

NAIAS 2010

Contact: Bridgette L. Gollinger
(248) 372-8266
bridgette_gollinger@denso-diam.com

Remote Touch Controller

- A user-friendly human machine interface -

According to various studies, a vehicle going 70 mph travels approximately 100 yards each second. To put that into perspective, if drivers take their eyes off the road for about a second-and-a-half, they will have driven more than the length of a football field. To help reduce the time a driver's eyes are off the road, DENSO has developed a new user-friendly, human machine interface (HMI) called the Remote Touch Controller.

The device, similar to a computer mouse and located in the vehicle's center console, allows drivers to remotely control cabin equipment, such as in-vehicle navigation, stereo and other controls. The new controller has a mouse-like pointing device that moves a two-dimensional cursor on the display screen to select buttons, icons, and other interface elements. A two-dimensional cursor allows the user to achieve diagonal motion (free motion in both x and y directions simultaneously). Otherwise, the user could only move or scroll in one direction at a time (not simultaneously).

DENSO's Remote Touch Controller also has two electric motors that simulate a "clicking" feeling as if the cursor is being drawn toward the target button when moving the cursor closer to the graphical symbol on the display. The motors simulate the feel of running your finger over button(s). This allows easier operation without the need to look at the screen for confirmation of location. The feeling is as though you have settled on a button when you are at the appropriate location. This more user-friendly HMI allows drivers to remotely operate cabin equipment more easily and accurately, helping to ease driver workload.

DENSO's Remote Touch Controller is the world's first such controller for vehicles with a two-dimensional cursor on the display screen. The new controller is installed on the Lexus RX, which Toyota Motor Corporation released in Japan in January 2009 and in the United States in February of the same year.

To further diffuse this product in the market, DENSO is currently working to reduce costs and improve driver usability and convenience by expanding its operation to portable consumer electronics devices.