

TECHNICAL REPORT

WHEN IS A SCAN TOOL REQUIRED?

Recently, two collision repair diagnostic experts suggested that 70% of today s collision damaged vehicles require some type of diagnostic work. That s a lot of vehicles!

Unfortunately, the question doesn have a simple answer. It will often be based on the age of the vehicle, the type and extent of damage, and which options the vehicle is equipped with (and their component locations). Collision repair professionals will have to apply a level of sound judgment to each vehicle that requires repairs; a scratch in the bumper cover of a late model vehicle won likely need diagnostic work performed, but a frontal collision with multiple airbag deployments likely will.

Similar to three-dimensional measuring and part removal, without a scan tool there may be hidden damage that can be seen. Using a scan tool will help you identify some of that hidden damage. If you be incorporated an otherwise robust blueprinting practice into the damage analysis process, you may want to add collision repair diagnostics into that process, when sound judgment suggests doing so. Checking for diagnostic trouble codes (DTCs) during blueprinting may help to avoid "time bandits" (extras parts supply and last minute outwork, etc.) later in the process.

It is important to note that many vehicle makers require calibration/initialization of advanced safety systems and driver assist systems following part replacement, regardless of the extent of damage. If the repairs being performed include the replacement of sensors, wires, computers, etc. the OEM service information should be referenced to identify if calibration/initialization is required. Many of today advanced vehicle systems won ill illuminate a malfunction indicator lamp (MIL), even if there is a fault in the system. The only way to ensure that these systems are free from DTCs would be to perform some diagnostic checks.

Although most often the body repair manual (BRM) states that when any calibration /initialization is required this should be carried out by an authorised dealership with the correct equipment, we also need to identify any damaged components at the time of preparing the original estimate so replacement parts if required can be ordered. However it appears that checking for damaged electronic components is most often done following the repair process and is perhaps too late to eliminate clogging up work flow and down time.

As vehicle makers add more and more electronic componentry to the vehicle we also need to keep abreast with what we should do when repairing the vehicle following a collision. We must also remember that a good amount of the electronic equipment installed in the vehicle is part of the vehicles safety system, and these

can have a good chance of being damaged or will have done what they were designed for and need replacing before recalibration/initialization can be done.

To ensure that collision repair facilities (if working with late model vehicles) keep up with these currents trends they need to start looking at yet another tool and the training on how to use it, if they are planning for the future.





Parts of this article is research by the I-CAR Repairability Technical Support (RTS) team August 2015



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