



The car is in the bay, the tool chest is right next to it, with the technician standing by. The work order is under the wiper blade. But that car probably isn't going to get fixed without one remaining ingredient: service information.

Sure, there are some jobs a tech could do without a second thought. He knows the part numbers, the tools he needs, everything, just so long as he doesn't run into something unexpected.

Most of the time, he needs information. It could be a diagnostic procedure, or what to do with the results of a diagnostic procedure, or a wiring diagram, or the location of a part, or how something he hasn't done a dozen times before should come apart, and go back together.

There are over 250 nameplates (and a seemingly infinite variation on them) sold in the U.S. They change significantly at least every four years. So even if you're an import specialist, you need information for just about every job. There are fewer and fewer vehicles that you can walk up to and repair with past experience as your only reference source.

Import Service had a discussion on the subject of service information with a handful of shop owners from across the country. If there are times when you're hurting for the right information—or think you're satisfied but still remain curious about alternatives—this article provides a glimpse at how other shops are dealing with their information needs. While it isn't a scientific "survey," the responses we gathered provide a statistically significant "sampling" of what shop owners around the country are saying and doing.

We did manage to speak to a diverse group—small shop, medium shop, one-make import specialist, 50-50, 75 percent import, and 26 percent import (yes, he kept numbers that accurate, he said). We spoke to driveability specialists as well as shops that perform a very broad mix of services. We talked to each about the things they dislike as well as like. Interestingly, the same thing evoked both reactions, depending on the shop.

Meet The Participants

Laszlo Bihari is the owner of B&C Foreign Car, Ventura, California. It's a four-bay shop with four full-time techs. counting Laszlo. The shop services imports exclusively, primarily European makes and some Asian. His shop is not a state-licensed "smog" shop, but he has the basic equipment to try to ensure that tune-up-related work goes out "clean."

Tim Boehler is the owner of Alternative Imports, Phoenix, Arizona. It's a 13-bay shop with four full-time techs, counting Tim. The shop services 85 percent imports, primarily all Asian makes.

Scott Brown is the owner of Connie and Dick's Service Center, Claremont, California. It's a 15-bay shop with six techs, servicing 50 percent imports, primarily Toyota, Honda/Acura, some Nissan, Mercedes-Benz, BMW and VW. His is a state-licensed smog shop.

Simon Daher is the co-owner of A&M Auto Repair, Cleveland Heights, Ohio. It's a three-bay shop with three techs and one helper. They service 75 percent imports, primarily European makes.

Bill Harvey is the owner of Harvey's Foreign Car, Lakeland, Florida. It's a one-man shop with part-time helpers (his brothers). Harvey's is exclusively Nissan ("but occasionally I'll take an old Corolla or something like that if a regular customer is getting one for his kid"). He originally specialized in British cars, "but they wouldn't stay fixed." He found he was repairing many of them with Nissan parts (in those days, Nissan components were built under license from British Motor Corp.) "and the Nissan parts were better." He once serviced German cars too, but in his area can keep busy as a Nissan specialist.

Richard Scalzo is the manager of Chuck's Import Auto, Darin, Illinois. It's a five-bay shop with two other full-time techs. Customer cars are 95 percent imports, primarily Honda, Toyota, plus Mitsubishi, BMW, Mercedes-Benz and Porsche, and any others from time to time.

Doug Stoll is the owner of Susquehanna Auto Clinic, Independence, Missouri. It's a 10-bay shop with three other ASE master techs and one additional tech. Stoll's shop services 26 percent imports, primarily Nissan, Toyota and Honda. In his area, where imports are not as wellaccepted, that's a high percentage, he says.

Some Of The Topics We Discussed -With Pros And Cons

- What types of service information do you have?
- Do you use hot lines and Internet forums?
- Do you get help from car dealers? From other independent shops? When you've got a really tough problem, what's your first choice for the information you need?
- What kind of scan tool do you have and is it really helpful on imports?

Service Information System

Picking a primary service information system is an important decision, and it's more difficult for an import specialist. The two CD-ROM systems, Mitchell ON-Demand and ALLDATA, (Figure 1) are not specifically import-oriented. There are many routine jobs you won't find listed, and many of the wiring schematics are not included. If you do a significant percentage of domestic cars, however, they're the "only game in town." For all shops, they're the top source of import and domestic service bulletins.

Four of the seven shops have Mitchell ON-DEMAND (Figure 2), and one shop operator, Simon Daher, says he has been trying to evaluate ALLDATA by periodically checking with a shop that has ALL-DATA to see if it fills in gaps in his ON-DEMAND coverage. All four ON-DEMAND subscribers use the Mitchell 800 hot-line number to get missing information faxed to them, typically factory wiring diagrams to use instead of the Mitchell diagrams, which were generally criticized as often erroneous and difficult to use. This isn't a favorite thing to do, because there could be a critical delay (1-2 hours during hot line hours). But don't blame Mitchell (or ALLDA-TA). The errors are often in the factory diagrams, and Mitchell has been switching to the factory diagrams in its CD-ROM system.

