

## **Zexel Valeo released car air conditioning system with Plasmacluster Ion®\* generator**

**TOKYO, Japan, 22 October 2003** – While traditional car air conditioners only cool and filter the air supply, a new air conditioning system with Plasmacluster Ion® generator developed by Zexel Valeo Climate Control Corporation, Nissan Motor Co.,Ltd. and Sharp Corporation of Japan, actually cleans the air of car compartment and leads to improved health and comfort in areas where air quality is suspect.

The system is based on Plasmacluster Ion® generator which can send both positive and negative ions into the passenger compartment to inactivate airborne microbes and fungi. In one experiment, the air-conditioner was run for one hour daily for two weeks, reducing bacteria and fungi in cabin by 90 percent. (This experiment is carried out by ZVCC) Valeo will display car air conditioning system with Plasmacluster Ion® generator at its stand (N703) at the Tokyo Motor Show from Oct. 22 – Nov. 5.

Since 2000, Sharp has developed its proprietary air purification technology called Plasmacluster Ion® Technology. This technology has been introduced in numerous home appliance products such as air purifier and air conditioner. However, the environment in car cabin is much severe than that of house and office. Adapting the system for cars required the expertise of Valeo's Japanese joint venture, Zexel Valeo Climate Control Corporation, and its customer Nissan, which offers car air conditioner with Plasmacluster Ion® generator as an option on the Nissan March.

A built-in Plasmacluster Ion® generator produces positive and negative ions from water and oxygen molecules in the air. When these ions encounter airborne microbes, fungi, viruses and mite allergens in the passenger compartment air, the ions form clusters around microparticles, react chemically with them, rendering them inactive.

The system includes an air quality sensor to detect pollution in the cabin and a control unit that starts the Sharp's Plasmacluster Ion® generator when the air conditioning fan turns on. Based on readings from the air quality sensor, one of two modes of ion generation is chosen: positive and negative ions are released in almost equal quantity when cabin air needs cleaning, and once clean, primarily negative ions are released to maintain air quality and freshness. An indicator shows which mode is in service.

Zexel Valeo Climate Control Corporation has rich experience and expertise in car air-conditioning field. Utilizing those experience and expertise, it developed air quality sensor, control unit and indicator which are reliable under severe conditions and join those devices into car airconditioner with Plasmacluster Ion® generator.

*Valeo is an independent industrial Group fully focused on the design, production and sale of components, integrated systems and modules for cars and trucks. Valeo ranks among the world's top automotive suppliers. The Group has 125 plants, 55 R&D centers, nine distribution centers and employs 67,000 people in 25 countries worldwide.*

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