U13
	BPR4ES-L11	W16TT	PW16TT	IW16TT	W14EXR-U11
	BPR4EY	W16TT	PW16TT	IW16TT	W14EXR-U
	BPR4EY11	W16TT	PW16TT	IW16TT	W14EXR-U11
	BPR4FS	–	PTF16TT	ITF16TT	T14PR-U
	BPR4FS11	–	PTF16TT	ITF16TT	T14PR-U15
	BPR4FS15	–	PTF16TT	ITF16TT	T14PR-U15
	BPR5E	W16TT	PW16TT	IW16TT	W16EPR-U
	BPR5E11	W16TT	PW16TT	IW16TT	W16EPR-U11
	BPR5EA	W16TT	PW16TT	IW16TT	W14EXR-U
	BPR5EA-11	W16TT	PW16TT	IW16TT	W14EXR-U11
	BPR5EA-L	W16TT	PW16TT	IW16TT	W16EXR-U
	BPR5EA-L11	W16TT	PW16TT	IW16TT	W16EXR-U11
	BPR5EF	T16TT	PT16TT	IT16TT	T16EPR-U
	BPR5EFS	T16TT	PT16TT	IT16TT	T16EPR-U
	BPR5EFS13	T16TT	PT16TT	IT16TT	T16EPR-U15
	BPR5EK-A	W16TT	PW16TT	IW16TT	W16ETR-S
	BPR5EKU	W16TT	PW16TT	IW16TT	W16ETR-S
	BPR5ES	W16TT	PW16TT	IW16TT	W16EPR-U
	BPR5ES	W16TT	PW16TT	IW16TT	W16EXR-U
	BPR5ES11	W16TT	PW16TT	IW16TT	W16EPR11
	BPR5ES11	W16TT	PW16TT	IW16TT	W16EXR-U11
	BPR5ES13	W16TT	PW16TT	IW16TT	W16EXR-U13
	BPR5ES-A	W16TT	PW16TT	IW16TT	W16EXR-U
	BPR5EY	W16TT	PW16TT	IW16TT	W16EXR-U
	BPR5EY11	W16TT	PW16TT	IW16TT	W16EXR-U11
	BPR5FS	–	PTF16TT	ITF16TT	T16PR-U
	BPR5FS11	–	PTF16TT	ITF16TT	T16PR-U11
	BPR5FS15	–	PTF16TT	ITF16TT	T16PR-U15
	BPR6E	W20TT	PW20TT	IW20TT	W20EPR-U
	BPR6EFS	T20TT	PT20TT	IT20TT	T20EPR-U
	BPR6EFS13	T20TT	PT20TT	IT20TT	T20EPR-U15
	BPR6EFS15	T20TT	PT20TT	IT20TT	T20EPR-U15
	BPR6EKA	W20TT	PW20TT	IW20TT	W20ET-S
	BPR6EK-N	W20TT	PW20TT	IW20TT	W20ETR-L
	BPR6ES	W20TT	PW20TT	IW20TT	W20EPR-U
	BPR6ES	W20TT	PW20TT	IW20TT	W20EXR-U
	BPR6ES11	W20TT	PW20TT	IW20TT	W20EPR11
	BPR6ES11	W20TT	PW20TT	IW20TT	W20EPR-U11
	BPR6ES11	W20TT	PW20TT	IW20TT	W20EXR-U11
	BPR6ES-13	W20TT	PW20TT	IW20TT	W20EXR-U13
	BPR6EY	W20TT	PW20TT	IW20TT	W20EXR-U
	BPR6EY11	W20TT	PW20TT	IW20TT	W20EXR-U11
	BPR6EYZ	W20TT	PW20TT	IW20TT	W20EXR-U
	BPR6FS	–	PTF20TT	ITF20TT	T20PR-U
	BPR6HS	WF20TT	–	–	W20FPR-U
	BPR6HS10	WF20TT	–	–	W20FPR-U10
	BPR6HSA	WF20TT	–	–	W20FR-L
	BPR7E	W22TT	–	–	W22EPR-U

Cross Reference

NGK Ni/Pt/Ir	NGK TYPE	T.T	PLATINUM T.T	IRIDIUM T.T	DENSO
Ni	BPR7EK-N	W22TT	–	–	W22ETR-L8
	BPR7ES	W22TT	–	–	W22EPR-U
	BPR7ES11	W22TT	–	–	W22EPR-U11
	BPR7EY	W22TT	–	–	W22EPR-U
	BPR7EY-11	W22TT	–	–	W22EPR-U11
	BR5EF	T16TT	PT16TT	IT16TT	T16EPR-U
	BR6EB11	W20TT	PW20TT	IW20TT	W20EKR-S11
	BR6EBL	W20TT	PW20TT	IW20TT	W20EKR-S11
	BR6EB-L11	W20TT	PW20TT	IW20TT	W20EKR-S11
	BR6HSA	WF20TT	–	–	W20FR-L
	BU6EA11	W20TT	PW20TT	IW20TT	W20EP-S11
	BU6EFSZ	T20TT	PT20TT	IT20TT	T20EP-U
	BU7EA11	W22TT	–	–	W22EP-S11
	BUR5EB11	W16TT	PW16TT	IW16TT	W16EKR-S11
	BUR5ET	W20TT	PW20TT	IW20TT	W20EPBR-S
	BUR5ET10	W20TT	PW20TT	IW20TT	W20EPBR-S
	BUR5ETB-10	W20TT	PW20TT	IW20TT	W20EPBR-S
	BUR6EA11	W20TT	PW20TT	IW20TT	W20EPR-S11
	BUR6EB11	W20TT	PW20TT	IW20TT	W20EKR-S11
	BUR6EFSZ	T20TT	PT20TT	IT20TT	T20EPR-U
	BUR6ET	W20TT	PW20TT	IW20TT	W20EPBR-S
	BUR7EA11	W22TT	–	–	W22EP-S11
	DCP7E	XU22TT	–	–	XU22EP-U
	DCPR7E	XU22TT	–	–	XU22EPR-U
	DCPR7EA9	XU22TT	–	–	XU22PR9
	DCPR7E-N	XU22TT	–	–	XU22EPR-U
	DCPR7E-N10	XU22TT	–	–	XU22EPR-U
	FR4	K16TT	PK16TT	IK16TT	K16PR-U
	FR45	K16TT	PK16TT	IK16TT	K16PR-U11
	FR5	K20TT	PK20TT	IK20TT	K20PR-U
	FR5-1	K20TT	PK20TT	IK20TT	KJ20CR-L11
	FR5EI	K16TT	PK16TT	IK16TT	K16PSR-B8
	GR4	W16TT	PW16TT	IW16TT	W14EXR-U
	GR45	W16TT	PW16TT	IW16TT	W14EXR-U11
	GR5	W16TT	PW16TT	IW16TT	W16EXR-U
	LFR5A11	KH16TT	PKH16TT	IKH16TT	K16HPR-U11
	LFR5B	KH16TT	PKH16TT	IKH16TT	K16HPR-U11
	LFR6A11	KH20TT	PKH20TT	IKH20TT	K20HR-U11
	LFR6C11	KH20TT	PKH20TT	IKH20TT	K20HR-U11
	LKR6C	XUH20TTI	–	–	XU20HR9
	LKR6D10E	XUH20TTI	–	–	XU20HR9
	LKR7B	XUH22TT	–	–	XU22HDR9
	LKR7B9	XUH22TT	–	–	XU22HDR9
	LKR7C	XUH22TT	–	–	XU22HR9
	LZFR5C11	KH16TT	PKH16TT	IKH16TT	K16HPR-U11
	LZFR5C11G	KH16TT	PKH16TT	IKH16TT	K16HPR-U11
	LZFR6B10E	KH20TT	PKH20TT	IKH20TT	–
	LZKR6B10E	XUH20TTI	–	–	–
	LZKR6B-E	XUH20TTI	–	–	–
	LZTR4A11	–	–	ITL16TT	–
	LZTR4AGP	–	–	ITL16TT	–
	LZTR4AIX13	–	–	ITL16TT	ITL16
	R5673-6	–	PTF20TT	ITF20TT	ITF20
	R5674-6	–	PTF20TT	ITF20TT	ITF20
	SR5	T20TT	PT20TT	IT20TT	T20NR-U11
	TR4	T16TT	PT16TT	IT16TT	T16EPR-U

NGK Ni/Pt/Ir	NGK TYPE	T.T	PLATINUM T.T	IRIDIUM T.T	DENSO
Ni	TR4-2	T16TT	PT16TT	IT16TT	T16EPR-U
	TR5	T20TT	PT20TT	IT20TT	T20EPR-U
	TR5-1	T20TT	PT20TT	IT20TT	T20EPR-U
	TR55	T20TT	PT20TT	IT20TT	T20EPR-U15
	TR5A10	TV16TT	PTV16TT	ITV16TT	T16VR-U10
	TR5A13	TV16TT	PTV16TT	ITV16TT	T16VR-U10
	TR5B13	TV16TT	PTV16TT	ITV16TT	T16VR-U10
	TR6	T20TT	PT20TT	IT20TT	T20EPR-U
	TR6B10	–	PTV20TT	ITV20TT	–
	TR6B13	–	PTV20TT	ITV20TT	–
	UR4	–	PTF16TT	ITF16TT	T16PR-U
	UR40	–	PTF16TT	ITF16TT	T16PR-U15
	UR45	–	PTF16TT	ITF16TT	T16PR-U15
	UR5	–	PTF20TT	ITF20TT	T20PR-U
	UR5	–	PTF20TT	ITF20TT	T20PR-U11
	UR55	–	PTF20TT	ITF20TT	T20PR-U15
	ZF6A11	Q20TT	PQ20TT	IQ20TT	QJ20CR11
	ZFR5A11	Q16TT	PQ16TT	IQ16TT	QJ16CR11
	ZFR5C11G	K16TT	PK16TT	IK16TT	KJ16CR-L11
	ZFR5F	K16TT	PK16TT	IK16TT	KJ16CR
	ZFR5F11	K16TT	PK16TT	IK16TT	KJ16CR-L11
	ZFR5F11	K16TT	PK16TT	IK16TT	KJ16CR11
	ZFR5F11	K16TT	PK16TT	IK16TT	KJ16CR-U11
	ZFR5J11	K16TT	PK16TT	IK16TT	KJ16CR-L11
	ZFR5N11	K16TT	PK16TT	IK16TT	KJ16CR-L11
	ZFR6A11	Q20TT	PQ20TT	IQ20TT	QJ20CR11
	ZFR6F11	K20TT	PK20TT	IK20TT	KJ20CR-L11
	ZFR6F11	K20TT	PK20TT	IK20TT	KJ20CR11
	ZFR6F11	K20TT	PK20TT	IK20TT	KJ20CR-U11
	ZFR6J11	K20TT	PK20TT	IK20TT	KJ20CR-L11
	ZFR6K11	K20TT	PK20TT	IK20TT	KJ20DR-M11
	ZFR6S-Q	K20TT	PK20TT	IK20TT	K20PBR-S10
	ZFR6U11	K20TT	PK20TT	IK20TT	KJ20CR-L11
	ZFR6U9	K20TT	PK20TT	IK20TT	KJ20CR-11
	ZG5A	W16TT	PW16TT	IW16TT	J16CR-U
	ZGR5A	W16TT	PW16TT	IW16TT	J16CR-U
	ZGR5C	W16TT	PW16TT	IW16TT	J16CR-U
	ZGR5E	W16TT	PW16TT	IW16TT	J16CR-U
	ZKR7A	XU22TT	–	–	XU22EPR-U
Pt	BCP5EV	–	PQ16TT	IQ16TT	–
	BCP5EV11	–	PQ16TT	IQ16TT	–
	BCP5EVX	–	PQ16TT	IQ16TT	–
	BCP5EVX11	–	PQ16TT	IQ16TT	–
	BCP6EV	–	PQ20TT	IQ20TT	–
	BCP6EV11	–	PQ20TT	IQ20TT	–
	BCP6EVX	–	PQ20TT	IQ20TT	–
	BCP6EVX11	–	PQ20TT	IQ20TT	–
	BCPR5EP11	–	PQ16TT	IQ16TT	PQ16R
	BCPR5EP13	–	PQ16TT	IQ16TT	PQ16R13
	BCPR5EP8	–	PQ16TT	IQ16TT	PQ16R8
	BCPR5EP-N11	–	PQ16TT	IQ16TT	PQ16R-P11
	BCPR5EV	–	PQ16TT	IQ16TT	–
	BCPR5EV11	–	PQ16TT	IQ16TT	–
	BCPR5EVX	–	PQ16TT	IQ16TT	–
	BCPR5EVX11	–	PQ16TT	IQ16TT	–
	BCPR6EP11	–	PQ20TT	IQ20TT	PQ20R

NGK Ni/Pt/Ir	NGK TYPE	TT	PLATINUM TT	IRIDIUM TT	DENSO
Pt	BCPR6EP13	–	PQ20TT	IQ20TT	PQ20R13
	BCPR6EP8	–	PQ20TT	IQ20TT	PQ20R8
	BCPR6EP-N11	–	PQ20TT	IQ20TT	PQ20R-P11
	BCPR6EP-N8	–	PQ20TT	IQ20TT	PQ20R-P8
	BCPR6EV	–	PQ20TT	IQ20TT	–
	BCPR6EV11	–	PQ20TT	IQ20TT	–
	BCPR6EVX	–	PQ20TT	IQ20TT	–
	BCPR6EVX11	–	PQ20TT	IQ20TT	–
	BKR5EGP	–	PK16TT	IK16TT	IK16
	BKR5EKPB11	–	PK16TT	IK16TT	PK16TR11
	BKR5EKPB13	–	PK16TT	IK16TT	PK16TR13
	BKR5EP11	–	PK16TT	IK16TT	PK16R11
	BKR5EP8	–	PK16TT	IK16TT	PK16R8
	BKR5EQUPA	–	–	IK16TT	–
	BKR5EVX	–	PK16TT	IK16TT	–
	BKR5EVX11	–	PK16TT	IK16TT	–
	BKR5EVXA	–	PK16TT	IK16TT	–
	BKR5EVXA11	–	PK16TT	IK16TT	–
	BKR5EVXA13	–	PK16TT	IK16TT	–
	BKR6EGP	–	PK20TT	IK20TT	IK20
	BKR6EKPA	–	PK20TT	IK20TT	PK20TR11
	BKR6EKPB11	–	PK20TT	IK20TT	PK20TR11
	BKR6EP11	–	PK20TT	IK20TT	PK20R11
	BKR6EP13	–	PK20TT	IK20TT	PK20R13
	BKR6EP8	–	PK20TT	IK20TT	PK20R8
	BKR6EP8	–	–	IK20TT	VK20T
	BKR6EP-N8	–	PK20TT	IK20TT	PK20R-P8
	BKR6EVX11	–	PK20TT	IK20TT	–
	BKR6EVXA11	–	PK20TT	IK20TT	–
	BP5EV	–	PW16TT	IW16TT	–
	BP5EVX	–	PW16TT	IW16TT	–
	BP5EVX11	–	PW16TT	IW16TT	–
	BP6EV	–	PW20TT	IW20TT	–
	BP6EVX	–	PW20TT	IW20TT	–
	BP6EVX11	–	PW20TT	IW20TT	–
	BPR5EFVX	–	PT16TT	IT16TT	IT16
	BPR5EGP	–	PW16TT	IW16TT	IW16
	BPR5EP11	–	PW20TT	IW20TT	P16R
	BPR5EP11	–	PW16TT	IW16TT	P16R
	BPR5EP13	–	PW16TT	IW16TT	P16R13
	BPR5EV	–	PW16TT	IW16TT	–
	BPR5EVX	–	PW16TT	IW16TT	–
	BPR5EVX11	–	PW16TT	IW16TT	–
	BPR6EGP	–	PW20TT	IW20TT	IW20
	BPR6EP11	–	PW20TT	IW20TT	VW20
	BPR6EP8	–	PW20TT	IW20TT	VW20
	BPR6EP8	–	PW20TT	IW20TT	VW20T
	BPR6EV	–	IW20TT	IW20TT	IW20
	BPR6EVX	–	IW20TT	IW20TT	IW20
	BPR6EVX11	–	IW20TT	IW20TT	IW20
	FR4BP11	–	PK16TT	IK16TT	IK16
	FR5BP11	–	PK16TT	IK16TT	IK16
	FR5CP	–	PK16TT	IK16TT	IK16
	FR6BP11	–	PK20TT	IK20TT	IK20
	LFR5AP11	–	PKH16TT	IKH16TT	IKH16
	LFR5AQP	–	PKH16TT	IKH16TT	IKH16

NGK Ni/Pt/Ir	NGK TYPE	TT	PLATINUM TT	IRIDIUM TT	DENSO
Pt	LFR5BP11	–	PKH16TT	IKH16TT	IKH16
	LFR5P11	–	PKH16TT	IKH16TT	IKH16
	LFR6AP11	–	PKH20TT	IKH20TT	IKH20
	LFR6AP9	–	PKH20TT	IKH20TT	IKH20
	LFR6AQP	–	PKH20TT	IKH20TT	IKH20
	LFR6BP11	–	PKH20TT	IKH20TT	IKH20
	LTR6AP11	–	PTV20TT	ITV20TT	ITV20
	PFR5A11	–	PQ16TT	IQ16TT	PQ16R
	PFR5B	–	PK16TT	IK16TT	PK16R8
	PFR5B11	–	PK16TT	IK16TT	PK16PR(-L)11
	PFR5B11B	–	PK16TT	IK16TT	PK16R11
	PFR5B11C	–	PK16TT	IK16TT	PK16R11
	PFR5B9	–	PK16TT	IK16TT	PK16R8
	PFR5B-D	–	PK20TT	IK20TT	PK16R8
	PFR5C11	–	PK16TT	IK16TT	PK16R11
	PFR5F11	–	PQ16TT	IQ16TT	PQ16R
	PFR5G11	–	PK16TT	IK16TT	PK16PR(-L)11
	PFR5G11-E	–	PK16TT	IK16TT	PK16PR(-L)11
	PFR5G13-E	–	PK16TT	IK16TT	PK16PR-L11
	PFR5J11	–	PK16TT	IK16TT	PK16PR-P11
	PFR5K11	–	PQ16TT	IQ16TT	PQ16R
	PFR5L11	–	PK16TT	IK16TT	PK16PR(-L)11
	PFR5L13	–	PK16TT	IK16TT	VK16
	PFR5N11	–	PK16TT	IK16TT	PK16PR(-L)11
	PFR5P	–	PK16TT	IK16TT	PK16R8
	PFR5P11	–	PK16TT	IK16TT	PK16PR(-L)11
	PFR5R11	–	PK16TT	IK16TT	PK16PR(-L)11
	PFR6A11	–	PQ20TT	IQ20TT	PQ20R
	PFR6B	–	PK20TT	IK20TT	PK20PR-P8
	PFR6B11	–	PK20TT	IK20TT	PK20PR11
	PFR6B11B	–	PK20TT	IK20TT	PK20R11
	PFR6B9	–	PK20TT	IK20TT	PK20PR-P8
	PFR6B-D	–	PK20TT	IK20TT	PK20R8
	PFR6C11	–	PK20TT	IK20TT	PK20R11
	PFR6E	–	PK20TT	IK20TT	PK20PR-P8
	PFR6G11	–	PK20TT	IK20TT	PK20PR11
	PFR6G11	–	PK20TT	IK20TT	PK20PR-L11
	PFR6G11-E	–	PK20TT	IK20TT	PK20PR11
	PFR6G11-E	–	PK20TT	IK20TT	PK20PR-L11
	PFR6G13	–	PK20TT	IK20TT	PK20PR-L13
	PFR6G13E	–	PK20TT	IK20TT	PK20PR-L13
	PFR6H10	–	PQ20TT	IQ20TT	PQ20R
	PFR6J	–	PK20TT	IK20TT	PK20PR-P8
	PFR6J11	–	PK20TT	IK20TT	PK20PR-P11
	PFR6J13	–	PK20TT	IK20TT	PK20PR-L13
	PFR6K11	–	PQ20TT	IQ20TT	PQ20R
	PFR6L13	–	PK20TT	IK20TT	PK20PR-L13
	PFR6N11	–	PK20TT	IK20TT	PK20PR-L11
	PFR6P11	–	PK20TT	IK20TT	PK20PR(-L)11
	PFR6R11	–	PK20TT	IK20TT	PK20PR-L11
	PFR6T10	–	PK20TT	IK20TT	PK20PR-L11
	PFR6T10G	–	PK20TT	IK20TT	PK20PR-L11
	PFR6T-G	–	PK20TT	IK20TT	PK20PR-P8
	PFR6U11G	–	PK20TT	IK20TT	PK20PR-L11
	PFR6V10D	–	PK20TT	IK20TT	VK20T
	PFR6X11	–	PK20TT	IK20TT	PK20PR-L11

