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2006 **NGK**
Racing spark plugs

Series of **NGK** racing spark plugs

Blue colour indicates resistor plugs

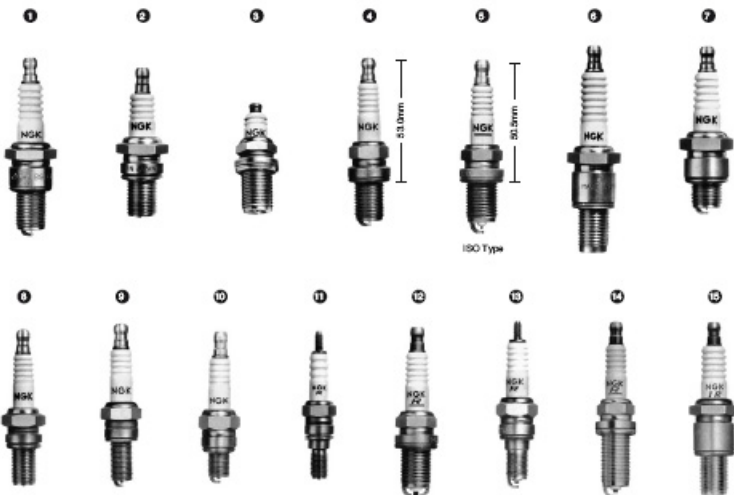
Thread size (Hexagon size)	Spark plug type	Spark plug number	Heat rating	Firing end appearance	Electrode material												
					Center	Ground											
φ14X19mm(20.8mm)	B-E	R4304A-○	7,8,9,10	Ⓐ ●	Gold Palladium	Nickel Alloy											
		R6918B-○	7,8,9	Ⓐ ●	Platinum	Nickel Alloy											
		R6918C-○	9	Ⓐ ●	Platinum	Nickel Alloy											
		R6021E-○	8,9,10,10S	Ⓑ ●	Nickel Alloy	Nickel Alloy											
		R6061-○	7,8,9,10,11	Ⓒ ●	Nickel Alloy	Nickel Alloy											
		R6252E-○	9,10S	Ⓒ ●	Nickel Alloy	Nickel Alloy											
		R6252K-○	10S	Ⓒ ●	Nickel Alloy	Nickel Alloy											
		R6254E-○	9,10S	Ⓒ ●	Nickel Alloy	Nickel Alloy											
		R6254K-○	10S	Ⓒ ●	Nickel Alloy	Nickel Alloy											
		R7376-○	7,8,9,10	Ⓒ ●	Iridium	Platinum											
φ14X22mm(20.8mm)	Semi surface discharge	R5649-○	9,10,11	Ⓔ ●	Nickel Alloy	—											
		R5712-○	9,10	Ⓔ ●	Nickel Alloy	—											
		R6179A-○P	10S,11	Ⓒ ●	Platinum	Platinum											
		R6179C-○PA	10S	Ⓒ ●	Platinum	Platinum											
		R7376B-○	9,10	Ⓒ ●	Iridium	Platinum											
		φ14X22mm(16.0mm)	Short	R7282A-○	10,10S,11	Ⓒ ●	Iridium	Platinum									
				R7282-○	7,8,9,10,10S,11	Ⓒ ●	Iridium	Platinum									
				R7282C-○	11	Ⓒ ●	Iridium	Platinum									
				R7282M-○	11,11S	Ⓒ ●	Iridium	Platinum									
				R6888A-○	8,9,10	Ⓕ ●	Nickel Alloy	Nickel Alloy									
φ14X19mm(16.0mm)	BK-E(ISO)Ⓢ1			R7433-○	8,9,10	Ⓐ ●	Iridium	Nickel Alloy									
				R7434-○	8,9,10	Ⓐ ●	Iridium	Platinum									
				R7279-○	10	Ⓕ ●	Iridium	Platinum									
				φ14X19mm(16.0mm)	BC-E(ISO)Ⓢ1	Semi surface discharge	R6601-○	8,9,10,11	Ⓔ ●	Nickel Alloy	—						
						Semi surface discharge	R6711-○	9,10	Ⓔ ●	Nickel Alloy	—						
		φ14X19mm(16.0mm)	BCP-E(JIS)			R7435-○	8,9,10	Ⓐ ●	Iridium	Nickel Alloy							
						R7436-○	8,9,10	Ⓒ ●	Iridium	Platinum							
						φ14X19mm(16.0mm)	BC-E(JIS)	Semi surface discharge	R5883-○	9,10,11	Ⓔ ●	Nickel Alloy	—				
								Semi surface discharge	R6690-○	9,10,11	Ⓔ ●	Nickel Alloy	—				
								φ14X26.5mm(16.0mm)	LFR	Extra long reach	R7437-○	8,9,10	Ⓐ ●	Iridium	Nickel Alloy		
Extra long reach	R7438-○									8,9,10	Ⓒ ●	Iridium	Platinum				
φ14X12.7mm(20.8mm)	B-H									R5625-○	7,8,9,10,11	Ⓐ ●	Gold Palladium	Nickel Alloy			
										R5630-○	8,9,10,11	Ⓐ ●	Gold Palladium	Platinum			
				φ14X21.5mm(20.8mm)	Rotary Engine RX-7					R6725-○	9,10,10S,11,11S	Ⓒ ●	Platinum	Platinum			
										R7420-○	9,10,10S,11	Ⓒ ●	Iridium	Platinum			
		φ14X21mm(20.8mm)	Rotary Engine RX-8 L							R7440A-○L	9,10	Ⓒ ●	Iridium	Platinum			
										φ14X19mm(20.8mm)	Rotary Engine RX-8 T	R7440B-○T	10,11	Ⓒ ●	Iridium	Platinum	
						φ12X19mm(16.0mm)	DC-E					Semi surface discharge	R2349-○	9,10,11	Ⓔ ●	Nickel Alloy	—
												Semi surface discharge	R2525-○	9,10,11	Ⓒ ●	Platinum	Nickel Alloy
								R0373A-○	9,10			Ⓒ ●	Iridium	Platinum			
								φ10X19mm(16.0mm)	C-E			Semi surface discharge	R0045G-○	10,11	GAP1.4	Ⓔ ●	Nickel Alloy
Semi surface discharge	R0045J-○											9,10,11,12	GAP1.1	Ⓔ ●	Nickel Alloy	—	
Semi surface discharge	R0045Q-○											10,11	GAP1.1	Ⓔ ●	Nickel Alloy	—	
φ10X19mm(Half thread 16.0mm)	C-EH			R0379A-○	10							Ⓒ ●	Iridium	Platinum			
				R0409B-○	8,9,10							Ⓒ ●	Iridium	Nickel Alloy			
		φ10X12.7mm(16.0mm)	C-H	R0161-○	9,10,11							Ⓐ ●	Nickel Alloy	Nickel Alloy			
				φ8X19mm(13.0mm)	E-EH					Semi surface discharge	R847-○	10,11	Ⓔ ●	Nickel Alloy	—		

