

Press Release

Vibracoustic provides first air springs system including ECU and software

Darmstadt, 17 November 2020 | Vibracoustic developed an air springs system, providing both excellent comfort and dynamic performance for a sporty SUV of a European premium car brand. The system features innovative switchable three-chamber air springs with actively controlled shock absorbers, the electric control unit (ECU) including software and the integration of the system components into the full vehicle system.

The switchable three-chamber air springs from Vibracoustic offer a great level of flexibility. They can switch individual air chambers on and off and therewith allow the stiffness of the springs to be doubled over four different settings – from soft to stiff. The Vibracoustic ECU not only controls the air springs but also integrates the shock absorber application software. It therewith actively controls the shock absorbers regarding jounce and rebound individually by controlling all eight shock absorber valves. The combination of switchable air springs and actively adjustable dampers gives a wider choice in comfort and dynamic performance for the sporty SUV and provides an outstanding suspension performance.

By providing not only the air springs but also the ECU for the air springs system, the software and the integration into the full vehicle system, Vibracoustic provides a pre-validated air springs system specifically tailored to the needs of the customer.

“With over 20 years of experience in developing and producing air springs for the automotive industry, it was still a very special project for us to deliver not only our three-chamber air springs but also our own ECU and software. The system perfectly fits the needs of our customer to realize an outstanding off-road performance while securing the dynamic and sporty performance of the premium SUV,” states Jörg Böcking, CTO at Vibracoustic.

Air spring suspensions are increasingly popular as they fulfill various demands for improved comfort as well as optimized driving dynamics. They can keep the vehicle at a constant level, raise and lower the ride height to tackle a wide range of terrain or adjust the degree of stiffness, depending on the driving situation.

With a dedicated team of air springs, system, software and ECU hardware engineers as well as comprehensive air springs expertise, Vibracoustic supports manufacturers throughout the whole development process to improve their vehicle's driving comfort and handling. This ranges from defining the requirements of various components and their characteristics to developing and specifying entire ECU, including their base and application software for all kinds of air springs systems.

About Vibracoustic

Vibracoustic is a leading global automotive NVH expert, providing customized solutions adding comfort and supporting efficiency, safety and durability. Its expertise along the entire product life cycle and all vehicle systems as well as its broad product range enable Vibracoustic to solve current and future NVH challenges across all automotive segments. With more than 10,000 employees at 43 production and engineering locations across 19 countries, Vibracoustic serves all major automotive manufacturers. In 2019 Vibracoustic recorded total sales of 2.1 billion €. For more information, see www.vibracoustic.com

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