



1st March 2010

Harman International Automotive Division Presents the New, Scalable Infotainment Platform and a Harman Kardon® GreenEdge® Sound System Combined with Innovative HALOsonic™ Sound Synthesis Technology in the Rinspeed “UC?” Concept Car

- Modular architecture enables individually tailored solutions
- Innovative Flash HMI ensures maximum user comfort
- Harman Kardon® GreenEdge® sound system unites uncompromised sound reproduction with low-level energy consumption
- HALOsonic™ – Electronic Sound Synthesis (ESS) generates custom tailored engine sound for enhanced safety and driving pleasure

Send and receive e-mails in your car without a time lag, access your own music library from home online, reserve a parking space by Internet or book a train ticket without ever feeling you're on unfamiliar territory: Harman International presents the mobile infotainment and communication technology of the future with fast Internet access and excellent user comfort in the Rinspeed “UC?” concept car. The centerpiece of the powerful system is Harman's new, scalable infotainment platform that can be uniquely adapted to any vehicle type and offers maximum connectivity. Another highlight of the concept car: the ground-breaking high-performance GreenEdge® sound system from Harman Kardon®, which takes a unique approach in uniting the objective of uncompromised sound quality with the demand for maximum energy efficiency. In addition, innovative HALOsonic ESS technology generates custom tailored engine sound in and out of the otherwise almost completely silent electric car to ensure safety for pedestrians and cyclists alike, while also offering passengers a authentic driving experience.

Rinspeed's Urban Commuter "UC?" (meaning: you see?) is a completely new concept in zero-emissions mobility for the future. This compact electric car for urban use measures only 2.5 meters long and can be combined with a rail transport system to enable longer distances to be covered using the existing rail network, also using an electric drive mechanism, which is good news for the environment. It would even be possible to recharge the batteries of the "UC?" during transportation, enabling the car to rejoin the city traffic at its destination with optimum fuel range.

In order to ensure a smooth combination of the different modes of transport while achieving maximum energy efficiency, the Automotive Division at Harman International has equipped the innovative two-seater with the latest infotainment and sound technology, already providing an impressive demonstration of the attractive systems which Harman, the leader in infotainment and sound technology, will offer drivers in the future and what visions are being pursued.

Excellent Connectivity with Maximum User Comfort

Thus, the "UC?" has powerful broadband access to the Internet. For example, the driver could use the online search function to check out the next long-distance connections and order train tickets for himself and his vehicle directly – all while on the move. The system could provide the driver with active support during the process; including calculating the time required for road and rail travel as well as the time it will take to get from the station to the final destination, thereby guaranteeing optimum travel logistics. All functions may be voice controlled to ensure both a safe and informed driving experience.

At the same time, the system could also allow access to a virtual media storage solution. This means that passengers in the "UC?" could access their remote personal data, e.g. from home or the office, at any time, simply calling it up from the Internet by means of an Internet connection. In addition, it would be possible to use all the applications of a smartphone with ease. One of the USB interfaces could be used to connect smartphones, enabling their applications to be reproduced and used on the 6.5 inch display. Thanks to the high-performance platform, it would also be possible to exploit all other modern communication channels, such as Twitter, Facebook or Newsticker. Drivers and passengers could also enjoy a range of Internet radio services.

The new, scalable infotainment platform from Harman also integrates an environmentally responsible navigation system that includes "econo-route" guidance option provided by a routing algorithm specially tailored to calculate the route that will expend the least energy in reaching the destination; thereby minimizing emissions and, at the same time, increasing the car's fuel range.

Specially Adapted Harman Kardon® GreenEdge® Sound System

To ensure the best possible entertainment while on the move, the “UC?” includes a high-performance Harman Kardon® GreenEdge® sound system: the GreenEdge sound system, which is specially adapted for the Rinspeed “UC”, requires far less energy than conventional systems. The optimum combination of low current demand, light weight materials and custom designed high-efficiency amplifiers and sound transducers ensures maximum energy efficiency, while at the same time producing an uncompromised authentic sound with amazing dynamic range.

In the “UC?” a total of six Harman Kardon® high-performance loudspeakers are controlled by a high-efficiency Class D amplifier with Harman output end stages. This amplifier achieves an overall efficiency of over 90 percent compared with 35 to 50 percent in conventional models. One positive side effect is the fact that cooling requirements can be virtually eliminated since almost no inefficient heat is generated. That’s why an optimized lightweight housing can be used instead of solid cooling elements, further reducing the weight. Harman’s experts have chosen a discrete, space-saving position for the amplifier on the driver’s side, under the instrument panel. This means that there is no compromise in terms of the available luggage space.

The compact, high-efficiency loudspeakers also make an important contribution to energy savings: with much lower input power, they ensure loss-free and yet more dynamic sound quality. The speakers are designed for maximum sensitivity and when used in combination with the Harman class D amplifier, offer unprecedented acoustic dynamism.

HALOsonic™ – Sound Synthesis Ensures Safety and Driving Pleasure

The electronically generated engine sounds are a revolutionary advanced feature of the “UC?": two high-efficiency speakers specially developed for the exterior of the car are used to play back the dynamic engine sounds generated by the ESS algorithm. Customer tailored sounds ranging from the classic combustion engine to attractive, futuristic sounds can be made available. Pedestrians, children at play or cyclists who wouldn’t normally notice the almost silent “UC?” without the external ESS, can now be made aware that a car is approaching by means of synthetic “engine sounds”.

The synthesized electronic sounds increase driving pleasure inside the car and establish the familiar link for passengers between the tactile, visual and auditory driving experience.

The custom tailored internal engine sound is generated within the “UC?” via the Harman Kardon® GreenEdge® audio system, offering perfect integration without adding weight or requiring additional hardware.

The range of services of the Harman International Automotive Division includes the development, design and production of pioneering state-of-the-art systems for audio, entertainment, information and communication technology for the automobile industry. Harman International Industries Incorporated (www.harman.com) develops, produces, markets and distributes a wide range of high-end audio and infotainment systems for the automotive, consumer and professional sector. Harman International is well-established in North and South America, Europe and Asia and employs around 10,000 people worldwide. The Harman International family includes well-known brands such as AKG[®], Audioaccess[®], Becker[®], BSS[®], Crown[®], dbx[®], DigiTech[®], DOD[®], Harman Kardon[®], Infinity[®], JBL[®], JBL Professional[®], Lexicon[®], Mark Levinson[®], Revel[®], QNX[®], Soundcraft[®] and Studer[®]. Its shares are traded on the New York Stock Exchange under the code "HAR".

For further information please contact:

Christine Och

Global Communications & PR

Harman International Automotive Division

Telephone: +49 (0)7248 / 71 - 1272

Fax: +49 (0)7248 / 71 - 1896

E-mail: christine.och@harman.com

AKG, Audioaccess, Becker, BSS, Crown, dbx, DigiTech, DOD, Harman Kardon, Infinity, JBL, JBL Professional, Lexicon, Mark Levinson, Revel, QNX, Soundcraft, and Studer are trademarks of Harman International Industries Inc., registered in the United States and/or other countries.

GreenEdge and HALOsonic are trademarks of Harman International Industries Inc.

Twitter is a trademark by Twitter, Inc.

Facebook is a trademark by Facebook, Inc.