

Damaged Analysis for ADAS Identification and Calibration Requirements

Advanced driver assistance systems (ADAS) can include a rear camera, rear parking sensors, 360° camera system, blind spot detection, lane departure warning, adaptive cruise control, and other forms of collision warning. Not only is it important to be able to identify these systems, but it is also important to understand the calibration requirements.



For the past several months, I-CAR and subject matter experts from vehicle makers, collision repairers, insurers, and tool and equipment makers have been meeting to develop, update, and publish an I-CAR best practice on Damage Analysis for ADAS Identification and Calibration Requirements.

1. Identify equipped Advanced Driver Assistance Systems (ADAS)
 - A. Using a factory scan tool
 - i. Identifies all modules and build data
 - ii. Will have current model year
 - iii. Can perform all program/scan/calibration/initializations
 - B. Using an aftermarket scan tool
 - i. Identifies most modules
 1. May not have coverage of most current model year
 2. May not be able to identify/communicate with all modules
 3. OEM may not test or approve aftermarket scan tools
 - ii. Can perform many program/scan/calibration/initialization procedures
 1. Dependent on scan tools capabilities; a robust scan tool can do most program/scan/calibration/initializations, while a code reader will not have the capabilities to perform any program/scan/calibration/initializations
 - C. Using OEM repair information and VIN build data
 - i. Not all OEMs have build data in non-dealership information
 - ii. Not all OEM build data terms mirror repair information terms
 1. Some will have a sales designation for an ADAS that does not match the name in the repair information
2. Identify affected systems from pre-scan
 - A. Use DTC information
 - B. Flow charts
 - C. Part location diagrams
 - D. Physical damage to systems/parts/wires/mounting areas
 - E. Modules that are present, but unresponsive
3. Identify calibration requirements
 - A. RTS Calibration Requirement Search
 - i. Need OEM repair information to perform procedures
 - B. OEM information for procedures
 - ii. Special tools/targets/scan tool requirements/drive cycle requirements
4. Some parts may require in-process calibration to verify the system will be calibrated when repairs are completed
 - A. If mounting location is damaged/disturbed
5. Prepare for post-repair calibration and post-scan