THE CHALLENGE
The convenience of today’s portable electronics and in-car technologies like navigation, hands-free calling and Bluetooth® connections have dramatically altered how we drive and what we hear in a car. Navigation prompts and phone calls interrupt our music. Audible entertainment and vehicle alerts all add to the in-car sonic clutter created today.

THE SOLUTION
HARMAN Individual Sound Zones (ISZ) is intended to create individual listening zones for each passenger, enabling passengers to personalize their own audio experiences with limited disruption or interference from other vehicle occupants. This ISZ is the ultimate car audio upgrade – the introduction of virtual, simultaneous, in-car entertainment systems. It is liberating and empowering, as it gives each passenger complete control over their listening preferences.

THE BENEFITS
- Driver-specific features: Some sounds are intended only for the driver. Navigation prompts and vehicle alerts can now be heard by the driver, with little impact on the other passengers’ listening experience.
- Hear it your way: Even if all occupants are enjoying the same audio program, each passenger can adjust their listening volume independently.
- Pass it on: Not in the mood for a lengthy debate with your mother-in-law? Just pass the call to her grandson sitting in the back.
- Declaration of independence: The children in the back seat can listen to an audio book or watch a video while their parents in the front enjoy their favorite music.

HOW IT WORKS
Standard car audio speakers are able to achieve good control of the wave field, but only at low frequencies due to the modal characteristics of the car interior. To achieve personal listening zones over a broader audio bandwidth, it is necessary to introduce additional speakers positioned in closer proximity to the occupants’ heads. This has been achieved by positioning two small but powerful wide-range speakers with micro-speaker technology at each headrest. The active system comprises the headrest speakers and standard car audio speakers to enable modification of the wave field as desired via a specially designed HARMAN ISZ filter matrix. In addition, our patent-pending directional EDPL headliner speakers, which form a passive system, can cover the majority of the spectral audio range. Consequently, a complete system with system, headrest, and directional speakers is preferable, as it provides highly satisfactory CTC (Crosstalk Cancellation) covering the entire audio frequency band.