

ASK THE EXPERT

Technician Help Is a Call Away



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Everyone needs a little help sometimes, and when it comes to technicians in need, Opus IVS is here to lend a hand. Opus IVS provides automotive repair facilities access to OE brand-specific master technicians who can guide them through their questions on diagnostics, programming, and live repairs.

Below, Chris Martino, technical support specialist and trainer at Opus IVS, shares an overall look at how a support specialist provides help to technicians. From the beginning of his career in 1998 sweeping the floor of an independent repair shop to owning his own shop to closing his shop and retraining himself in diagnostic practices, Martino understands the automotive industry and works hard to fulfill his commitment to improve it through lending his expertise to others.

Q: Why is it important for shops to have a diagnostic process?

A: A proper diagnostic process that is tailored ensures steps are not missed in the diagnosis and repair of any vehicle. If a process is not followed, you can easily be led astray by symptoms and/or trouble codes that may or may not apply to your diagnosis.

A proper diagnostic process will also save you from wasting time on a vehicle that isn't broken. There are many times where a vehicle has an intermittent problem that cannot be tested because it isn't currently happening. You need to know when to walk away and begin preparing your test plan so that you're ready

for when the vehicle acts up again. This will keep you from shotgunning unnecessary parts at a vehicle to fix a symptom that is not actively happening.

A proper diagnostic process will also help you maintain the trust of your customers because the diagnosis will be consistently correct. Truth and honesty are paramount in this business, and customers will know when you are being less than honest with them. If you have a properly documented process that you and your techs follow, then you have the evidence needed to prove to your customers that you are the right facility to bring their vehicles to as well as, someone they can recommend to their friends and neighbors.

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Q: When fielding ADAS-related questions, what are common mistakes technicians make that your experts help fix?

A: The most common ADAS-related issue we see with shops is that the techs are unfamiliar with ADAS in general. They are not aware of the minimum facility requirements such as: a flat and level floor, proper lighting, and the correct space needed to perform the alignment.

They're also unaware of the tooling needed to measure, mark out, and perform the service. You need supplies like plumb bobs, tape markers, lasers, metric tape measures, and most importantly: proper targets and software. These things are a necessity to any ADAS alignment and are often overlooked for most shops.

Q: What are some common mistakes technicians make when using lab scopes?

A: The most common issue is people bust out a lab scope at the wrong time. When you are new to scope usage, the wrong way to learn is on a bad vehicle. You have no idea what bad looks like until you know what good looks like, which is why it's essential to learn scope basics on a good vehicle.

Another big mistake is: people hook up a scope and get nice wavy lines...that's nice, but what do they mean? Most techs need a refresher in basic electrical fundamentals to understand what voltage is supposed to look like over time. If you have those fundamentals down, you can almost predict what your scope screen should be showing and when it doesn't, you'll know why or at least know what to look for.

A major issue with scope usage, or really any electrical testing is people forget about the ground—they don't realize that it needs to be tested too. When it comes to testing the ground, they need to know HOW to test the ground. This can, and often does, lead to misdiagnosis plus, a steep learning curve with a lab scope.

Q: What are the keys to successful programming?

A: There are many keys to successful programming. Ranging from the correct calibration part numbers to making sure the electrical outlet your maintainer is

plugged into can handle the oomph.

The most important steps can be broken down into 2 categories:

- 1. Voltage:** Is the battery voltage correct? Is the maintainer voltage set correctly? Is the wall outlet capable of supplying the proper current to the maintainer? Is the module voltage correct (this includes proper grounding)?
- 2. R.T.F.M. That stands for:** Read The Freaking Manual. The vehicle manufacturers publish the proper testing and programming procedures in their service information. Most failures that aren't voltage-related or a misdiagnosis, can be attributed to someone doing something wrong along the way. These instructions should be followed to the letter to avoid programming failures.

Are there tricks learned along the way? Yes. My fifth grade teacher explained it to me the best way possible when explaining proper grammar to me: Chris, you need to know the rules before you can break them. This holds true to almost everything in life. Before you apply short-cuts and blatantly disregard service information, you need to know what they were trying to do in that process.

Q: What must technicians understand about J2534?

A: An important concept for technicians to understand about J2534 is that it is essentially the universal language translator between the vehicle and OEM programming software.

Vehicle A speaks English, Vehicle B speaks Korean and Vehicle C speaks Japanese, which is similar in many ways to Korean, but is still a different language. The factory programmer for Vehicle B will not speak to Vehicle A. You think it might work for Vehicle C because their languages are so similar, but not enough to successfully program a module. This is why you need many different programmers to get the job done. What if there was a way to speak to all of these vehicles universally? That's where J2534 comes in. This protocol, like a universal language translator, will speak to all of these vehicles in a basic language and allow you to program them with one device and keep the costs down.

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