

Letting go

Accepting new technologies can be painful

In his many years with Xantrex, which manufactures inverters, battery chargers and other power accessories in British Columbia, Canada, Don Wilson has seen a lot of products come and go. He has written about many of them and offered technical advice in his blog, appropriately named Tech Doctor. Over the years he has heard quite a bit of nostalgia from readers and customers that they miss some of the old products the company phased out long ago. Maybe they just need to embrace newer, and better, technology—or is something else at work?

BY DON WILSON



Then & Now



Discontinued a long time ago, the Link 2000 was a battery monitor and an inverter control panel in a single controller. Although modern monitors, like LinkPRO, offer better performance, customers still remember the old model fondly.

I have a camcorder (remember when we still called them that); I bought it new years ago, and I simply loved it. It made VHS-C tapes and I had memories recorded on those tapes of my children as they grew up. Today, it sits in a drawer. The battery is to the point where it won't take a charge anymore; it's dusty, and the "leather" cover for the hand-strap is weather-beaten and cracked. I haven't really touched it in a decade.

Sometimes I wonder why I don't use it. It was easy to understand, made great videos (maybe not in HD, and sure, there was always a little "motor hum" in the video), and we just worked well together. Today I have a Go-Pro, a Cannon Rebel, and an iPhone. Each of these takes great HD-quality video, with superb sound, and puts videos on an SD card—or in the cloud. Admittedly, there was a steep learning curve to each of these devices, but I've figured out how to use them. They don't have the same emotional attachment to me as the camcorder, but I use them. Why? Because they're better? Maybe. It also could be that the camcorder is just old.

One of the most common comments I get when attending marine events relates to some of our older products. There are an awful lot of people that have these emotional attachments to the older models of inverters, chargers, and battery monitors. I get that . . . really I do! There's this obsession about the systems we used when we had a little less grey, when we were a bit more teachable, or when we first got into boating. These attachments are hard to break. But let me for a moment compare a few of the older products we made to their newer counterparts.

Battery monitor blues

I'm asked all the time about an older battery monitor/inverter panel that's been long-discontinued. It was a great product in its time—we called it the Link 2000. Basically it was a dual-bank amp-hour "counter," or battery monitor, and an inverter control panel built into one controller. It didn't really do either function better than stand-alone inverter controllers, or battery monitors, but having it in one device was pretty cool. The LED display worked, and most people knew how to re-zero the counter when it would "drift" off of its calibrated "zero point."

Today, there are newer models of battery monitors, like the LinkPRO. As a stand-alone device they are easier to install than the combination panel, and in my opinion they are more attractive to the marine eye. Modern LCD displays and microprocessors are more efficient than the older LED-based design. They're also more accurate and require less zeroing than the older models. Because the newer ones are just battery monitors, this also allows them to be used with any inverter, where the older model was locked in with the inverter it was designed for.



Then & Now

The Freedom Marine inverter/charger at left was one of the first AC power units designed for the marine market. Newer inverters such as the Freedom SW are far more advanced, but longtime customers argue that they don't have integrated battery monitoring and built-in echo chargers.

New inverters may be better but . . .

The other common devices people seem to have an attachment to are the older modified sine wave (MSW) inverters. The most common was the Freedom 458 RV inverter but with a couple of marine-centric tweaks. We called the marine version Freedom Marine. The most obvious was the built-in dual “echo chargers” that would feed a small 15A charge to two isolated battery banks (typically the engine bank or banks). It was robust enough for its time, but it was still a MSW inverter, rather than a TSW—true sine wave. (If you don't know the difference, check out the link below to Tech Doctor.)

The older inverter was certainly older technology. The modern TSW inverters are much more advanced, and pricing is significantly lower than the earlier TSWs and is getting pretty close to the pricing of the older MSW models. The options in the newer inverter's control panel are a dream for the technology-minded boater while the older inverter had literally only three settings you could adjust. The modern units usually sport a robust CAN-based communication network, which allows multiple remote controls, integrated power management, automatic generator control, multiple inverter stacking, and even Internet connectivity options, while the old one had a battery monitor enabled optional remote controller and that's it.

The two main points I hear for missing functionality is that the newer inverters don't

have integrated battery monitoring, and built-in echo chargers, which is true. However, with stand-alone battery monitoring one can see inverter information and battery information at the same time, rather than bouncing between the screens of the same display. And most of the folks who bring up the echo chargers were only using one of the built-in echo chargers anyway. The other one was not connected. Echo chargers are still available as a stand-alone device that can be added to any system, at any time, in any quantity, without burdening the cost of the inverter with unnecessary options.

Yeah, but I can fix it

Lastly, someone will bring up that the older inverters are repairable, which is also true. However, some newer inverters are so strenuously tested, using protocols like HALT (High-Accelerated-Life-Testing), that we believe repairing a failure should not be something one thinks about daily—the inverter just shouldn't fail in the first place. Oh, and should something beyond our control happen, most newer inverters are also just as repairable as the older inverters. So functionality, performance, quality, and longevity are all in the modern hardware.

The modern battery monitors are decidedly a better unit than the older models. The new TSW inverters are clearly a better electrical system core than the older MSW models. It often makes me wonder why the constant

demand for older products—then I look at my camcorder, and understand.

But let me indulge myself one more time. Remember the day when gel batteries were all the rage? That was a while ago, then it was the AGMs, now it's the Li-ion. Also, remember when modified sine wave inverters were the bee's knees compared to the loud, inefficient, and unregulated square-wave inverters? Now we can have efficient, high-frequency-switching TSW inverters that will power any load. Remember when we marveled at the VHS camcorders that were smaller and lighter than the reel-to-reels? Now we have cellphones and sport-cams.

Maybe there's something to this newer, more advanced world, and we just need to let go of the past.

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About the author

Don Wilson has worked in technical capacities in the marine, automotive/truck and RV fields and for the military since 1989 and has extensive experience in designing and troubleshooting onboard electrical systems. A former customer service manager dealing with electronic issues, Wilson currently serves as a technical instructor for the RV industry's RVIA Trouble Shooters Clinics and is a full-time sales application specialist for Xantrex at Schneider Electric. He is also the author of the educational series Tech Doctor, which is aimed at a trade audience.

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