

CDS and Remote web based diagnostics is addressing new technologies in today's collision repairs.

If you're in the business of repairing vehicles after an accident, you're either in, or soon will be in, the vehicle diagnostics business.

The proliferation of electronic components and data buses is forcing the collision industry to join the scan tool revolution. Approximately 67 percent of collision shops already own a scan tool.

Just 10 years ago, the average vehicle had one to three electronic control modules. By contrast, the 2008 F-150 Ford pickups have 20 control modules, 50 sensors and 40 actuators running on three data networks. Some luxury vehicles have more than 70 electronic modules on-board!

Some of the current and future systems out there:

- Collision avoidance
- Electronic steering
- Passenger presence
- Tire pressure monitoring
- Hybrid drive
- Electric drive
- Vehicle navigation
- Multiple restraint
- Memory positioning
- Parking assist
- Pedestrian detection
- Drowsy driver detection
- Eye tracking

Outsource or Invest?

Until now, collision repair shops have had two options to deal with complex vehicle electronics: outsource or invest. Outsourcing or subletting requires no investment in tools or training, and costs can generally be invoiced. However, costs can only be invoiced at face value, without any up-charge. With in-house diagnostics, you can charge for your time and increase your profit opportunities.

Outsourcing is problematic for several reasons:

1. Towing fees and increased rental car charges – insurers don't want to pay more.
2. More time – customers want their cars back quickly.
3. Ability – some mechanical shops aren't so savvy when it comes to "collision-induced damage."
4. Supplements – because diagnostic-related repairs aren't visible at the estimating stage, supplemental approvals for work and parts beyond the original estimate may be necessary –

which means more time.

Doing the Job Right

Sooner or later, you're going to have to acquire the tools, training and information to deal with these complex diagnostic and repair challenges.

You'll need a diagnostic tool that can read and clear diagnostic trouble codes (DTCs) beyond the standard OBD II-equipped vehicles (1996 and newer). These tools range in price and functionality, with the most basic only helping to diagnose emissions-related issues.

To date, there have been four main strategies for shops to complete the diagnostic process; purchase aftermarket scan tools, purchase OEM scan tools, call in a mobile specialist equipped for the vehicle needing diagnostics, or send vehicles to the dealership, each of which comes with a separate set of advantages and challenges: Aftermarket scan tools can be affordable but aren't always accurate; OEM scan tools are accurate but extremely expensive and limited to manufacturer line they were designed for. Outsourcing to the dealership or properly equipped mobile specialist offers quality information but can hurt cycle time and the bottom line.

In a perfect world, shops should be able to diagnose every vehicle using one affordable tool that provides OEM-level accuracy directly inside their own facility. It sounds like a pipe dream, but its possible today.

A new Internet-based diagnostic system called the **Astech**, developed by **Collision Diagnostic Services**. A tool that some repairers say is revolutionizing their diagnostic and electronics repair process. They're making faster, higher quality repairs, and saving money along the way.

Remote electronic diagnostics

The **Astech** is a Web-based system, so your shop's Internet must be operational for it to function; a CAT5 connection is required within 50 feet of a vehicle being serviced. In situations where the wired connection is unavailable, the **Astech** can connect using a hotspot cellular device paired with a wireless link adaptor or a Wi-Fi adapter. Services with this type of connection are limited to "non-programming" functions.

The only device a shop needs to operate remote diagnostics is the **Astech** system plus a minimum of business class internet access provided by the shop. The **Astech** provides shops with factory-level diagnostic capabilities for the most prevalent vehicles they repair. The tool currently covers Acura, Audi, BMW, Buick, Cadillac, GMC, Chevrolet, Pontiac, Chrysler, Jeep, Dodge, Ford, Lincoln, Mercury, Honda, Nissan, Infiniti, Lexus, Toyota, Scion, Mercedes-Benz, and Mini Cooper.

This tool and service gives shops service capabilities equivalent to more than \$170,000 worth of factory-level OEM diagnostic scan tools as well as technical assistance from our specialized master technicians at a cost of \$2,495 - a one-time fee with no annual updates for the operating system and a per service charge for master technician services. The current cost of the **Astech** diagnostic services with system scans or calibration routines is close to the national average of a 1 hour diagnostic charge from a dealership sublet visit for same and in many cases less.

How It Works

The vehicle diagnostic process through the **Astech** system takes only minutes for an initial full system scan, and requires minimal additional time from staff. Programming and diagnostic routines can be a bit more involved but still provides considerable time savings with the opportunity for the shop to keep these repairs and labor dollars in house.

Process:

When a vehicle comes in requiring diagnostic routines, or is ready for completion and calibrations, a shop representative goes to the **Collision Diagnostic Services (CDS)**, website; www.collisiondiagnosticservices.com and submits a service request. This request is received back at **CDS's** diagnostic center. The repair shop then connects the **Astech** to an internet source and the vehicle's OBD-II port, connects battery support (a charger/jump box or battery maintainer) to the vehicle's battery and turns the ignition key on with engine off. The vehicle's module information is then sent through the Internet to a team of OEM expert Master diagnostic technicians based in **CDS's** corporate headquarters in Jacksonville, Fla. The **CDS** technician will alert the shop by text message to the **Astech** or phone call if needed, that the diagnostic service is to begin.