1) ISO: The length from gasket to terminal of ISO type spark plugs is 50.0mm which is 2.5mm shorter than BCP-E or BC-E type spark plugs.

2) Resistor spark plugs are recommended for cars originally equipped with resistor spark plugs. When nonresistor spark plugs are installed in such cars, there is some possibility that the electric devices in the car, such as the radio system or the engine management system, would be affected by noise.

3) Marked * part number will be discontinued when the current stock is over.

Appearance



Firing end



Discontinued plug types

Blue colour indicates resistor plugs.

Old part number		New part number		Old part number		New part number
R016	→	R017		R5400	→	R5400F
R216	→	R217		R6337	→	R6337P
R2270	→	R2430		R7435	→	R7435
R4630A	→	R6385	P	R5686	→	R7435
R6120	→	R7282		R5830	→	R5687
R6120A	→	R7282A		R7112	→	R7113
R6120C	→	R7282C		R7114	→	R7115
R6120M	→	R7282M		R7116	→	R7117
R6255	→	R6255F		R7118	→	R7119
R6205	→	R6241		R7232	→	R7233
R6206	→	R6242		R7234	→	R7235
				R7236	→	R7237
				R7238	→	R7239
				R7433	→	R7433
				R7436	→	R7436
				R7437	→	R7437
				R7438	→	R7438

