

PRESS RELEASE

Magneti Marelli for the Fiat 500: an important contribution

Lighting systems, engine control, telematics, instrument cluster, suspensions and exhaust. And, available in the future, Dualogic gearbox and Blue&Me MAP 500

There is a considerable presence of Magneti Marelli components and systems on the new Fiat 500: the contribution, in fact, goes from the front and rear lights – with the new “Day Running Light” system – to the instrument cluster, from the engine control systems for the 1.2 8V petrol engine and the 1.3 16V diesel engine, to the Dualogic robotised gearbox, from the exhaust systems to the suspensions.

In addition, on top of the production of the Blue&Me™ and Blue&Me Nav™ systems, Magneti Marelli has developed, together with Fiat, the brand new Blue&Me™ MAP 500: a multi-purpose portable navigation system featuring an original design, developed ad hoc for the Fiat 500 with an innovative integration and communication technology with the automobile.

The Blue&Me™ MAP 500 represents a new frontier in the market of portable navigation systems. In fact, it presents itself as a safe and easy-to-use system thanks to the high level of integration onboard the vehicle both from an electrical/mechanical standpoint (achieved through a special support in the dashboard) and a connectivity standpoint, guaranteed by the Bluetooth connection of the Blue&Me platform.

The advantages derived from the adoption of this architecture are considerable: data coming from the automobile's CAN network are used by the device to improve navigation, vocal messages are reproduced by the onboard audio system, the navigation pictograms are replicated in the instrument panel and the destination can be entered through keys on the steering wheel or through vocal commands.

Always in the area of **electronic systems**, Magneti Marelli supplies its **instrument cluster** for the new 500: an ideal union between a retro look and technological modernity, available in two versions: Comfort and Matrix. The Comfort version is characterised by a round LCD single-colour display that ensures a clear visualization of the main data related to the automobile's operation. The display is enclosed in

a chromed ring surrounded by two analogue indicators that carry out odometer and rev counter functions. All the indicator lamps are positioned on the round borders around the instrument cluster. The panel is also equipped with B-Can connections used to exchange information with the rest of the vehicle and for diagnostics purposes. The Matrix version is enriched with a dot matrix display positioned in the centre of the panel that can provide, in addition to the same information present in the Comfort version, the pictograms related to the satellite navigation function carried out by the Blue&Me Nav™.

In the **“lighting”** area, Magneti Marelli supplies all **external lighting devices** for the Fiat 500.

The main innovation concerns the **DRL Day Running Light** function, available on the headlights. The DRL turns on automatically when the automobile is started, and features a higher photometry than position lights but lower than low beam lights. It satisfies the current legislative obligations, which require drivers to keep the low beam lights turned on while driving, however allowing for the rear position lights to be turned off. The automobile is the first in its category with a factory-fitted DRL function.

The front headlight features an innovative stylistic concept with a flush light and an attractive concentric frame, thus contributing to the strong personality of the automobile front section, just like the rear lights, which recall a deliberately retro taste in an innovative manner.

In the **“powertrain control”** area, Magneti Marelli supplies the **engine control system** for vehicles fitted with the 1.2 8V 69HP petrol engine and the 1.3 multijet 16V 75 HP engine.

For the 1.2 petrol version, all main components are marked Marelli: **the injectors, the fuel rail and the plastic intake manifold, the throttle body in aluminium and the engine control unit** with built-in atmospheric pressure sensor. The engine control system, based on the control of output torque, allows the interface with the drive and stability control system and with the robotised gearbox, if fitted.

For the diesel multijet 1.3 engine, Magneti Marelli Powertrain designs and supplies the **engine control unit** with the pressure sensor **integrated with the Multijet system**.

Both systems are preset for Euro 5 (in the diesel the version fitted with DPF).

Magneti Marelli Powertrain also supplies **Dualogic® robotised sequential gearbox** with 5 speeds, which will soon be available for the versions fitted with petrol engines.

This type of transmission automates the clutch and gear lever controls of a traditional mechanical gearbox by means of an electro-hydraulic servo. The Dualogic® saves the driver the use of the clutch

pedal and of the traditional gear shift lever, which is replaced by "Up/Down/Neutral/Retro" electric controls on the lever to the tunnel. The robotised gearbox maintains all the advantages of a dry clutch and a mechanical gearbox (weight, sturdiness and reliability, low energy consumption) but makes the automobile easier to use, with a considerable reduction in the driver's fatigue, especially in the city. The driver sets the utilization logic most suited to the driving situation: ECO/NORMAL for 1.2 -8V and SPORT/NORMAL for 1.4-16V 100HP. The system supplied for the New 500 is the natural evolution of what is already in production on the Dualogic® applications: the command logic has been improved by making the most of the latest advances in the control strategy in order to improve performances and driving comfort, with a more powerful control unit and a further perfected hydraulic kit.

In the "**exhaust systems**" area, Magneti Marelli Exhaust Systems supplies exhaust systems equipped with catalytic converter and silencers for all engine types (both petrol and diesel). Specifically, for models equipped with the 1.2 8v and 1.4 16v petrol engines, MM supplies the catalytic converter integrated with the exhaust manifold in the Close Coupled Catalyst solution, which satisfies the emission requirements provided for by EURO 5 standards, while for models equipped with the Multijet 1.3 diesel engine, the version with DPF (Diesel Particulate Filter) is also available. Magneti Marelli will also supply silencing systems capable of complying with acoustic type-approval objectives of the vehicle, while for the 'Lounge' version it will also make available a special exhaust terminal to give the automobile a more eye-catching and sporty style.

Finally, Magneti Marelli's contribution in the area of "**suspensions**". The suspensions mounted on the Fiat 500 are typified by a compact and light design with architectural solutions already confirmed on the Panda, proposed again on the Fiat 500 with some specific changes. In particular, the front suspension, McPherson type with crossmember, was equipped with rails for the absorption of frontal crashes (greater passive safety). Control arms and knuckles were reinforced to take into account the larger tread and the new engine types. The rear suspension is the already tested twist beam axles modified for the larger tread, but especially for the mounting of the rear disc brakes. In both axles, the shock absorbers and springs feature specific calibrations. In short, a light and compact vehicle frame that does not fail to provide an excellent level of safety and handling.

Magneti Marelli, a company belonging to the Fiat Group, designs, produces and markets advanced systems and components for motor vehicles. With its 45 production facilities (55 production units), 9 R&D centres and 27 application centres in 16 countries, 25,000 employees and a turnover of 4.5 billion Euros in 2006, the group supplies all the leading car makers in Europe, North and South America and the Far East. The business areas include: Powertrain – Suspensions and Shock absorber systems - Lighting – Electronic systems – Exhaust systems– Aftermarket Parts & Services - Motorsport.

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