

Cables present plenty of problems in audio systems, and it's something Dave Rat and the gang at Rat Sound has been addressing with a growing line of SoundTools products. I recently received several units to check out, including the XLR Sniffer/Sender, the NL-4 Sniffer/Sender, the 1/4" Sniffer/Sender, and the Mic Swapper.

The sniffer/senders are cable testers but unlike many devices of their type, these can be used to check cables/snake channels when they're in place at a show or installed at a venue and the two ends are not near each other.

All have two components. The XLR Sniffer/Sender, for example, includes a small "sender" unit with an XLR female plug on one end and a recessed switch on the other. Unscrewing the switch end opens up the battery compartment, which houses a small A23 battery. The even smaller "sniffer" unit includes a male XLR at one end, and three recessed two color LED lights labeled a, b and c on the other.

The 1/4" Sniffer/Sender is very similar in size and function, and as the name states, it's for 1/4-inch tip-ring-sleeve (TRS) terminated cables. One unit of the NL-4 Sniffer/Sender has contains the A23 battery and a 4-conductor Speakon jack, while the other offers four recessed 2-color LEDs and also a 4-conductor Speakon jack.

Meanwhile, the Mic Swapper is a 2-input/2-output unit that allows the outputs to be swapped. The business end is a cylinder made of metal with a rugged, metallic cap switch on the end. Four CBI brand 22 AWG microphone cables exit the rear of the housing from a beefy cable clamp. The cables are about 54 inches long and terminate into rugged Amphenol XLR ends. A nice touch is the included Velcro cable strap to help manage the cable for storage.

### Testing & Tracking

A pile of cables in my shop, just back from a gig, provided a great opportunity to check out these tools. First I tested a single XLR cable, and the sniffer showed three green lights meaning the cable was good.

Next up was a small stage snake, which is something a sender and sniffer style unit is really made for. The first channel of the snake was good, but the second channel of the snake showed only two green lights. Not even 10 minutes on the job, and the unit had found an incorrectly wired snake channel.

It was at this point that I discovered my only (and albeit minor) dislike. There is no legend printed or engraved on the body of the sniffers that can tell you what the lights mean. However, a small legend is included with each unit, so I made a copy of the original and taped it around the body

of the sniffer so I'd know what the light combinations meant. A more rugged solution would be to use some clear heat shrink to hold the legend on to the body.

It turns out two green lights on the XLR sniffer means that pins 2 and 3 are swapped or shorted. Since I've been using that snake for more than 15 years with no problems, I guessed that they were swapped. A check with a meter verified that my hunch was correct.

The next few hours were spent going over every one of my snakes, and after all channels received a clean bill of health, I moved on to using the other tools. The 1/4" and NL-4 Sniffer/Senders were just as easy to use, and I went through another pile of cables on the bench in no time.

Focus then turned to the Mic Swapper. I placed a small mixer on the bench and set up two microphones. By turning the switch, mic "a" went from channel 1 into channel 2 and mic "b" went from channel 2 into channel 1. This would be great for swapping out the lead vocalist mic to a spare during a show.

The Mic Swapper also works well as a mic tester, allowing me to switch between a pair of mics to compare their sound. The switching is very quiet, but it's not noiseless – Rat Sound recommends that you mute the channels before switching. However, I didn't mute the channels in my testing and could barely hear any noise during switching.

With the mixer set up, I also discovered that the XLR Sniffer/Sender can also be used to check for phantom power. This is really one handy tester!

### Proving Their Worth

I took the units to a corporate event where I normally place two podium mics (one serves as the spare). Instead of using two separate channels, I ran both mics through the Mic Swapper and then to a single channel on the console. The switch was easy to use with one hand, and will even fit into a mic clip so it can be positioned at the ready.

The next gig was a larger corporate general session, but this time I was free-lancing as an audio stagehand for another company. While setting up the audio system, we realized that one of the feeds to video world was not working. I traced the problem to a suspect cable, and then pulled the compact XLR Sniffer/Sender out of my pocket and found that pin 2 on the cable was open.

Another guy on the crew saw the units and wanted to check them out, and by day's end, every stagehand had seen and played with the three

sniffer/sender units. They all remarked that they wanted at least one, if not all three, for their own toolbox.

The final gig was a small corporate meeting, where this time I utilized the Swapper with a pair of wireless mics, making the second wireless a spare for the main presenter. By the way, Rat Sound also offers a Swapper that can serve as a switcher for three mics.

Overall, the Rat SoundTools are winners, and I'm adding them to my kit. With a few of these and a handful of turnarounds and adapters, they facilitate remote (and very quick) testing of any cable encountered at a show.

Prices direct from [www.soundtools.com](http://www.soundtools.com) include \$45 for the XLR and 1/4" Sniffer/Senders and \$99 for the NL-4 Sniffer/Sender and Mic Swapper.