Recommendation chart of NGK racing spark plugs for motorcycles



Manufacturer	Model	Spark plug Number	Racing spark plug IX, VX spark plug
HONDA			
Road race	CB1000SF/CB1300SF	DP98A-9	R2525-*
	CB400 Superfour	CR8EII-9	CR8EIX-9, R0408B-*
	CB400S	DP98A	R2525-*
	CBR1000RR	MR8C-8/8ES	R0408B-*, R0045Q-*
	CBR1100X	MR8C-9H	R0408B-*, R0045Q-*
	CBR400R	CR8EII-9	CR8EIX-9, R0408B-*
	CBR600F3/F4iRR	MR8C-9ES	R0408B-*, R0045Q-*
	CBR900R/CBR954RR	MR8C-9H	R0408B-*, R0045Q-*
	NS-11NSR50	BR8EIX	R7376-*
	NSR250R/SE/RSF	BR8ECM	BR10ECMX
	RVFRC45	CR8EIX-9	R0408B-*, R0045Q-*
	DRR8EVIK-9	R2525-*	
	VTR1000F	IFR9H11	R7376-10
	VTR1000SP/II	R0359-10SP	R7376-10, R7262A-10S-1
RS125R	R0120-10S	R7362-10S, R7262A-10S-1	
RS250R	CR8EII-9	CR8EIX-9, R0408B-*	
Off road	XR250/Motard	DP98Z	DP98ZIX
	XR400/Motard	DP98Z	DP98ZIX
Motocross	CR125R	BR8EG	BR8EIX, R7376-9
	CR250R	BR8EG	BR8EIX, R7376-8
	CR80R/R2	B10EG	BR10EIX, R7376-*
	CR85R/R2	BR10EG	BR10EIX, R7376-*
	CRF100F	CR7H5A	CR7HIX
	CRF250R	R0408B-8	R0408B-8
	CRF450R	IFR9H11	R7430-8
	CRF50F/CRF70F	CR6H5A	CR6HIX
	QR50	BP9AHS	
	XR250R	CR8EII-9	CR8EIX-9, R0408B-*
	XR250R/XP70R	CR6H5A	CR6HIX
	RTL250R	BR8ES	R7376-*
	RTL250F	CR8EII-9	
	TLM200R	B8E8	BR8EIX
TLM202R	BR8E8	BR8EIX	
TLM260R	B8E8	B8EVIK	
TLR250R	D8EA	CR8EIX	
TLR260	BR8E8	-	

Manufacturer	Model	Spark plug Number	Racing spark plug IX, VX spark plug	
YAMAHA				
Road race	FZ400	D8EA	R2525-*	
	RZ50 SFC	B8E8	BR8EIX, R7376-*	
	SR400/SR500	BP98S	BP9- EIX, R7376-*	
	SRV250	CR7H5A	CR7- HIX	
	TDM850/TFX850	DP88A-9	R2525-*	
	T260R/T260R/T260SP	BR8E8	BR- EIX, R7376-*	
	TZR250SP/RS/R	BR8ECM	BR10ECMX	
	XJR1200R/XJR1300	DP88A-9	R2525-*	
	XJR400R/R/II	CR8E	R0373A-*, R0045Q-*	
	YZF1000R/R/I	D8EA	R2525-*	
	YZF750SP	CR8E	R0373A-*, R0045Q-*	
	YZF-R1	CR8EK	R0373A-*, R0045Q-*	
	YZF-R6	CR10EK	R0373A-*, R0045Q-*	
	YZF-R7	R0299R-10	R0373A-*, R0045Q-*	
	TZ125	R0395-10SP	R7376-10, R7376B-10R-1	
	TZ250	R0179A-10SP	R0179A-10SP/R0179C-10SP/R-1	
	Off road	TT250R	CR8EK	CR8EIX
		TY250Z/Z5	BP8EVIK	BP8EIX
	Motocross	XT225WWE	D8EA	CR8EIX
		PW50	BP9AHS	-
		WR252F/WR430F/WR450F	CR8EK	CR8EIX
		YZ125	BR8EVIK	BR8EIX, R7376-9
		YZ250	BR8E8	BR8EIX, R7376-8
		YZ250F/YZ426F/YZ450F	CR8EK	CR8EIX
YZ80L/W/YZ85L/W		BR10EG	BR10EIX, R7376-*	
TY250Z		BP8EVIK	BP8EIX	
Trial				

