

## It's Cheap, it's Tiny, and Surprise: It's Good

[www.mackie.com](http://www.mackie.com)

By Craig Anderton

Sure, I have a nice digital mixer in my studio. But I cannot tell you how many times I've used a compact mixer when playing live. For my DJ-meets-guitar setup, I need to take the line level outputs from my computer, while adding in guitar and a mic - and of course, I need headphones for monitoring. I started off with really minimal mixers that basically stunk, but they were cheap enough that I could throw them away when they eventually blew up under the stress of a gig.

So when Mackie sent a 402-VLZ3 for review and I found out you could buy one for under \$100, I didn't have high hopes. Sure, it was a Mackie, so at least it would likely survive a fall. But really, what can you expect for that price?

Turns out you can expect a lot. And I mean, *a lot*. It just seemed wrong, getting big mixer sound in a little box.



*Mackie's 402-VLZ3: Yes, it really is small.*

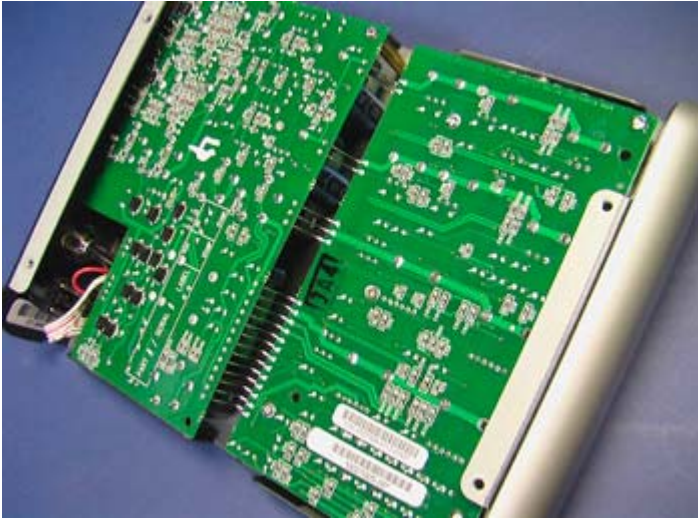
Then I realized the reality of the situation: *Mackie ripped off themselves*. The 402-VLZ3 uses their XDR2 (Extended Dynamic Range mic pres), which sound absolutely wonderful - clean and transparent. But they'd already done the R&D, and probably bought parts for them in sufficient quantities that they got quite a price break. What's more, the knobs and controls look suspiciously like what they use in some of their bigger mixers. Basically, they stole their own designs, resulting in a little mixer at a righteous price.

If you want the specs, [click here](#) - there's no need to repeat that info when it's just a link away. Instead, we'll get into what the specs don't tell you: Build quality and the significance of the various features.

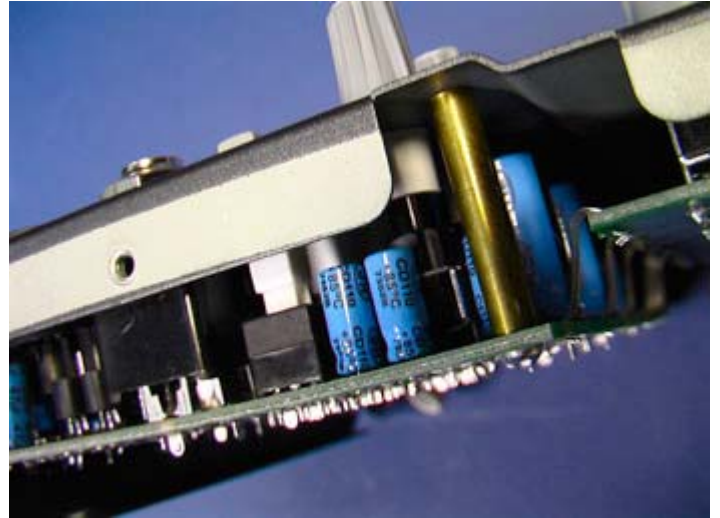
### HEAVY METAL

The first thing I like to do with a hardware review is void the warranty (so you don't have to!) by taking the unit apart. The 402-VLZ is built in an all-metal case, and you can access the innards just by undoing eight screws. It's heavier than if it was made of plastic, but that's fine by me.

You can't really see the components, but the circuit board is good quality, and nestled securely in the case. The connection between the two boards is bare wires instead of ribbon connectors - a good call, as ribbon connectors are more expensive, and not needed because of the way the mixer is constructed.



