
Audi R8 V10 plus – LED headlights with Audi laser light

The laser spot doubles the range of the high-beam light. In each headlight there is a module with four powerful laser diodes that are just 300 micrometers in diameter. They generate a blue laser beam with a wavelength of 450 nanometers. A phosphorus converter converts it into white light with a color temperature of 5,500 Kelvin that is pleasing to the human eye. The laser spot – which is active outside of urban areas at speeds of 60 km/h (37.3 mph) and above – offers tremendous advantages in terms of visibility and safety to drivers. An intelligent camera-based sensor system detects other road users and actively adjusts the light pattern to dim the light intensity specifically for them.

Audi combines the new technology with the dynamic turn signals, which are placed along the upper edge of the headlight together with the daytime running lights. Depending on the model, the turn signals are implemented as either individual LEDs or LED blocks. As soon as the driver activates the turn signal, these LEDs light sequentially from inside to out – i.e. in the direction in which the driver is turning.

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