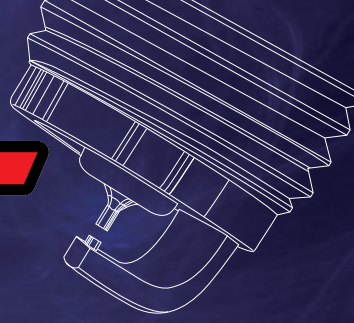
Cross Reference

NGK Ni/Pt/Ir	NGK TYPE	TT	PLATINUM TT	IRIDIUM TT	DENSO
	PGR5A	–	PW16TT	IW16TT	P16PR8
	PGR5A11	–	PW16TT	IW16TT	P16PR11
	PGR6A	–	PW20TT	IW20TT	P20PR8
	PGR6A	–	PW20TT	IW20TT	P20R8
	PGR6A	–	PW20TT	IW20TT	P20PR8
	PGR6A	–	PW20TT	IW20TT	P20R8
	PGR6A11	–	PW20TT	IW20TT	VW20
	PGR6A-D	–	PW20TT	IW20TT	VW20
	PGR6B	–	PW20TT	IW20TT	VW20
	PLFR4A11	–	PKH16TT	IKH16TT	VKH16
	PLFR5A11	–	PKH16TT	IKH16TT	VKH16
	PLFR5A11D	–	PKH16TT	IKH16TT	VKH16
	PLFR6A11	–	PKH20TT	IKH20TT	VKH20
	PLFR6A9	–	PKH20TT	IKH20TT	VKH20
	PLTR6A10G	–	PTV20TT	ITV20TT	ITV20
	PLZFR5B-13G	–	PKH16TT	IKH16TT	VKH16
	PLZFR6A-11S	–	PKH20TT	IKH20TT	VKH20
	PLZKAR6A11	–	–	IXEH20TT	FXE20HR11
	PLZTR5A13	–	–	ITL16TT	–
	PTR4B15	–	PT16TT	IT16TT	PT16EPR-L13
	PTR4G15	–	PT16TT	IT16TT	PT16EPR-L13
	PTR5A10	–	PTV16TT	ITV16TT	PT16VR10
	PTR5A13	–	PTV16TT	ITV16TT	PT16VR13
	PTR5C13	–	PT16TT	IT16TT	PT16EPR-L13
	PTR6D13G	–	PT20TT	IT20TT	VT20
	PTR6E13	–	PT20TT	IT20TT	VT20
	PTR6F13	–	PT20TT	IT20TT	VT20
Pt	PZFR5E11	–	PK16TT	IK16TT	SKJ16CR-L11
	PZFR5F	–	PK16TT	IK16TT	PKJ16CR8
	PZFR5F11	–	PK16TT	IK16TT	SKJ16CR-L11
	PZFR5F13	–	PK16TT	IK16TT	PKJ16CR-L13
	PZFR5J11	–	PK16TT	IK16TT	SKJ16CR-L11
	PZFR6E11	–	PK20TT	IK20TT	PKJ20CR-L11
	PZFR6F11	–	PK20TT	IK20TT	PKJ20CR-L11
	PZFR6J11	–	PK20TT	IK20TT	PKJ20CR-L11
	PZTR5A15	–	PT16TT	IT16TT	PT16EPR-L13
	TR4VX	–	PT16TT	IT16TT	IT16
	TR5-1VX	–	PT20TT	IT20TT	IT20
	TR55-1VX	–	PT20TT	IT20TT	IT20
	TR55VX	–	PT20TT	IT20TT	IT20
	TR5BP12	–	PTV16TT	ITV16TT	ITV16
	TR5VX	–	PT20TT	IT20TT	IT20
	TR6AP13	–	PT20TT	IT20TT	IT20
	TR6AP13E	–	PT20TT	IT20TT	IT20
	TR6GP	–	PT20TT	IT20TT	IT20
	UR45VX	–	PTF16TT	ITF16TT	ITF16
	UR4VX	–	PTF16TT	ITF16TT	ITF16
	UR55VX	–	PTF20TT	ITF20TT	–
	UR5VX	–	PTF20TT	ITF20TT	–
	UR6VX	–	PTF20TT	ITF20TT	–
	YR55VX	–	PTF20TT	ITF20TT	–
	YR5VX	–	PTF20TT	ITF20TT	–
	ZFR5AP	–	PK16TT	IK16TT	IK16
	ZFR5FGP	–	PK16TT	IK16TT	IK16
	ZFR5LP13G	–	PK16TT	IK16TT	–
Ir	BCPR5EIX11	–	–	IQ16TT	IQ16

NGK Ni/Pt/Ir	NGK TYPE	TT	PLATINUM TT	IRIDIUM TT	DENSO
	BCPR5EIX11P	–	–	IQ16TT	VQ16
	BCPR6EIX11	–	–	IQ20TT	IQ20
	BCPR6EIX11P	–	–	IQ20TT	VQ20
	BKR4EIX	–	–	IK16TT	IK16
	BKR5EIX	–	–	IK16TT	IK16
	BKR5EIX11	–	–	IK16TT	IK16
	BKR5EIX11P	–	–	IK16TT	VK16
	BKR5EIXP	–	–	IK16TT	VK16
	BKR6EIX	–	–	IK20TT	IK20
	BKR6EIX	–	–	IK20TT	VK20T
	BKR6EIX11	–	–	IK20TT	IK20
	BKR6EIX11P	–	–	IK20TT	VK20
	BPR5EFIX13P	–	–	IT16TT	VT16
	BPR5EIX	–	–	IW16TT	IW16
	BPR5EIX11	–	–	IW16TT	IW16
	BPR5EIX11-P	–	–	IW16TT	VW16
	BPR5EIX-P	–	–	IW16TT	VW16
	BPR6EFIX10	–	–	IT20TT	IT20
	BPR6EFIX13P	–	–	IT20TT	VT20
	BPR6EIX	–	–	IW20TT	IW20
	BPR6EIX(LPG)	–	–	IW20TT	VW20T
	BPR6EIX11	–	–	IW20TT	IW20
	BPR6EIX11-P	–	–	IW20TT	VW20
	BPR6EIX-P	–	–	IW20TT	VW20
	DF5A11A	–	–	IK16TT	FK16PR11
	DF5B11A	–	–	IKH16TT	FK16HR11
	DF6H11A	–	–	IXEH20ETT	FXE20HE11
Ir	DF6H11A	–	–	IXEH20ETT	VFXEH20E
	DF6H11B	–	–	IXEH20TT	FXE20HR11
	DF6H11B	–	–	IXEH20TT	VFXEH20
	DF7H11B	–	–	IXEH22TT	FXE22HR11
	DF7H11B	–	–	IXEH22TT	VFXEH22
	DFH6B11A	–	–	IKBH20TT	FK20HBR11
	DFH6B11A	–	–	IKBH20TT	VFKBH20
	DILFR5A	–	–	IK16TT	–
	DILFR5A11	–	–	IK16TT	FK16HR11
	DILFR5A11D	–	–	IK16TT	FK16HR11
	DILFR5E11	–	–	IK16TT	FK16HR11
	DILFR6D11	–	–	IK20TT	FK20HR11
	DILFR6F11G	–	–	IK20TT	–
	DILFR6J11	–	–	IK20TT	–
	DILKAR6A11	–	–	IXEH20TT	FXE20HR11
	DILKAR7B11	–	–	IXEH22TT	–
	DILKAR7F8	–	–	IXEH22TT	FC20HPR8
	DILZKAR6A11	–	–	IXEH20ETT	FXE20HE11
	DILZKR7B11	–	–	IXEH22TT	–
	GR4IX	–	–	IW16TT	IW16
	GR5AI10	–	–	IW16TT	IW16
	GR5IX	–	–	IW16TT	IW16
	HAMP-FR5CI11G	–	–	IK16TT	HAMP-IK16F
	HAMP-FR6CI11G	–	–	IK20TT	HAMP-IK20F
	HAMP-FR6DI11G	–	–	IQ20TT	HAMP-IQ20F
	HAMP-ZFR5FI11G	–	–	IK16TT	HAMP-IK16FJ
	HAMP-ZFR6FI11G	–	–	IK20TT	HAMP-IK20FJ
	HAMP-ZFR6KI11G	–	–	IK20TT	HAMP-IKD20F
	IFR5A11	–	–	IK16TT	SK16R11

NGK Ni/Pt/Ir	NGK TYPE	TT	PLATINUM TT	IRIDIUM TT	DENSO
	IFR5A-8N	–	–	IK20TT	SK16R-P8
	IFR5D10	–	–	IK16TT	VK16
	IFR5E11	–	–	IK16TT	SK16PR-A11
	IFR5G11	–	–	IK16TT	SK16PR-L11
	IFR5G11K	–	–	IK16TT	SK16PR-L11
	IFR5J11	–	–	IK16TT	VK16
	IFR5L11	–	–	IK16TT	VK16PRZ11
	IFR5N	–	–	IK16TT	VK16
	IFR5N10	–	–	IK16TT	VK16
	IFR6A11	–	–	IK20TT	SK20R11
	IFR6C	–	–	IK20TT	SK20PR-L9
	IFR6D10	–	–	IK20TT	VK20
	IFR6E11	–	–	IK20TT	VK20
	IFR6J11	–	–	IK20TT	SVK20RZ11
	IFR6L11	–	–	IK20TT	VK20PRZ11
	IFR6T11	–	–	IK20TT	SK20R11
	IGR5B10-D	–	–	IW16TT	VW16
	IGR6A11	–	–	IW20TT	VW20
	IGR6B10-D	–	–	IW20TT	VW20T
	ILFR5C11	–	–	IKH16TT	SK16HR11
	ILFR6A	–	–	IKH20TT	VKH20
	ILFR6B	–	–	IKH20TT	VKH20
	ILFR6C	–	–	IKH20TT	VKH20
	ILFR6C11	–	–	IKH20TT	SK20HR11
	ILFR6D11	–	–	IK20TT	FK20HR11
	ILFR6G	–	–	IKH20TT	VKH20
	ILFR6J11K	–	–	IKH20TT	SK20HPR-L11
Ir	ILKAR6C10	–	–	IXEH20TT	VFXEH20
	ILKAR7B11	–	–	IXEH22TT	SC20HR11
	ILKAR7L11	–	–	IXEH22TT	ZC20HPR11
	ILTR5A13G	–	–	ITV16TT	–
	ILTR5B11	–	–	ITL16TT	–
	ILTR5C11	–	–	ITL16TT	–
	ILTR5D	–	–	ITV16TT	–
	ILTR5E11	–	–	ITV16TT	–
	ILTR6A13G	–	–	ITV20TT	–
	ILTR6A8G	–	–	ITV20TT	–
	ILTR6E11	–	–	ITV20TT	–
	ILZFR5B	–	–	IKH16TT	VKH16
	ILZFR6A11	–	–	IKH20TT	VKH20
	ILZFR6C11K	–	–	IKH20TT	VKH20
	ILZFR6D11	–	–	IKH20TT	VKH20
	ILZKAR7A	–	–	IXEH22TT	–
	ILZKAR7A10	–	–	IXEH22TT	FXE22HR11
	ILZKAR7B11	–	–	IXEH22TT	–
	ITR4A15	–	–	IT16TT	VT16
	ITR5F13	–	–	IT16TT	VT16
	ITR6F13	–	–	IT20TT	VT20
	IZFR5F11	–	–	IK16TT	SKJ16CR-L11
	IZFR5K11	–	–	IK16TT	SKJ16DR-M11
	IZFR5L11	–	–	IK16TT	SKJ16CR-L11
	IZFR6F11	–	–	IK20TT	VKJ20RZ-M11
	IZFR6H11	–	–	IK20TT	VK20
	IZFR6K11	–	–	IK20TT	SKJ20DR-M11
	IZFR6K13	–	–	IK20TT	SKJ20DR-M13
	LFR5AIX11	–	–	IKH16TT	IKH16

NGK Ni/Pt/Ir	NGK TYPE	TT	PLATINUM TT	IRIDIUM TT	DENSO
	LFR5AIX11P	–	–	IKH16TT	VKH16
	LFR5ARX-11P	–	–	IKH16TT	VFKH16
	LFR6AIX11	–	–	IKH20TT	IKH20
	LFR6AIX11P	–	–	IKH20TT	VKH20
	LFR6AIX-LPG	–	–	IKH20TT	VKH20T
	LKAR6AIX13P	–	–	IXEH20TT	ZXE20HR13
	LTR5BI-13	–	–	ITV16TT	–
	LTR5IX11	–	–	ITV16TT	ITV16
	LTR6AI-9	–	–	ITV20TT	ITV20
	LTR6BI-13	–	–	ITV20TT	–
	LTR6BI-9	–	–	ITV20TT	–
	LTR6BP13	–	–	ITV20TT	ITV20
	LTR6IX11	–	–	ITV20TT	ITV20
	LZFR6AI	–	–	IKH20TT	IKH20
	LZKAR6AP11	–	–	IXEH20TT	FXE20HR11
	SIFR6A11	–	–	IK20TT	VK20
	SILFR6A11	–	–	IKH20TT	VKH20
	SILFR6C11	–	–	IKH20TT	VKH20
	SILTR6A7G	–	–	ITV20TT	–
	SILZKAR7B11	–	–	IXEH22TT	–
	TR4IX	–	–	IT16TT	IT16
	TR5-1IX	–	–	IT20TT	IT20
Ir	TR55IX	–	–	IT20TT	IT20
	TR5IX	–	–	IT20TT	IT20
	TR6IX	–	–	IT20TT	IT20
	UR45IX	–	–	ITF16TT	ITF16
	UR4IX	–	–	ITF16TT	ITF16
	UR55IX	–	–	ITF20TT	ITF20
	UR5IX	–	–	ITF20TT	ITF20
	UR6IX	–	–	ITF20TT	ITF20
	YR55IX	–	–	ITF20TT	ITF20
	YR5IX	–	–	ITF20TT	ITF20
	ZFR5FIX11	–	–	IK16TT	IK16
	ZFR5FIX11P	–	–	IK16TT	VK16
	ZFR6FIX11	–	–	IK20TT	IK20
	ZFR6FIX11P	–	–	IK20TT	VK20
	LPG1	–	–	IK20TT	–
	LPG1	–	–	IK20TT	–
	LPG2	–	–	IW20TT	–
	LPG2	–	–	IW20TT	–
	LPG3	–	–	IQ20TT	–
	LPG4	–	–	ITV16TT	–
	LPG5	–	–	IT20TT	–
	LPG6	–	–	IK20TT	–
	LPG7	–	–	IKH20TT	–

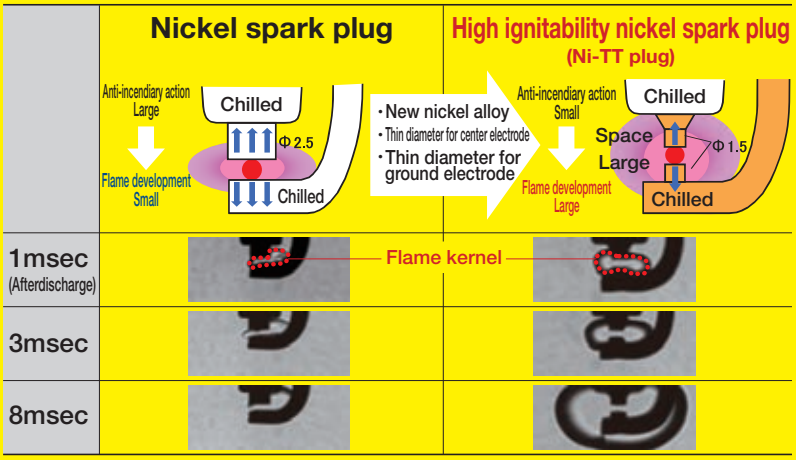


Recommended for anyone who wants a better Nickel spark plug

1 **Boosting flying sparks and ignitability**
- Thin center electrode (1.5mm)
- Double Needle structure (a first with nickel)
- Utilizes nickel alloy featuring new materials

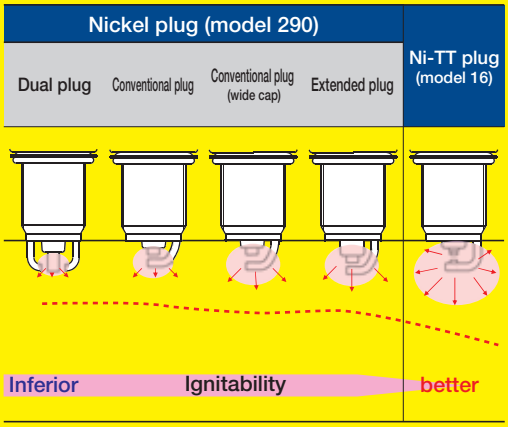
2 **Model consolidation : Model 290 ➡ Model 16**

High ignitability nickel plug impact of thin diameter on both sides of electrode



A new nickel alloy achieves thin diameter on both sides of the electrode, improving combustion by boosting flame development

Reasons why the Ni-TT plug can cover for other Nickel plugs



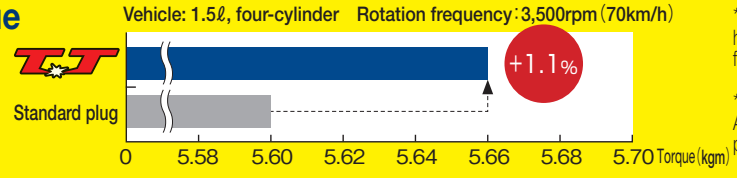
The Ni-TT plug can cover for other standard plugs thanks to its better ignitability (flame kernel spreads easily).

Improves speed and output

1.1% improvement in torque boosts horsepower by 1.1*1

Improving engine torque means greater dynamism! Facilitates smooth driving even when subjected to a load--such as people or baggage--on top.

Vehicle: 1.5ℓ, four-cylinder Rotation frequency：3,500rpm（70km/h）



*1Horsepower calculation equation: horsepower=torque X rotation frequency x 0.001396

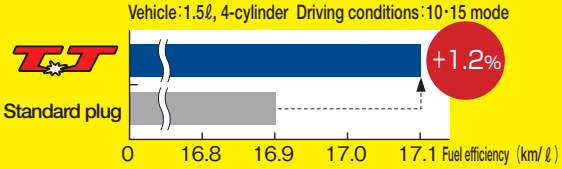
*All data is provided by DENSO. All references to standard plugs refer to DENSO products.

Improved fuel efficiency

Improves fuel efficiency by 1.2% ! The more you drive, the more economical it is!

