



FLUKE®

Testimonial

CNX™ Wireless Test Tools

Name: Bob Axelson

Company: STARZ
Entertainment

Application:
Facilities Maintenance

“Simplicity—that’s one key to the CNX. You could send a cub out with it.”

“You can’t make a proper diagnose without proper data.”

Background

I’ve been Chief Engineer at Starz Entertainment for more than 10 years and I am responsible for maintaining all the data centers, HVAC, and related mechanical gear serving for the building. Prior to that, I spent 25 years in the HVAC industry mostly servicing data centers

What’s the building doing at 9:15pm?

You don’t want people to lose faith in you as a technician because you can’t catch problems as they happen. With Fluke CNX Wireless Test Tools, you can hook up an amp module to a pump and let it log data over a predetermined period of time, so you can see that at 9:15 last night this happened and it caused a breaker trip. Without that data, you know something must have happened in the building, but you don’t know what or when.

The CNX system really helped me properly diagnose a \$500 board from Liebert. We noticed we were having intermittent problems with the refrigerant temperature. Using a CNX t3000 temperature module, I monitored the outgoing refrigerant temperature while measuring the dc signal with the CNX DMM. What we saw was temperature fluctuations without a dc signal being sent, which was a clear indication of a bad board. With the CNX system, I could quickly and easily document the problem and replace the board.

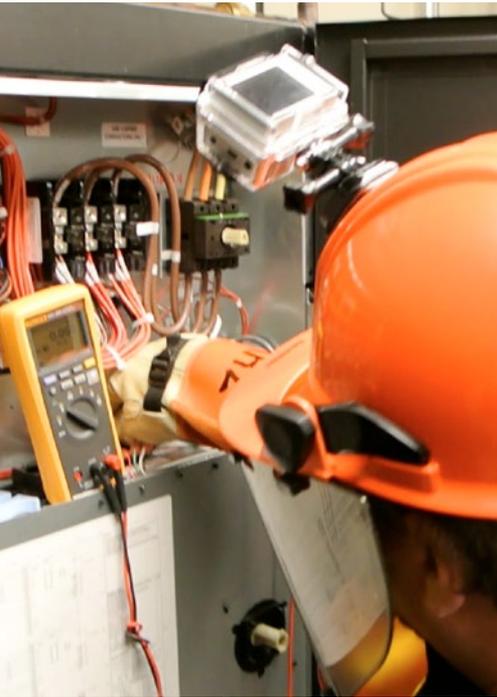
The fact that you can download the data with time stamps and put it in an Excel spreadsheet is great. It’s really helpful to print it, look at it, and compare data points.

Benchmarking

When you’re commissioning equipment, paperwork is key; you need to accurately record the initial performance data. We also do annual timestamps on a lot of equipment as benchmarks, so if something fails we have a starting point to work from. The CNX system’s logging capabilities, plus the variety of measurement modules, make it easy to take and record equipment readings on just about anything.

Troubleshooting trips

We had a voltage issue with a Dunham-Bush unit where we were intermittently losing a phase somewhere between the breaker in the building and the unit compressor indicated by blown fuses. With the style and make of contactor, you could not disassemble it for inspection, so you basically had to destroy it to inspect the contacts. You want to be sure what you have before you start replacing costly parts. After we de-energized the unit, we mounted a CNX v3000 voltage module in the control cabinet with the magnetic hanging strap and tied into the A and B phases on the contactor. We closed the panel, re-energized the unit, and let the CNX module log data for a week to look for any voltage variances on the load side of the contactor. With the data, we discovered that the B phase contact was burnt and the contactor needed replacement.



Stop babysitting equipment

We had a Mammoth rooftop unit that had intermittent issues with one of the fan motors. It kept tripping the breaker and when we reset it everything looked fine. We attached two of the CNX amp modules to the leads to look for variances. I programmed the units to take measurements every ten seconds over a six-hour period. After downloading the data from the modules via the PC adapter, it was obvious that the center leg intermittently closed creating a single-phase condition that was causing the breaker to trip. That clearly indicated the contactor had failed, so it was easy to justify replacing it. Because I could attach the modules and let them log data over time, I didn't have to babysit the unit hoping it would fail while I was there.

Troubleshooting a high-def projector?

We had a high-definition projector that kept intermittently failing, which I suspected was temperature related. From my laptop, I wirelessly programmed a CNX temperature module to take readings at two-minute increments and placed the module in the cabinet with the projector to try and diagnose the issue. While the module was in place, there were two failures, so I checked the times the tech recorded the projector failed against the log from the CNX module. Both failures aligned with overheated readings on the module proving that the failures were, indeed, heat related. Problem solved.

Size and simplicity

The CNX is a great, convenient system that is sized right. Size is really a consideration when you're doing fieldwork and the CNX modules are small enough to fit into most commercial equipment service cabinets. If it's big and clunky you leave it in the shop.

Simplicity — that's one key to the CNX. You could send a cub out with the gear. All you need to do is preprogram the interval you want data collected along with the length of time, attached the modules, close the panel, and then come back two or three days later. It doesn't get much simpler to have an accurate diagnosis for you and your customer. What is that worth?