Doug Stoll likes the idea of printing out wiring diagrams and diagnostic charts and taking them to the car (**Figure 3**), instead of a complete manual. He also likes to print out service bulletins before giving them to his customers. "It really impresses them, particularly when we tell them to take the car back to the dealer for a free repair." However, Stoll thinks the material could be better organized and is not always in the place you would expect to find it.

However, Simon Daher had the opposite reaction. He thinks ON-DEMAND is more user-friendly than ALLDATA and he prefers the organization (and location of material). Of course, it's the system he actually has, and with which he obviously has become more familiar. He said he originally chose Mitchell because he thought the Mercedes coverage was better.

Tim Boehler, who also has ON-DEMAND, is only about "75 percent satisfied." He wanted more transmission coverage included and individual-circuit wiring schematics. He added that when he checked, there were specific service bulletins missing on Toyota pickup head gaskets. The information available from ALLDATA and Mitchell does run behind, sometimes significantly, but they do try to keep the bulletins up-to-date. When we checked for the bulletins Tim referred to, we found they had been added. They're in the system now.

Tim said he'd been promised that schematics would all be the individual circuit type three years Figure 1



There are two choices in aftermarket CD-ROM systems, ALLDATA and Mitchell ON-DEMAND. The range of coverage is approximately the same, but what's in each is somewhat different.

Figure 2



Both systems are easy to learn. Just insert the disc into your CD-ROM drive and the icons at the top of the screen and the menus will guide you.

Figure 3



Taking the wiring diagram to the car is easy if you can print it out from a CD-ROM.

ago, but it hasn't happened yet, he added. He also complained that the diagnostic sections are just not complete enough, "they'll have the flowchart for Code 18, and you need 16, and it's not there." Refer to **Figure 4**.

The problems with the schematics should be lessening to some extent. All the domestic car makers have gone to individual circuit diagrams, and the import manufacturers are moving in the same direction. At this time, the CD-ROM systems just scan in the factory diagrams, so the new stuff will reflect whatever the factory is doing. However, there may be more than one schematic that covers a particular circuit and the CD-ROM system will have just one, in some cases leaving you short of the information you need.

If you don't have a CD-ROM system, you can check service bulletins on the Internet. Go to the www.ALLDATA.com website, click on consumer information and TSBs. You'll be able to read a oneline description of every bulletin. Although a one line description isn't much, it may give you the clue to check for a factory fix with someone who has a CD-ROM system or a dealer with the bulletins.

Although none of the shops we surveyed were ALLDATA subscribers, nationwide ALLDATA has about 60 percent more subscribers than ON-DEMAND. We've looked at both systems regularly for the past year-plus, and there are differences, even if there are similar ranges of coverage. If you haven't bought yet, or are thinking about changing what you have, talk to other shops that do similar work. No one is totally happy with either one—or totally dissatisfied either. But be prepared to fill in gaps.

Those without the CD-ROM systems have developed what they feel are more appropriate alternatives for their operation.

Laszlo Bihari has accumulated close to 100 factory manuals for European cars.

Richard Scalzo uses the Bosch microfiche system, which he considers excellent. "It covers every Bosch-designed system, even those Japanese systems that are made under license. It's great," but it obviously is not broad coverage for non-driveability repairs.

Bill Harvey does only Nissan repairs and has accumulated an extensive collection of factory manuals from 1978-1995. As 1996 models start to come into his shop, he'll add manuals to cover those. (Refer to **Figure 5**)

Other Sources

With the exception of our Nissan specialist, however, no other shop in our spot check relied on one source of information. Here's what some of them use to fill in the gaps:

Richard Scalzo uses print manuals (Mitchell, Motor) to get non-driveability coverage (to augment his Bosch microfiche system) and really isn't satisfied Figure 4



You may not find the flow chart for an import's diagnostic routine in your CD-ROM system. Some shops have accumulated a collection of factory shop manuals and can look at them directly. Others rely on the CD-ROM company (Mitchell or ALLDATA) to fax it to them.



When you're a one-car specialist, getting the factory service manuals is a cost-effective approach. Here's part of a Nissan shop manual collection.

with either print manual. "For what they charge, they're not always factual and too vague on many jobs," he said. He also fills in with factory manuals on an as-needed basis. His bookshelf includes "some Nissan, BMW, Mercedes and Audi manuals."