Fuel efficiency is boosted by reliable ignitability. Fuel consumption is lowered, and the vehicle can run longer on the same amount of fuel.

Vehicle：1.5ℓ, 4-cylinder Driving conditions：10·15 mode



* All data indicated is provided by DENSO. All references to standard plugs refer to DENSO products

Travel distance

Conditions Fuel efficiency is improved by 1.2% by switching to the
(10,000 km driving/year, fuel efficiency of 16.9 km/ℓ)

【 Conventional plug 】 10,000km÷16.9km= Approximately **591.7** ℓ

【 】 10,000km÷17.1km=Approximately **584.7** ℓ

▼

7-liter difference over 10,000 km, translating to an additional 120 km of travel distance

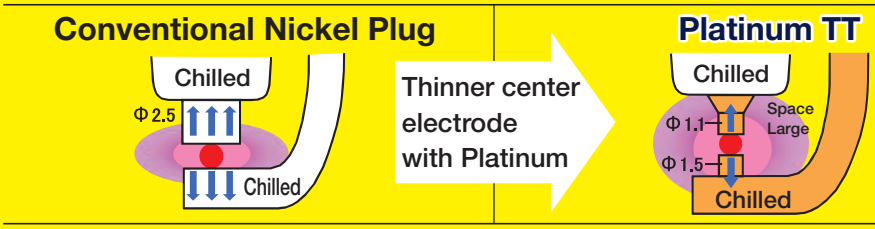
Specifications

TYPE	DIA (mm)	REACH (mm)	HEX (mm)	GAP	PROJECTION (mm)	SPARK POSITION (mm)	TERMINAL SHAPE	RESISTOR (kΩ)	TT PLUG DENSO P/N
K16TT	14	19	16	1.0	1.5	3	S	5	267700-7431
K20TT	14	19	16	1.0	1.5	3	S	5	267700-7441
KH16TT	12	26.5	16	1.0	1.5	3	S	5	267700-7451
KH20TT	14	26.5	16	1.0	1.5	3	S	5	267700-7460
Q16TT	14	19	16	1.0	1.5	3	S	5	267700-7471
Q20TT	14	19	16	1.0	1.5	3	S	5	267700-7481
W16TT	14	19	20.6	0.8	1.5	3	RC	5	267700-6301
W20TT	14	19	20.6	0.8	1.5	3	RC	5	267700-6311
W22TT	14	19	20.6	0.8	1.5	3	RC	5	267700-7510
WF20TT	14	12.7	20.6	0.8	1.5	3	RC	5	267700-7500
T16TT	14	17.5	16	1.0	1.5	3	S	5	267700-7820
T20TT	14	17.5	16	1.0	1.5	3	S	5	267700-7830
TV16TT	14	25	16	1.0	1.5	3	S	5	267700-7490
XU22TT	12	19	16	0.8	1.3	2.8	S	5	267700-7080
XUH22TT	12	26.5	16	0.8	1.5	3	S	5	267700-7090
XUH20TTI	12	26.5	16	0.8	1.5	4	S	5	267700-8290

Better Ignitability and Fuel Consumption with Platinum and TT Technology.

1. DENSO Unique “Twin-Tip” Structure
2. 1.1mm platinum center electrode
3. 360 Laser welding

High Ignitability Platinum Plug



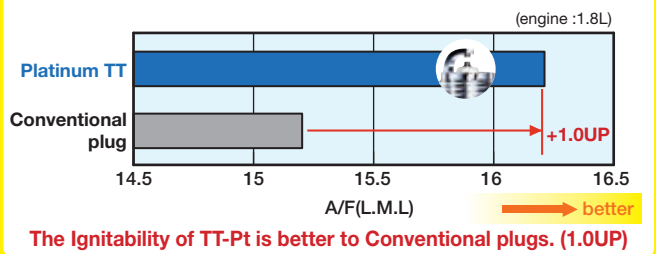
Reduced quenching results in larger flame

Faster flame propagation for more complete combustion

DENSO’s revolutionary Twin-Tip design is a combination of durable precious metals-Platinum and Titanium. The center electrode is created using durable platinum alloy that allows for the reduction of the tip size to 1.1mm in diameter, while maintaining the life of the plug. The Titanium-enhanced alloy on the ground electrode also increases durability, which is critical to minimize tip erosion and achieve the new Twin-Tip design.

Better Ignitability

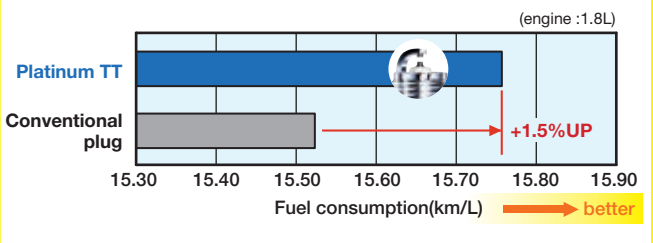
〈A method〉
Engine :1.8L 4cyl(1ZZ-FE)
engine speed:700rpm
Judgement of L.M.L :COV of combustion pressure exceed 25%
L.M.L :Lean misfire Limit
COV :coefficient of variation



The Ignitability of TT-Pt is better to Conventional plugs. (1.0UP)

Better Fuel Consumption

Platinum TT is superior to Conventional plugs by 1.5%



Better ignitability of the DENSO Platinum TT means more efficient combustion, which yields better engine performance in terms of power and fuel economy. Better mileage, more power, and faster starts, all while reducing carbon emissions are what places the platinum TT heads above the competition.

Specifications

Type	DIA (mm)	REACH (mm)	HEX (mm)	GAP (mm)	PROJECTION (mm)	SPARK POSITION (mm)	GROUND ELECTRODE HEIGHT (mm)	TERMINAL SHAPE	RESISTOR (kΩ)	No.	DENSO P/N
PK16TT	14	19	16	1	1.5	3	6.3	Solid	5	PT03	267700-6320
PK20TT	14	19	16	1	1.5	3	6.3	Solid	5	PT04	267700-6330
PK22TT	14	19	16	1	1.5	3	6.3	Solid	5	PT14	267700-7790
PKH16TT	14	26.5	16	1	1.5	3	6.3	Solid	5	PT05	267700-6340
PKH20TT	14	26.5	16	1	1.5	3	6.3	Solid	5	PT06	267700-6350
PQ16TT	14	19	16	1	1.5	3	6.3	Solid	5	PT07	267700-6360
PQ20TT	14	19	16	1	1.5	3	6.3	Solid	5	PT08	267700-6370
PW16TT	14	19	20.6	1	1.5	3	6.3	Solid	5	PT01	267700-6380
PW20TT	14	19	20.6	1	1.5	3	6.3	Solid	5	PT02	267700-6390
PT16TT	14	17.5	16	1	1.5	3	6.3	Solid	5	PT11	267700-7200
PT20TT	14	17.5	16	1	1.5	3	6.3	Solid	5	PT12	267700-7210
PTF16TT	14	11.2	16	1	1.5	3	6.3	Solid	5	PT09	267700-7240
PTF20TT	14	11.2	16	1	1.5	3	6.3	Solid	5	PT10	267700-7250
PTV16TT	14	25	16	1	1.5	3	6.3	Solid	5	PT13	267700-7220

ϕ 0.4mm DOUBLE NEEDLE

IRIDIUM T·T®

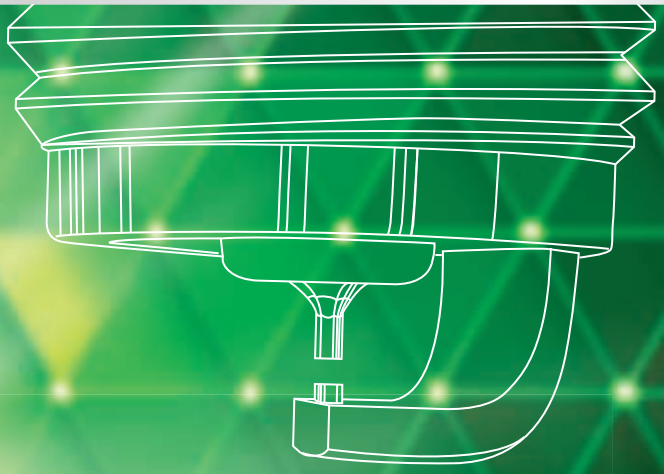
0.4mm Iridium, only at DENSO!

0.4mm*

The world's finest diameter (as of March 2021)

with an iridium center electrode

*for appreciable models only



The Finest TT plug with improved Acceleration Economical and long lasting!

ϕ0.4 mm iridium alloy & ϕ0.7 mm platinum needle alloy achieve high performance & high durability

DENSO has started to sell IRIDIUM TT spark plugs having a ϕ0.4 mm iridium alloy center electrode and a ϕ0.7 mm needle-type platinum alloy ground electrode.

The quenching effect has been decreased by forming the electrode into a double needle shape. As a result, the flame kernel rapidly develops and the engine's power is drawn out to its maximum potential.

Resistor
Noise Reduction
5kΩ

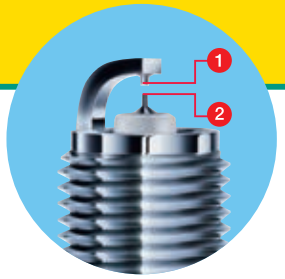
Built-in, Highly Reliable Resistor

All specification types include an embedded, highly reliable, monolithic resistor to eliminate electromagnetic noise interference from all kinds of electronic devices.

LASER WELDING

360° Laser Welding

The iridium tip is mounted with an "All-around Laser Welding" method that insures high reliability and durability even under the most severe driving conditions.



1 ϕ0.7 mm Needle-Shaped Platinum Ground Electrode

In order to maximally prevent quenching effect, the ground electrode needs to be made as small as possible. Traditional ground electrodes could not be made too small without reducing grounding strength or increasing electrode wear. However, we've managed to attach a fine 0.7mm-diameter platinum electrode using a 360° laser welding technique.

2 ϕ0.4 mm Ultra-fine Iridium Center Electrode

Using DENSO's exclusive iridium alloy having a very high melting point, the tip of the center electrode can be shaped very thin and fine, reducing spark voltage requirements and greatly improving ignitability.

ϕ0.4 mm IRIDIUM

Flame Growth

The photograph shows flame reflected by the variation in density. Fig. 1 shows the results of studying the influence of electrode shape on flame growth, using the Iridium Spark Plug and IRIDIUM TT.
The photographs indicate that, in the case of the Iridium Spark Plug, the size reduction of the gap (from 1.1 mm to 0.6 mm) interfered with flame growth, while in the case of IRIDIUM TT, flame growth was ample and greater than that of the Iridium Spark Plug in spite of the narrowed spark gap (0.6 mm). These observations show that, as the results of the ignition/firing simulation indicated, a fine ground electrode can reduce required voltage because it enables the spark gap to be narrower, while realizing higher ignitability than the Iridium Spark Plug.

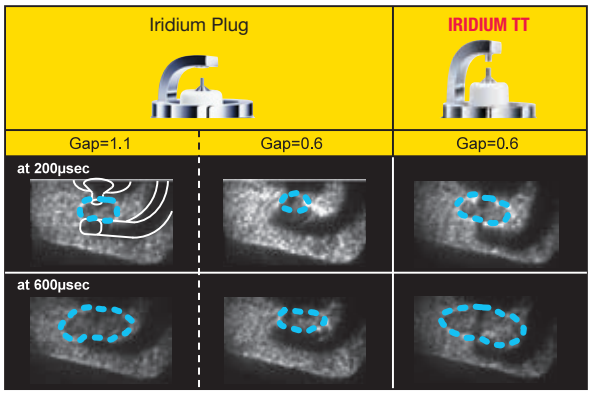


Fig.1 Electrode Shape's Effect to Flame Growth

Advantages of Fine Ground Electrodes

To lower the required voltage and improve firing performance. The most advanced technology in the world has been employed to enable use of electrode, at 0.4 mm in diameter, in the IRIDIUM TT.
The smaller the electrode the more concentrated the electric potential at the tip of the electrode and the stronger the electric field that affects required voltage and the lower the required voltage. As a result, combustion is good for all types of driving, the engine starts easily, and acceleration improves.
The above shows the strength of electrical field in case certain voltage changes on Iridium plug and IRIDIUM TT.
The more electrical field strength is getting high, the more it becomes easy to fire with low voltage.
*1 FEM(Finite Element Method analysis): General method to measure electrical field strength.

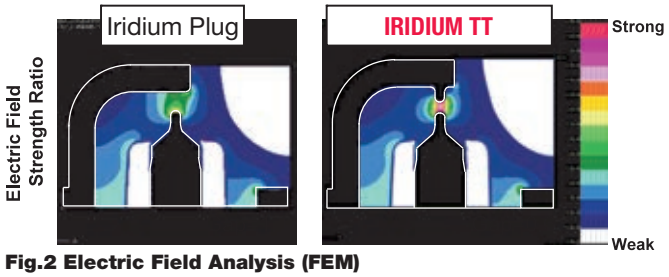


Fig.2 Electric Field Analysis (FEM)

Higher Ignitability

Fig. 3 shows the results of evaluating how the miniaturized-portion protrusion direction may influence the ignitability of an engine. The evaluation checked idle speed at equal throttle opening with the ISC (idle speed control) turned off. A higher idle speed represents higher ignitability.
This figure shows the results of evaluating IRIDIUM TT. This figure shows that IRIDIUM TT are better to the Iridium Spark Plugs in ignitability.

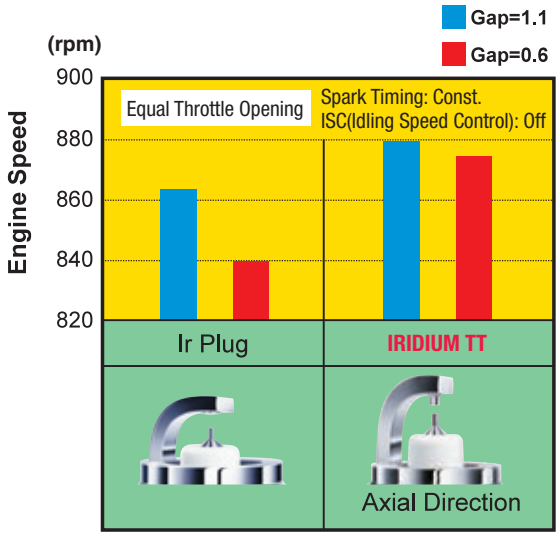


Fig.3 Influence of Miniaturized-Portion Protrusion to Ignitability

Better fuel efficiency

Fig. 4 shows the results of the examination of combustion variation and fuel consumption, using a 1,800-cc, four-cylinder engine. The evaluation was conducted by turning on the ISC and setting the average engine speed to 800 rpm (idling). The previously specified Type-1 of the IRIDIUM TT was used in this examination. Pmi COV (coefficient of variation) in the diagraph shows fluctuation in IMEP (indicated mean effective pressure). As this figure shows, IRIDIUM TT can reduce the Pmi COV approximately 3.1% and accordingly reduce fuel consumption by 2.4%, compared with the Iridium Spark Plug. These advantages are achieved because the miniaturization of the ground electrode enables better ignitability, improving combustion efficiency. Because the IRIDIUM TT is low in combustion variation and enables a reduction in idling speed, further improvement can be expected in fuel efficiency.

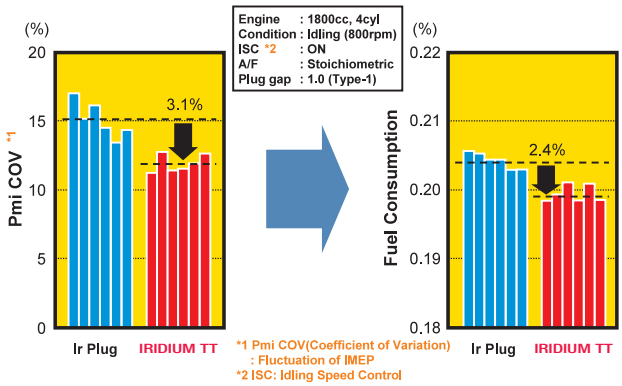


Fig.4 Better Fuel Efficiency

IRIDIUM TT Specifications

Type	Spec	DIA (mm)	REACH (mm)	HEX (mm)	GAP (mm)	PROJECION (mm)	SPARK POSITION (mm)	GROUND ELECTRODE HEIGHT (mm)	TERMINAL SHAPE	RESISTOR (kΩ)	No.	DENSO P/N
IK16TT	ISO	14	19	16	1	1.5	3	6.2	Solid	5	IT01	267700-8450
IK20TT	ISO	14	19	16	1	1.5	3	6.2	Solid	5	IT02	267700-8530
IKH16TT	ISO	14	26.5	16	1	1.5	3	6.2	Solid	5	IT03	267700-8460
IKH20TT	ISO	14	26.5	16	1	1.5	3	6.2	Solid	5	IT04	267700-8470
IKBH20TT	NEW 3 ELECTRODE	14	26.5	16	1	2.5	4	7.2	Solid	5	IT05	267700-8480
IQ16TT	JIS	14	19	16	1	1.5	3	6.2	Solid	5	IT06	267700-8190
IQ20TT	JIS	14	19	16	1	1.5	3	6.2	Solid	5	IT07	267700-8200
IW16TT		14	19	20.6	1	1.5	3	6.2	Solid	5	IT08	267700-8210
IW20TT		14	19	20.6	1	1.5	3	6.2	Solid	5	IT09	267700-8220
IXEH20ETT	SHROUD 2mm	12	26.5	14	1	2.5 (+shroud 2mm)	4 (+shroud 2mm)	7.1 (+shroud 2mm)	Solid	5	IT10	267700-8490
IXEH20TT		12	26.5	14	1	2.5	4	7.1	Solid	5	IT11	267700-8500
IXEH22TT		12	26.5	14	1	2.5	4	7.1	Solid	5	IT12	267700-8510
IT16TT	TAPER SEAT	14	17.5	16	1	1.5	3	6.2	Solid	5	IT13	267700-8230
IT20TT	TAPER SEAT	14	17.5	16	1	1.5	3	6.2	Solid	5	IT14	267700-8520
ITF16TT	TAPER SEAT	14	11.2	16	1	1.5	3	6.2	Solid	5	IT15	267700-8260
ITF20TT	TAPER SEAT	14	11.2	16	1	1.5	3	6.2	Solid	5	IT16	267700-8270
ITL16TT	TAPER SEAT (INSULATOR Length 56mm)	14	25	16	1	1.5	3	6.2	Solid	5	IT17	267700-8280
ITV16TT	TAPER SEAT (INSULATOR Length 50mm)	14	25	16	1	1.5	3	6.2	Solid	5	IT18	267700-8240
ITV20TT	TAPER SEAT (INSULATOR Length 50mm)	14	25	16	1	1.5	3	6.2	Solid	5	IT19	267700-8250

IK16TT IK20TT

IKH16TT IKH20TT

IKBH20TT

IQ16TT IQ20TT

IW16TT IW20TT

IXEH20ETT

IXEH20TT IXEH22TT

IT16TT IT20TT

ITF16TT ITF20TT

ITL16TT

ITV16TT ITV20TT

MEMO

High Performance Spark Plug

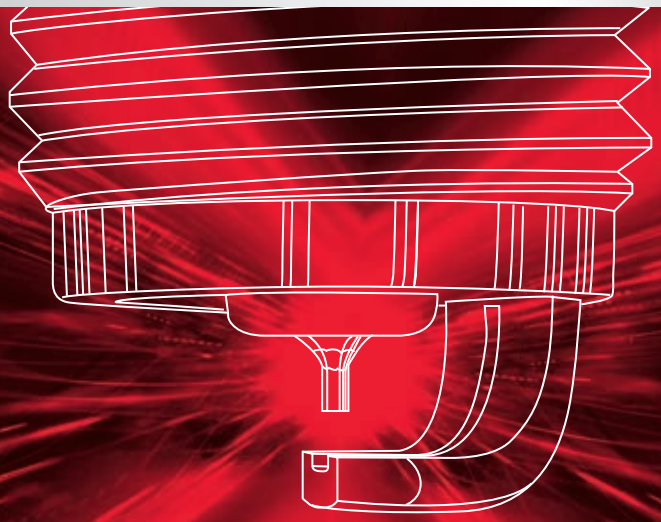
IRIDIUM POWER®

0.4mm Iridium, only at DENSO!