Manufacturer	Model	Spark plug Number	Racing spark plug IX, VX spark plug	
KAWASAKI				
Road race	D-TRACER	CR8E	R0373A-*, R0045Q-*	
	GPZ1100ABS	CR8EK	R0373A-*, R0045Q-*	
	GPZ900R	D8EA	R2525-*	
	Z-1	B8E8	BR- EIX, R7376-*	
	ZEPHYR1100/R8	CR8E	R0373A-*, R0045Q-*	
	ZRX1100II/ZRX1200R/S	CR8EK	R0373A-*, R0045Q-*	
	ZX-10R	CR8EIA-9	R0373A-*, R0045Q-*	
	ZX-12R	CR8EIPA	R0373A-*, R0045Q-*	
	ZX-8R/R/R/ZX-7RR	CR8E	R0373A-*, R0045Q-*	
	ZX-9R/ZXR400R	CR8EK	R0373A-*, R0045Q-*	
	ZZ-R1100	CR8E	R0373A-*, R0045Q-*	
	Off road	KLX250(1998.2-)	CR8E	CR8EIX, R0373A-*
	Motocross	KX125X-2003	BR8EIX	R7376-9
		R0918B-9	R0918B-9, R7376-9	
KX125(2004-2005)		BR8ECMX	BR8ECMX	
KX125(2006-)		BR8EIX	R7376-9	
KX250X-2004		BR8ECMX	BR8ECMX	
KX250(2005-)		CR8E	CR8EIX, R7376-*	
KX250F(2004-2005)		CR8E	CR8EIX, R7376-*	
KX250F(2006-)		CR8E	CR8EIX	
KX450F		CFR8EII-9	-	
KX65		B10EG	BR10EIX, R7376-*	
KX85II		R032K-10S	-	

Manufacturer	Model	Spark plug Number	Racing spark plug IX, VX spark plug	
SUZUKI				
Road race	G512005/G5P1200	JR8B	R2525-*	
	G5X1300R	CR9E	R0373A-*, R0045Q-*	
	G5X-R100X/G5X-R1000	CR9E	R0373A-*, R0045Q-*	
	G5X-R600/G5X-R760/R600	CR9E	R0373A-*, R0045Q-*	
	R0157196/11-11-1	BR8ECM	BR10ECMX	
	R01-1206P(1990.2-)	BR8EIX	R7376-9	
	G5X1100T	CR8EIA	R2525-*	
	TL1000R	CR8EK	R0373A-*, R0045Q-*	
	TL1000S	CR8E	R0373A-*, R0045Q-*	
	Motocross	RM125	R0918B-8	-
		RM250	R0918B-7	-
		RM250R/M83	BR10E8	BR10EIX, R7376-*
		RM-2Z50	CR8EB	CR8EIX, R2
		RM-2430	CR8EII-10	-

Manufacturer	Model	Spark plug Number	Racing spark plug IX, VX spark plug
BIMOTA			
Road race	SB6R	CR9E	R0373A-*, R0045Q-*

Manufacturer	Model	Spark plug Number	Racing spark plug IX, VX spark plug
BMW			
Road race	R11100S	B0R7EKC	R7434-*

Manufacturer	Model	Spark plug Number	Racing spark plug IX, VX spark plug
DUCATI			
Road race	748R/S	DCR8EIX	R2525-*
	749S	CR8EVIK	R0373A-*, R0045Q-*
	916SP/SPS/996SPS	R2349-10	-

Manufacturer	Model	Spark plug Number	Racing spark plug IX, VX spark plug
GAS-GAS			
Trial	TXT250	BP8RES	BP8EIX
	TXT260	BP8RES	BP8EIX

Manufacturer	Model	Spark plug Number	Racing spark plug IX, VX spark plug
KTM			
Motocross	125SX/200SX	BR8EVIK	BR8EIX, R7376-9
	250SX	BR8ECM	BR8ECMX
	450SX-R	DCPR8E	R2525-*
	505X	BR8ECM	BR8ECMX
	525SX	DCPR8E	R2525-*
	665X/855X	R7234-10	R7430-10

Manufacturer	Model	Spark plug Number	Racing spark plug IX, VX spark plug
LAVERDA			
Road race	750s Formula	DCR8EIX	R2525-*

Manufacturer	Model	Spark plug Number	Racing spark plug IX, VX spark plug
MONTESA			
Trial	COTA315	BR8E8	-

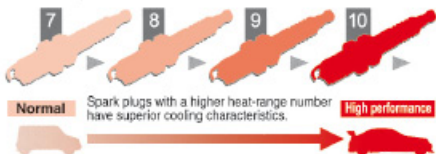
①: The thread length is longer than the normal type due to setting the detonation counter.