Scalzo has also created his "own" diagnostic database. He prepares a file on every driveability problem he's ever solved, including the scope waveform, and stores it in his PC. So he can access by keyword, symptom, etc.

Laszlo Bihari also uses print manuals (Mitchell).

Simon Daher has a collection of Robert Bentley manuals for European cars ("better specs and more complete procedures" than in Mitchell ON-DEMAND).

Editor's Note: To check the Bentley catalog online, go to www.rb.com. Some Bentley manuals are factory-authorized, such as VW, but may not contain some sections (such as transmission overhaul) of the factory manuals issued to car dealers. Refer to **Figure 6**.

Scott Brown has a modest collection of Toyota and Mercedes manuals.

Hot Lines

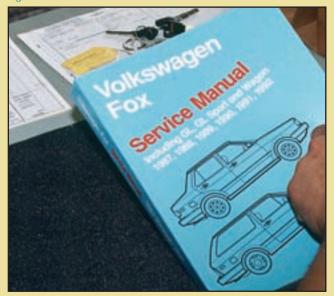
Surprisingly, none of the shops was a regular user of hot lines other than the hot line that is available to Mitchell subscribers. A couple had tried Autoline (available to them through NAPA) and Standard Plus (Standard Motor Products). In some cases, they felt they were too specialized to get real benefits from a hot line and had always been able to diagnose a problem by other means. Some comments:

Doug Stoll: "Ours is a driveability shop. We see the bizarre, from the hidden corroded connections to the wrong processor from some salvage yard. It's the stuff you have to dig in and check yourself." He does call Autoline occasionally, but primarily to confirm his approach, rather than expect a fix.

Scott Brown: "I've used Standard occasionally on domestics, and Autoline just once. They were able to run me through all the basic steps and confirm I was on the right track," but couldn't go beyond that for him.

Richard Scalzo: "They don't have the car in front of them." He hasn't felt the need to use a hot line and so hasn't tried one.

Editor's Note: That "can't-look-at-the-car" aspect may be overcome eventually by a program under development by Autoline. The subscriber will have a mini-camera and in addition to scan data, be able to give the Autoline diagnostician a "look" at parts of the car itself. Figure 6



The Robert Bentley manuals were praised for their greater detail on specific imports. Some, such as VW, are factory authorized aftermarket manuals.

Figure 7



Some of our independents were satisfied with the access to trouble codes on OBD I vehicles. On this Toyota, all it takes is a jumper wire in the diagnostic terminal. They couldn't justify the cost of proprietary scan tools for imports, most of which they said had limited data stream information. Thankfully, they said, they didn't find driveability problems they couldn't diagnose with flow charts and other diagnostic methods, including scopes and break-out boxes.

What About The Internet?

There are two popular automotive technical forums. A small one is maintained by CompuServe ("For Technicians Only") and it has a faithful following. You have to be a CompuServe subscriber to participate, however. Because it's small, you won't find yourself deluged with e-mails every day, and there are a lot fewer people with whom to talk. Richard Scalzo was the only one of our little "chat" group to have used it, and he said he didn't get enough out of it to continue.

The "giant" is the International Automotive Technicians' Network at www.i-ATN.com, which has a claimed 14,000-plus subscribers (don't forget the dash, or you'll end up at another website). Many subscribers use "filters" to restrict the flow of e-mail they receive from iATN, which could take hours of your time to download and read each day. iATN has recently announced additional refinements to their e-mail filters, which should allow members to receive as much, or as little, e-mail as desired.

There were varied reactions to iATN, from an enthusiastic "yes" to much less.

Doug Stoll finds it interesting, but has blocked out a lot of categories to keep from being inundated with e-mail. A couple of his techs go through it and find it informative. Has it ever actually helped him fix a car? No, he said. They haven't seen anything that had a direct application to a job in the shop. Anything they saw was something they had solved themselves weeks before. He added that he personally has too many after-work social activities, to be able to spend much time with it.

Scott Brown loves iATN, and has a promo link from it to his website. He likes the idea of scanning the messages to see what's actually been solved. He also likes to bounce a planned approach off others via iATN. He has had one solid fix, for a cold start problem on a Mercedes diesel. Within a couple of hours he got 15 responses, and one "hit the problem on the head, even gave me the parts numbers, for leaking injection pump outlet check valve seals." He credited Steve Brotherton of Continental Imports, Gainesville, FL for that quick reply.

Simon Daher enjoys looking at iATN occasionally, but says it hasn't helped him fix any cars. "If I need information, I need it right now. I don't have the time to put the problem in writing and hope I'll get a good answer, even though some of them come pretty fast. When you're dealing with a customer's car, you can't wait what might be a couple of days." He said that he has 16 years experience and a shop with experienced techs who seem to be able to figure out what's wrong.