0.4mm The world's finest diameter (as of March 2021)*

with an iridium center electrode

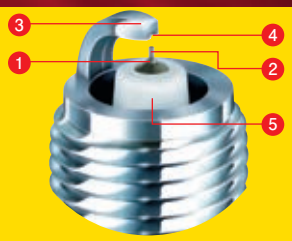
*for appreciable models only



A plug that draws out engine evolution with a high-performance spark.

Improved acceleration!

Revving up plug performance with 0.4 mm!



Resistor / Noise Reduction 5kΩ

Built-in, Highly Reliable Resistor

All IRIDIUM POWER® plugs include a highly reliable, 5,000 ohm monolithic resistor specification to reduce electromagnetic noise that may affect electronic devices. (For all plug types)

Burnished Nickel Plating

Highly Corrosion Resistant, Burnished Nickel Plating

The plug housing is plated with burnished nickel, the same as plugs used for racing. It is highly resistant to corrosion and rust even while touring in continually rainy weather and during motocross events. (Low-heat range types excluded)

LASER WELDING

360° Laser Welding

The process used to mount the iridium tip is a highly reliable "All-around Laser Welding" process that is able to withstand all kinds of driving conditions. (For all plug types)

1 Projected Center Electrode

In order to improve ignitability, the center electrode protrudes more than with conventional type plugs. This improves both acceleration response time and performance. (Only with: IU31, IUH24, IUH27, IX22, IX24, IX27, IUF22, IUF24, IWF22, IWF24, IWF27, IW24, IW27, IW29, IW31, and IW34)

0.4mm IRIDIUM

2 φ0.4 mm Diameter Ultra-fine Iridium Center Electrode

Using a new iridium alloy with a very high melting point, the tip of the electrode can be made very fine. This enables the reduction of voltage necessary to cause the spark, and greatly improves ignitability. Moreover, the special iridium alloy used was developed by DENSO

TAPERED CUT

3 Taper-cut Ground Electrode

The tip of the ground electrode is cut to a fine taper to reduce the adverse effects of quenching, which greatly improves fuel ignitability. Also, because of the streamlined, taper-cut shape, the fuel-air mixture spreads more evenly in the gap, resulting in steady, reliable igniting of combustion. (excluding IUF27A, IUF31A, IU24A, IU27A, IU31A, IY24, IY27 & IY31)

4 U-Groove Ground Electrode

The U-shaped groove on the ground electrode insures that the inside surface area is large enough to generate the flame kernel. This shape enables lower voltage needed to cause the spark and results in great ignitability without increasing the size of the spark gap. (excluding IUF27A, IUF31A, IU24A and IU31A)

5 Insulator Projection

The projection of the insulator is optimally designed based on each plug's thermal value. This corresponds to requirements unique to thermal value, such as self-cleaning ability at lower thermal values, and heat resistance at higher thermal values. (For all plug types)

Origin of Iridium: DENSO Iridium

A Long Time Ago...

Approximately 50 million years ago an asteroid, some 10km in diameter slammed into what is now Mexico's Yucatan Peninsula near the town of Chicxulub. The resulting dust cloud destroyed most living things and ended the dinosaurs reign on earth. The evidence for this has been known for some time, with the deposits of Iridium-rich clay found at the boundary of Cretaceous and Tertiary deposits (known as the K/T Boundary) all over the world.

On July 2 1992, Alan R. Hildebrand of the Geological Survey of Canada presented a scientific paper to the General Assembly of the Royal Astronomical Society of Canada entitled "The Cretaceous/Tertiary Boundary Impact". Some of his findings are summarized here.

The K/T boundary layer, sometimes known as the iridium bearing clay layer, has a global distribution and consists of at least two layers of impact material.

The upper layer, known as the Fireball layer averages 3mm thickness and represents 1500 cubic kilometers of debris deposited globally with no apparent variation in thickness.
The lower layer termed the ejecta layer, averages about 2cm in thickness.

A Major Impact on Earth?

Many scientists believe that the enormous impact put enough dust into the upper atmosphere to darken and hence cool the Earth for several years. This was theorized to result in shutting off global photosynthesis, with the resulting collapse of the global food chain. As a result nothing larger than 25 kg survived the boundary.

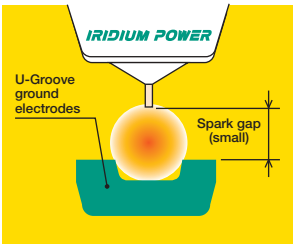
Iridium is found all over the world in the K/T layer and is not an unknown metal (commodity), however; its ability to be used in a manufacture type environment is unique. The current products that use Iridium are cellular telephones (Motorola), sunglasses (Oakley), and now spark plugs (DENSO). The reason for only a few companies using this precious metal is its difficulty to be manipulated in a cost-effective manner.

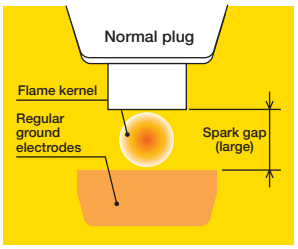
DENSO's experience with Iridium in the development of the complete line of original equipment platinum spark plugs helped in the development of the DENSO Iridium alloy, where the Iridium becomes the primary metal complimented by rhodium (Atomic Symbol: Rh) to increase oxidation wear resistance.

Improved Ignitability

With DENSO's very own U-Groove ground electrode for better spark performance.

To increase ignitability, the important point is to let the flame kernel caused by the spark to grow to a large size. Normally, this can be accomplishing by widening the spark gap, however this causes spark voltage to increase, which has the opposite effect. IRIDIUM POWER® uses DENSO very own U-Groove ground electrode to realize a superb ignitability while maintaining spark voltage at low levels.



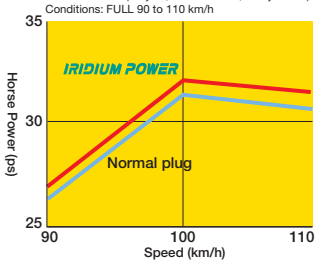


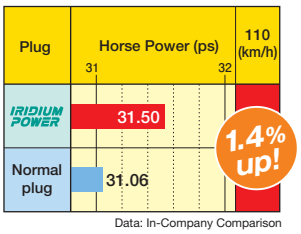
Improved Horse Power (1)

Get more power with an optimal fuel cycle.

IRIDIUM POWER® has a low required voltage and a high ignitability, resulting in less misfiring and no spark, the outcome being a dramatic improvement in combustion. Engine output is thus increased. The findings of a bench test using a motorcycle engine to show the improved combustion from IRIDIUM POWER® is shown on the below. Compared to normal plugs, a 0.5ps (1.4%) improvement is seen in output at 110 km/h.

Vehicle: 250 cc (2-cycle, water-cooled, V2 cylinders)
Conditions: FULL 90 to 110 km/h





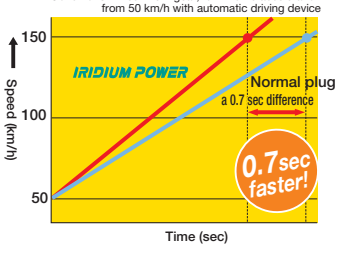
Data: In-Company Comparison

Improved Acceleration

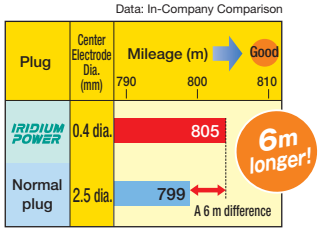
Increased response and acceleration performance.

IRIDIUM POWER® best demonstrates its performance improvement during acceleration. IRIDIUM POWER® has a 0.4 mm diameter iridium center electrode and a specially shaped ground electrode. These features combine to achieve higher ignitability and require lower spark voltage than ever before. This enables high-response driving with fewer misfires than under higher required voltage spark conditions, and fewer misfires when ignitability is difficult. As a result, acceleration improves in comparison with normal plugs.

Vehicle: 250 cc (2-cycle, water-cooled, V2 cylinders)
Conditions: Fixed in 6th gear, full throttle acceleration from 50 km/h with automatic driving device



Data: In-Company Comparison

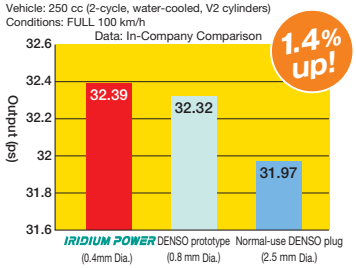


Improved Horse Power (2)

The 0.4mm center electrode increases output under various driving conditions.

The power produced by the 0.4mm dia. iridium center electrode is IRIDIUM POWER® unmatched by other plugs. The graph below compares the resulting power when IRIDIUM POWER® is installed compared to other high performance plugs. Using a 0.4mm dia. fine center electrode, there is more power compared to 0.8mm and 2.5 mm diameter. plugs. This is what makes the difference in acceleration and in your lap time.

Vehicle: 250 cc (2-cycle, water-cooled, V2 cylinders)
Conditions: FULL 100 km/h
Data: In-Company Comparison



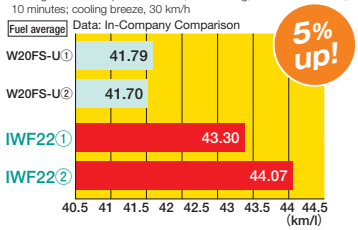
Improved Fuel Mileage

Even during idling ignition is assured, with less fuel consumption.

The good ignitability from the fine electrode (0.4 mm) of IRIDIUM POWER® draws out much more performance from the engine. Comparing a normal plug (W20FS-U) with an IRIDIUM POWER® (IWF22) on a 2-cycle 50cc engine, fuel consumption improved from 41.74 km/L → 43.69 km/L, an improvement of about 5%.

Note: Mileage measured using a chassis dynamo; actual driving results under normal conditions may vary.

Mileage Comparison Test
Testing vehicle: Honda DIO (2-cycle, single-cylinder, air-cooled, 50 cc)
Testing conditions: speed, 30 km/h; F/W 120 kg; measurement time, 10 minutes; cooling breeze, 30 km/h
Fuel average
Data: In-Company Comparison



IRIDIUM POWER® lineup

IKH series

IKH16. IKH20. IKH22
IKH24. IKH27

- φ14 mm ×L26.5 mm length long reach type.
- For SUBARU 3 Liter, NISSAN, PEUGEOT, CITROEN, and YAMAHA MARINE.
- **IRIDIUM TOUGH** VKH16, VKH20, and VKH22 are also on sale.

IK series

IK16. IK20. IK22. IK24. IK27.
IK31. IK34

- Mainly used for cars. ISO type.
- φ14 mm ×L19 mm length type.
- IK22 and above are for tuned engines, with a spark gap of 0.8 mm.
- IK16G, IK20G, and IK22G have a solid, stainless steel gasket (mainly used with HONDA engines).
- **IRIDIUM TOUGH** VK16, VK20, and VK22 are also on sale at the same time.
- IK□L is extended type (spark position 5 mm)

IK-L series

IK16L. IK20L

- φ14 mm X L19 mm X Hex 16mm.
- Extended Type The spark position is longer than IK20 by 2mm.
- KJ16CR-L11 / KJ16CR are substituted by IK16L
  KJ20CR-L11 / KJ20CR11 are substituted by IK20L (see this catalog for more substitution)

IK-G series

IK16G. IK20G. IK22G

- Mainly used for cars. ISO type.
- φ14 mm X L19 mm length type.
- IK22 and above are for tuned engines with a spark gap of 0.8 mm.
- IK16G, IK20G, and IK22G have a solid, stainless steel gasket (mainly used with HONDA engines).
- **IRIDIUM TOUGH** VK16G, VK20G, VK22G are also on sale at the same time.

IQ series

IQ16. IQ20. IQ22. IQ24.
IQ27. IQ31. IQ34

- Mainly used for cars.
- φ14 mm ×L19 mm length type.
- IQ22 and above are for tuned engines, with a spark gap of 0.8 mm.
- **IRIDIUM TOUGH** VQ16, VQ20, and VQ22 are also on sale.

IW series

IW16. IW20. IW22. IW24.
IW27. IW29. IW31. IW34

- φ14 mm ×L19 mm length fully threaded type.
- IW16 to 22 are focused on ignitability with a 1.5 mm projection, whereas IW24 to 34 are focused on heat resistance with a projection of -1.5 mm.
- The spark position of IW24 to 34 is projected 0.5mm compared to normal (1.0 → 1.5 mm).
- Equipped with 0.4 mm diameter iridium center electrode for improved ignitability.
- **IRIDIUM TOUGH** VW16, VW20, and VW22 are also on sale.

IWM series

IWM24. IWM27. IWM31

- This type has a gasket face height shortened by approximately 10 mm from the IW Type.
- The **IRIDIUM POWER** version of the IWM01-□ Iridium Racing plugs.
- Sold as street-use plugs for 2-cycle 250cc sports bikes.
- For HONDA NSR250, YAMAHA TZ250R, SUZUKI RGV250Γ (Gamma), Aprilia RS250, KTM260, 300, and 380 ('99 and later).
- Can also be used for water cooled kart engines.

IWF series

IWF16. IWF20.
IWF22. IWF24. IWF27

- φ14 mm ×L12.7 mm length short reach type.
- IWF27 utilizes the heat resistance of the iridium electrode to extend the spark position 0.5 mm (1.0 → 1.5 mm)
- Harnessing the low required voltage of the 0.4mm dia. iridium, the gap is wider than in standard types (0.7 → 0.8 mm). Ignitability is increased even further.

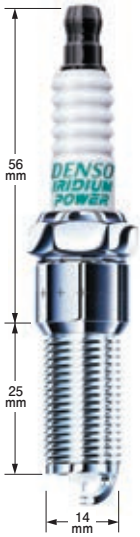
ITV series

ITV16. ITV20. ITV22. ITV24.
ITV27

- φ14 mm ×L25.0 mm length tapered seat, long reach type.
- For the FORD Focus, Mondeo, Escape, CHEVROLET Blazer and MAZDA Tribute.

ITL series

ITL16. ITL20



- φ14 mm ×L25.0 mm length tapered seat, long reach type.
- Designed so that the head of the plug is 6 mm higher than in the ITV.
- Use with CHRYSLER's PT Cruiser, Voyager, Dodge, Magnum for 2005 model years and later.

IT series

IT16. IT20. IT22. IT24. IT27

- φ14 mm ×L17.5 mm length tapered seat type.
- For use with GM, FORD, CITROEN, JAGUAR, PEUGEOT, VOLVO, MERCEDES- BENZ, LANCIA, RENAULT, AUDI, and MAZDA.
- **IRIDIUM TOUGH** VT16, VT20 are also on sale.

ITF series

ITF16. ITF20. ITF22. ITF24.
ITF27

- φ14 mm ×L11.2 mm length tapered seat type.
- For use with GM and FORD.

IRIDIUM POWER®

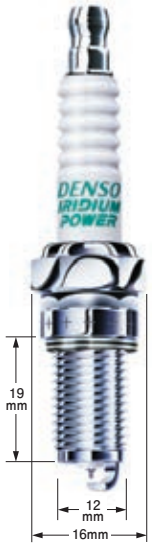
IXUH series

IXUH22. IXUH20I. IXUH22I

- φ12 mm ×L26.5 mm lenghth fully threaded type.
- The insulator is fully projected(1.5mm), creating greater heat range and greater ignitability.
- 16mm Hex
- Application: BMW, MERCEDES BENZ, HONDA, MITSUBISHI, MAZDA, SUBARU, SUZUKI, DAIHATSU
- ***IRIDIUM TOUGH*** VXUH22, VXUH20I, VXUH22I are also on sale.

IXU series

IXU22. IXU24. IXU27. IXU22I



- φ12 mm ×L19 mm length fully threaded type.
- The insulator is fully projected (1.5 mm), creating a wide heat range and greater ignitability.
- 16 mm Hex
- For use with small cars and imported motorcycles such as Ducati.
- ***IRIDIUM TOUGH*** VXU20, VXU22, VXU24, VXU22I are also on sale.

IX series

IX22. IX24. IX27

- φ12 mm ×L19 mm length fully threaded type.
- Using the high heat resistance of the iridium electrode, the spark position is projected 0.4 mm more than in standard types. (1.6 → 2.0 mm)
- Harnessing the low required voltage of the 0.4mm dia. iridium the gap is wider than in the standard types (0.7 → 0.8 mm). A further increase in ignitability.
- 18 mm Hex

IX-B series

IX22B. IX24B. IX27B

- φ12 mm ×L19 mm length fully threaded type.
- Compared to the IX type, the insulator projection is extended 0.9 mm (0.6 → 1.5 mm), resulting in a wider heat range.
- The spark position is projected 0.8 mm more than the IX type. (2.0 → 2.8 mm)
- 18 mm Hex

IXG series

IXG24. IXG27

- The Iridium Power versions of the 2 mm shroud type plugs (X24/27GPU) used by HONDA.
- Applicable to CB400SS. An expansion of applications is planned.
- Applicable to HONDA CB400SS, XR400RR, CL400/RS, XLR250R, CBX250S, FTR250, CBX400F, XR250R.

IU series

IU20. IU22. IU24. IU27. IU31. IU22D. IU24D. IU27D

- φ10 mm ×L19 mm length fully threaded type.
- Harnessing the low required voltage of the 0.4 mm iridium center electrode, the spark gap is wider than in normal type. A further increase in ignitability. (0.8 → 0.9mm)
- For motorcycles such as YAMAHA and KAWASAKI, also for FERARRI, MASERATI, and ALFA ROMEO.

IU-A series

IU24A. IU27A. IU31A

- φ10 mm ×L19 mm length fully threaded slant ground electrode type.
- Harnessing the low required voltage of the 0.4 mm diameter. iridium, the gap is wider than in normal type (0.7 → 0.9 mm). Ignitability is greatly increased.
- By making this a single electrode, the spark location is stabilized compared to in normal types (double ground electrode), securing an ideal combustion condition.

IUH series

IUH24. IUH27

- φ10 mm ×L19 mm length half-threaded type.
- Using the high heat resistance of the iridium electrode, the spark position is extended 0.4 mm compared to standard types (1.6 → 2.0 mm)
- Use only with HONDA

IUF series

IUF22. IUF24. IUF14-UB

- φ10 mm ×L12.7 mm length short reach type.
- Using the high heat resistance of the iridium, the spark position is extended 0.4 mm compared to standard types (1.6 → 2.0 mm)
- Harnessing the low required voltage of the 0.4 mm dia. iridium, the spark gap is wider than in normal types (0.7 → 0.8 mm). Ignitability is greatly increased.

IUF-A series

IUF27A. IUF31A

- φ10 mm ×L12.7 mm length short type.
- Ideal for Gorilla/ Monkey Racing.
- The ground electrode has a slant shape, reducing the thermal stress on it.

IY series

IY24. IY27. IY31

- φ8 mm ×L19 mm length tapered seat, half thread type.
- **The world's first 8 mm thread diameter iridium plug.**
- Can be used with HONDA Smart Dio ('04-), VFR400, RVF400, Kitaco Monkey Head, and NR750.

