

From excellence in motorsport to performance on the road

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Bosch offers a complete Gasoline Direct Injection (GDI) proposition including parts, diagnostics and training

- ▶ Comprehensive aftermarket GDI parts programme with motorsport and OE pedigree including spark plugs, ignition coils, lambda sensors, high pressure injectors and pumps.
- ▶ ESI[tronic] 2.0 software providing diagnostic procedures, measured values, error and signal patterns, as well as installation instructions.
- ▶ VSG11 Gasoline Direct Injection System Diagnosis two-day training course.

As ever more vehicles with GDI systems enter the market, workshops are increasingly turning to OE supplier Bosch for their servicing and repair needs – boosting revenue and satisfying their customers at the same time.

GDI is a key technology in the latest generation of ultra-efficient gasoline vehicles, delivering improved performance, increased economy and enabling engine downsizing.

Modern GDI systems feature low pressure and high pressure circuits, with an electric fuel pump supplying a high pressure pump (HDP) with gasoline at around 6 bar. The HDP compresses it up to 200 bar and feeds it to the fuel rail, where high pressure injectors push precise quantities of perfectly-mixed fuel directly into the combustion chamber.

Growing Service Market

By the end of 2019, there will be around four million cars on UK roads with direct injection gasoline engines, and this number is expected to double within a few years. To meet rapidly increasing demand, Bosch has created a complete GDI service solution for the automotive aftermarket, including components developed for the best racing teams in the world, state-of-the-art diagnostic solutions and industry benchmark training.

Bosch GDI Parts – Experience and Performance

While the widespread use of Bosch GDI components in international motorsport proves their high performance, Bosch's aftermarket GDI proposition (including

spark plugs, ignition coils, lambda sensors, high pressure injectors and pumps) offers unrivalled quality, reliability and market coverage.

As a pioneer in the technology, Bosch has sold over 11 billion spark plugs since 1902. It is technical partner to the most prestigious international motorsport championships and successful innovations are constantly adapted for volume production. The aftermarket is therefore the ultimate beneficiary of Bosch's combined motorsport and OE know-how.

Workshop Tip! When installing spark plugs in GDI engines, the alignment of the side electrode in relation to the spray nozzle is critical. Installing the correct spark plug, with the right tooling and torque, is crucial for optimum engine function.

As a leader in OE ignition systems, Bosch has been delivering high quality ignition coils for over a century. Its modern compact, pencil and multi-spark coils are all incredibly resistant to heat, vibration and corrosion, delivering exceptional performance and reliability.

High pressure injectors and pumps are vital components of today's electronically-controlled GDI systems – technology which has been refined over many decades of research and development. A 2.5-litre Mercedes-Benz with a 500 bar Bosch mechanical direct gasoline injection system famously won the French Grand Prix way back in 1954.

Invented by Bosch in 1976, Lambda sensors have made a significant contribution to meeting today's demanding emissions standards. To date, Bosch has produced more than one billion Lambda sensors. Its high quality aftermarket range covers 85% of the UK car parc, with pre-greased threads for ease of fitment.

Morten Jensen, Bosch Product Specialist for Gasoline, Europe North, said: "The GDI car parc is growing fast and, with our motorsport and OE credentials, independent workshops look to Bosch for parts, equipment and training. The widespread use of Bosch ignition and GDI components in motorsport serves as a real-life rolling test lab. A great example is platinum alloy spark plug electrodes, first used in the 1970 Le Mans-winning Porsche 917. Unlike the previous generation of passenger car gasoline engines, which allowed for only an approximate mixture of gasoline and air, GDI enables an extremely precise blend with optimised and variable spray timing under different load conditions. Bosch offers a comprehensive range of parts with great market coverage and, as proven on the road and racetrack, repairers and drivers can trust both the quality and reliability."

Bosch ESI[tronic] 2.0 Online Diagnostic Software and Training for GDI

Bosch's development expertise, technical quality and reliability are also reflected in its diagnostic software, which will increase the efficiency and effectiveness of everyday workshop tasks.