Richard Scalzo hadn't looked at iATN when we spoke, but is planning to do so.

Help From Car Dealers? Or Other Independents?

If they're going to talk to anyone, another independent garage seems to be the top choice. However, several have gotten help from car dealers with whom they do a parts business.

Tim Boehler will call the local dealer to ask if a particular part is failure prone, but that's it. However, he does have some personal friends among Nissan and Toyota dealers and occasionally has done some brainstorming with them.

Laszlo Bihari has been in business 25 years, so he has a strong network of independent garage owner friends in his area with whom to speak. He's even had some car dealers fax wiring schematics to him, "but I don't ask very often."

Doug Stoll has lots of friends in shops, including one at a Lincoln-Mercury-Honda dealership. He'll call friends at car dealers occasionally, but tries to avoid calling independent garages. His fear is that he will get flooded with calls from networking. He prefers to call the driveability trainer who's given many classes for his shop. He tries to minimize the need for outside calls by providing a lot of training, about 100 hours per year for every tech.

Scott Brown reads *Toyota Star News*, but doesn't call dealers for help.

Richard Scalzo won't call a car dealer. "I'm in competition with him."

BiÎl Harvey used to exchange information with the local Nissan dealer, "but it changed ownership. The new guy cleaned house and there's only one guy left I know, and he isn't a technician." However he has friends at a couple of dealerships in nearby Tampa, and he'll occasionally ask them about problems on newer models.

Simon Daher likes a tight network with independent garages—two friends with whom he attends clinics. One is a domestic specialist, the other does almost exclusively imports. However, he does get help from car dealers with whom he does parts business. In fact, he goes into the shop to talk directly with the technicians. The face-to-face contact pays off, he said. Example: he recently determined the A/C relay on a Mercedes 500 SL was bad. He called the Mitchell number for a part location and still couldn't pinpoint it from their information. He called the Mercedes dealer and not only got a "third relay from the left" type of description, but a faxed illustration of the relay itself.

What they do first seems to depend on the nature of the problem. The Mitchell hot line or the dealer was called if the need was for a specific diagram, parts location, etc. But the first response to a difficult diagnosis is to look harder and rely on one's own resources before lifting the phone or sending out a message on the Internet.

Scan Tools As A Source Of Information

A scan tool is a great source of diagnostic information. Until OBD II, scan tools couldn't provide import specialists with as much information as their domestic counterparts, however. Few imports had a data stream that was accessible with an aftermarket scan tool, and the shops we surveyed said the onboard diagnosis for trouble codes (**Figure 7**), along with service manual flow charts, were enough. The typical comment, made by both Doug Stoll and Simon Daher, was that the imports, particularly Japanese makes, didn't suffer from driveability problems that were as difficult to diagnose as U.S. makes. The apparent reason: simpler controls, so fewer electronic glitches. OBD II is likely to change all that.

And even a tech specializing in VW/Audi, such as Daher, said he couldn't justify a VAT 1551 (a VW proprietary scan tool). Ditto for the other proprietary scan tools. He and his two independent garage friends invested in an intelligent break-out box ("IBOB") with adapters for several imports and Ford domestic products, and they all like it. Both Stoll and Daher also have a Snap-On Scanner (**Figure 8**), but neither is completely satisfied with the import coverage.

Two of the five remaining shops we sampled also have scan tools. Richard Scalzo has a Snap-On, and Scalzo has been satisfied with the generic OBD II coverage on imports thus far. Scott Brown has a Vetronix MasterTech (**Figure 9**), and is satisfied with its import coverage. However, he's also an AC Delco Tech shop and General Motors coverage is important to him too, thus the prime reason for that choice. He can do GM computer reprogramming with the MasterTech, and also with the new Tech 2, a second scanner he just bought. Still another alternative is the OTC Enhanced Monitor, for which GM reprogramming is becoming available (**Figure 10**).

We hope this cross-country "chat" has given you some ideas. If you have some information-gathering ideas to add, join the conversation.

-By Paul Weissler

Sure, there are some jobs a tech could do without a second thought. He knows the parts numbers, the tools he needs, everything, just so long as he doesn't run into something unexpected. Figure 8



Four of the seven shops we surveyed had purchased scan tools. Of those four, three scanners were purchased from Snap-On. Only one expressed complete satisfaction with the import coverage.

Figure 9



The fourth scan tool owner relies on a MasterTech. He feels that it offers satisfactory import coverage and the General Motors utility he needs, including GM computer reprogramming.

Figure 10



The new GM-approved Tech 2 and the OTC Enhanced Monitor are two other professional choices, (along with Micro Processor Systems Inc.'s Pro Link). At present, the Tech 2 also does GM computer reprogramming.