*An insider's view of the 402-VLZ.*

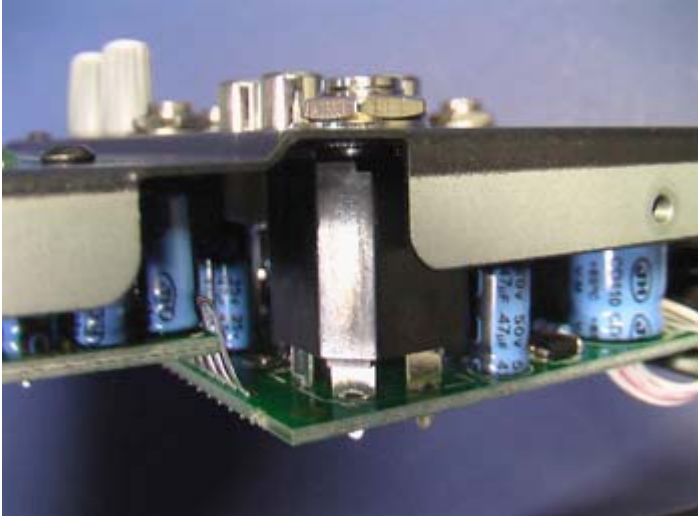


*Brass standoffs hold the circuit board securely to the metal front panel.*

More interestingly, note the standoffs that secure the circuit board to the front panel. This is not something you'd expect at this price point; many companies would just hope the jacks (which solder to the circuit board) would hold the rest of the circuit board in place when attached to the front panel. Extra points.

Also, extra points for using enclosed jacks, and for adding real washers between the jack's mounting nut and the front panel.

The 402-VLZ3 uses a "line lump" (a transformer with an AC line cord at one end, and a connector to the mixer at the other) instead of a wall wart. I appreciate this, as it means the power supply doesn't hog extra space on a barrier strip. But what I appreciate even more is that the connector at the mixer is a locking type, so if some drunk trips on the power cable because you didn't tape it down before you set up, the power will remain connected.



The 1/4" jacks are enclosed. Enclosed jacks are generally considered a sturdier option than non-enclosed types.



The locking connector could possibly save your gig, so don't underestimate its importance.

The downside, of course, is that if someone *does* trip over the cord, the locking nature of the connection might pull the mixer off the table and down to the floor - but I'd wager the 402-VLZ3 would deal with a fall better than your audience would deal with you going silent until you managed to hook the power back up.

## FEATURES



The first two ins accept either XLR or line/instrument ins. Also note the two 1/4" TRS outputs.

The 402-VLZ3 is a four-in (well actually six-in, as we'll find out later), two-out device. The outputs are mono or stereo, balanced or unbalanced.

Two of the inputs have XLR mic inputs and 1/4" line ins. The XLR inputs can receive phantom power as a pair; you can't apply phantom power to one but not the other.

Looking more closely at the two main inputs, note that there's an instrument switch for feeding in an instrument like electric guitar or bass directly, without the need for a DI box. The manual doesn't list the impedance when set to the instrument mode, but listening tests will tell you it's sufficiently high not to cause any significant loading of your pickups.

The low cut switch is also an overachiever, as it rolls off at 18dB/octave (not the 6 or 12dB I expected) starting at 100Hz. Very cool. Total available preamp gain is 60dB, which should be enough for any decent mic.



The two main inputs offer instrument in switches, lowcut filters, and plenty of gain.



If you want to treat the two main ins as a stereo source instead of two mono sources, use the Stereo Pan button.

If you engage the stereo pan button, channel 1 dumps into the left output, while channel 2 goes into the right instead of both being centered. Regarding line ins 3+4, these are fixed for stereo operation, with 3 going to the left and 4 going to the right. However, if you plug into only channel 3, then its signal appears in the center of the stereo field (you then wouldn't plug anything into input 4).

The 402-VLZ3 does include EQ, but don't expect a multiband parametric at this price. First, it's only on the first two channels, and second, the frequencies are fixed at 12kHz for the high band and 80Hz for the low band, with a shelving response. However, there's a cute little goodie: If you boost bass *and* engage the low cut switch, there's a sort of resonance effect that boosts the bass but still keeps really low-frequency crud out of the system.



The two main inputs have two-band shelving EQ.



The two output meters use eight LEDs.

Let's also look at metering. The two output meters use eight LEDs - not just "active" and "overload" LEDs. There are also two clipping indicator LEDs on the two main channels. Again, these are extra touches that are appreciated.

Finally, there are tape in, tape out, and headphone jacks. The tape in connections are normalled to the headphone out, but an "Assign to Main" switch lets you send these to the main outputs, technically making the 402-VLZ3 a six-input mixer. When the switch is disengaged, the tape ins are not assigned to the main outs. The tape ins are great for, say, hooking up a CD player for pre-show music. The tape out simply parallels the main out, so if you want to record the gig, just patch these to your recording device of choice.

## **THE BOTTOM LINE**

Because I assign myself what to review (there are definitely some advantages to being Editor-in-Chief!), I take advantage of that fact to check out products that interest me personally, and hopefully interest you as well. I really hadn't planned on reviewing the 402-VLZ3; but after giving it the once-over, I decided this was too good to pass up, and something the Harmony Central community needed to know about. If you're looking for a small, inexpensive mixer, I strongly doubt you could find anything near this price with equivalent sound and build quality.