review

Mackie Big Knob

A solution for the mixerless studio

Everyone has a mixer, the ubiquitous "center of the universe" in most studios. Except that most people are becoming increasingly virtualized, and a mixer is becoming less important in many project studios. If you aren't doing group tracking, but focus on single-instrument overdubs, you are probably using a mic preamp plugged directly into your interface, and are using the mixer as an oversized volume control.

BY DARWIN GROSSE

For those of us that embrace the virtual life, the most important part of the mixer is the monitor section; typically found on the right side of the mixer, it features the master volume, control room level, and input selectors. Wouldn't it be cool if you could chuck the majority of the mixer and just have the monitor section? Especially if it sat right on your editing desk, right next to the keyboard?

The folks at Mackie seem to think so too—while they're still making well-liked mixers, some with computer interface capability (look for a review of the Onyx mixer/FireWire interface in a future issue), they've also created a monitoring solution for just this type of user. Mackie has combined input metering, source selection, headphone amps and the talkback system of a mixer with a Big (volume) Knob to create its vision of a perfect monitor section. It also supports switching to any combination of three speaker sets, and includes several tweak features that will be useful to any virtual recordist.

What it is

So how does this thing work? In a way, you can consider it a mini-mixer with serious flexibility—it offers four stereo inputs (one of them an RIAA-standard phono input) with individual level controls, simple input metering, and a massively adaptable output section. This output section includes:

- Two headphone connections, with individual level controls.
- A studio (as in recording room) output, with source selection, level control and on/off switching.
- A built-in talkback system, with routing to either the "2-track" outputs or the studio output.
- Mono, Mute and Dim controls for the main control room outputs.
- Three selectable outputs for reference monitoring.
- A Big Knob for overall control room levels.

Lest you think the Big Knob is there merely to provide an obvious visual joke, it's not. If you've ever been monitoring a session that went volume-wild, you know that no knob could be too big—you've *got* to turn it down, and you don't want to be hunting for a Chiclet-sized mini-pot while the monitors are howling and the talent is cringing.

Ins and outs

Spin the unit around, and you will be shocked at the number of jacks and knobs Mackie is able to jam into a 13 1/2" x 3 1/2" panel space. It's a little daunting at first; luckily, Mackie provides a detailed map of these connections, and once you start hooking things up you will find a method to the madness.

Input sources are grouped together, with individual level controls allowing you to match gain across a DAW input, two 2-track inputs (for mixdown decks or mastering machines) and the phono input. There is a separate input for a headphone mix coming from the DAW, which can be routed to either the headphone jacks or the studio outputs.

Outputs include separate sends for an external headphone amp, three monitors and route-back for your DAW and both 2-track machines. Each of the monitor outputs has an individual level control, so that you can match volumes across differing amplifier/speaker combos.

Getting it wired

A unique feature of the Big Knob is that the entire unit is meant to sit at the mixing station, unlike other monitor controllers. If you have most of your equipment rack-mounted, you will have to run two-way cabling from your rack to your desk. This potentially means having a *lot* more cabling in your work area than you probably do now. If most of your recording gear is desk-mounted, you won't have a problem; otherwise you will want to get several mid-length 1/4" snakes to run cable to your rack.

And while you're at it, make sure they are balanced (3-conductor) cables. I ran 10-foot cables between my rack and the Big Knob, which adds 20 feet of cable to some of the signal generators and amplifiers. Good-quality cables are a must, as

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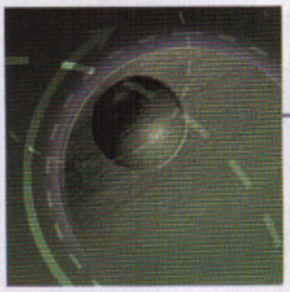

is maintaining balanced lines for everything that can make (or take) it. Luckily, virtually every jack on the Big Knob (save the phono inputs) are combination balanced/unbalanced jacks, so you will be safe running a completely balanced cable set to the unit.

