Press Releases

PREH HIGHLIGHTS TOMORROW'S INTERIOR TRENDS AT IAA 2017 EXHIBITION

Concept study for the center console of the future

Frankfurt a.M./Bad Neustadt. Preh GmbH will be presenting a new concept study at the IAA 2017 which forecasts the technological trends that will shape vehicle operation in the coming years. The central console study shows how the increasing digitalization of future automobile generations could change control systems and further optimize comfort and safety. At the same time, Preh combines the user-friendly operating habits of smartphones with safety requirements during the journey, for example in heavy traffic or at higher speeds.

Jochen Ehrenberg, Preh Chief Technology Officer (CTO), said: "In the future, we will move further away from classic car driving and total concentration on traffic conditions to highly automated or, later, even autonomous mobility. We are taking these scenarios into account in our current concept developments, as well as the medium-term production requirements of vehicles which still do not move independently."

The concept study takes into account the trend that control solutions with touch functions are becoming more and more popular compared to conventional switches. By making use of active haptic and acoustic feedback, however, maximum safety is ensured when selecting functions. In addition, the hand or fingers must apply specific pressure to select or adjust functions.

Excellent optics – excellent haptics

Market studies show that for car buyers, the quality and ease of use of a vehicle's interior are a decisive factor in differentiating one car from another. The new Preh study is therefore high-quality, functional and clearly structured.

Initially, the viewer looks at a surface of black glass or exclusive wood optics. This user interface, which is designed without buttons, is complemented by two rotary knobs. "This means we can retain existing user habits while at the same time offering the user an excellent haptic highlight with the rotary knobs", says Preh's CTO Ehrenberg.

Overall, haptics are one of the strengths of the Preh study because the center console's user interface is pressure sensitive. This results in several advantages. The buttons can be programmed at any desired point, which gives haptic feedback during operation. Whether by pressing such a button or a classic switch – there is hardly any difference in the driver's perception.

Another special feature is the upper rotary knob. It is ring-shaped and designed in such a way that it could only be affixed by glue. As a result, the inner area of the ring is unobstructed

and allows the driver to look at the display, which can show changing content within the rotary knob. This opens up new possibilities for car manufacturers to meet specific customer requirements with maximum flexibility. Several rotary knobs, for example, can also be installed on a touch surface, which provides almost unlimited freedom in the design and arrangement of the operating elements.

“Rotary knobs give a good orientation, feel good, and work with the usual rotary mechanics complemented by noticeable detents. The second mounted rotary knob in our concept console has been designed so that it can be moved vertically, which allows the driving mode to be selected in vehicles with automatic gearboxes”, says Jochen Ehrenberg in explaining the advantages of the new concept. This is already a step into the future, where no gearboxes will be needed for future electric cars and only the direction of travel has to be selected, according to the Chief Technology Officer.

In the display area of the new “Center Console Concept”, two displays are positioned which are not used to select functions. With regard to ergonomics, no classical touch control is appropriate here. Instead, the driver can move information between two displays with simple swipe movements, for example to view navigation maps. With a simple touchless right-to-left swipe gesture, information can be moved from the central display to the instrument cluster, where it appears at a reduced size. These gesture controls are already used to an extent in series production luxury vehicles. New to the Preh concept is that when a hand approaches the monitor, it is detected via a cost-efficient infrared sensor instead of a comparatively expensive high-resolution camera.

“In the medium term, we also intend to offer this technology in medium-sized vehicles. And due to the affordability of the infrared sensor, we do not have to limit ourselves to the top models of the respective manufacturers”, explains Preh CTO Ehrenberg.

About Preh

As a globally active automotive supplier, the Preh Group has more than 6,000 employees and sales of significantly above one billion Euros. Preh was founded in 1919 in Bad Neustadt a. d. Saale and has been part of the Joyson Group since 2011. The development and manufacturing competencies of Preh in particular include HMI systems for cars and utility vehicles, infotainment and connectivity solutions as well as E-Mobility control units.

Within the Joyson Group, Ningbo (China), which was founded in 2004 by Jeff Wang, Preh is the Division Automotive Electronics. Joyson is now one of the 100 largest automotive suppliers worldwide.