



In collaboration with ADAS Repair Group Members

Code of Practice

For the Replacement & Refitting of Automotive Glazing for vehicles fitted with screen mounted Advanced Driver Assistance Systems (ADAS)

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ADAS Repair Group Members

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1.0 Foreword

The current new UK specified vehicles coming on to the road, are fitted with a wider range of advanced driver assist systems (ADAS). These systems rely on monitoring the environment around the vehicle, typically using radar/ camera/ laser and infra-red sensors, which can be mounted on the windscreen or body of the vehicle.

Examples of these systems include:-

Lane Departure Warning (LDW)

Auto Braking (AEB)

The group recognise the proven benefits of these systems when fitted. However this Code of Practice (COP) has arisen from the concerns of the automotive glazing industry and the body repair sector have regarding the level of industry knowledge around the recalibration of these systems.

It is the recalibration of these systems after the refitting of windscreens that this COP seeks to provide current best practice guidance.

This guidance document has been authored by the ADAS Repair Group, the members of the group are made up of representatives that have been drawn from all aspects of the industry as listed above.

The UK is unusual in Europe in having the majority of replacement screens being carried out by mobile screen fitting services.

The industry message as to what to do with these systems is very mixed with technological development happening at a pace. Currently there are two types of calibration identified, static and dynamic.

Descriptions of these can be found in the definition section of this document.

It is essential that during windscreen replacement the vehicle manufacturer's recommendations are followed to reinstate the correct operation of these ADAS systems to ensure that the safety of a vehicle is not compromised.

This is a "best practice" advice document designed to inform and assist. However, repairers must rely on their own experience and expertise in undertaking work, with a duty of care to follow any vehicle manufacturer's guidelines concerning system recalibration. No liability shall be accepted by the ADAS Repair Group or any of its members in connection with this document.

2.0 Scope

To set out best practice for carrying out windscreen replacement on vehicles fitted with screen mounted ADAS sensors.

To ensure correct operation of the ADAS sensors after replacement / refitting of the windscreen. In the cases where calibration cannot take place at the point of replacement, detail what actions should be undertaken to inform the Customer of the status of the systems and what actions should take place to reinstate the ADAS correct function.

3.0 Terms and definitions

Windscreen - Predominantly referring to but not exclusively limited to the front windscreen.

ADAS - Advanced Driver Assistance Systems are systems developed to automate/adapt/enhance vehicle systems for safety and enhanced driving.

Static Calibration - Calibration of windscreen based ADAS sensors by use of a Calibration Tool which may include, aiming targets, wheel alignment equipment and or diagnostic tools. The process is carried out without driving the vehicle.

Dynamic Calibration – Calibration of windscreen based ADAS sensors by means of driving the vehicle on the road following the vehicle manufacturer's prescribed method. May require diagnostic tool to perform this operation.

Diagnostic Tool - A tool used to interface with, diagnose and, sometimes reprogram or initialise vehicle control modules via the OBD port on the vehicle.

Calibration Equipment - Equipment used in conjunction with a diagnostic tool to meet the manufacturer's calibration recommendations. Typically this could be aiming boards or wheel alignment equipment.

Customer – owner of a vehicle or owner's agent authorised to instruct repairs.

Sensor – Typically either a LIDAR, RADAR, camera or infrared device that monitors the environment around the vehicle.

4.0 Replacement Process

This is a recommended process that should be followed when fitting or refitting windscreens.

4.1 Understanding

- a) Understand as to whether the vehicle has ADAS applications fitted.
- b) Determine which ADAS function(s) require sensor calibration. Determine what type of calibration is required for the systems: i.e. static, dynamic or combination of these.
- c) Determine the required methods and equipment.

4.2 Awareness

- a) Ensure that customers are aware that they have (or potentially have) a vehicle that has ADAS features loaded.
- b) Ensure that the customer is made aware of the need for the sensor being calibrated in accordance with vehicle manufacturers' instructions (if they have the ADAS function loaded) after the windscreen is changed.
- c) Ensure that customers are aware that the function may be impaired and they should not rely on the operation of any ADAS after their windscreen is changed until the system is calibrated.
- d) Make it clear to customers (i) whether you can calibrate their ADAS sensor system either using your own technology or by using a sub-contractor; (ii) that otherwise they will be responsible for

getting the system calibrated using, for example, their local dealership; and (iii) that they may be held liable if any event occurs resulting from their failure to calibrate. Provide customers with a written communication about their vehicle's ADAS technology, setting out the following facts, namely (i) the need for calibration (including how their system will be calibrated if undertaken or managed by you as the service provider); (ii) the need to get the system calibrated themselves if you are unable to calibrate their ADAS sensor as part of your service; (iii) that they should not rely on the correct functionality of the ADAS system unless/until the system has been successfully calibrated; (iv) that they may be held liable if any adverse event occurs as a result of their failure to calibrate; and (v) their insurance company should be notified of the position.

4.3 Scheduling the job

- a) Vehicles that require Static Calibration will need to be booked into an appropriate facility.
- b) Make sure that the screen being ordered/fitted meets the right optical quality for the ADAS system to work as the Vehicle Manufacture intended.
- c) Make customers aware if the vehicle requires Dynamic Calibration their vehicle will need to be driven on public roads in order to complete the calibration service.
- d) If the calibration cannot be carried out at the time of the windscreen replacement service an alternative date/appointment may need to be scheduled.
- e) Ensure that the correct calibration technology which includes the Diagnostic/Calibration Equipment is available at the time of service.

4.4 Performing the job

- a) Pre-inspection – use Diagnostic Tool.
- b) Make customer aware of non ADAS fault codes.
- c) Calibration should only take place once the vehicle has achieved the adhesive system's minimum drive away time (MDAT).
- d) Calibrate system as appropriate.
- e) Print the calibration certificate.
- f) Provide the customer with a copy of the calibration certificate and retain a copy of the calibration certificate for your records.

4.5 Calibration solution

- a) For in house calibration you will need to invest in the appropriate Diagnostic Tools and Calibration Tools to calibrate the typical range of vehicles serviced by your business.
- b) In many cases the customer vehicle will need to be driven to undertake a Dynamic Calibration. In all such cases ensure that your technicians are insured to drive vehicles on public highways.
- c) For vehicles outside your own calibration coverage capabilities you will need to identify sub-contractors capable of undertaking the calibration service and ensure a contract is in place to ensure they bear legal responsibility for the calibration service.
- d) If you choose not to invest in your own calibration technology you will need to identify sub-contractors capable of undertaking the calibration service and ensure a contract is in place to ensure they bear legal responsibility for the calibration service.
- e) If you choose to use a sub-contractor for calibration of an ADAS system you may manage the whole process including delivery and picking up of the car from the sub-contractor. In this case you will provide the customer with a calibration certificate as above.
- f) Where you do not undertake the calibration for your customer you will need to make them aware of the need for calibration, offer them the contact details of a suitable sub-contractor and then issue them with a written document that they must sign that makes them aware of the risk of relying on the correct functionality of the ADAS system until the system has been calibrated.

4.6 Pricing of the calibration service

- a) Calibration is a process mandated by the vehicle manufacturers and additional to the normal windscreens replacement job.
- b) Have a clear calibration pricing policy to ensure that there is no ambiguity about what the insurer, fleet or lease or driver will be paying for the service.