Today's technicians expect more than just control unit diagnostics, whether for passenger cars or commercial vehicles. Intelligent troubleshooting and support for rapid repair and maintenance according to the manufacturer's specifications are the new standard... and all these requirements are met with ESI[tronic] 2.0 Online.

ESI[tronic] 2.0 Online guides you through the process step-by-step and the Experience Based Repair (EBR) functionality provides instant access to known faults and reliable solutions. The perfect hardware partners are the new generation Bosch KTS tools featuring ethernet-based interfaces for super-fast data transfer.

In terms of training, Bosch's VSG11 Gasoline Direct Injection System Diagnosis course will significantly improve technician efficiency. Across two days, it covers:

- Overview of system layout and design concept
- Design and function of individual components
- Air, fuel supply and exhaust component operations
- Fuelling modes and other unique system functions
- System testing and diagnosis

On successful completion, technicians will fully understand a typical Bosch GDI system and be able to utilise serial diagnosis and oscilloscope data to quickly determine the required system or component repairs. The course forms part of a comprehensive modern vehicle technology Training Programme, designed by Bosch specifically for independent workshops in the UK.

For further details on the Gasoline Injection Systems training courses, and other courses in the Bosch range, visit: www.bosch-training-solutions.com/gb/

Mark Heard, Bosch Marketing Manager for Europe North, said: "With the fast-growing GDI vehicle parc, independent garages investing in the right training and equipment are set to make healthy profits and win business. We offer a broad range of state-of-the-art equipment designed to increase workshop efficiency. Our ESI[tronic] platform includes detailed service instructions for GDI components, while our KTS tools, workshop favourites for over 30 years, just keep getting better. Equipment and training go hand-in hand of course, and our Gasoline Injection Systems programmes provide the perfect ladder to GDI mastery."

To view the full range of Bosch Diagnostics Equipment please visit
www.boschaftermarket.co.uk

ENDS

The Automotive Aftermarket division (AA) provides the aftermarket and repair shops worldwide with a complete range of diagnostic and repair shop equipment and a wide range of spare parts – from new and exchange parts to repair solutions – for passenger cars and commercial vehicles. Its product portfolio includes products made as Bosch original equipment, as well as aftermarket products and services developed and manufactured in-house. About 18,000 associates in 150 countries, as well as a global logistics network, ensure that some 650,000 different spare parts reach customers quickly and on time. In its “Automotive Service Solutions” operations, AA supplies testing and repair-shop technology, diagnostic software, service training, and information services. In addition, the division is responsible for the “Bosch Service” repair-shop franchise, one of the world’s largest independent chains of repair-shops, with some 16,000 workshops. In addition, AA is responsible for more than 1,000 “AutoCrew” partners.

Additional information can be accessed at www.bosch-automotive-aftermarket.com

The Bosch Group is a leading global supplier of technology and services. It employs roughly 400,500 associates worldwide (as of December 31, 2017). According to preliminary figures, the company generated sales of 78 billion euros in 2017. Its operations are divided into four business sectors: Mobility Solutions, Industrial Technology, Consumer Goods, and Energy and Building Technology. As a leading IoT company, Bosch offers innovative solutions for smart homes, smart cities, connected mobility, and connected industry. It uses its expertise in sensor technology, software, and services, as well as its own IoT cloud, to offer its customers connected, cross-domain solutions from a single source. The Bosch Group’s strategic objective is to create solutions for a connected life, and to improve quality of life worldwide with products and services that are innovative and spark enthusiasm. In short, Bosch creates technology that is “Invented for life.” The Bosch Group comprises Robert Bosch GmbH and its roughly 440 subsidiaries and regional companies in 60 countries. Including sales and service partners, Bosch’s global manufacturing, engineering, and sales network covers nearly every country in the world. The basis for the company’s future growth is its innovative strength. At 125 locations across the globe, Bosch employs 62,500 associates in research and development.

Additional information is available online at www.bosch.com, www.iot.bosch.com, www.bosch-press.com, www.twitter.com/BoschPresse.