Mackie Onyx 1640i Mixer

By Ethan Rising

The Mackie Onyx 1640i is certainly a powerful tool for its price point – a solid and rugged analog mixer combined with flexible 16 x 16 digital interfacing at 24-bit/96 kHz. Being an owner of the Mackie 1620 Onyx with the FireWire card for years, I was elated to hear of the improvements to the Onyx-i Series mixers.

The original Onyx Series featured a 16 x 2 FireWire interface, and only after purchasing the additional FireWire card for around $500. You were only able to record the individual channels (1-16) plus the main output of the mixer. The new Onyx-i Series mixers come with the FireWire built in and are capable of full 16 x 16 interfacing. There are handy FireWire switches on every channel for tape machine-like operation and other FireWire switches to route AUXs, subgroups, or your main mix to your computer. There are many ways this interfacing can be implemented.

You can simply route a two-track playback from your computer (iTunes, CDs, etc) to your mains/monitors for general playback. This can be achieved by routing FW 1-2 to the main mix in the master section of the board or by simply setting channels 1-2 on the board to receive the FireWire signal.

You can also route your six AUXs to input on DAW inputs 9-14, or your four sub-groups to inputs 5-8. This way you can record in subgroups to save hard drive space, or even use your computer as an effect box. The only issue I came across with this is that you end up scarfing the original inputs on channels 5-14, and if you want to record your live mix, channels 15-16 are nixed as well. It'd be ideal to be able to select one or two AUXs to be routed instead of committing all six channels of auxiliaries to be recorded. Let's face it... who wants to record a monitor mix with 90 per cent vocals? But having the ability to route an AUX into Logic and having my pick of effects? Priceless! You can also route AUX returns 1-4 to your subgroups, thereby allowing you to record any analog effects used during a show to your computer.

The final way that the FireWire interface can be used is what I call tape-style. By setting up any DAW to receive 16 channels from the 1640i, and outputting them on the corresponding output, the FireWire switch becomes a pre/post computer switch. Providing you have enough DSP, you can effectively mix with software plugs on any channel. Just make sure to watch your system resources! This mode is also only usable in a live situation at very low latencies (64-256 samples delay are ideal).

I also found that in order to reliably record 16 channels of 24-bit audio, 7,200 RPM hard drives are a necessity. Many laptop drives are too slow for this task, so bring an external! Also, if using a newer Mac, a FireWire 400 to FireWire 800 cable will be required. After I purchased the cable, set-up was a breeze! I plugged it in and turned it on, and instantly I could access it as an interface.

The digital side is what sets this mixer apart from others, but let's not forget the flexible and rugged analog design that has built Mackie's reputation to what it is. I have always found Mackie boards to be intelligently designed with the operator in mind and the 1640i is no exception. With the same clean Onyx pres and British-sounding Perkin's EQs with dual sweepable mids on every channel, six AUXs (with a pre and post switch for each), four subgroups with individual outs, a talkback mic, a separate control room out, a separate mono out with trim pot, and inserts for the main outputs makes for a very versatile mixer ready for almost any application.

I have joyfully used my older Onyx 1620 for live recordings. I found it very functional and affordable for studio/live scenarios. My major concerns (pricey FireWire add-on, limited FireWire use) have been resolved with the newer Onyx-i Series mixers. I still wish for the AUXs to be sent to FireWire in groups of two, instead of all six, or better yet, to be able to record everything without sacrificing channels. Maybe with FireWire 800?

Regardless, this mixer is one of the most flexible and affordable rack-mountable mixers on the market today, and will ensure ease of live recordings.

Ethan Rising, Producer and Co-Owner of Winding Path Media, www.windingpathmedia.com