

### **Announcement of Clarion Auto-PC**

A major technological highlight of fiscal 1997 was our announcement of the Clarion Auto-PC, a personal computer for automobiles incorporating software developed jointly with Microsoft Corporation. Based on Microsoft's Windows CE2.0 operating system, this product features a software platform with voice recognition capabilities and integrates audio and computer (including electronic mail and search functions), as well as navigation and wireless telecommunications technologies. We announced Clarion Auto-PC at the January 1998 Consumer Electronics Show in Las Vegas, where it sparked instant international attention. It will be launched in the United States after autumn 1998. We also plan to add Japanese-language and other new functions before releasing Clarion Auto-PC in Japan in the latter half of 1999.

### **Product Development**

In recent years, the car audio sector has seen a shift toward compact disc (CD) players offering excellent sound quality, as well as growing popularity of mini disc (MD) systems featuring digital sound and extra compactness. In the current fiscal period, Clarion has already released a broad variation of products, from high-end to medium-range items. These include additions of MD players with disc-changer functions to our ADDZEST series. In car navigation, we have developed a global positioning system (GPS) receiver unit in collaboration with Rockwell Semiconductor Systems of the United States. In developing this product, we succeeded in achieving considerably higher reliability and lower cost than previous models.

In other areas, our spectrum-diffusion wireless modems are being incorporated into automated ticket gate systems for lifts at ski resorts. These products are regarded as being the automated ticket gate systems of the future. Hereafter, we expect increased sales as these systems are adopted by various sectors.

### **Global Expansion**

In the car audio business, Clarion's fundamental policy is to undertake product development, parts procurement, manufacture, and sale in regions where demand for our products exists. In order to maximize the benefit of our global activities, we are building a regional headquarters system that separates the world into four parts, including Japan. We plan to establish an Advanced Technology Division in each regional headquarters to promote region-specific product development.

**The Americas:** California-based Clarion Corporation of America serves as our headquarters in North America, integrating Clarion Group operations in that region, including Mexico. It has also set up an Advanced Technology Division to develop products with leading-edge technologies, with the intention of being able to refine its own products for market introduction in the future.

In the United States, Clarion has acquired QS-9000 certification, officially recognizing the Com-

pany as a supplier of components to the Big Three automakers in that nation. This certification is a basic requirement for dealing with the Big Three and complements our efforts to obtain internationally recognized ISO9000 series certification for our quality assurance systems.

In Mexico, Electronica Clarion S.A. de C.V. assembles and ships our products. Recently, we established Precision Metal S.A. de C.V. in that country to manufacture metal parts for car audio systems. That company will commence mass production in August 1998, marking our accomplishment of an integrated production system, from parts manufacture to final product assembly, in Mexico.

We will also step up sales in Mexico, Brazil, Argentina, and other Latin American nations. Previously, marketing there was one of the responsibilities of Clarion Corporation of America, but it is now handled exclusively by Clarion Latin America Corporation, which we established in April 1998 in Miami, Florida.

**Europe:** Clarion Europa GmbH, based in Germany, will serve as our integrated European headquarters. It will also set up an Advanced Technology Division to pursue local product development.

In October 1997, we established Clarion Hungary Electronics Kft. in Hungary to manufacture and supply printed circuit boards and other electronic components for car audio systems to other Clarion Group companies in Europe, such as Clarion (G.B.) Ltd. and Clarion France S.A., as well as to make completed products. The new company is scheduled to start production in January 1999. As a result of this strategy, we expect to raise our price competitiveness from the viewpoint of European automakers and increase our share of the OEM market. We also aim to expand our share of the European retail market.

In addition, we are targeting increased sales of navigation systems in Europe. A road traffic information system is currently under development in Germany, and this will be expanded in the future to cover the integrated European Union. We intend to reinforce sales of our navigation systems in line with these developments. We expect that our high-technology products will have an impact on the European market.

**Asia:** In other Asian nations, Malaysian-based Clarion (Malaysia) Sdn., Bhd., has successfully generated OEM orders to supply car audio equipment to Malaysia's national automaker, for automobiles to be exported to Europe. Deliveries will start in October 1998.

Responding to anticipated major demand growth in China, in May 1998 we established Xiamen Clarion Electrical Enterprise Co., Ltd., to manufacture car audio equipment and conduct related R&D and design. The new company is building a production plant, scheduled to become operational in October 1998. It has already started R&D and design activities, employing young engineers locally.

In the Philippines, we maintain a production operation that outputs 1.2 million car audio units annually for supply on an OEM basis.