IRIDIUM POWER® Specifications

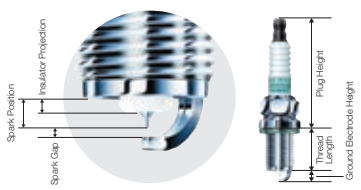
TYPE	APPLICATION	SPEC	DIA. (mm)	REACH (mm)	HEX (mm)	GAP (mm)	PROJECION (mm)	SPARK POSITION (mm)	GROUND ELECTRODE HEIGHT (mm)	TERMINAL SHAPE	RESISTOR (kΩ)	No.	IRIDIUM POWER ONE PC BOX DENSO P/N	IRIDIUM POWER 2pcs BLISTER PACK DENSO P/N
IQ16	Automobile	Old JIS (Installing height=K type+2mm)	14	19	16	1.1	1.5	3.0	5.5	S	5	I01	067700-8701	100676-3380
IQ20	Automobile	Old JIS (Installing height=K type+2mm)	14	19	16	1.1	1.5	3.0	5.5	S	5	I02	067700-8711	100676-3390
IQ22	Automobile	Old JIS (Installing height=K type+2mm)	14	19	16	0.8	1.5	3.0	5.2	S	5	I13	067700-8481	100676-3480
IQ24	Automobile	Old JIS (Installing height=K type+2mm)	14	19	16	0.8	1.5	3.0	5.2	S	5	I14	067700-8491	100676-3490
IQ27	Automobile	Old JIS (Installing height=K type+2mm)	14	19	16	0.8	1.5	3.0	5.2	S	5	I15	067700-8502	
IQ31	Automobile	Old JIS (Installing height=K type+2mm)	14	19	16	0.8	-0.5	1.0	3.2	S	5	I23	067700-9231	
IQ34	Automobile	Old JIS (Installing height=K type+2mm)	14	19	16	0.8	-0.5	1.0	3.2	S	5	I24	067700-9601	
IK16	Automobile		14	19	16	1.1	1.5	3.0	5.5	S	5	I03	067700-8681	100676-3360
IK20	Automobile		14	19	16	1.1	1.5	3.0	5.5	S	5	I04	067700-8691	100676-3370
IK22	Automobile		14	19	16	0.8	1.5	3.0	5.2	S	5	I10	067700-8431	100676-3450
IK24	Automobile		14	19	16	0.8	1.5	3.0	5.2	S	5	I11	067700-8461	100676-3460
IK27	Automobile		14	19	16	0.8	1.5	3.0	5.2	S	5	I12	067700-8472	100676-3470
IK31	Automobile		14	19	16	0.8	-0.5	1.0	3.2	S	5	I21	067700-9221	
IK34	Automobile		14	19	16	0.8	-0.5	1.0	3.2	S	5	I22	067700-9591	
IK16G	Automobile	SUS Gasket	14	19	16	1.1	1.5	3.0	5.5	S	5	I51	267700-5611	
IK20G	Automobile	SUS Gasket	14	19	16	1.1	1.5	3.0	5.5	S	5	I52	267700-5621	
IK22G	Automobile	SUS Gasket	14	19	16	0.8	1.5	3.0	5.2	S	5	I48	267700-5661	100676-5350
IK16L	Automobile	EXTENDED	14	19	16	1.1	2.5	5.0	7.8	RC	5	I57	267700-5121	
IK20L	Automobile	EXTENDED	14	19	16	1.1	2.5	5.0	7.8	RC	5	I58	267700-5131	
IKH16	Automobile		14	26.5	16	1.1	1.5	3.0	5.5	S	5	I43	267700-3661	100676-5160
IKH20	Automobile		14	26.5	16	1.1	1.5	3.0	5.5	S	5	I44	267700-3671	100676-5140
IKH22	Automobile		14	26.5	16	0.8	1.5	3.0	5.2	S	5	I45	267700-2651	100676-5170
IKH24	Automobile		14	26.5	16	0.8	1.5	3.0	5.2	S	5	I46	267700-4281	100676-5180
IKH27	Automobile		14	26.5	16	0.8	1.5	3.0	5.2	S	5	I47	267700 4291	
IW16	Automobile		14	19	20.6	1.1	1.5	3.0	5.5	RC	5	I05	067700-8651	100676-3400
IW20	Automobile		14	19	20.6	1.1	1.5	3.0	5.5	RC	5	I06	067700-8661	100676-3410
IW22	Automobile		14	19	20.6	0.8	1.5	3.0	5.2	RC	5	I07	067700-8671	100676-3420
IW24	Motorcycle		14	19	20.6	0.7	-0.5	1.5	3.6	RC	5	I16	067700-8891	
IW27	Motorcycle		14	19	20.6	0.7	-0.5	1.5	3.6	RC	5	I17	067700-8901	
IW29	Racing Kart		14	19	20.6	0.7	-0.5	1.5	3.6	RC	5	I18	067700-8911	
IW31	Racing Kart		14	19	20.6	0.7	-0.5	1.5	3.6	RC	5	I19	067700-8921	
IW34	Racing Kart		14	19	20.6	0.7	-0.5	1.5	3.6	RC	5	I20	067700-8931	
IWM24	Motorcycle	Compact insulator head	14	19	20.6	0.8	-1.5	0.5	2.7	S	5	I91	267700-2891	
IWM27	Motorcycle	Compact insulator head	14	19	20.6	0.8	-1.5	0.5	2.7	S	5	I92	267700-2901	
IWM31	Motorcycle	Compact insulator head	14	19	20.6	0.8	-1.5	0.5	2.7	S	5	I93	267700-2911	
IWF16	Motorcycle		14	12.7	20.6	0.8	1.5	3.0	5.2	R	5	I59	267700-5001	
IWF20	Motorcycle		14	12.7	20.6	0.8	1.5	3.0	5.2	R	5	I78	267700-5011	
IWF22	Motorcycle		14	12.7	20.6	0.8	-0.5	1.5	3.7	R	5	I79	067700-9411	
IWF24	Motorcycle		14	12.7	20.6	0.8	-0.5	1.5	3.7	R	5	I80	067700-9421	
IWF27	Motorcycle		14	12.7	20.6	0.8	-0.5	1.5	3.7	R	5	I81	067700-9431	
ITV16	Automobile	Taper Seat(Insulator Length 50mm)	14	25	16	1.1	1.5	3.0	5.5	S	5	I38	267700-3701	100676-5200
ITV20	Automobile	Taper Seat(Insulator Length 50mm)	14	25	16	1.1	1.5	3.0	5.5	S	5	I39	267700-3711	100676-5210
ITV22	Automobile	Taper Seat(Insulator Length 50mm)	14	25	16	0.8	1.5	3.0	5.2	S	5	I40	267700-2501	
ITV24	Automobile	Taper Seat(Insulator Length 50mm)	14	25	16	0.8	-0.5	1.0	3.2	S	5	I41	267700-2511	
ITV27	Automobile	Taper Seat(Insulator Length 50mm)	14	25	16	0.8	-0.5	1.0	3.2	S	5	I42	267700-2521	
ITL16	Automobile	Taper Seat(Insulator Length 56mm)	14	25	16	1.1	1.5	3.0	5.5	S	5	I49	267700-4981	
ITL20	Automobile	Taper Seat(Insulator Length 56mm)	14	25	16	1.1	1.5	3.0	5.5	S	5	I50	267700-4991	
IT16	Automobile	TAPER SEAT	14	17.5	16	1.1	1.5	3.0	5.5	S	5	I25	267700-0611	100676-3610
IT20	Automobile	TAPER SEAT	14	17.5	16	1.1	1.5	3.0	5.5	S	5	I26	267700-0621	100676-3620
IT22	Automobile	TAPER SEAT	14	17.5	16	0.8	1.5	3.0	5.2	S	5	I27	267700-0631	
IT24	Automobile	TAPER SEAT	14	17.5	16	0.8	-0.5	1.0	3.2	S	5	I28	267700-0641	
IT27	Automobile	TAPER SEAT	14	17.5	16	0.8	-0.5	1.0	3.2	S	5	I29	267700-0651	
ITF16	Automobile	TAPER SEAT	14	11.2	16	1.1	1.5	3.0	5.5	S	5	I30	267700-0661	
ITF20	Automobile	TAPER SEAT	14	11.2	16	1.1	1.5	3.0	5.5	S	5	I31	267700-0671	
ITF22	Automobile	TAPER SEAT	14	11.2	16	0.8	1.5	3.0	5.2	S	5	I32	267700-0681	
ITF24	Automobile	TAPER SEAT	14	11.2	16	0.8	-0.5	1.0	3.2	S	5	I33	267700-0691	
ITF27	Automobile	TAPER SEAT	14	11.2	16	0.8	-0.5	1.0	3.2	S	5	I34	267700-0701	
IXU22	Automobile		12	19	16	0.9	1.3	2.8	5.0	RC	5	I08	067700-8722	100676-3430
IXU24	Automobile		12	19	16	0.9	1.3	2.8	5.0	RC	5	I09	067700-8732	100676-3440
IXU27	Motorcycle		12	19	16	0.9	1.3	2.8	5.0	RC	5	I37	067700-8602	100676-3820
IXU22I	Automobile		12	19	16	0.9	1.3	3.5	5.7	S	5	I51	267700-8431	
IXUH22	Automobile		12	26.5	16	0.9	1.5	3.0	5.2	S	5	I53	267700-6451	
IXUH20I	Automobile		12	26.5	16	0.9	1.5	4.0	6.2	S	5	I54	267700-8171	
IXUH22I	Automobile		12	26.5	16	0.9	1.5	4.0	6.2	S	5	I56	267700-7371	

TYPE	APPLICATION	SPEC	DIA. (mm)	REACH (mm)	HEX (mm)	GAP (mm)	PROJECION (mm)	SPARK POSITION (mm)	GROUND ELECTRODE HEIGHT (mm)	TERMINAL SHAPE	RESISTOR (kΩ)	No.	IRIDIUM POWER ONE PC BOX DENSO P/N	IRIDIUM POWER 2pcs BLISTER PACK DENSO P/N
IX22	Motorcycle		12	19	18	0.8	0.6	2.0	4.1	R	5	I71	067700-9351	
IX24	Motorcycle		12	19	18	0.8	0.6	2.0	4.1	R	5	I72	067700-9361	
IX27	Motorcycle		12	19	18	0.8	0.6	2.0	4.1	R	5	I73	067700-9371	
IX22B	Motorcycle		12	19	18	0.9	1.5	2.8	5.0	R	5	I75	067700-9381	
IX24B	Motorcycle		12	19	18	0.9	1.5	2.8	5.0	R	5	I76	067700-9391	
IX27B	Motorcycle		12	19	18	0.9	1.5	2.8	5.0	R	5	I77	067700-9401	
IXG24	Motorcycle	SHROUD	12	21.8	18	0.7	0.7	2.0	4.1	R	5	I94	267700-2921	
IXG27	Motorcycle	SHROUD	12	21.8	18	0.7	0.7	2.0	4.1	R	5	I95	267700-2931	
IU20	Motorcycle		10	19	16	0.9	-0.5	0.7	2.6	R	5	I60	267700-5021	
IU22	Motorcycle		10	19	16	0.9	-0.5	0.7	2.6	R	5	I61	067700-9262	
IU24	Motorcycle		10	19	16	0.9	-0.5	0.7	2.6	R	5	I62	067700-9272	
IU27	Motorcycle		10	19	16	0.9	-0.5	0.7	2.6	R	5	I63	067700-9282	
IU31	Motorcycle		10	19	16	0.9	-0.5	0.7	2.6	R	5	I64	067700-9292	
IU24A	Motorcycle	SLANT GROUND ELECTRODE	10	19	16	0.9	-0.5	1.0	2.9	R	5	I65	067700-9302	
IU27A	Motorcycle	SLANT GROUND ELECTRODE	10	19	16	0.9	-0.5	1.0	2.9	R	5	I66	067700-9312	
IU31A	Motorcycle	SLANT GROUND ELECTRODE	10	19	16	0.9	-0.5	1.0	2.9	R	5	I67	067700-9321	
IU22D	Motorcycle	NON U-GROOVE	10	19	16	0.9	0.5	2.0	4.0	T	5	-	267700-0830	
IU24D	Motorcycle	NON U-GROOVE	10	19	16	0.9	0.5	2.0	4.0	T	5	I103	267700-0840	
IU27D	Motorcycle	NON U-GROOVE	10	19	16	0.9	0.5	2.0	4.0	T	5	I90	267700-0850	
IUH24	Motorcycle	HALF THREAD	10	19	16	0.9	0.6	2.0	3.9	R	5	I68	067700-9331	
IUH27	Motorcycle	HALF THREAD	10	19	16	0.9	0.6	2.0	3.9	R	5	I69	067700-9341	
IUF22	Motorcycle		10	12.7	16	0.8	0.6	2.0	3.8	R	5	I83	067700-9481	
IUF24	Motorcycle		10	12.7	16	0.8	0.6	2.0	3.8	R	5	I84	067700-9491	
IUF27A	Motorcycle	SLANT GROUND ELECTRODE	10	12.7	16	0.9	-0.5	1.0	2.9	R	5	I85	067700-9701	
IUF31A	Motorcycle	SLANT GROUND ELECTRODE	10	12.7	16	0.9	-0.5	1.0	2.9	R	5	I86	067700-9711	
IY24	Motorcycle	HALF THREAD	8	19	13	0.7	0.6	1.4	2.9	R	5	I100	267700-4491	
IY27	Motorcycle	HALF THREAD	8	19	13	0.7	0.6	1.4	2.9	R	5	I101	267700-4501	
IY31	Motorcycle	HALF THREAD	8	19	13	0.7	-0.5	0.5	2.0	R	5	I102	267700-4511	

0.4mm diameter IRIDIUM PLUG

TYPE	APPLICATION	SPEC	DIA. (mm)	REACH (mm)	HEX (mm)	GAP (mm)	PROJECION (mm)	SPARK POSITION (mm)	GROUND ELECTRODE HEIGHT (mm)	TERMINAL SHAPE	RESISTOR (kΩ)	No.	IRIDIUM ONE PC BOX DENSO P/N	IRIDIUM 2pcs BLISTER PACK DENSO P/N
IK24C11	Motorcycle		14	19	16	1.1	1.5	3.0	5.7	S	5	I35	067700-9550	
IK27C11	Motorcycle		14	19	16	1.1	0.5	2.0	4.7	S	5	I36	067700-9520	
IXU22C·	Automobile	NON U-GROOVE	12	19	16	0.8	1.3	2.8	4.9	S	5	-	267700-5170	
IXU22HPR	Automobile	NON U-GROOVE	12	26.5	16	0.8	1.5	3.0	5.1	S	5	I74	267700-7170	
IU31D	Motorcycle	NON U-GROOVE	10	19	16	0.9	-0.5	1.0	3.0	T	5	-	267700-0860	
IUH24D	Motorcycle	HALF THREAD	10	19	16	0.9	0.6	2.0	4.0	T	5	I87	067700-9560	
IUH27D	Motorcycle	HALF THREAD	10	19	16	0.9	0.6	2.0	4.0	T	5	I88	067700-9570	
IUF14-UB	MARINE		10	12.7	16	0.7	0.6	1.6	3.3	S	5	I89	267700-0540	
VK16PR-Z11	Motorcycle	GROUND ELEC. Pt.&TAPERCUT	14	19	16	1.1	1.5	3.0	5.7	S	5	V28	267700-1840	
VK20PR-Z11	Motorcycle	GROUND ELEC. Pt.&TAPERCUT	14	19	16	1.1	1.5	3.0	5.7	S	5	V15	267700-1850	
VK22PR-Z11	Motorcycle	GROUND ELEC. Pt.&TAPERCUT	14	19	16	1.1	1.5	3.0	5.7	S	5	V29	267700-1860	
VK24PR-Z11	Motorcycle	GROUND ELEC. Pt.&TAPERCUT	14	19	16	1.1	1.5	3.0	5.7	S	5	V16	267700-1870	
VK27PR-Z11	Motorcycle	GROUND ELEC. Pt.&TAPERCUT	14	19	16	1.1	0.5	2.0	4.7	S	5	V30	267700-2050	
VKJ20RZ-M11	Motorcycle	GROUND ELEC. Pt.&TAPERCUT	14	19	16	1.1	3.0	5.0	7.7	S	5	V33	267700-1970	
SVK20RZ8	Automobile	GROUND ELEC. Pt.&TAPERCUT	14	19	16	0.8	1.5	3.5	5.7	S	5	S18	067700-9740	
SVK20RZ11	Automobile	GROUND ELEC. Pt.&TAPERCUT	14	19	16	1.1	1.5	3.5	6.0	S	5	S52	067700-8620	
VX20BC	Motorcycle	GROUND ELEC. Pt.	12	19	18	0.9	1.5	2.8	5.0	T	5	V34	067700-9830	
VX22BC	Motorcycle	GROUND ELEC. Pt.	12	19	18	0.9	1.5	2.8	5.0	T	5	V14	067700-9720	
VUH24D·	Motorcycle	HALF THREAD,Ground Elec. Pt.&TAPERCUT	10	19	16	0.9	0.6	2.0	4.0	T	5	V26	267700-2011	
VUH27D·	Motorcycle	HALF THREAD,Ground Elec. Pt.&TAPERCUT	10	19	16	0.9	0.6	2.0	4.0	T	5	V27	267700-1931	
VUH24ES	Motorcycle	HALF THREAD,Ground Elec. Pt.&TAPERCUT,SUS GASKET	10	19	16	0.9	0.6	2.0	4.0	T	5	V57	267700-6130	
VUH27ES	Motorcycle	HALF THREAD,Ground Elec. Pt.&TAPERCUT,SUS GASKET	10	19	16	0.9	0.6	2.0	4.0	T	5	V42	267700-4770	
VNH24Z	Motorcycle	HALF THREAD,Ground Elec. Pt.&TAPERCUT	10	19	16	0.9	0.6	2.0	4.0	S	5	V32	267700-2060	
VNH27Z	Motorcycle	HALF THREAD,Ground Elec. Pt.&TAPERCUT	10	19	16	0.9	0.6	2.0	4.0	S	5	V31	267700-2070	
VNH27ZB	Motorcycle	HALF THREAD,Ground Elec. Pt.&TAPERCUT	10	19	16	0.9	0.6	2.0	4.0	S	5		267700-1920	

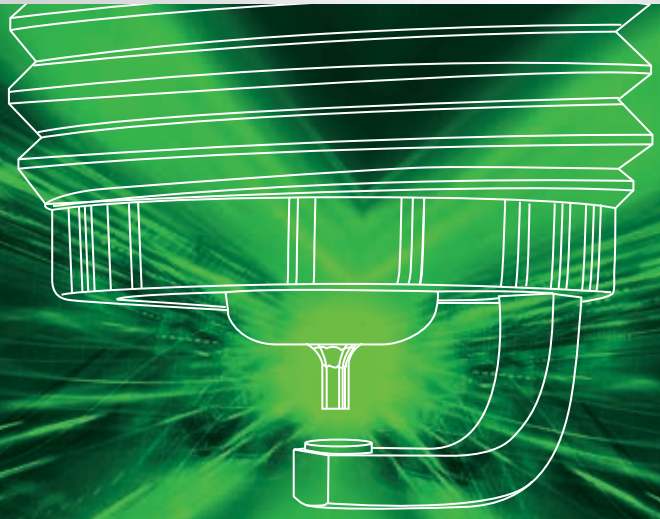
Spark gap example ..... For a 1.1 mm gap, set from 1.0 to 1.1 mm.
Insulator projection..... Length from edge of side housing to top of insulator.
The plus (+) direction is the distance from the edge to the piston head.
Spark position ..... Length from edge of side housing to top of center electrode.
The plus (+) direction is the distance from the edge to the piston head.
Ground electrode height..... Length from edge of side housing to top of ground electrode.
The plus (+) direction is the distance from the edge to the piston head.
Terminal shapes..... S: solid terminal, R: removable, RC: crimped nut, T: threaded
Note: Please purchase plugs equipped as original parts at stores that sell original parts.



