

paragon Expands Product Portfolio as a System Provider of Innovative Sound Solutions

- **Premiere of a space-saving subwoofer for a unique in-car sound experience**
- **Robust external speakers for hybrid and electric vehicles or exhaust systems**
- **New acoustic concept for motor homes thanks to extremely compact speakers in the dashboard**
- **New product solutions from paragon's Interior Business Unit at the Caravan Salon and International Motor Show (IAA)**
- **Receiving the renowned EISA Award underscores the quality standards of ETON's products from the paragon Group**

Delbrück, Germany, September 3, 2019 – paragon [ISIN DE0005558696] has made great progress over recent months in further developing its product portfolio in the field of sound. With the integration of the acquired company LPG GmbH into the Interior business unit, paragon has succeeded in becoming a system provider in this area. A selection of paragon's solutions will be shown at two leading trade fairs. The technological maturity of the loudspeakers from the paragon Group has also been underscored by a jury of experts through the prestigious EISA Award.

paragon shines once again with its technological innovations and the high-quality standards of its products for in-car use. The company demonstrated this by winning the renowned EISA Award in the category "In-Car High-End Component" with the ETON Core S3 speaker system. According to the jury, the high-end HiFi component system for cars made a convincing impression mainly through its light and rigid construction with small concavities on the membrane surface to resolve resonances – a unique technical solution. As a result, the system produces a warm and smooth sound, while the three-layer magnesium-ceramic membrane in the tweeter makes it possible to reproduce the finest details. As judged by the EISA Award, ETON speakers like the Core S3 are among the world's best car audio speakers.

Another innovation in the field of sound is the “perfect subwoofer.” This subwoofer offers a truly perfect sound experience in the entire interior of the vehicle, impressing with precision, clarity and volume. Thanks to a 50 percent smaller installation space compared to conventional products, the “perfect subwoofer” saves not only valuable space but also reduces weight. This is made possible by intelligent control software together with a special chassis construction that allows the membrane surface area to be significantly reduced through a particularly long-stroke design.

In addition to interior sound, paragon is expanding its portfolio with products for external sound. For instance, paragon has developed a solution that makes it possible to optimize the sound backdrop of the burner. A high-temperature speaker for the exhaust tract guarantees the reproduction of sound characteristic to the vehicle even if the engine is downsized. This innovation convinces with a high robustness against environmental influences, such as exhaust gases and heat up to 220 degrees Celsius, as well as a long lifespan.

With the exterior speaker and its corresponding sound design, paragon is underscoring its system competence and providing a solution for what is known as Acoustic Vehicle Alerting Systems (AVAS), which have been mandatory in the EU for new models of hybrid and purely electric vehicles since July 1, 2019. The speaker enables other road users such as pedestrians and cyclists to hear electric vehicles, thereby increasing road safety. “The product can be adapted to the desired sound pressure level and is very robust under the most demanding environmental conditions. A special feature is the AVAS Studio, a software tool with which OEMs can create their own sound designs in order to be able to communicate brand-typical values via the exterior sound,” says Markus Barth, head of paragon’s Interior business unit.

In addition to these pioneering solutions for in-car use, paragon has also developed an innovative sound concept for motor homes by combining various high-quality sound components. On the one hand, this satisfies the highest design demands, and on the other hand, it allows for great flexibility in a wide range of applications. The 165mm Plug and Play 2-way front system consists of specially tuned woofers and mid-range drivers in a fiberglass-

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reinforced polyamide basket with a strong ferrite magnet drive and crossovers that are unobtrusively integrated into the dashboard. “Thanks to the highest level of technical precision, the speaker offers an unprecedented sound experience and dynamics. In addition, a 6-inch under seat active subwoofer provides precise bass tones. The Plug & Play built-in housings allow a hidden installation in the interior,” stresses Markus Barth. If the driver’s and passenger’s seats rotate 180 degrees, a 2-way body housing in the ceiling area ensures fine resolution reproduction, for example when watching television during camping. The system has been pre-programmed with two presets and is therefore optimized for both driving and the living area. The Class-D output stage ETON Stealth 7.1 is responsible for modulation. This is a universal system with a powerful integrated digital sound processor (DSP). The 8-channel amplifier can be controlled via an app and is equipped with freely assignable inputs and outputs, including a mixer, as well as the Auto-Sense On function.

paragon will be focusing on the new products in the field of sound at both the Caravan Salon in Düsseldorf, Germany, which ends on September 8, in Hall 13, Stand D88, and at the International Motor Show (IAA) in Frankfurt am Main, Germany, from September 10 to 15 in Hall 5.0, Stand B08. Visitors will have the opportunity to test and experience a variety of paragon sound innovations for themselves.

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Profile: paragon GmbH & Co. KGaA

paragon GmbH & Co. KGaA (ISIN DE0005558696), which is listed in the regulated market (Prime Standard) of the Frankfurt Stock Exchange, develops, produces and distributes forward-looking solutions in the field of automotive electronics, body kinematics and e-mobility. As a market-leading direct supplier to the automotive industry, the company's portfolio includes the Electronics operating segment's innovative air-quality management, state-of-the-art display systems and connectivity solutions, and high-end acoustic systems. In the Mechanics operating segment, paragon develops and produces active mobile aerodynamic systems. With Voltabox AG (ISIN DE000A2E4LE9), a subsidiary that is also listed on the regulated market (Prime Standard) of the Frankfurt Stock Exchange, the Group is also active in the rapidly growing Electromobility operating segment with its cutting-edge lithium-ion battery systems developed in-house.

In addition to the company headquarters in Delbrück (North Rhine-Westphalia, Germany), paragon GmbH & Co. KGaA and its subsidiaries operate sites in Suhl (Thuringia, Germany), Landsberg am Lech and Neu-Ulm (Bavaria, Germany), Korntal-Münchingen and St. Georgen (Baden-Wuerttemberg, Germany), Limbach (Saarland, Germany), Aachen (North Rhine-Westphalia, Germany) as well as in Kunshan (China) and Austin (Texas, USA). Additional information about paragon can be found at www.paragon.ag.

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