

752 BMW Individual High End Audio System



Overview

Product description

The BMW Individual High End Audio System sets new standards for sound. The high-performance loudspeakers provide brilliant and unique sound quality. The perfect matching of the loudspeakers and time-aligned reproduction through DIRAC signal processing results in a unique sound experience. The BMW Individual High End Audio System combines exclusiveness with maximum performance.

Your benefits

- Outstanding sound experience in all seats by positioning the sound stage in front of the vehicle occupants
- Perfect sound quality from vehicle-optimized loudspeakers, runtime compensation and level matching in the front and rear
- Extremely precise and spatially time-aligned replay to all seats in the vehicle through DIRAC signal processing (**D**ual **I**nput **R**oom **A**coustics **C**alculator)
- Dynamic driving noise compensation through speed-dependent adaptation of the volume and equalisation
- Simple changeover to surround sound (Dolby Pro Logic II)

Technical information

Function in detail

The high performance loudspeakers (see Fig. 1), optimised to the vehicle with strong neodymium magnetic drives and light, extremely stiff hexacone membranes, provide an outstanding sound experience. The maximum sound pressure is 112 dBA with a frequency range of 18 Hz to 24kHz. The loudspeakers are arranged as a mid-range/high-range combination. The use of identical membrane technology ensures superior bass/mid-range reproduction.

The bass speakers, arranged underneath the front seats (E90/E91/E92/E93, E60/E61, E63) ensures uniform distribution of the low frequency sound in the passenger cell. This location is superior to all other positions of the bass speakers. It is not possible for the vehicle occupants to locate the bass speakers. The frequently employed arrangement of the bass speakers in the rear of the vehicle results in bass reproduction regarded as unpleasant by many listeners.

The DIRAC Live Technology is used exclusively by BMW. This means time-delayed sound reflections in the interior of the vehicle that superimpose the original sound are reduced. The vehicle is acoustically measured and corresponding corrective functions are calculated. This leads to a sound fidelity reproduction previously unheard of and guarantees time-aligned reproduction for all occupants.

Speed-dependent volume control and speed-dependent 7-band equalising enable dynamic com-

ensation of vehicle noises by continuously compensating disruptive interference in the affected frequency ranges.

Operation

The BMW Individual High End Audio System is operated via the controller. The submenu of the audio system with associated sound options and sound settings (Treble/Bass, Balance/Fader, Speed-Dependent Volume, Equaliser, Surround Settings) is displayed clearly on the control display. Straightforward changeover to surround sound (Dolby Pro Logic II) is possible by selection in the system menu.

Components

- Digital 9-channel amplifier with powerful DSP (Digital Signal Processing) and maximum amplifier output of 825 Watts (E93/E64: 675 Watts).
- Transmission of the audio signal from the amplifier to midrange amplifiers and tweeters in the front door panelling or in the mirror triangle through two particularly high-quality crossover networks.
- Loudspeaker grille with BMW Individual hole pattern and colour-differentiated loudspeaker trims for optical distinction (see Fig.2)

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- 16 high-performance loudspeakers(E90/E92, E60/E61, E63)
 - 1 coaxial centre speaker (2-loudspeaker system consisting of tweeters and mid-range speaker) in the centre of instrument panel
 - 1 tweeter (silk tweeters) in each mirror triangles
 - 1 midrange speaker in the trim panels of each rear door
 - 1 bass speaker underneath each front seat
 - 1 coaxial speaker (2-loudspeaker system consisting of tweeters and midrange speaker) in the trim panels of each rear door (E90, E60) or in each side trim panel of the rear doors(E92, E63)
 - 2 midrange speakers and tweeters in the rear parcel shelf (E90, E92, E60, E63) or in the rear headliner(E61)

- 14 high-performance loudspeakers (E91)
 - 1 coaxial centre speaker (2-loudspeaker system consisting of tweeters and mid-range speaker) in the centre of instrument panel
 - 1 tweeter (silk tweeters) in each mirror triangles
 - 1 midrange speaker in the trim panels of each rear door
 - 1 bass speaker underneath each front seat
 - 1 coaxial speaker (2-loudspeaker system consisting of tweeters and midrange speaker) in the trim panels of each rear door
 - 2 loudspeakers in the rear headliner (identical standard)

- 12 high-performance loudspeakers (E93, E64)
 - 1 coaxial centre speaker (2-loudspeaker system consisting of tweeters and mid-range speaker) in the centre of instrument panel
 - 1 tweeter (silk tweeters) in each mirror triangles
 - 1 midrange speaker in the trim panels of each rear door)
 - 1 bass speaker in each side trim panel of the rear doors (only E64)
 - 1 bass speaker underneath each front seat (only E93)
 - 1 tweeter and 1 midrange speaker in the side trim panels of the rear doors



Fig.1: high performance loudspeakers, optimised to the vehicle



Fig.2: high-power tweeters in the side trim