In my case, I ran my Pro Tools system as the DAW and a PC system (used primarily for mastering and mixdown) as one of the two-tracks. Since I had that second two-track input just begging to be used, it ended up getting the output of my studio television. (Don't laugh—being able to mute the outputs during Yet Another Herbal Marital Aid commercial practically makes this unit a Must Buy!) I routed the DAW and two-track A outputs back to the individual devices, since this allows me to dub audio between the units—in essence, giving me a modest audio switcher in the bargain.

I only have two monitor systems in my studio, so I used the A and B lines for speaker routing. Finally, I brought in outputs 7 and 8 of the Digidesign 002 as the "DAW Phones Mix Input," which allowed me to create submixes that were different than the standard mix output. I was able to accomplish all this wiring with two 10-foot cable snakes (which I happened to have laying around), and wasn't too bothered by the extra cabling.

Once everything was hooked up, it was time to set the levels. Virtually every input and output on the Big Knob has some sort of level control. The "device" outputs (DAW, two-tracks A and B and phone amp) have simple –10/+4 switching, while the others all have level knobs for balancing the inputs and outputs. It pays to spend a little time getting this right—having multiple monitors "speaking" at the right volume will help in comparative listening situations, and keeping all the system inputs (including that TV!) well balanced helps keep operations efficient. These level settings are all mounted on the back of the Big Knob, which makes them *set-and-forget* controls.

One cool aspect of this machine is that it is more than a speaker switcher; it is, in fact, a mixer as well, allowing you to simultaneously monitor several inputs, as well as route the inputs to several outputs. One thing to watch out for: the DAW and two-track outputs will always carry the signal from the currently selected input sources, so you do have the possibility of a signal loop—which will pretty much overwhelm the household with monstrous feedback. In the beginning, you'll have to watch out for this when you are arming DAW tracks, but you eventually get used to it, and the routing capability is important enough that you will learn to switch responsibly.

In use

The Mackie Big Knob wouldn't be useful if it colored the audio signal; it needs to present the inputs to the outputs with as little alteration as possible. I'm pleased to say that this is exactly what happens—this is a transparent machine. To properly set up the system with appropriate gain staging and normalization takes a bit of time, but this critical step is the key to creating a comfortable monitoring system.

And comfortable it is. Having all of this control at one's fingertips leaves one with the "I can't believe I've been doing without this for so long" feeling. Instant source selection, volume/dim/mute handling and multi-speaker routing is a killer app for anyone with his or her nose pressed up against a computer monitor. Mouse-jockeys need this more than they could imagine.

If you are lucky enough to have a separate recording area (either an isolation booth or recording room), you will really appreciate some of the advanced features of the Big Knob. The availability of a talkback system is one—in two-room situations, the talkback system gives you instant feedback to the recording musicians. This is also handy when interfacing with two-track machines; if you are using digital tape or a hard drive mastering deck, you will appreciate the ability to document your recording by adding spoken notes where appropriate. The studio monitor system is also set up perfectly for allowing artists to spot-check their takes.

The only real problem I experienced with the Big Knob was a slight hum in an alternative speaker system. Since I have several computer workstations, I was using it to switch the stations to any of the monitor systems. Since these independent systems each have their own power routings, connecting them together through the Big Knob produced a ground loop hum that needed to be tracked down. A little ground management cleared up the problem, and having all of the workstations interconnected opened up interesting new options for multiple-system use.

Conclusion

For a small project studio that is heavy on virtual synthesizers and effects, the Big Knob is the perfect alternative to a mixer. You save a lot of rack space, with more routing options than are typical with a mixer, and you get a lot of control at your fingertips. This is doubly true if you happen to have a separate recording room, where the "studio" outputs will allow you to communicate and mix for that environment without altering your monitor mixes. In either case, the transparent sound, intuitive interface and complete flexibility make the Big Knob a worthy contender for the center of your universe.

Price: $384

More from: Mackie, 16220 Wood-Red Road NE, Woodinville, WA 98072. 425/487-4333, fax 425/487-4337, www.mackie.com.

Darwin Grosse (grosse@recordingmag.com) is a recording engineer, sound designer, music software programmer, and avid skier living somewhere in the nosebleed section of the Colorado Rockies.