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## NGK - FIAT CONTRACT

Fiat has chosen NGK Spark Plugs as the exclusive supplier of precious metal spark plugs and wideband NTK Lambda sensors for its new TwinAir naturally aspirated engine, which will debut in the new Panda.

NGK designed the LKR7DI-12 spark plug to meet the demands of the new engine which will form the Fiat Group's new standard for compact cars. As the downsized two-cylinder engine is exceptionally small and requires large cooling ducts, there is limited space available for a spark plug. The LKR7DI-12 spark plug was therefore designed with a slim and long-reaching, 26.5mm M12 thread.



Additionally, the company is the sole supplier of NTK Lambda sensors for the new Panda. NGK is supplying Fiat with the UAA0001-FA003 as a regulating Lambda sensor. It was selected due to its fast light-off time, its responsiveness and precision, as well as its resistance to water splash.

Brian Childs, Deputy Managing Director, NGK Spark Plugs (UK) Ltd, said: "Fiat's selection of NGK's spark plugs and NTK sensors for its new TwinAir engine once again confirms the company's position as being a leading supplier of OE products to the world's leading vehicle manufacturers. We are delighted that we have been able to help the company in this major new project."

NGK says the TwinAir naturally aspirated engine features a variable valve control to adapt the charging state to the current driving situation.

The LKR7DI-12 spark plug faces challenging combustion conditions, such as high charge motion and quickly changing air-fuel ratios, and to meet these requirements, it features a centre electrode with laser-welded Iridium tip.

# PRESS RELEASE

Due to its high melting point (2466 °C) and hardness, this precious metal is extremely resistant against spark erosion, allowing for a centre electrode with a diameter of only 0.6mm. Due to its slim design, more ignitable air-fuel mixture comes close to the spark, safeguarding ignition reliability and engine efficiency, even under high cylinder pressures and along the entire service life.

The second-generation wideband NTK Lambda sensor is capable not only of detecting the airflow and the air-fuel ratio at the stoichiometric operating point, but over a wide range of operating points.

In doing so, it is a vital part of the variable TwinAir system, which requires a very high accuracy of the air-fuel ratio within a number of different charging states. As diagnostic sensor controlling the overall performance of the regulating sensor downstream of the catalytic converter, Fiat chose NTK's binary OZA629-A3 zirconium oxide Lambda sensor.

Acting in conjunction, the LKR7DI-12 spark plug with the UAA0001-FA003 wideband sensor and the OZA629-A3 binary sensor contribute significantly to making the FIAT Panda with its TwinAir naturally aspirated engine one of the cleanest cars of our times.

For further information about NGK Spark Plugs (UK) Ltd and its products and services visit [www.ngkntk.co.uk](http://www.ngkntk.co.uk)

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