

# MACKIE AUDIO TOOLS HANDY PROBLEM-SOLVERS FOR STAGE AND STUDIO

In an ideal world, musicians would be able to focus solely on their art without getting distracted by their gear. But in the real world, keeping up with your equipment and instruments and the various connection formats and setup scenarios that you're likely to encounter at shows or in the studio takes a lot of mental energy. To help keep those distractions to a minimum, Mackie designed Audio Tools, a variety of problem-solving boxes that make it easier to connect, power up and troubleshoot, so you can focus on your music.

In this article, we'll look at the various Audio Tools and talk about the ways in which they can make your life easier.

#### M48 48V Power Supply

The Mackie M48 48V Power Supply is designed to provide phantom power to condenser mics and is super easy to use. Plug a condenser mic into its XLR input, and the unit sends it 48V phantom power, which enables the mic to function. Connect the XLR output of the M48 to the mic preamp of a mixer or audio interface and you're ready to rock.

You might be asking, "Why do I need an external phantom power supply when my interface or mixer already provides it?" Well, let's say you're using a ribbon mic along with the condenser mic in the same mixer, but the mixer only allows you to turn phantom power on or off globally. You don't want to send phantom power to the ribbon mic, because it could potentially damage their electronics. The simple solution is to power your condenser mic from the M48 and leave the phantom power on the mixer off.

It's also possible that you may encounter some hardware, such as an older mic pre or mixer that doesn't have phantom power. Or perhaps you're at a club where the mixer's phantom power is unreliable.





The M48 gives you rock-solid 48V phantom power anytime you need it, providing setup flexibility and the assurance that your condenser mic will be able to function.

### **MTEST-1** Cable Tester

Here's a situation many of us have encountered: You connect a guitar to the instrument input on your pedal board when you're checking your gear onstage before the show, and you hear no sound. You try a different cable from your guitar, but still nothing. You plug directly into the amp and you hear the guitar loud and clear. So know you know that the problem must be in the pedalboard. But there are eight cables and now you have to figure out which is the broken one. If you have a Mackie MTEST-1 you can test each cable quickly and easily until you find the culprit.



But MTEST-1 can check a lot more than 1/4" cables. If you're at a gig, and one of the main speakers in your PA isn't working, you can use the MTEST-1 to test the speaker cable. You can even plug Speakon and Banana connectors into it, as well as RCA, MIDI, XLR, 1/4" TS and TRS and 1/8" TS and TRS cables.

M-TEST-1 has another really useful application: Testing cables at home before you go to a show. Don't leave up to chance whether the cables you bring to the gig are going to work. M-TEST-1 lets you check them quickly and easily at home before packing them up. This is an especially important exercise if you're using cables that have seen heavy use and are more likely to be problematic.

Whether it's a recording session or live show, having the MTEST-1 will speed up your troubleshooting significantly.





## **MDB Series** Direct Boxes

The MDB-1P, MDB-2P and MDB-1A are three different flavors of direct boxes. The MDB-1P and MDB-2P are passive, meaning that they don't require a power supply. The MDB-1A is an active direct box that runs on a battery. Its active electronics provide additional headroom and help reduce the possibility of distortion, making it particularly useful with instruments with active electronics. That said, the applications for both active and passive DI boxes are essentially interchangeable, it's more a matter of which type you prefer.

The MDB-1P and MDB-1A are mono, and therefore designed for basses. guitars, and other instruments with mono outputs. The MDB-2P is stereo, which makes it suited for keyboards, synths and other stereo sources.

Let's start with the mono units. The MDB-1P is perfect for connecting an electric bass to the mixer. Plug your bass into the MDB-1P's input, connect the XLR output to the mixer or stage box, and connect the Thru output to the bass amp. You get to play through your amp onstage, and the sound person gets a high-quality DI signal for the house mix.

Another good candidate for the MDB-1P or MDB-1A is an acoustic guitar or other acoustic instrument with a pick-up. Again, you can use the Thru output for connection to a stage amp.

The stereo MDB-2P is handy for connecting the output from a single stereo keyboard to the mixer. It has dual Thru outputs for connecting to a keyboard amp.



Although technically a mono device, the MDB-1A has a handy feature called Merge, which allows you to use it with a stereo source. Activating the Merge switch on the unit's front panel turns the Thru jack into a second input. The output is summed to mono, but in many gig scenarios the PA is also mono, so it won't matter.

For studio recording, you might think that because your audio interface has instrument inputs, you won't need a DI for tracking guitar or bass. But there are some scenarios where it would come in handy.

For instance, what if circumstances require that you situate a musician far from the interface (say in another room, so the band can all play together), but you still want to connect his or her instrument direct. Using an MDB-1A or MDB-1P, you can convert the 1/4" balanced instrument signal to a balanced XLR that can be plugged right into an XLR input in the recording room (perhaps you've run a snake in there). Alternatively, you can connect two mic cables and run them from the direct box all the way into the audio interface.

Another reason to use the MDB DI box rather than your interface's instrument input is so you can use its Ground Lift switch if you have hum issues. With the MDB-1A, you also get a Polarity switch, giving you another option that can improve the sound in certain situations.





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## **MDB-USB** Stereo Direct Box

In today's world of virtual instruments and virtual effects processors, getting a high-quality audio output signal from your Mac or PC laptop is critical if you're using it onstage. Sure, you could use the laptop's headphone output to connect to the mixer, but it won't give you the fidelity of a balanced connection, and the 3.5mm jack on it is flimsy and not all that secure.



MDB Series DI boxes give you the options and flexibility for direct connection of instruments.

A much better solution is the Mackie MDB-USB, a stereo direct box that allows you to stream audio from your computer via USB, and then outputs it as a balanced signal through rock-solid XLR outputs. Let's look at some possible applications. If you're a keyboardist who uses virtual instruments, having an MDB-USB will allow you to always send a high-quality signal to the mixer onstage or to a mixer or audio interface in the studio. The same is true for a guitarist who's using amp-and-effects modeling software in a laptop instead of a real amp and pedals.

You could also use the MDB-USB for sending backing tracks or loops to the PA on a gig or outputting a click track to the drummer. And, of course, if you need to play recorded music through the PA before a show or during breaks, the MDB-USB makes that easy, too.

### **Tooling Around**

If you're a musician or sound engineer, you never know what sort of complex setup issues you might encounter. From connection compatibility to troubleshooting, Mackie Audio Tools will make your life easier, so you can focus on your music.



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