

Wheels: Dennis of Spring Valley writes with problems with his 1991 Chevrolet Corvette. It has been to a dealer two times and an independent service facility once for extensive work and yet, the idle is still not normal. Do you have any ideas?

Halderman: After studying your letter and copies of the invoices you sent, I was surprised that there is no indication that the computer scan data was checked. Your idle problem is often caused by a fault in the idle air control (IAC) or a bad engine temperature coolant (ECT) sensor. Both of these units can best be checked using a scan tool. A scan tool is so important today that many service technicians purchase their own to help them quickly diagnose a problem. Most of the vehicles today are capable of sending data stream information about the operation of the engine sensors and actuator to a hand-held scan tool. The different type of scan tools include:

- **Tech I and Tech 2** – These are found at all General Motors Corp. dealerships and some independent service facilities. This scan tool is used primarily to access General Motors vehicles but can be equipped to read other brands of vehicles.
- **DRB II and DRB III** – These are found at all Chrysler, Plymouth, Dodge, and Jeep dealerships. These too may be found at some independent service facilities but mostly they are used at the dealership. These tools are necessary to use to accomplish many service jobs such as turning out the amber maintenance reminder light (not to be confused with the amber “check engine” light).
- **STAR and new generation star tester** – These are Ford product specific scan tools although the new generation star tester can be configured to read the data of other brands of vehicles.

Wheels: Why did you list two testers for each domestic vehicle?

Halderman: A major change occurred in 1996 with all vehicles sold in the United States – OBD II (on-board diagnosis, second generation). This computer system required that a new scan tool be used to be able to monitor and interact with the more powerful vehicle computers. This is the major reason why the change from the Tech 1 to the Tech 2 and etc.

Wheels: What scan tool is used by independent service shops?

Halderman: Many independent shops use the Snap-on scanner or a Master Tech scan tool. Both of these scanners are expensive and must be updated almost every year but are very capable of supplying most of the information necessary for the service technician to diagnose and repair today’s computer-controlled engines. The disadvantage is that some of the information is only available through the use of the factory scan tool. The data that is often not available is the internal lighting, automatic transmission control, air conditioning, and antilock braking system (ABS) control.

