The Problem with Cat5

I was talking with a local sound guy the other day who told me they were “one 150-foot Ethernet cable away” from implementing complete system control from a laptop at front of house. It was not so long ago that if those of us in the sound tribe even knew what Ethernet cables were, we thought of them as something we used to hook our computers into a network and not something we would use on site at a gig.

But that has changed recently, and there are several system controllers that’ll make you carry Cat5 right next to your balanced XLR and TRS cables. The big problem with Ethernet cables (to be specific, a RJ45 connector on a piece of Cat5 cable) is that the ends were made for telephones and networks. No one ever envisioned that they would be plugged in and unplugged on a daily basis, and those plastic tabs are just aching to break — which makes the cable useless.

When the Cat5’s Away…

There are two obvious fixes. The first has to come from our manufacturer friends who — if they are going to outfit gear with an Ethernet connection — need to use the Neutrik Ethercon system, which is designed to take the abuse of live use. The second fix is to buy a bag of RJ45 ends and a good crimper so when that plastic tab inevitably breaks, you can cut the connector off and put on a new one. I have ends and a crimper, but I got tired of having to use them all the time and started looking for ways to protect those ends. Buying only cables with “booted” ends helps, but if one fails, you still have to replace it with a vulnerable, unbooted replacement — not to mention the fact that each time you replace an end, your cable will shrink by an inch or so, more if you’re not the best crimper and have to replace the end multiple times. (And even if you are a good crimper, trying to arrange eight similarly colored wires in the dark, backstage, before a gig and then thread them into a jack is a recipe for frustration — always have lots of spares on hand. They weigh a heck of a lot less than XLR and distro.)

DIY Meets FOH

I use a Hear Technologies Mixback and Hearback system that connects the main mixer and individual onstage monitor mixers to the central hub via an Ethernet cable. So I need at least nine of them every time I use the system. To combat incessant tip replacement, I came up with a storage and transport system that is — so far — working well.

I stole a trick from FOH contributor Jamie Rio. For a long time now, he has stored his XLR cables on one of those orange extension cord reels you can get at a hardware store. He just hooks them end-to-end and wraps them onto the reel. I did something similar with the Ethernet cables. I went down to my local electronic supply store and bought a dozen RJ45 couplers. These are usually used to make one long cable out of a couple of shorter ones, but I use them as shields for the ends. I wrap a cable onto the reel, put a coupler on the end of it, plug another cable into the other end of the coupler and keep wrapping.

I still carry extra ends and that crimper, but I have not had a cable fail since I started using the reel and the couplers.

Got a great tip that’s made your life easier? Let Bill know at bevans@fohonline.com.