

# APD Scan Definitions

*APD Scan definitions are conditional, based on results or procedures needed. For pre-repair scans it would either be Quick scan or Inspection scan, both would not be needed as this is “either/or”. Completion scans includes programming and calibrations procedures as needed.*

## *Scan Definitions;*

### ❖ **Pre-Repair Scans, AKA (Pre-Scan)** ...Done before repairs, part of repair planning or blue printing

- Must be done before teardown during repair planning and estimating stage
- If vehicle teardown or disassembly has started additional fault codes (DTCs) will be introduced

### **QUICK SCAN (No Codes or Obvious Non-Related Codes, All Systems Clear) (No Warning Lamps On) (No Visual Air Bag Deployments)**

This is the most basic pre-repair scan. Applied when a vehicle does not display any warning lamps, symptoms or an obvious air bag deployment. Purpose is to check for codes in any system of a vehicle and what systems the vehicle is equipped with on its computer network. Scan remains a “Quick Scan” when results are “no codes in any system”, or codes read and defined are “obviously not related to collision damage”. The scan type changes to an **Inspection Scan** if trouble is found that requires further inspections, diagnostics or assessments. In addition, a service information review of the repairs for the vehicle will include identification of any required calibrations that will be needed as part of the repair process. (OCS, steering angle, park assist, object detection calibrations etc. etc.). All Information must be documented at this time.

### **INSPECTION SCAN (Codes or electronic trouble is present with vehicle) (Air Bag Deployment) (Warning Lamps on)**

This is beyond basic scanning. (More than just a scan with a code list) Applied when any warning lamps or messages are present, visible air bag deployments, inoperative systems, or codes found during a quick scan that did not illuminate a Malfunction Indicator Lamp “MIL”. Codes, data and electronic assessments take place and are evaluated by a diagnostic technician with knowledge of vehicle systems and access to service information. Recommendations for further on car inspection, circuit testing, or part replacement are made. If systems or faults are identified that require pinpoint diagnostic procedures, specialized vehicle set up, targeting, specialized tools and etc. This is identified and planned if a shop is not equipped for specialized procedures, sublet appointments and planning can be accounted for. All Information must be documented at this time

- If an Air Bag deployment has occurred the system must be evaluated to determine if all stages of multistage air bags have deployed or if live detonators are still present in deployed devices.
- Air bag module is evaluated electronically to determine if replacement is required
- Shop must review and follow service information instruction in conjunction with scan results
- Review of freeze frame or failure records are included when available

### ❖ **Diagnostic Scan**.....Done to solve or identify a specific problem, fault or symptom

- Applied during the repair process, or when additional trouble is found during completion scan, application is conditional
  - This type of scan applies in 2 different situations. This is a diagnostic procedure using a scan tool in conjunction with service information, schematics, and on vehicle inspections requiring scan data to identify trouble area.
1. A known problem that requires a scan tool to access data, troubleshoot, reset systems, program a replacement module etc. to proceed with vehicle repairs, a final completion scan will still be needed to clear codes, perform calibrations and verify repairs when vehicle assembly is complete before QC stage.
  2. When additional trouble is found during post repair scan that requires added on-vehicle repairs or pinpoint troubleshooting. If the shop is not staffed with the skill set or equipment (Test Lamps, Volt meters, etc.) to follow guided instructions, recommendations will be made to sublet the repair to a skilled equipped shop, dealership or specialized mobile technician

❖ **Post Repair Scans, AKA (Post scan) ... Done after repairs are complete and vehicle completely re-assembled**

**COMPLETION SCAN (Includes programming and calibrations) .....**

This is done when vehicle is completely re-assembled before final QC. Required for calibrations and/or necessary programming procedures, all systems check with all system code clear and/or system re-initializations. Verification of warning lamps and basic system functions with calibration procedures and scan results documented. (before and after code clearing) If additional trouble codes are found, meaning the procedures or repairs were incomplete due to, electrical connection issues or defective parts, the scan changes to a **Diagnostic Scan** and returns to repair for additional correction or on car troubleshooting.

**FOLLOW-UP SCAN.....**

This Type of scan is conditionally based and applies after or completion scan, final QC and road test are complete. Conditions below indicate when a follow up scan is needed. Completion scan results must be available for comparative purpose.

1. If a warning lamp illuminates during or after QC with road test  
There are several fault types that can be present that will not set a code with or without a warning lamp until the particular function is actuated. Examples are cruise control, evaporative emissions, cooling fans, HVAC functions, park assist objet detection etc.
2. If symptom(s) or function(s) is/are found to be inoperative during QC procedures.  
Windows, liftgates, lighting, passive entry etc. a follow up scan can show additional fault codes returning fault codes that were cleared during a completion scan session or live data review to assist in diagnosis.
3. If a concern is seen during a completion that warrants additional conformation by double checking the system with a follow up scan for verification purposes.

During a completion scan a follow up scan may be recommended base on the nature of repairs or procedures performed during completion.

4. If a customer returns with a warning lamp or symptom  
Some faults can take several drive cycles, key cycles or specific conditions before they will set. Additionally, other faults can occur or systems fail coincidentally after a repair. If pre-and post-scan processes with diagnostic and calibration procedures performed, conditions for a follow-up scans are rare.