High Performance Spark Plug

IRIDIUM TOUGH®

Iridium alloy fine center electrode



Lasting high performance, long life and high response

Economical and long lasting!

Fine diameter iridium alloy and platinum-tipped ground electrode achieve high durability!

Resistor
Noise Reduction
5kΩ

Built-in, Highly Reliable Resistor

All specification types include an embedded, highly reliable, monolithic resistor to eliminate electromagnetic noise interference from all kinds of electronic devices.

Burnished Nickel Plating

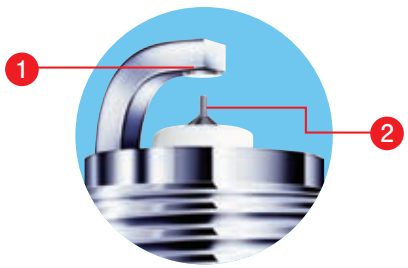
Highly Corrosion Resistant, Burnished Nickel Plating

The insulator housing is plated with burnished nickel the same as racing plugs, resulting in high corrosion resistance. (VKA and VKB excluded)

LASER WELDING

360° Laser Welding

The iridium tip is mounted with an "All-around Laser Welding" method that insures high reliability and durability even under the most severe driving conditions.



1 Platinum-tipped Ground Electrode

The ground electrode has a platinum tip, from DENSO's experience with platinum plugs. This moderates electrode wear and insures high durability.

2 Fine Diameter Ultra-fine Iridium Center Electrode

Using DENSO's iridium alloy having a very high melting point, the tip of the center electrode can be shaped very thin and fine, reducing spark voltage requirements and greatly improving ignitability.

IRIDIUM TOUGH® is recommended for the following user.

For long distance and heavy-use drivers.

Because of its long lifetime, recommended to drivers for long driving.

By greatly minimizing electrode wear, DENSO improved mileage and extended the plug's useful life. Longevity provides you with peace of mind and safety when using IRIDIUM TOUGH®.

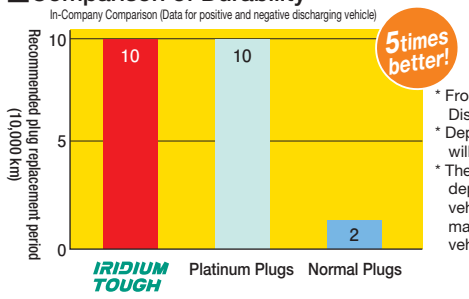
For drivers that care about mileage.

As I drive every day, so I want less fuel consumption.

If you use your car on a daily basis, you may be concerned about fuel consumption. IRIDIUM TOUGH® is one solution.

High Durability

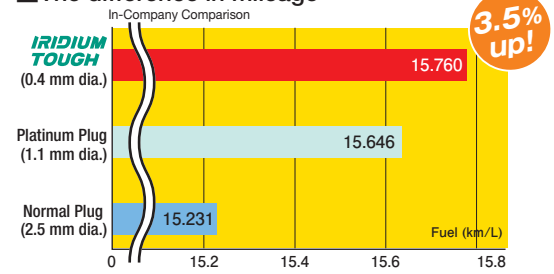
■Comparison of Durability



* From taxi monitoring test results. Displacement is mainly 2000 cc.
* Depending on the driving conditions there will be differences in endurance.
* The service lifetime of Iridium Tough will depend on operating conditions and the vehicles it is installed on. (Service lifetime may become shorter depending on the vehicle's ignition system.)

Improved Mileage

■The difference in mileage

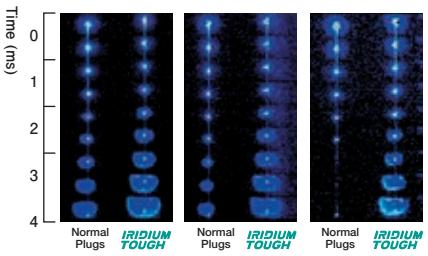


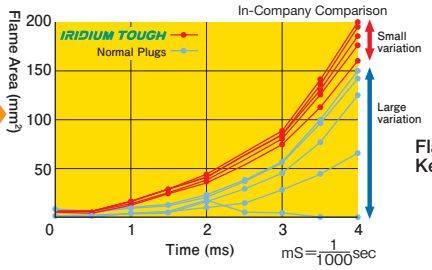
Vehicle: 2000cc, 6 cyl, 4 cycle
Driving Conditions: 60km/h on set ground

Improved Ignitability

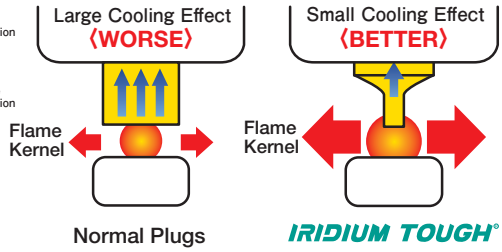
Realizing high ignition performance with a fine diameter electrode.

■Comparison of Flame Spread





■Promotion of Flame Kernel Growth

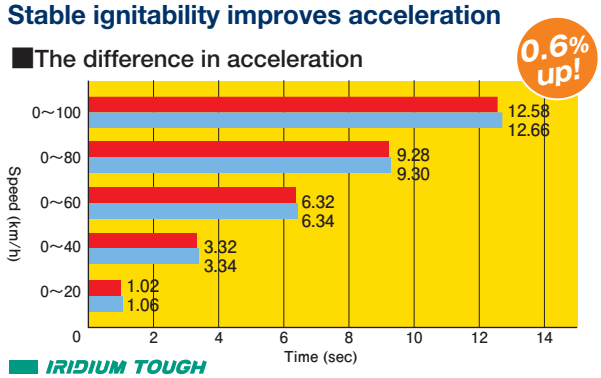


If the electrode diameter. is fine, the cooling effect on the flame kernel is smaller.

Improved Acceleration

Stable ignitability improves acceleration

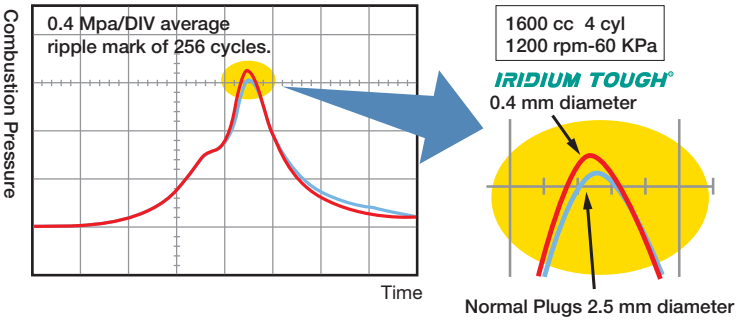
■The difference in acceleration



Vehicle: 2000cc, 4 cyl, 4-cycle
Driving conditions: Creeping (2nd)→ Full throttle (100km/h)

* The data shown is from internal studies. Also, the "Normal Plug" referred to here is a DENSO product.

■Comparison of Combustion Pressure



IRIDIUM TOUGH® will increase combustion pressure and engine output.

IRIDIUM TOUGH® lineup

VFKH series

VFKH16・VFKH20

- World's first φ0.4 mm Double needle Iridium Tough.
- DENSO OEM needle technology used by Iridium Tough plugs on the market.
- Both electrodes are needle-shaped for better ignitability and wider heat range, coaxing the high power possible from your engine.
- φ14 x L26.5 x ⬡16.
- For TOYOTA, LEXUS and SUBARU

VFKBH series

VFKBH20

- World's first φ0.4 mm new-3 electrode double needle Iridium Tough.
- DENSO OEM needle technology used by Iridium Tough plugs on the market.
- Both electrodes are needle-shaped for better ignitability and wider heat range, coaxing the high power possible from your engine.
- φ14 x L26.5 x ⬡16.
- For LEXUS, TOYOTA

VFXEH series

VFXEH20・VFXEH22

- World's first φ0.4 mm double needle Iridium Tough.
- DENSO OEM needle technology used by Iridium Tough plugs on the market.
- Both electrodes are needle-shaped for better ignitability and wider heat range, coaxing the high power possible from your engine.
- φ12 x L26.5 x ⬡14.
- For NISSAN, AMG MERCEDES, RENAULT, PEUGEOT, CITROEN

VFXEH-E series

VFXEH20E

- World's first φ0.4 mm double needle Iridium Tough.
- DENSO OEM needle technology used by Iridium Tough plugs on the market.
- Both electrodes are needle-shaped for better ignitability and wider heat range, coaxing the high power possible from your engine.
- φ12 x L28.5 x ⬡14 (2mm shroud).
- For NISSAN, MAZDA, MITSUBISHI, MITSUOKA

VKH series

VKH16・VKH20・VKH22・VKH20Y

- For SUBARU
- For PEUGEOT
- For CITROEN
- For NISSAN
- For RENAULT
- For MITSUBISHI
- For TOYOTA
- For ISUZU
- For MERCEDES BENZ, and others
- Thread length: 26.5 mm

VK series

VK16・VK20・VK22・VK20Y・VK16G・VK20G・VK22G

- Mainly for automobiles and trucks
- ISO-compatible small plug
- φ14 x L19 x ⬡16.
- VK20Y has a gap of 0.8 and is mainly for use with turbo engine vehicles.
- VK16G, VK20G, and VK22G have a stainless steel gasket.

VQ series

VQ16・VQ20・VQ22

- Mainly for automobiles and trucks
- JIS-type Small plug
- φ14 x L19 x ⬡16.
- VQ22 can be used for upgrading performance if the gap is set to 0.8.

VKA series

VKA16・VKA20

- Corresponding to SK16BGR11, SK20BGR11 and PK20GR8
- Shroud-type
- Thread length: 22 mm
- For TOYOTA D4 engine
- For MITSUBISHI GDI engine

VKB series

VKB16・VKB20

- Corresponding to SK16BR11 and SK20BR11
- Thread length: 19 mm
- For TOYOTA D4 engine
- For MITSUBISHI GDI engine

VW series

VW16・VW20・VW22

- Mainly for automobiles and trucks
- φ14 x L19 x ⬡20.6.

VT series

VT16・VT20

- For MERCEDES BENZ
- For MAZDA
- For FORD and GM
- Tapered seat

VXUH series

VXUH22・VXUH20I・VXUH22I

- φ12 x L26.5 x ⬡16.
- Application:BMW,MERCEDES BENZ, HONDA,MITSUBISHI,MAZDA,SUBARU, SUZUKI,DAIHATSU.
- IRIDIUM POWER IXUH22 is on sale.

VXU series

VXU20・VXU22・VXU24・VXU22I

- Applicable for light vehicles
- φ12 x L19 x ⬡16.
- By fully projecting the insulator (1.5 mm), the heat range is widened and ignitability is improved.

VCH series

VCH16・VCH20

- Insulator Projection is 2.5mm
- Spark position is 4.0mm
- For TOYOTA
- φ12 x L26.5 x ⬡14.

VFK series

VFK16・VFK20F

- For TOYOTA,HONDA,MAZDA
- Thread length:19mm

VXEBH series

VXEBH27

- For TOYOTA 86,SUBARU BRZ
- World first ϕ0.4 mm new 3elect road.
- ϕ12 x L26.5 x ⬡14.

VFXUHC series

VFXUHC22FG

- Corresponding to DXU22HCR-D11S (DENSO)
- Corresponding to DILZKR7B11GS (NGK)
- Shroud-type
- 28 mm reach (base length)
- For HONDA Odyssey RB3/4 (except Absolute)

VXUHC series

VXUHC22G

- Corresponding to SXU22HCR8S (DENSO)
- Corresponding to ILZKR7B8S (NGK)
- Shroud-type
- 28 mm reach (base length)
- For HONDA N BOX series (until October 2013)

VFXEHC series

VFXEHC22G

- ϕ12 x L28 x ⬡ 14 mm (1.5 mm shroud)
- Center electrode ϕ0.4 mm double needle Iridium Tough
- Corresponding to DXE22HCR11S (DENSO)
- Corresponding to DILZKAR7C11S (NGK) and ILZKAR7E11S (NGK)
- For HONDA

VXEHC series

VXEHC24G

- ϕ12 x L28 x ⬡ 14 mm (1.5 mm shroud)
- Corresponding to SXE24HCR8S (DENSO)
- Corresponding to ILZKAR8F8S (NGK) and ILZKAR8H8S (NGK)
- For HONDA

VFKB series

VFKB16

- ϕ14 x L19 x ⬡ 16 mm
- Center electrode ϕ0.4 mm double needle Iridium Tough
- Corresponding to FK16BR-AL8 (DENSO)
- For TOYOTA

VFCH series

VFCH16

- ϕ12 x L26.5 x ⬡ 14 mm
- Center electrode ϕ0.4 mm double needle Iridium Tough
- Corresponding to FC16HR8 and FC16HR-C9 (DENSO)
- For TOYOTA

VDKH series

VDKH22F

- ϕ14 x L26.5 x ⬡ 16 mm
- Center electrode ϕ0.7 mm double needle Iridium Tough
- Corresponding to DILFR7K9G
- For LEXUS NX200t 2000 cc (8AR-FTC, T/C) and others

VDCH series

VDCH22F

- ϕ12 x L26.5 x ⬡ 14 mm
- Center electrode ϕ0.7 mm double needle Iridium Tough
- Corresponding to DILKAR8J9G
- For TOYOTA Auris 1200 cc (8NR-FTS, T/C) and others

VSUEH series

VSUEH22

- ϕ10 x L26.5 x ⬡ 14 mm
- Center electrode ϕ0.7 mm Iridium Tough
- Corresponding to ILMAR7AR and LMAR7CI-8
- For SUZUKI (R06A engine)

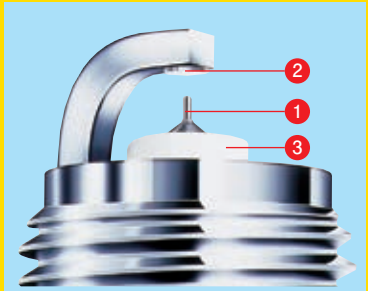
IRIDIUM TOUGH® Specifications

TYPE	APPLICATION	SPEC	DIA. (mm)	REACH (mm)	HEX (mm)	GAP (mm)	PROJECION (mm)	SPARK POSITION (mm)	GROUND ELECTRODE HEIGHT (mm)	TERMINAL SHAPE	RESISTOR (kΩ)	No.	IRIDIUM TOUGH® ONE PC BOX DENSO P/N	IRIDIUM TOUGH® 2pcs BLISTER PACK DENSO P/N
VQ16	Automobile	JIS	14	19	16	1.1	1.5	3.0	5.7	S	5	V01	267700-0741	100676-3740
VQ20	Automobile	JIS	14	19	16	1.1	1.5	3.0	5.7	S	5	V02	267700-0751	100676-3750
VQ22	Automobile	JIS	14	19	16	0.8	1.5	3.0	5.4	S	5	V13	267700-0761	100676-3760
VK16	Automobile	ISO	14	19	16	1.1	1.5	3.0	5.7	S	5	V03	267700-0711	100676-3710
VK20	Automobile	ISO	14	19	16	1.1	1.5	3.0	5.7	S	5	V04	267700-0721	100676-3720
VK22	Automobile	ISO	14	19	16	0.8	1.5	3.0	5.4	S	5	V10	267700-0731	100676-3730
VK16G	Automobile	SUS GASKET	14	19	16	1.1	1.5	3.0	5.7	S	5	V40	267700-5631	
VK20G	Automobile	SUS GASKET	14	19	16	1.1	1.5	3.0	5.7	S	5	V41	267700-5641	
VK22G	Automobile	SUS GASKET	14	19	16	0.8	1.5	3.0	5.4	S	5	V36	267700-5671	100676-5340
VK20Y	Automobile		14	19	16	0.8	1.5	3.0	5.4	S	5	V20	267700-3721	100676-3950
VKA16	Automobile	NEW 3 ELECTRODE SHROUD	14	22	16	1.1	2.5	4.0	6.5	S	5	V22	267700-5031	100676-5360
VKA20	Automobile	NEW 3 ELECTRODE SHROUD	14	22	16	1.1	2.5	4.0	6.5	S	5	V23	267700-5041	100676-5370
VKB16	Automobile	NEW 3 ELECTRODE	14	19	16	1.1	2.5	4.0	6.5	S	5	V24	267700-5051	100676-5380
VKB20	Automobile	NEW 3 ELECTRODE	14	19	16	1.1	2.5	4.0	6.5	S	5	V25	267700-5061	100676-5390
VFK16	Automobile	DOUBLE NEEDLE Ir & Pt ELEC.	14	19	16	1.1	1.5	3.0	6.5	S	5	V47	267700-9151	
VFK20F	Automobile	DOUBLE NEEDLE Ir & Pt ELEC. COPPER CORE GROUND ELEC.	14	19	16	1.1	1.5	3.0	6.5	S	5	V48	267700-9161	
VFKB16	Automobile	NEW 3 ELECTRODE, DOUBLE NEEDLE IRIDIUM, PLATINUM	14	19	16	0.8	2.5	4.0	7.0	S	5	V64	267700-9271	
VFKH16	Automobile	DOUBLE NEEDLE Ir & Pt ELEC.	14	26.5	16	0.8	2.5	4.0	7.3	S	5	V54	267700-7411	
VFKH20	Automobile	DOUBLE NEEDLE Ir & Pt ELEC.	14	26.5	16	0.8	2.5	4.0	7.3	S	5	V55	267700-7421	
VFKBH20	Automobile	NEW 3 ELECTRODE, DOUBLE NEEDLE IRIDIUM, PLATINUM	14	26.5	16	0.8	2.5	4.0	7.1	S	5	V43	267700-7661	
VKH16	Automobile		14	26.5	16	1.1	1.5	3.0	5.7	S	5	V17	267700-3681	100676-5250
VKH20	Automobile		14	26.5	16	1.1	1.5	3.0	5.7	S	5	V18	267700-3691	100676-5150
VKH20Y	Automobile		14	26.5	16	0.8	1.5	3.0	5.4	S	5	V39	267700-4541	100676-5260
VKH22	Automobile		14	26.5	16	0.8	1.5	3.0	5.4	S	5	V19	267700-2681	100676-5270
VW16	Automobile		14	19	20.6	1.1	1.5	3.0	5.5	S	5	V05	267700-0771	100676-3770
VW20	Automobile		14	19	20.6	1.1	1.5	3.0	5.5	S	5	V06	267700-0781	100676-3780
VW22	Automobile		14	19	20.6	0.8	1.5	3.0	5.2	S	5	V07	267700-0791	100676-3790
VT16	Automobile	TAPER SEAT	14	17.5	16	1.1	1.5	3.0	5.5	S	5	V21	267700-2811	100676-5280
VT20	Automobile	TAPER SEAT	14	17.5	16	1.1	1.5	3.0	5.5	S	5	V38	267700-4481	100676-5290
VXU20	Automobile		12	19	16	1.1	1.5	3.0	5.4	S	5	V49	267700-9141	
VXU22	Automobile		12	19	16	0.9	1.3	2.8	5.0	RC	5	V08	267700-0801	100676-3800
VXU24	Automobile		12	19	16	0.9	1.3	2.8	5.0	RC	5	V09	267700-0811	100676-3810
VXU22I	Automobile		12	19	16	0.9	1.3	3.5	5.7	S	5	V51	267700-8441	
VXUH22	Automobile		12	26.5	16	0.9	1.5	3.0	5.2	S	5	V11	267700-6461	
VXUH20I	Automobile		12	26.5	16	0.9	1.5	4.0	6.2	S	5	V50	267700-8161	
VXUH22I	Automobile		12	26.5	16	0.9	1.5	4.0	6.2	S	5	V56	267700-7381	
VXUHC22G	Automobile	SUS GASKET SHROUD	12	28	16	0.8	2.0	3.5	5.6	S	5	V52	267700-8671	
VFXUHC22FG	Automobile	DOUBLE NEEDLE Ir & Pt ELEC, SUS GASKET SHROUD	12	28	16	1.1	2.0	3.5	5.7	S	5	V53	267700-8681	
VCH16	Automobile		12	26.5	14	1.1	2.5	4.0	6.4	S	5	V58	267700-9211	
VCH20	Automobile		12	26.5	14	1.1	2.5	4.0	6.4	S	5	V37	267700-7671	
VFCH16	Automobile	DOUBLE NEEDLE Ir & Pt ELECTRODE	12	26.5	14	0.8	2.5	4.0	6.8	S	5	V65	267700-9281	
VDCH22F	Automobile	DOUBLE NEEDLE Ir & Pt ELECTRODE	12	26.5	14	0.9	3	3.0	6.0	S	5	V63	267700-9291	
VDKH22F	Automobile	DOUBLE NEEDLE Ir & Pt ELECTRODE	14	26.5		0.9	3	3.0	6.3	S	5	V62	267700-8751	
VXEBH27	Automobile	NEW 3 & COPPER CORE GROUND ELEC.	12	26.5	14	0.8	2	3.5	5.6	S	5	V86	267700-9171	
VXEHC24G	Automobile	SUS GASKET SHROUD 1.5mm	12	28	14	0.8	2	3.0	5.7	S	5	V60	267700-9231	
VFXEH20E	Automobile	DOUBLE NEEDLE Ir & Pt ELECTRODE, SHROUD 2mm	12	28.5	14	1.1	2.5	4.0	7.2	S	5	V44	267700-7631	
VFXEH22	Automobile	DOUBLE NEEDLE Ir & Pt ELECTRODE	12	26.5	14	1.1	2.5	4.0	7.2	S	5	V46	267700-7651	
VFXEH20	Automobile	DOUBLE NEEDLE Ir & Pt ELECTRODE	12	26.5	14	1.1	2.5	4.0	7.2	S	5	V45	267700-7641	
VFXEHC22G	Automobile	DOUBLE NEEDLE Ir & Pt ELECTRODE, SHROUD 1.5mm	12	28	14	0.8	2	3.5	6.4	S	5	V59	267700-9221	
VSUEH22	Automobile	M10x26.5	10	26.5	14	0.7	3	1.5	4.8	S	5	V61	267700-9241	

