I read every word of the Last Word column, “Don’t be Old School About New Technology” by Gary McCreadie in the May 2020 issue of the RSES Journal. Great piece! The intent of this commentary is not to take the author to task, in fact, I agree with just about everything McCreadie stated in his column. However, my takeaway of the article was that it was heavily slanted to the positive things we should find in electronics. My intent is a balanced rebuttal of the positive when it comes to electronics. Having entered the HVAC world in 1972 and being a loyal member of RSES since 1992, I may be as qualified as any to make such comments.

Now, as you read this, try to keep in mind that I am just old, not stupid. Electronics certainly enhance our lives, but my advice to junior techs on the subject is “let’s not throw the baby out with the bath water.” Let’s take for example the computer that we all carry with us today, the common cell phone. Every single feature of the modern cell phone was already available. We could already make a call to Europe, take a photo and video, and we already had calculators, alarm clocks and every other available feature that is on your phone. Are we to believe that the photos we take on a modern phone are better than those taken from a 1980s camera? Is the calculator any different or better than the one I left on the dash of my service truck in 1978?

It always amazes me how we never learn from history. We won our independence from England, invented electricity, the internal combustion engine and penicillin, plus put a man on the moon, all without modern computers!

Are electronics better? Can you name a better recording than Elvis Presley’s music on vinyl (all done before electronics)? Are we to believe that today, or in the next 300 years we will invent or make an apple pie better than what George Washington had in the 1700s? In short, there are some things that just cannot be improved upon. This fact seems to be completely missed when it comes to electronics/technology.

Are electronics more rugged and reliable? When I think about the old set of Marsh, “brass and glass” manifold gauges that hung from the tool cage in my service van for around 30 years, and then think of my new battery-operated digital gauges, I don’t think so. Or my Biddle crank megger that was dropped, left in the rain, thrown around like a ball and stepped on. I try to imagine if my new battery powered anything could take that kind of abuse.

Do electronics promote the betterment of ourselves and our country? Not to get overly philosophical here, but exactly where are all your electronic devices made? My guess is they are all from other countries. How does that help you or the US? (Nearly all of my old instruments were made somewhere in the USA.)

Let’s factor in something that none of us usually think about, the number of deaths that electronics have brought with them. How many deaths are attributed to texting and driving? I can tell you in the 1970s that figure was zero. How about electronic failure in the airline industry? Take a moment and “Google” the Boeing 737MAX or Airbus A320. Tens of thousands of lives have been lost due to electronics (through failure or distraction), and then we want to put our diagnostics of what is wrong with our HVAC systems in the hands of those instruments?

Should I be “open” to try new things and not be closed minded to something I have never tried? My answer is “sometimes” and “it depends.” A poisonous snake has never bitten me, but I can pretty much tell you what I think about it without going through the experience. Just knowing it is a snake is enough for me to keep my distance.

General synopsis: I retired from the HVAC industry in 2015 and took a position of “Technical Support” for a manufacturer of medical source equipment. That company designs and manufactures many up-to-date electronic controllers. One of my duties is to investigate and approve warranty. While in this position, I have approved hundreds (if not more) of warranties for circuit boards and PLCs. I cannot, however, remember getting one request for warranty of a relay or other electro-mechanical device. They will all eventually fail, the question is when!

I have a bunch of electronic “new technology” tools—from digital scales to infrared temperature scanners. They are convenient and work great. I think my point is that we have to figure out what works and what doesn’t, what lasts and what doesn’t and where we want our hard-earned dollars to go. Keep what makes your job easy and your bank account happy and don’t be sucked in to the “modern and up-to-date” gimmicks! In short (again) “let’s not throw the baby out with the bath water.”

Dave Williams, CM is a licensed contractor and currently runs technical support for BeaconMeades LLC. He worked for more than 20 years in the field as a heavy chiller mechanic and more than a decade as a refrigeration and residential service technician.

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**TROUBLESHOOTING ANSWER**

1. A good correct answer to the first question is that the transformer and the blower motor are OK. You could also say that the fan relay or the printed circuit board that incorporates a fan relay assembly is OK too. All of these components can also be eliminated as possibilities because the indoor fan motor is running.

2. The two correct answers to the second question are the contactor and the condenser fan motor. Without the contactor operating normally, the condenser fan motor wouldn’t be running, nor would the compressor be attempting to start.

3. The final answer to our “blowing warm air” complaint is that we would have to replace the potential relay. When our meter showed infinity at the SR coil, it proved that the coil was open, which would prevent the relay from opening the SR switch. The end result of that situation would be that the start capacitor would not be taken out of the circuit, causing excessive current draw, which would cause the compressor to kick off on its internal overload.