②: You need terminal nut.

Choosing a racing plug

- Choose the right spark plug for your engine based on heat range and electrode design, engine tuning, and racing conditions.

Heat range



Racing plugs for both two- and four-wheel vehicles have been developed and designed for use in engines that have been fine-tuned to achieve maximum power under specific racing conditions. Racing plugs differ from standard plugs, both in appearance and performance, and often sacrifice plug life, and efficiency at low-speeds for optimum performance and durability under torturous racing conditions.

Electrode design



What to look for when choosing a racing plug

Point 1

Shell design – To determine what kind of shell design fits in your engine, check the serial number of regulation plugs or the plugs you are currently using to verify the thread diameter, pitch, thread length and shell seat.

Point 2

Firing End design – Refer to the section below on electrode design to determine which type is best for your needs.

Point 3

Heat range – It's important to choose a racing plug with a heat range that keeps the electrode at an optimum temperature under even the most torturous racing conditions. And remember: A higher heat-range number does not improve engine performance, it increases the plug's ability to dissipate heat.

Point 4

Resistors – Due to advances in ignition-system technology, there is little if any difference in performance between plugs with resistors and those without. However there are still some variations of some models that require plugs with resistors to avoid engine trouble.

Choosing a firing end design

Although a good rule of thumb is that the more an electrode projects into the cylinder, the better ignition it provides, it's also true that longer projections are more susceptible to the wear and tear of extreme temperatures. High-power, high-performance engines, of course, not only run hotter, they also vibrate more, which is why we recommend choosing a firing end design that reduces exposure of the electrode and insulator as much as possible.

Projected type



Quite similar to a standard spark plug electrode, these plugs give good overall performance in lightly tuned and naturally aspirated engines, as well as good performance in the low to medium torque range in turbo engines.

Angled ground strap type



These provide superior performance in turbocharged engines with power boosts of 50% or more. The short ground electrode is also highly durable against mechanical shock.

Semi-surface discharge



In a sense, this is the ultimate plug configuration. Nearly all insulator cracking and electrode melting can be prevented with this type. Nevertheless, service life and low-speed performance may suffer slightly.

Once you've found a plug that matches your needs, give it a try and feel the exhilaration of getting 120% performance from your engine.

INSTALLATION

To install spark plugs in the engine, first tighten them by fingers, then retighten with the right tightening torques as shown below, using a plug wrench.

Either excessive tightness or looseness will cause troubles. Looseness sometimes causes pre-ignition because heat cannot disperse. On the other hand, excessive tightness can damage the threads of both the cylinder head and the spark plug.

Tightening angles

Thread size	New gasket	Used gasket
φ14mm (except※)	$\frac{2}{3}$ of a turn(240°)	$\frac{1}{12}$ of a turn(30°)
φ12mm φ10mm	$\frac{1}{2}$ of a turn(180°)	$\frac{1}{12}$ of a turn(30°)
φ8mm	$\frac{1}{3}$ of a turn(120°)	$\frac{1}{12}$ of a turn(30°)
※ R6459-9 R6918C-9	$\frac{1}{3}$ of a turn(120°)	$\frac{1}{12}$ of a turn(30°)

Tightening torques

Spark plug type (thread diameter)	Aluminium cylinder head
Flat seat type (with gasket)	φ14mm 25~30N·m (2.5~3.0kg·m 18.0~21.6 lb·ft)
	φ12mm 15~20N·m (1.5~2.0kg·m 10.8~14.5 lb·ft)
φ10mm	10~12N·m (1.0~1.2kg·m 7.2~8.7 lb·ft)
	φ 8mm 8~10N·m (0.8~1.0kg·m 5.8~7.2 lb·ft)

NGK Spark plug covers for racing spark plugs

Plug cover number (Colour)	Applicable plug type and cable
TRS1225 (Blue) <small>※For Honda Racer only</small>	R7282-○, R7282A-○, R7282C-○, R7282M-○ φ8mm cable
TRS1233A (Red) TRS1233B (Yellow) TRS1233C (Green)	R7282-○, R7282A-○, R7282C-○, R7282M-○ φ7mm cable
TRS1408F (Blue)	R5300A-○, R5300N-○ φ8mm cable
TRS1409 (Red)	R5540F-○ φ7mm cable