

January 6, 2016

**Digital Cockpit featuring All in One Head Up Display (HUD) System
with McLaren Automotive (UK) 675LT supercar
is showcased at 2016 International CES JVCKENWOOD Booth**

At 2016 International CES, one of the world's biggest consumer electronics shows, to be held in Las Vegas, U.S.A. from Wednesday, January 6 to Saturday, January 9, 2016, JVCKENWOOD Corporation ("JVCKENWOOD") will showcase a transformative Digital Cockpit Experience, with a concept vehicle specially designed for CES in collaboration with McLaren Automotive.

1. A long established relationship

Having signed an official supplier contract in 1991, KENWOOD has been supplying radio communication system to McLaren teams for more than 24 years and over 400 races. Since then, both companies have established a close relationship together, making KENWOOD's partnership as the longest one McLaren has ever had with a Japanese company.

2. A Concept vehicle to best demonstrate All in One Head Up Display (HUD) System

Design Concept

For its collaboration with JVCKENWOOD, McLaren began with a 675LT Coupe prototype vehicle. The 675LT, which recently went into production at McLaren's state-of-the-art production facility in Woking, England, is the most driver-focused, lightest and aerodynamically optimized model in the Super Series family. Strictly limited to 500 units, all sold out within a matter of months.

The McLaren Design team, led by Designer Peter Wilkins, was tasked with incorporating the JVCKENWOOD CAROPTRONICS system into the 675LT. Working closely with JVCKENWOOD's Japan-based team, they focused their attention on the interior of the 675LT. The interiors of McLaren's road cars are purposeful, minimalist environments and the 675LT's, with its emphasis on weight savings, is the most extreme of all. This made it the ideal starting point for the McLaren 675LT JVCKENWOOD Concept.

To incorporate JVCKENWOOD's technology, the team created a layered and panoramic yet purposeful interior using a mix of classic McLaren materials and innovative new fabrics. The result is still recognizable as McLaren, but takes interior design a step forward. Carbon Black Nappa Leather is used to finish the top of the bespoke dashboard, upper beltline and forward portion of the central floor tunnel. A new Geometric Black Technical Fabric with a waxy grained finish to prevent reflections is applied to the area in front of the driver. This is then positioned to appear as if it's floating by a strip of Satellite Grey Technical Fabric across the dash area and into the doors. The usual center console is removed altogether with the air conditioning system, a delete option on the 675LT, to offer an even more spacious feel. The steering wheel is borrowed from McLaren's most exclusive model, the track-devoted McLaren P1™ GTR, with IPAS and DRS buttons replaced by positioning controls for the HUD with fighter plane inspired graphics. The HUD makes conventional instruments redundant, which are replaced by a vent framed by satin carbon fiber to provide cooling air directly to the driver. A flash of color is provided by Calypso Orange anodized vertical strakes, a color and material that also surrounds the car's emotive start/stop button.

Calypso Orange Nappa Leather is applied to the bolsters of the 675LT racing seats and to the armrests around the hip point. These disappear out of sight once the driver is seated to give a focus on driving. The orange accent chases the eye down through to the tunnel-mounted leg restraints. Further flashes of orange appear on the seat shoulders for the seat belt guides. For the seat backs, center of the tunnel and armrests, more Satellite Grey Technical Fabric is employed. The seat center and floor mats, complete with 675LT logo, are covered in hard wearing Strata Ribbed Textile, a new material for this concept car. Above the driver sits the monitor for the Digital Rear View Mirror (DRVM). It has been integrated into the Carbon Black Nappa Leather

headliner and framed with Deep Cobalt Blue stitching that continues back across above the driver and passenger.

The already dramatic exterior of the 675LT Coupe is little changed. Key functional differences are the door-mounted rear view camera blades and third camera mounted above the rear number plate with its housing painted Palladium Grey. More visible are JVCKENWOOD silver racing stripes that start from the front hood-mounted McLaren badge and continue over the car's roof to finish ahead of the Airbrake. The stripes are also applied to each side of the 675LT where they disappear into the air ducts. The silver contrasts against the Concept's black paint and provides a visual link to the Diamond Cut 675LT alloy wheels, as well as the part-grey theme of the interior.



McLAREN 675LT concept vehicle



Digital Cockpit featuring All In One HUD system image

JVCKENWOOD's concept vehicle demonstrates "CAROPTRONICS" technology and efficient solutions to provide enhanced driver safety and security:

1. HUD replaces Conventional Instrument Cluster.

Driver gets all necessary information from the HUD (Head Up Display) with very little eye movement compared to conventional instrument cluster. The advantage for the driver is that his eyes do not need to refocus to view the outside after looking at other nearby instruments. The concentration on the road is optimal, contributing to control, safety and security.

2. Aerodynamics Digital Cameras replaces optical side mirrors.

The original design of these electronics mirrors help to reduce weight, air resistance to improve fuel efficiency but also down force at high-speeds.

3. DRVM replaces Conventional Center Mirror.

The combination of 3 cameras (from each sides and rear) offers a wider rear view in one single eye spot. DRVM is very effective at reducing blind spots thanks to High Resolution image and optimise driver's control.

3. JVCKENWOOD, Solutions for Automotive

JVCKENWOOD is one of the few manufacturers of professional equipment that retains all necessary core technologies within its Group. These collect and communicate information, and are applied in sensing devices such as cameras and sensors (CAROPTRONICS), as well as advanced driver assistance systems (ADAS), which detect the presence of vehicles, and display interface devices, which communicate information collected to drivers. JVCKENWOOD also develops and provides Infotainment, Audio and Car navigation systems that provide security and excellent comfort for an ultimate driving pleasure.

Based on this strength, JVCKENWOOD is engaged in development of the Digital Cockpit System. With the diffusion of these innovative driver assistance systems among road vehicles manufactured by various auto makers, JVCKENWOOD aims to achieve a motorized society characterized by safety and peace of mind.

What is i-ADAS?

With the launch of innovative Advanced Driver Assistance System (i-ADAS) Business Taskforce in July 2013, JVCKENWOOD created CAROPTRONICS^{*1} field by integrating the strength of both Car Electronics (car navigation devices, car audios, etc.), its largest business field of JVCKENWOOD, and OptoElectronics (video cameras, projectors, etc.), focusing on the development of Digital Cockpit Systems such as Head-Up Displays, Car-Mounted Full HD Cameras, Digital Instrument Cluster Meter Display and Digital Mirrors. Thus, JVCKENWOOD has enhanced initiatives with the aim to realize a motorized society with safety and peace of mind.

*1: Named by JVCKENWOOD for in-car devices using opto-electronics technologies. (Trademark registration pending in Japan, the United States and elsewhere)

For further information, please contact

Public and Investor Relations Department, Corporate Communication Division, JVCKENWOOD Corporation
3-12, Moriya-cho, Kanagawa-ku, Yokohama, Kanagawa 221-0022 Japan
Tel: +81-45-444-5232

The above announcement is that initially released to the press, and it may not reflect the latest information.



JVCKENWOOD Corporation (JVC KENWOOD), Victor Company of Japan, Limited (JVC),
Kenwood Corporation (KENWOOD), and J&K Car Electronics Corporation (J&K Car Electronics)
has merged to form a new company on October 1st, 2011.