

Screen time

The latest generation of advanced driver assistance systems (ADAS) is impressive but, as some of the technology is windscreen-mounted, recalibration is an issue that needs to be managed, finds John Challen

Like all new technologies, camera- and sensor-based safety systems are excellent as long as everything is working perfectly. However, operators should be aware that issues arising with windscreens that require a replacement – such as chipped or smashed glass – can take the vehicle off the road until components can be permanently reinstalled and the system recalibrated. The work needs to be carried out by a specialist technician who has undergone the necessary training.

Richard Billyeald, Thatcham Research chief technical officer, comments: “As ADAS continues its ever increasing penetration into the car parc, the lack of a clear approach to the repair of ADAS-equipped vehicles is having an effect across the whole repair industry. For their own peace of mind, insurers and repairers need proof that they have taken all reasonable steps to reinstate the safety functions of a vehicle before returning it to the road.”

He adds: “The whole industry needs to work together to make sure ADAS repairs are safe and vehicles are returned to the road quickly and efficiently. Equipment suppliers must ensure that verifiable evidence of a successful calibration is provided. Repairers must invest in training to ensure competent persons are reinstating ADAS safely. And vehicle manufacturers must provide ADAS fitment data and consistent advice around which repair scenarios will result in successful ADAS calibration.”



In the passenger car market, these systems have been deployed for some time and are now available on a wide range of vehicles. There, the situation is being managed well. Service providers have responded to increases in demand by expanding facilities, and technicians have plenty of opportunities for training. But in the CV world, there isn't the same level of service, and only now is the industry seeing more companies offer recalibration for these systems.

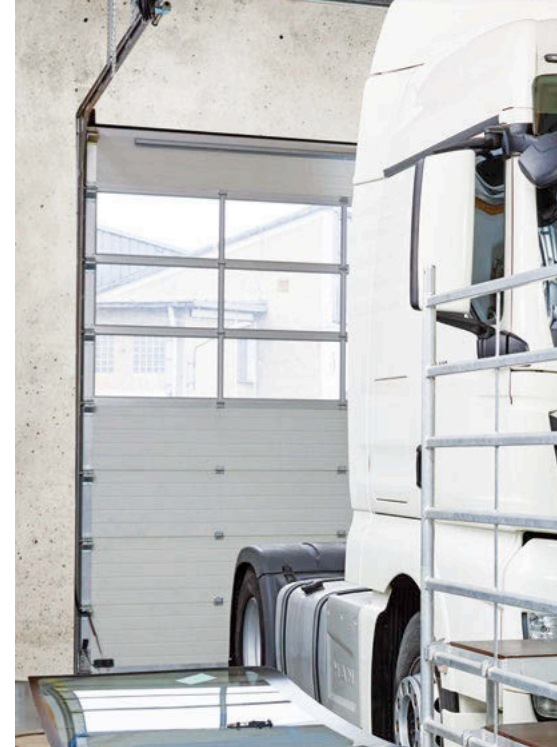
PASSENGER-ONLY?

The Institute of the Motor Industry (IMI) states that its ADAS calibration accreditation was developed for the light vehicle industry and not specifically with trucks in mind. However, given that the sensor technology works on the same basis for

all vehicles, using LIDAR to receive the necessary information for the ADAS to function, the same actions should apply to the heavy end of the market.

Within the IMI's AOM230 qualification (Advanced Driver Assistance Systems – Calibration), technicians must demonstrate the ability to identify and correctly interpret information relating to a specific vehicle and its ADAS features to determine which method of calibration is required.

The outline continues: “The module also assesses the technician's ability to identify/locate and follow software-specific recalibration methods during the assessment process. They will also be required to use the correct tools and equipment in order to demonstrate their ability to calibrate





two ADAS sensors on a vehicle with a minimum of two operating systems.”

To ensure that standards are upheld when it comes to ADAS calibration, the likes of Auto Industry Consulting, Belron, Nationwide Accident Repair Services and Thatcham Research were involved in the development of AOM230. It is currently open to technicians already working in the automotive sector who have relevant diagnostic experience to ensure that they are familiar with the skills, knowledge and techniques required to calibrate ADAS systems.

One of the companies offering a

recalibration service for trucks in the event of an incident or accident is WabcoWürth. It says that it aims to make the process as straightforward as possible, while working around the operator. Together with German vehicle glass training centre ASC, it offers a mobile solution that consists of a corresponding optical adjustment device with reference panels and WabcoWürth’s ‘W.EASY’ multi-brand diagnosis unit (pictured).

REQUIREMENTS

The complexity of calibrating systems such as rain sensors and lane

departure warning devices means that corresponding optical adjustment devices and reference panels are typically required, together with a diagnostic device. However, ASC and WabcoWürth claim they have overcome this problem by developing equivalent elements that can be set up in the workshop, on site or out on the road.

The diagnostics package for windscreen services comprises the hardware for calibration, all packed in one case. The diagnostic case includes the W.EASY Box 2.0, the required cable and other additional accessories. It also offers the Panasonic CF-54 ruggedised laptop as an input device.

The diagnostic device allows calibration to be carried out on trucks from all major commercial vehicle manufacturers. On completion of the job, a diagnostics report can be printed and presented to the insurance company to ensure legal coverage for the driver and operator when back out on the road. WabcoWürth says that because it offers a mobile service, the inconvenience to operators is limited as well as vehicle downtime reduced. **TE**

RESPONDING TO ADAS RECALIBRATION DOUBTS

According to Thatcham Research, vehicle repairers should carry out a number of actions to ensure safe repairs involving ADAS. Its checklist is below (see also web link below).

- Assess [the vehicle] for the presence of ADAS sensors, and record the outcome clearly
- Research and seek guidance from relevant repair methods and calibration instructions
- Ensure all calibration activities are completed by currently competent technicians
- Complete system calibration in accordance with the relevant repair method/instructions
- Be able to demonstrate that the calibration of all affected sensors has been completed and that the results of the calibration confirm functionality within the vehicle manufacturer’s specified tolerance – unless stated otherwise in the repair specification
- Where no specific repair guidance exists, and functionality cannot be proven through [systematic] calibration, then advice should be sought from the vehicle manufacturer’s dealership network and appropriate action taken prior to vehicle release
- If vehicle manufacturer information states dynamic calibration, this should be completed and confirmed prior to vehicle release.

FURTHER INFORMATION

Thatcham Research view – www.is.gd/pesaye
 Manual ADAS recalibration (video) – www.is.gd/ucelen
 IMI AOM230 qualification – www.is.gd/jatuge