>> **FIG. 1:** The Onyx 820i is the smallest of Mackie's upgraded Onyx-i line of FireWire-enabled mixers. It sports Perkins EQs, Cirrus and AKM converters, and a sleek new look to go with its renegade Pro Tools compatibility.

Mackie

Onyx 820i

A small-footprint mixer with some surprising capabilities

By Asher Fulero

>> In our reviews, prices are MAP or street unless otherwise noted.

Replacing Mackie's Compact Onyx series, the Onyx-i mixers have a sleek new black-and-steel look while gaining some subtle upgrades. Most notably, the new FireWire mixers are the first completely third-party hardware devices to support Digidesign Pro Tools software without Avid's endorsement, an industry coup of relatively epic proportions (see sidebar, "Tools of a Pro"). I spent some time with the new Onyx 820i, Mackie's smallest hybrid mixer yet (see **Fig. 1**). All in all, I was very pleased with its smooth sound, clean electronics and headache-free computer compatibility.

Get What You Need

Designing a small-format mixer that's extremely portable and still delivers the goods across a wide spectrum of applications is no simple task. Whether it's used as a production mixer for your studio's computer, as a keyboard submixer, in a stage laptop or P.A. rig, or as a front-of-house or monitoring board in a nightclub or coffeehouse, the 820i gives you one way to do everything.

Though it has only eight analog input channels, each has a unique set of features designed to make sure that no matter what your source is, you'll always have a way to handle it without sacrificing quality (see **Web Clip 1**). Other than FireWire, all connections are analog, with no digital audio inputs or outputs. Inputs are on the top panel, with a pair of FireWire ports and most outputs around back (see **Fig. 2**).

The 820i's input channels feature Mackie's reliably warm Onyx mic preamps and Perkins EQs. In use, they sounded very smooth and even, capable of shaping the sound without becoming harsh and of handling high-gain signals without changing character. The first two channels are designed for microphones, line signals or guitars, with 3-band mid-sweep EQs, a low-cut filter, inserts and a hi-Z switch for DI-style instrument input.

The third strip is a hybrid channel labeled 3-4 that has a single Onyx mic preamp and stereo line inputs. When you plug a source into the channel strip's mono mic input, the signal is sent equally to channels 3 and 4; it's a trade-off because the 820i becomes a 7-channel mixer when you use the third mic pre. The 3-4 strip sports a 4-band Perkins EQ with two gently peaking fixed mid bands rather than a sweepable mid. The two stereo line channels (5-6 and 7-8) offer only ¼-inch inputs and a simpler fixed 3-band EQ.

The rest of the mixer is straightforward, with Mackie-standard design elements such as tape inputs and outputs on RCA jacks. The two flexible aux sends can be pre- or post-fader, and each has separate gain knobs for send and return. You can also route aux return 2 back into aux send 1 for adding reverb to monitor mixes, for example. Also on the top panel, a convenient talkback section has a recessed omni microphone whose signal you can route to the headphone mix or to the aux sends. You access the Alt 3-4 bus by simply muting a track; all muted tracks are summed and sent to the ¼-inch TRS control room outputs on the rear panel. (For a video clip that surveys the 820i's layout and features, see **Web Clip 1** at emusician.com.)

Bring on the Fire

The 820i is both physically and sonically solid, with a well-measured evenness to the summed output. Similarly, the onboard 8x2 FireWire card has clean, well-imaged tone from its Cirrus A/D and AKM D/A converters. The FireWire system was immediately friendly with any audio app I threw at it, including Apple Logic Pro, Ableton Live and Propellerhead Reason and Record. I didn't have any trouble hot-swapping the mixer even while my audio apps were running (although this really isn't recommended). Despite Mackie's claims that the 820i wasn't yet compatible with Apple Snow Leopard, it worked perfectly for me without any complications on both Mac OS 10.5.8 and 10.6.1. Windows users will need to install a simple driver, but otherwise the device is class-compliant for all applications except Pro Tools.

Each of the five channel strips has a FireWire send with a Pre/Post switch, allowing you to include the EQ in the signal—very helpful in live recording settings. You can even route the aux sends or the master bus across the FireWire connection if you're willing to replace the FireWire 5-6 and 7-8 track sends. These are definitely trade-offs, but working within such a small format requires sacrifices.

Trapped in the Box

The 820i's only significant weakness is that the FireWire bus returns only a single stereo feed to the mixer, routable to the Control Room section or assignable directly to channels 7 and 8
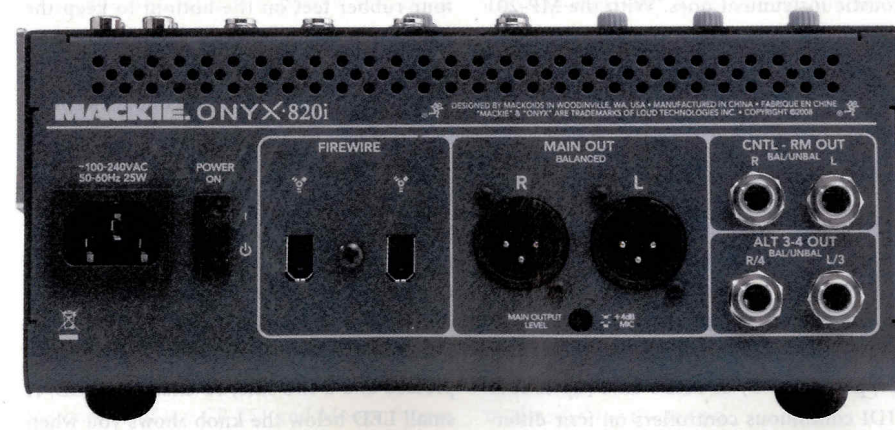
(disabling the analog 7-8 inputs). This workflow bottleneck kept me from buying an original Onyx mixer. Any laptop-based performer looking for an onstage interface/mixer will hit this wall; even the most basic DJ setup requires a second stereo output for headphone cueing. It's a shame because the entire FireWire module sounds really clean; eight channels via FireWire would make the 820i a terrific choice for many more situations. The largest model in the Onyx-i line, the 1640i, does include a complete 16x16 version of the same interface, but offering the same flexibility in the smaller formats would have been a huge benefit.

Despite this cost-cutting limitation on the FireWire side, the Onyx 820i is definitely designed with precision, built solidly and capable of creating reliably even and warm tones that other Mackie mixers are known for. Fans of that sound should be really pleased at the integration with Pro Tools, and Pro Tools users will be pleased at the prospect of a new front-end option. **em**

>> **FIG. 2:** Each channel's FireWire send can be pre- or post-EQ, and the dual FireWire ports let you daisy-chain devices. The Control Room outputs have a volume knob on the front panel, but the Alt 3-4 outputs do not.

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