The master technicians—who each specialize in certain manufacturers—perform a full diagnosis of every vehicle system and perform any needed scan tool procedures, (some procedures will require shop personnel participation to be completed.) Text messages to the **Astech** and/or a phone call will be made to the shop when vehicle procedures such as key cycles or visual inspections/confirmations must be made at the vehicle. After the scan and/or procedure(s) are complete the shop is notified it is ok to disconnect. A detailed, itemized report is e-mailed to the shop in about 30 minutes after the scan is complete. Verbal instruction of findings is usually given in advance of the written report. Meanwhile, your shop's technicians are free to attend to other business.

CDS recommends that shops perform at least two scans on a vehicle when conditions justify:

- **“Inspection Scan”** before vehicle disassembly to identify all system problems and codes that indicate repairs to be done or additional inspections. Identify latched codes if present and record history failure data with time stamps if available.
- **“Completion Scan”** post-repair, after all repairs are complete and vehicle is completely re-assembled to clear all codes that were set previous to repairs and those set from the repair process, then perform any required calibrations, initializations or programming from any replaced electronic controllers or controlled devices and to finalize the job.
- **“Diagnostic scan”** there will be instances during a completion scan that additional faults from the repair process or incomplete repairs are found that will require additional repairs or actions by the shop to correct, or when a known fault or symptom must be solved during the repair process. This type of scan also includes diagnostic instructions and testing procedures provided by the master technician operating the scan tool to the shop. Many problems are found and corrected while the vehicle is connected, other problems may require some vehicle disassembly or replacement of additional parts.

CDS's diagnostic center operates from 8:00 a.m. to 8:00 p.m. EST in order to accommodate business hours of shops nationwide.

Shops have made comments such as;

- “We no longer have to calculate ROI on the expensive OEM tools; the CDS diagnostic service can be billed out on a per vehicle basis. In addition, we don’t have to consider purchasing OEM-level devices for vehicle models we rarely work on.”
- “The price is good for dealership-level scans. We have blown a whole lot more money on other scanners that we never even use. This tool is a whole lot cheaper and very practical financially.”
- “We rarely have a reason to go to the dealership for most model vehicles any more, and we don’t have to worry about purchasing scan tool updates.”
- “Because OEM tools are so expensive and specific to manufacturers, we opted to purchase an aftermarket scan tool that covers a majority of the vehicles our shop repairs. The aftermarket tool worked to scan dash codes, but usually missed other electronic components in the car that don’t turn on malfunction lights such as Bluetooth or door locks. It was common to get to the end of a repair and realize that a certain component wasn’t working. Vehicles habitually had to be sent to the dealer at the last minute, a cost the shop often wouldn’t be reimbursed for because the estimate had already been uploaded and locked.”

These comments are notorious problems, **CDS** says. Aftermarket tools are limited in scope, and known for missing collision-related items on the perimeter of vehicles: parking sensors, blind spot protection, adaptive cruise control and adaptive headlights. In addition aftermarket scan tools lack programming and coding capabilities.

- “We no longer have to worry about repair quality, comebacks, and customer service or liability issues caused by inaccurate or incomplete information. We have a lot more faith in this tool regarding the accuracy and quality of information compared to any other option,”
- “We are in a rural area, many high end vehicles have to be put on a trailer and driven to another city for services, a one-day drive each way. It’s a cost of \$2,400, and adds at least three days of cycle time onto those repairs. And cycle time could be delayed even longer depending on the dealership’s work schedule.”
- “Avoiding dealerships has literally shaved multiple days off cycle time for every car that requires diagnostics. It’s also much easier to calculate and manage repair deadlines when you don’t have to deal with the variables of an outside business.”
- “We know every vehicle repaired should go through the diagnostic process. Although diagnosing every car is an essential precaution to guarantee a full repair, the effort also comes with a financial gamble.”
- “Insurers understand that anything we can do in-house, the better the process will be.”
- “The scan tools we have purchased in the past would provide us with a list of codes to address, but they didn’t break the problem down and highlight the specific steps to take during the repair. For example, if an airbag had deployed, the scan tool would only identify the fact that the vehicle needed a new airbag. It didn’t highlight each step to fix it, such as checking clock springs, checking steering columns or resetting sensors. We constantly had to do more research to identify the exact issue, and sometimes call the dealer for information,”

- “The scan report allows us to more easily document necessary work that the shop will perform which improves relations with insurance companies and justifies the charges.”
- “This process has allowed our staff to develop more complete repair plans. The shop has nearly eliminated situations when a code or light still exists at the end of the repair for an unknown reason.”

The average vehicle purchase today is comparable to purchasing a smart phone on wheels with ever changing and available features that allow the consumer to select from an array of on-board convenience and safety systems. These features and safety systems will be top of mind with the customer and immediately recognized if they become un-useable, un-stable or compromised as a result of a collision or an incomplete repair scenario.

Please do not hesitate to reach out to us for any additional questions or information. Please see below the link to a video on the Astech. We look forward to hearing from you.

<http://collisiondiagnosticservices.com/training.html>



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Remote diagnostics to help you put cars back where they belong.