Spark gap example ..... For a 1.1 mm gap, set from 1.0 to 1.1 mm.
Insulator projection ..... Length from edge of side housing to top of insulator. The plus (+) direction is the distance from the edge to the piston head.
Spark position ..... Length from edge of side housing to top of center electrode. The plus (+) direction is the distance from the edge to the piston head.
Ground electrode height ..... Length from edge of side housing to top of ground electrode. The plus (+) direction is the distance from the edge to the piston head.
Terminal shapes ..... S: solid terminal, R: removable, RC: crimped nut, T: threaded

High Performance Spark Plug

IRIDIUM PLUS®



IRIDIUM PLUS® (Model: VK20T)

1 Fine Diamater Ultra-fine Iridium Alloy Center Electrode

2 Platinum-tipped Ground Electrode

The ground electrode has a platinum tip, from DENSO's experience with platinum plugs. This greatly moderates electrode wear and insures high durability.

3 High Strength Insulator

Using a high strength ceramic insulator for LPG engines improves strength by 20% over conventional insulators.

IRIDIUM PLUS® Specifications

TYPE	APPLICATION	SPEC	DIA. (mm)	REACH (mm)	HEX (mm)	GAP (mm)	PROJECION (mm)	SPARK POSITION (mm)	GROUND ELECTRODE HIGHT (mm)	TERMINAL SHAPE	RESISTOR (kΩ)	No.	IRIDIUM PLUS® ONE PC BOX DENSO P/N
VK20T	For LPG	For LPG	14	19	16	0.8	1.5	3.0	5.4	S	5	-	067700-9540
VW20T	For LPG	For LPG	14	19	20.6	0.8	1.5	3.0	5.4	S	5	-	067700-9240
VKH20T	For LPG	For LPG	14	26.5	16	0.8	2.5	4.0	6.2	S	5	-	267700-7760
VDKH16T	For LPG	For LPG	14	26.5	16	0.8	1.5	3.0	6.2	S	5	-	267700-8920

Next Generation High Performance Plugs for Taxi

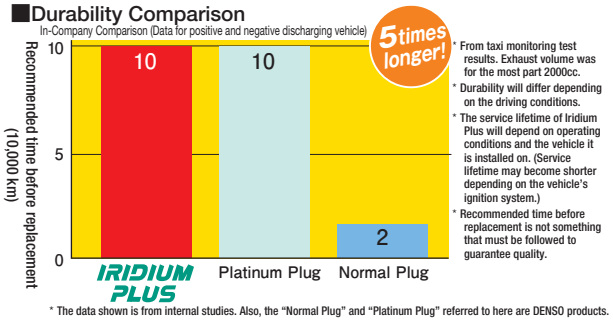
Economical spark plug with high durability, mileage, and acceleration performance.

Great Durability

Realizing astounding life and durability with platinum ground electrodes.

By welding a platinum tip to the ground electrode, wear has been controlled to a significant extent in the IRIDIUM PLUS®. In addition to acceleration performance, the life and durability of this plug has been increased to that of a platinum plug.

■Durability Comparison



* From taxi monitoring test results. Exhaust volume was for the most part 2000cc.
* Durability will differ depending on the driving conditions.
* The service lifetime of Iridium Plus will depend on operating conditions and the vehicle it is installed on. (Service lifetime may become shorter depending on the vehicle's ignition system.)
* Recommended time before replacement is not something that must be followed to guarantee quality.

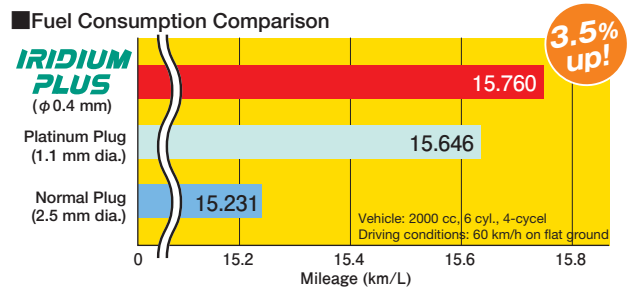
* The data shown is from internal studies. Also, the "Normal Plug" and "Platinum Plug" referred to here are DENSO products.

Improved Mileage

Less fuel consumption with a fine diameter center electrode.

Even during idling, when it is easy for ignition to degrade, IRIDIUM PLUS® reduces mis-sparking and stabilizes idling speed. This results in a quieter engine and improved fuel consumption.

■Fuel Consumption Comparison



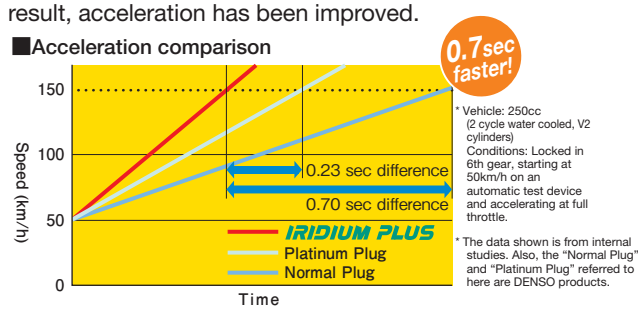
* The data shown is from internal studies. Also, the "Regular Plug" and "Platinum Plug" referred to here are DENSO products.

Improved Acceleration

Through steady ignitability, acceleration performance is greatly improved.

IRIDIUM PLUS®, through its fine diameter iridium center electrode, has realized high ignition performance and low spark voltage at levels heretofore unseen. Because of this, there is less non-firing under high spark voltage conditions and fewer misfires under conditions where ignition is difficult, permitting operation with a high level of response under a variety of conditions. As a result, acceleration has been improved.

■Acceleration comparison



* Vehicle: 250cc (2 cycle water cooled, V2 cylinders) Conditions: Locked in 6th gear, starting at 50km/h on an automatic test device and accelerating at full throttle.
* The data shown is from internal studies. Also, the "Normal Plug" and "Platinum Plug" referred to here are DENSO products.

High Performance Spark Plug

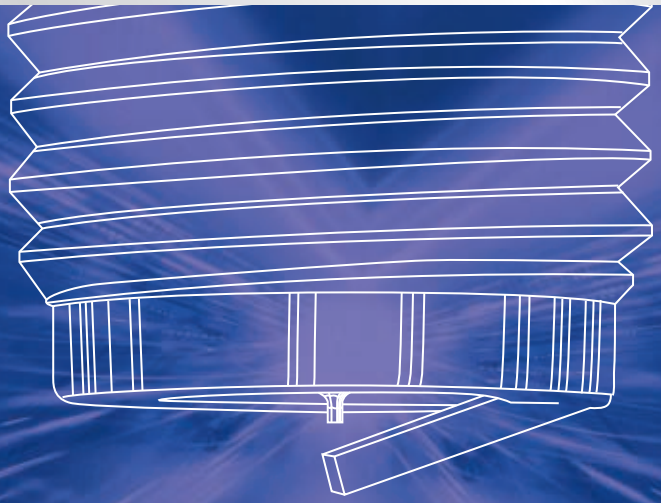
IRIDIUM RACING®

0.4mm Iridium, only at DENSO!

0.4mm The world's finest diameter (as of March 2021)*

with an iridium center electrode

*for appreciable models only



Unbeatable spark technology fine-tuned for racing

Specifications Include Terminal

Included with the plug comes with a terminal nut compatible to the Nology Hot Wire and most plug cords around the world. Please remove for vehicle types that do not require terminals.
(Some plugs have solid terminals. Please refer to the list.)

Resistor
Noise Reduction

Built-in, Highly Reliable Resister

All IRIDIUM RACING plugs specify a resistor, and contain a highly reliable monolithic-type resistor that blocks noise that may affect electronic devices.
(IW06 has no resistor.)

Burnished Nickel Plating

Highly Corrosion Resistant, Burnished Nickel Plating

Burnished nickel plating on the housing, a high level of corrosion resistance has been realized. Also, because the amount on the threads is low, the damage to the female thread in the cylinder is reduced.

0.4mm IRIDIUM

φ0.4 mm Diameter Ultra-Fine Iridium Center Electrode

The center electrode tip is able to be made fine using a new iridium alloy with a high melting point. The required voltage is reduced, and ignitability is improved greatly.

1 All-platinum Ground Electrode

Compared to the nickel alloy used in conventional spark plugs, the high melting point of platinum will reduce such problems as ground electrode melting and wear. Also, the 0.8mm platinum alloy is welded on and gapped without any bending, reducing residual stress and increasing durability.

2 Insulators for Racing

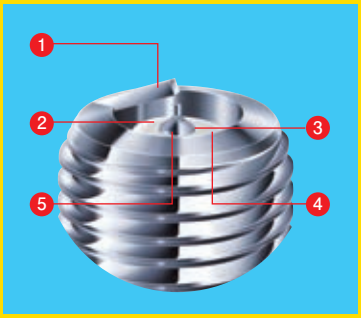
By using a new, strengthened insulator which was developed during numerous and repeated testing during racing trials, strength is improved by 20%.

3 Spark Cleaning Pocket

Between the center electrode and the insulator, a small pocket has been opened around the tip clearance. When there is carbon fouling or deposition, this part will discharge and burn off the carbon, restoring electrical resistance. This technology is patented by DENSO (Japan Patent No. 2727558).

4 Silicone Oil Coating

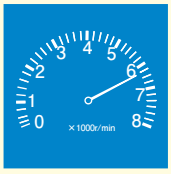
During the start of the race, non-starting from carbon fouling and carbon deposits can be fatal. To stop this, the insulator has been coated with a silicone coating. Using the water repellency of silicone, the insulator surface is isolated from moisture and carbon, preventing a decrease in resistance.



5 360° Laser Welding

The process used to join the iridium tip is a highly reliable "All-around Laser Welding" process that is able to withstand various kinds of driving conditions.

IRIDIUM RACING® is recommended for the following user.



Improve acceleration and engine power with IRIDIUM RACING®

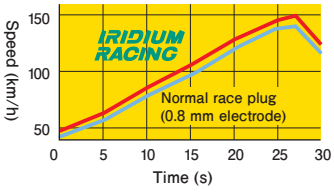
Reliability and durability, backed by the racing results of major drivers.

It's the age of iridium electrodes. Discover more acceleration with 0.4 mm DENSO Racing Plugs.
DENSO would like you to try the 0.4 mm IRIDIUM RACING® advantage.
Use IRIDIUM RACING® and experience a ride like never before.

Improved Acceleration

Improved acceleration performance on the circuit.

With an ultra-fine, 0.4 mm diameter center electrode, IRIDIUM RACING® plugs are the realization of superb ignition performance and reguired voltage at high levels. Misfires have been controlled and will allow you to have steadily high levels of response and increased acceleration.



Time to reach 100 km/h (s)

0.3% faster!

Plug	13.9	14.0
IRIDIUM RACING	13.950	
Normal race plug (0.8 mm electrode)		13.985

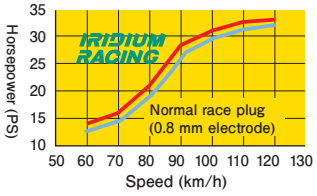
* The data shown is from internal studies. Also, the "Regular Racing Plug" referred to here is a DENSO product.

Vehicle: 250 cc (2-cycle water cooled, 2 cylinder) Conditions: WOT 60 to 129 km/h (locked in 6th gear)

Improved Horse Power

More power with an ideal combustion cycle.

Through great ignitability and reguired voltage, non-firing and misfires under a variety of conditions has been greatly reduced. As a result, combustion conditions have improved, increasing enginen output.



Output (ps) [at 120 km/h]

1.3% up!

Plug	33	34
IRIDIUM RACING	33.92	
Regular race plug (0.8 mm electrode)		33.49

* The data shown is from internal studies. Also, the "Regular Racing Plug" referred to here is a DENSO product.

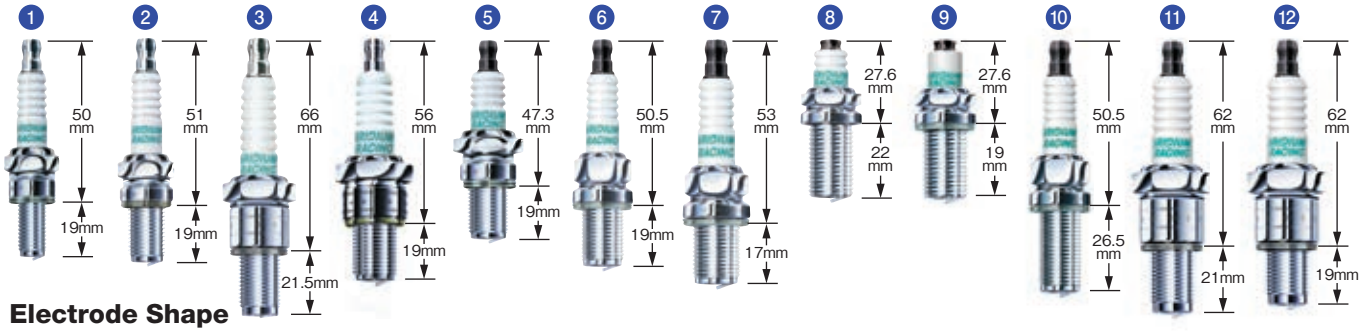
Vehicle: 250 cc (2-cycle water cooled, 2 cylinder) Conditions: WOT 60 to 120 km/h (locked in 4th gear)

How to Choose a Racing Plug

Warning: On choosing the right racing plug

- Generally, electrodes that project into the combustion chamber have better ignitability and have better performance. However, because of more exposure to high temperature combustion gases and because ground electrode becomes longer, heat resistance and durability decrease. The higher the level of tuning, the greater the need is to use a less projecting type.
- As the level of tuning is increased, so does the need for higher heat range.

Overall Shape



Electrode Shape

DENSO	TYPE	Figure Electrode	Cross Reference
IU01-□	U-E	1 A	R0373A, R0379A, R016
RU01-□*	U-E (SURFACE)	1 C	R0045J, R0045Q
IXU01-□	XU-E	2 A	R216, R2525
IRE01-□	ROTARY ENGINE	3 B	R6725
IW01-□	W-E	4 A	R6385P, R7379, R6918B
IW06-□	W-E (NON=RESISTOR)	4 A	B-EGP, R4630A
IWM01-□	W-EM	5 A	R5184, R6179AP
IK01-□	ISO (SLANT ELECT)	6 A	R7116, R7117
IK02-□	ISO (STRAIGHT ELECT)	6 B	R7279, R7118, R7119
IQ01-□	SLANT ELECT	7 A	R7236, R7237
IQ02-□	STRAIGHT ELECT	7 B	R7238, R7239
IA01-□	FOR DETONATION COUNTER	8 A	R7282A, R6120A
IAE01-□	FOR W/OUT DETONATION COUNTER	9 A	R7282, R6120
IKH01-□	K-LONGREACH	10 A	R7438
IRL01-□	ROTARY ENGINE RX8	11 A	R7440A-L
IRT01-□	ROTARY ENGINE RX8	12 A	R7440B-L

RU01-□ are surface gap plugs, not ones with iridium center electrode and all-platinum ground electrodes. □ : indicote's the heat range.

Identifying IRIDIUM RACING (Stamped into the Center of the Housing)

I	W	0	1	-	27
Variety	Thread Size	Intermediate Number (Overall Size)	Intermediate Number (Electrode Shape)		Heat Range
I : Iridium	U :10 mm XU :12 mm A :14 mm AE :14 mm K :14 mm KH :14 mm Q :14 mm RE :14 mm RL :14 mm RT :14 mm W :14 mm WM :14 mm		1 : Slant ground electrode or surface gap plug. 2 : Flat ground electrode 6 : Slant ground electrode and non-resistor plug		24 27 29 31 32 34 35
R : Surface Gap					

(Exception) IRE01 has a flat ground electrode.

IRIDIUM RACING® is ideal for racing and tuned-up engines; please choose one based on the heat range of the standard plug or IRIDIUMPOWER® plugs used currently that is suited to your level of tuning.

