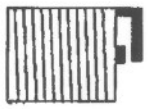
G3400/G3500 Gas Engine Spark Plug Overview

Most Cat "ignition" Plugs are resistive to reduce radio interference & improve electrode life Indicated by "R" on Champion plugs. Not indicated on Cat branded plugs.

9U7511 - 18 MM, 154-9521 - 14mm Plug seat and thread cleaner
9U7516 - Plug gapping tool
4C4601 - 18mm Spark Plug Socket
132-8263 - EIS transformer terminal spaner wrench
9Y6792 - 18mm Plug Gasket
108-3515 - 14mm Plug Gasket
8T9020 - DiElectric Grease

Standard Automotive Spark Plug 14mm

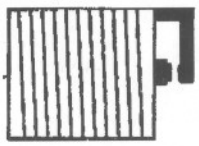


Pros Cheap, Regapable
Cons Short Life in Industrial Stoichiometric Applications

Stoichiometric Gas Engine Dual Electrode 14mm Spark Plug - 2N2839

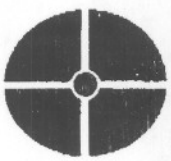
Pros Improved life over Automotive Plug, Regapable until 50% of material work away
Cons Short life in High Energy Lean Burn Applications

Latest J-Gap 14mm Lean Burn G3400 Spark Plug - 104-3170 Nippon Denso - .011"



Pros J-Gap Precious Material electrodes and Fired in Suppression device
Cons None defined yet - Although in production, its still being evaluated

First 3500 Four Electrode, Lean Burn 18mm Spark Plug - 7W2257

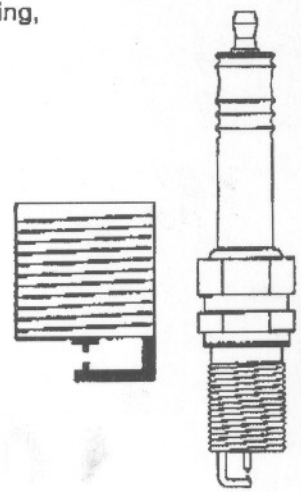


Pros Improved life over dual electrode (750 Hrs) in lean burn environment
Cons Non regapable - variable emissions between new and used, electrodes not in combustion chamber, Short body allowed carbon tracking down insulator
Inadequate body crimp allowed porcelain separation

First J-Gap Lean Burn Spark Plug - 9Y2602 Champion RB77WP

Pros Regapable long life tip material (iridium and platinum), Long body prevents carbon tracking down insulator
Cons Poor Quality metal - body cracking, corrosion between suppression resistor and spring, ground strap failures in 3600 Gas engine, body corrosion

Second J-Gap Lean Burn Spark Plug - 106-4128 Champion RB77WPC*



Pros Copper cored ground strap - longer life in 3600 Gas Engine -"C"
Zinc plated and improved metal in body - stops cracking and corrosion - "*"
Improved spring plating against SAC 9 resistor - resists corrosion 6-15k Ω - "*"
Cons Resistor overheating leads to short life and false codes 4XX-12 on EIS, etc.

First Branded J-Gap Lean Burn Spark Plug - 124-7380

Pros 6-30K ohm SAC 9 resistor (chemical) in upper position, For use with "Blue or black nosed" Coil (124-0749 with internal resistor) and all magneto engines, zinc plated body to prevent corrosion
Cons Short life, center electrode sealing problem, electrode loss due to zinc plating

Second Branded J-Gap Lean Burn Spark Plug - 121-7838

Pros 1.0-1.2K ohm resistor in upper position - for use with original EIS coils (4P7070), zinc plated body
Cons Still short life, center electrode sealing problem, electrode loss due to zinc plating

Latest Branded J-Gap Lean Burn Spark Plug for G3500 - 146-2588

Pros Use w/ all G3500 and G3600 product, 1.0K ohm wire wound resistor in upper position, eliminated oxidation in porcelain, center electrode enlarged from .05 to .09 in, higher temperature internal glass seal, eliminated zinc plating from ground electrode.
Cons Somewhat susceptable to impact damage if dropped or knocked about after initial operation; however, Best results so far.

EIS Improvements: 135-2651 Xfmr lip seal, extender w/ thicker wall, serviceable EIS harness, G3516EIS control has 2 deg advance on center 4 cylinders: improved detonation protection of end cylinders (124-4565).