IRIDIUM RACING® Specifications

TYPE	APPLICATION	SPEC	DIA. (mm)	REACH (mm)	HEX (mm)	GAP (mm)	PROJECION (mm)	SPARK POSITION (mm)	GROUND ELECTRODE HEIGHT (mm)	TERMINAL SHAPE	RESISTOR (kΩ)	No.	IRIDIUM RACING ONE PC BOX DENSO P/N
IK01-24	Automobile	ISO(SLANT ELEC.)	14	19	16	0.7	-1.0	0.5	2.0	S	5	R01	267700-1311
IK01-27	Automobile	ISO(SLANT ELEC.)	14	19	16	0.7	-1.0	0.5	2.0	S	5	R02	267700-1321
IK01-31	Automobile	ISO(SLANT ELEC.)	14	19	16	0.7	-1.0	0.5	2.0	S	5	R03	267700-1331
IK01-34	Automobile	ISO(SLANT ELEC.)	14	19	16	0.7	-1.0	0.5	2.0	S	5	R42	267700-1341
IK02-24	Automobile	ISO(STRAIGHT ELEC.)	14	19	16	0.7	-2.3	-0.8	0.7	S	5	R04	267700-1361
IK02-27	Automobile	ISO(STRAIGHT ELEC.)	14	19	16	0.7	-2.3	-0.8	0.7	S	5	R05	267700-1371
IK02-31	Automobile	ISO(STRAIGHT ELEC.)	14	19	16	0.7	-2.3	-0.8	0.7	S	5	R06	267700-1381
IKH01-24	Automobile	LONG REACH	14	26.5	16	0.7	-1.0	0.5	2.0	S	5	R49	267700-4451
IKH01-27	Automobile	LONG REACH	14	26.5	16	0.7	-1.0	0.5	2.0	S	5	R50	267700-4461
IKH01-31	Automobile	LONG REACH	14	26.5	16	0.7	-1.0	0.5	2.0	S	5	R51	267700-4471
IQ01-24	Automobile	SLANT ELEC.	14	19	16	0.7	-1.0	0.5	2.0	S	5	R07	267700-1411
IQ01-27	Automobile	SLANT ELEC.	14	19	16	0.7	-1.0	0.5	2.0	S	5	R08	267700-1421
IQ01-31	Automobile	SLANT ELEC.	14	19	16	0.7	-1.0	0.5	2.0	S	5	R09	267700-1431
IQ01-34	Automobile	SLANT ELEC.	14	19	16	0.7	-1.0	0.5	2.0	S	5	R43	267700-1441
IQ02-24	Automobile	STRAIGHT ELEC.	14	19	16	0.7	-2.3	-0.8	0.7	S	5	R10	267700-1461
IQ02-27	Automobile	STRAIGHT ELEC.	14	19	16	0.7	-2.3	-0.8	0.7	S	5	R11	267700-1471
IQ02-31	Automobile	STRAIGHT ELEC.	14	19	16	0.7	-2.3	-0.8	0.7	S	5	R12	267700-1481
IW01-24	Motorcycle	W-E	14	19	20.6	0.6	-1.5	0.0	1.6	RC	5	R13	267700-1111
IW01-27	Motorcycle	W-E	14	19	20.6	0.6	-1.5	0.0	1.6	RC	5	R14	267700-1121
IW01-29	Racing Kart	W-E	14	19	20.6	0.6	-1.5	0.0	1.6	RC	5	R15	267700-1131
IW01-31	Racing Kart	W-E	14	19	20.6	0.6	-1.5	0.0	1.6	RC	5	R16	267700-1141
IW01-32	Racing Kart	W-E	14	19	20.6	0.6	-1.5	0.0	1.6	RC	5	R17	267700-1151
IW01-34	Racing Kart	W-E	14	19	20.6	0.6	-1.5	0.0	1.6	RC	5	R18	267700-1161
IW06-27	Automobile	W-E NON RESISTOR	14	19	20.6	0.6	-1.5	0.0	1.6	S	0	R44	067600-1811
IW06-31	Automobile	W-E NON RESISTOR	14	19	20.6	0.6	-1.5	0.0	1.6	S	0	R45	067600-1821
IW06-34	Automobile	W-E NON RESISTOR	14	19	20.6	0.6	-1.5	0.0	1.6	S	0	R46	067600-1831
IRE01-27	Rotary Engine	ROTARY ENGINE	14	21.5	20.6	0.7	-2.2	-0.7	0.8	S	5	R19	267700-1521
IRE01-31	Rotary Engine	ROTARY ENGINE	14	21.5	20.6	0.7	-2.2	-0.7	0.8	S	5	R20	267700-1531
IRE01-32	Rotary Engine	ROTARY ENGINE	14	21.5	20.6	0.7	-2.2	-0.7	0.8	S	5	R21	267700-1541
IRE01-34	Rotary Engine	ROTARY ENGINE	14	21.5	20.6	0.7	-2.2	-0.7	0.8	S	5	R22	267700-1551
IRE01-35	Rotary Engine	ROTARY ENGINE	14	21.5	20.6	0.7	-2.2	-0.7	0.8	S	5	R41	267700-1561
IRL01-27	Rotary Engine	ROTARY RX8(LEADING)	14	21	20.6	1.1	-2.5	-0.5	1.6	S	5	R54	267700-4821
IRL01-31	Rotary Engine	ROTARY RX8(LEADING)	14	21	20.6	1.1	-2.5	-0.5	1.6	S	5	R55	267700-4831
IRT01-31	Rotary Engine	ROTARY RX8(TRAILING)	14	19	20.6	1.1	-2.5	-0.5	1.6	S	5	R52	267700-4841
IRT01-34	Rotary Engine	ROTARY RX8(TRAILING)	14	19	20.6	1.1	-2.5	-0.5	1.6	S	5	R53	267700-4851
IA01-31	Motorcycle	WITH DETONATION COUNTER	14	22	16	0.6	-1.0	0.5	1.9	S	5	R23	267700-1261
IA01-32	Motorcycle	WITH DETONATION COUNTER	14	22	16	0.6	-1.0	0.5	1.9	S	5	R24	267700-1271
IA01-34	Motorcycle	WITH DETONATION COUNTER	14	22	16	0.6	-1.0	0.5	1.9	S	5	R25	267700-1281
IAE01-32	Motorcycle	W/OUT DETONATION COUNTER	14	19	16	0.6	-1.3	0.5	2.1	S	5	R47	267700-2941
IAE01-34	Motorcycle	W/OUT DETONATION COUNTER	14	19	16	0.6	-1.3	0.5	2.1	S	5	R48	267700-2951
IWM01-29	Motorcycle	W-EM	14	19	20.6	0.6	-1.5	0.0	1.6	S	5	R26	267700-1211
IWM01-31	Motorcycle	W-EM	14	19	20.6	0.6	-1.5	0.0	1.6	S	5	R27	267700-1221
IWM01-32	Motorcycle	W-EM	14	19	20.6	0.6	-1.5	0.0	1.6	S	5	R28	267700-1231
IWM01-34	Motorcycle	W-EM	14	19	20.6	0.6	-1.5	0.0	1.6	S	5	R29	267700-1241
IXU01-24	Motorcycle	XU-E	12	19	16	0.6	-1.5	0.0	1.4	R	5	R30	267700-1061
IXU01-27	Motorcycle	XU-E	12	19	16	0.6	-1.5	0.0	1.4	R	5	R31	267700-1071
IXU01-31	Motorcycle	XU-E	12	19	16	0.6	-1.5	0.0	1.4	R	5	R32	267700-1081
IXU01-34	Motorcycle	XU-E	12	19	16	0.6	-1.5	0.0	1.4	R	5	R33	267700-1091
IU01-24	Motorcycle	U-E	10	19	16	0.6	-1.8	-0.3	1.2	R	5	R34	267700-1011
IU01-27	Motorcycle	U-E	10	19	16	0.6	-1.8	-0.3	1.2	R	5	R35	267700-1021
IU01-31	Motorcycle	U-E	10	19	16	0.6	-1.8	-0.3	1.2	R	5	R36	267700-1031
IU01-34	Motorcycle	U-E	10	19	16	0.6	-1.8	-0.3	1.2	R	5	R37	267700-1041
***RU01-27**	Motorcycle	U-E(SURFACE)	10	19	16	1.1	-0.2	0.0	0.0	R	5	R38	267700-1571
***RU01-31**	Motorcycle	U-E(SURFACE)	10	19	16	1.1	-0.2	0.0	0.0	R	5	R39	267700-1581
***RU01-34**	Motorcycle	U-E(SURFACE)	10	19	16	1.1	-0.2	0.0	0.0	R	5	R40	267700-1591

* **These plugs do not have iridium electrodes.**

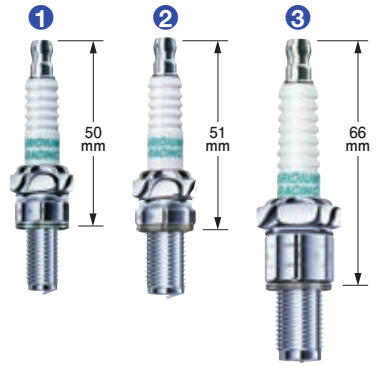
Spark gap example ····· For a 1.1 mm gap, set from 1.0 to 1.1 mm.
Insulator projection····· Length from edge of side housing to top of insulator. The plus (+) direction is the distance from the edge to the piston head.
Spark position ····· Length from edge of side housing to top of center electrode. The plus (+) direction is the distance from the edge to the piston head.
Ground electrode height····· Length from edge of side housing to top of ground electrode. The plus (+) direction is the distance from the edge to the piston head.
Terminal shapes····· S: solid terminal, R: removable, RC: crimped nut, T: threaded

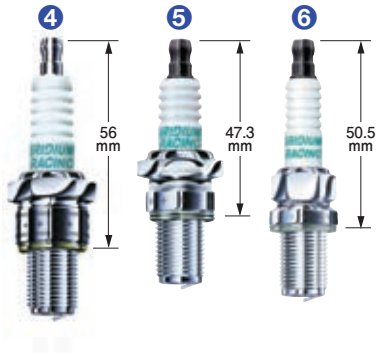
IRIDIUM RACING® CROSS REFERENCE

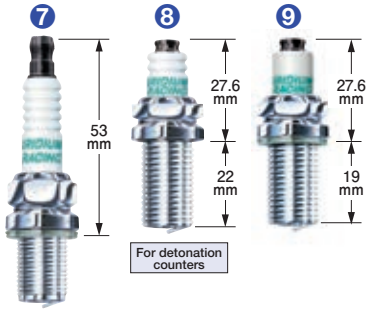
DENSO			NGK					
IRIDIUM POWER	IRIDIUM RACING	FIGURE	DIA. (mm)	REACH (mm)	HEX (mm)	RESISTOR	FIGURE	TYPE
IW□		4 D	14	19	20.6		BP-E	R4304A-□
	IW01/IW06-□(Note 1)	4 A	14	19	20.6		B-E	B□EGP
IW□		4 D	14	19	20.6		B-E	B□EGV
IW□		4 D	14	19	20.6		B-E	R4118S-□
	IW01/IW06-□(Note 1)	4 A	14	19	20.6		B-E	R4630A-□
	IW01/IW06-□(Note 1)	4 A	14	19	20.6	R	B-E	R6252K-□
	IW01/IW06-□(Note 1)	4 A	14	19	20.6	R	B-E	R6918B-□
	IW01/IW06-□(Note 1)	4 A	14	19	20.6	R	B-E	R6918C-□
IW□		4 D	14	19	20.6	R	B-E	R6021E-□
	IW01/IW06-□(Note 1)	4 A	14	19	20.6	R	B-E	R6385-□P
	IW01/IW06-□(Note 1)	4 A	14	19	20.6	R	B-E	R7376-□(Ir)
			14	19	20.6		B-E SEMISURFACE	R5649-□
			14	19	20.6	R	B-E SEMISURFACE	R6712-□
	IWM01-□	5 A	14	19	20.6		B-E COMPACT	R5184-□
			14	19	20.6	R	B-E COMPACT	R5300A-□
			14	19	20.6	R	B-E COMPACT	R5300N-□
			14	19	20.6	R	B-E COMPACT	R5540F-□
	IWM01-□	5 A	14	19	20.6	R	B-E COMPACT	R6179A-□P
			14	22	20.6	R	B-E COMPACT	R6179C-□PA
			14	22	20.6	R	B-E	R7376B(Ir)
	IA01-□	8 A	14	22	16	R	BC-E COMPACT	R6120A-□
	IA01-□	8 A	14	22	16	R	BC-E COMPACT	R7282A-□ (Ir)
	IAE01-□	9 A	14	19	16	R	BC-E COMPACT	R6120-□
	IAE01-□(Note 2)	9 A	14	19	16	R	BC-E COMPACT	R6120C-□
	IAE01-□(Note 2)	9 A	14	19	16	R	BC-E COMPACT	R6120M-□
	IAE01-□	9 A	14	19	16	R	BC-E COMPACT	R7282-□(Ir)
	IAE01-□(Note 2)	9 A	14	19	16	R	BC-E COMPACT	R7282C-□(Ir)
	IAE01-□(Note 2)	9 A	14	19	16	R	BC-E COMPACT	R7282M-□(Ir)
IK□		6 D	14	19	16	R	BK-E ISO	R6888A-□
IK□		6 D	14	19	16		BK-E ISO	R7112-□
IK□		6 D	14	19	16	R	BK-E ISO	R7113-□
IK□		6 D	14	19	16	R	BK-E ISO	R7433-□(ir)
IK□		6 D	14	19	16		BK-E ISO	R7114-□
IK□		6 D	14	19	16	R	BK-E ISO	R7115-□
	IK01-□	6 A	14	19	16		BK-E ISO	R7116-□
	IK01-□	6 A	14	19	16	R	BK-E ISO	R7117-□
	IK02-□	6 B	14	19	16		BK-E ISO	R7118-□
	IK02-□	6 B	14	19	16	R	BK-E ISO	R7119-□
	IK01-□	6 A	14	19	16	R	BK-E ISO	R7434-□(Ir)
	IK02-□	6 B	14	19	16	R	BK-E ISO	R7279-□(Ir)
			14	19	16	R	BK-E SEMISURFACE	R6601-□
			14	19	16		BK-E SEMISURFACE	R6711-□
IQ□		7 D	14	19	16	R	BCP-E	R7435-□(Ir)
IQ□		7 D	14	19	16		BCP-E	R7232-□
IQ□		7 D	14	19	16	R	BCP-E	R7233-□
IQ□		7 D	14	19	16		BC-E	R7234-□
IQ□		7 D	14	19	16	R	BC-E	R7235-□
	IQ01-□	7 A	14	19	16		BC-E	R7236-□
	IQ01-□	7 A	14	19	16	R	BC-E	R7237-□
	IQ02-□	7 B	14	19	16		BC-E	R7238-□
	IQ02-□	7 B	14	19	16	R	BC-E	R7239-□
	IQ01-□	7 A	14	19	16	R	BC-E	R7436-□(Ir)
			14	19	16		BC-E SEMISURFACE	R5883-□
			14	19	16	R	BC-E SEMISURFACE	R6690-□
IKH□		10 D	14	26.5	16	R	LFR	R7437-□(Ir)
	IKH01-□	10 A	14	26.5	16	R	LFR	R7438-□(Ir)
IWF□		— D	14	12.7	20.6		B-H	R5525-□
			14	12.7	20.6		B-H	R5530-□
	IRE01-□	3 B	14	21.5	20.6	R	ROTARY	R6725-□
	IRE01-□	3 B	14	21.5	20.6	R	ROTARY	R7420-□(Ir)
			14	21.5	20.6		ROTARY, SURFACE	T813J-N13
	IRL01-□	11 A	14	21	20.6	R	ROTARY RX-8(L)	R7440A-□L(Ir)
	IRT01-□	12 A	14	19	20.6	R	ROTARY RX-8(T)	R7440B-□T(Ir)
	IXU01-□(Note 3)	2 A	12	19	18		D-E	R216-□
IX□(Note 3)	IXU01-□(Note 3)	2 D, 2 A	12	19	18		D-E	R217-□
			12	21	18		D-Z	R2188-□
			12	19	16	R	DC-E SEMISURFACE	R2349-□
	IXU01-□(Note 3)	2 A	12	19	16	R	DC-E	R2525-□
			12	19	16		DC-E SEMISURFACE	R2430-□
	IU01-□	1 A	10	19	16		C-E	R016-□
IU□A		1 E	10	19	16		C-E	R017-□
	IU01-□	1 A	10	19	16		C-E	R0373A-□(Ir)
			10	19	16		C-E SEMISURFACE	R0045G-□
	RU01-□	1 C	10	19	16		C-E SEMISURFACE	R0045J-□
	RU01-□	1 C	10	19	16	R	C-E SEMISURFACE	R0045Q-□
	IU01-□	1 A	10	19	16	R	C-EH HALF THREAD	R0379A-10(Ir),R0409B-□
IUF□(A)		–D, –E	10	12.7	16		C-H	R0161-□
IY□		— D	8	19	12.7	R	E-EH SEMISURFACE	R847-□

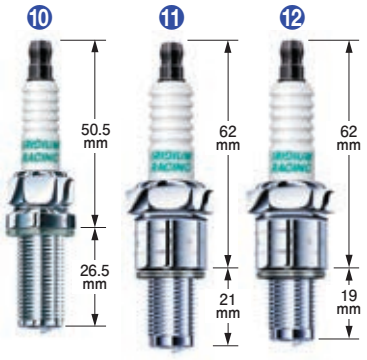
(Note 1) IW06 is a non resistor type
(Note 2) Remove the gasket with nippers before use
(Note 3) IX □ B and IX □ is different from IXU01- □ only in the hex size (18 mm or 16 mm), and are otherwise interchangeable in terms of installation.
(□) show the heat range.

Overall shape

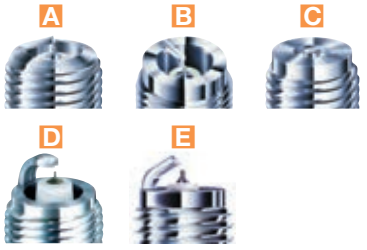








Electrode shape




WARNING!
Counterfeit auto parts are illegal!
¡Falsificar las piezas de automóviles es un acto ilegal!
伪造汽车零部件是违法的!
JAPIA
Japan Auto Parts Industries Association
If you find any counterfeit parts, please contact us at "info@japia.or.jp"
NO
COUNTERFEIT
PARTS

Comparison Between Genuine DENSO and Fake Spark Plugs

Appearance

Compare a potential counterfeit and a genuine DENSO Spark Plug side by side.

Insulator

Counterfeit spark plugs have an irregular insulator shape. The shape should be uniform.

Ground electrode

The width of the ground electrode is usually inconsistent on counterfeit products.

Material

A scratch test can reveal the cheap materials used in counterfeit products.

Ground electrode chip

Counterfeit spark plugs are prone to have cheaper or fake material coatings.

Center electrode

Look out for poor quality welding.

Branding

Counterfeit spark plugs lack precision when embossing the DENSO logo and often display spelling mistakes.

Problems Caused by Fake Spark Plugs

Problem 1

Fuel economy is diminished.

Inconsistent sparking causes incomplete combustion. Unburned fuel forms a black sooty deposit on the spark plug, eventually leading to poor fuel economy and poor start up of the engine.

Problem 2

Engine power drops on uphill roads and highways.

Poor heat dissipation due to the lack of a copper-core center electrode causes pre-ignition. As a result, engine power drops under highway driving or uphill driving conditions.

Problem 3

The plug melts down.

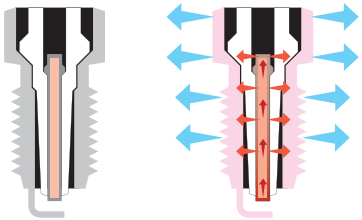
Continued usage of an overheated plug will damage the electrodes.

Why Power Drops and Melting Occurs

(See below)

DENSO

DENSO plug contains copper core

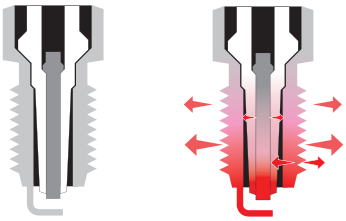


Quick heat dissipation.

Copper is an excellent heat conductor. High temperature heat is quickly dissipated away from the center-electrode to prevent melt down.

Fake

Fake plug is iron only



Slow heat dissipation.

Absence of a copper-core center electrode results in poor heat dissipation capability. Prolonged use causes power loss due to excessive heat buildup. This results in melt down of the ground electrode, eventually leading to serious engine damage.

Finally ...