



KM 180 Series Mics in the Project Studio

May 2001 by Grant Krauss of Line 6

Well, I actually haven't yet decided if I like the omni KM 183s or the cardioid KM 184s better on my piano. The 183s would win for a solo piano sound because of the bottom end. But the 184s probably work better for piano in my mix because the high end sticks out more, at least in the mic positions I'm currently using. I'd still experiment more and move the 183s around a bit to see what else I can get. They seem to be easier to position than the 184s to get a good sound while avoiding "spotlighting" the piano and the resulting resonant frequencies.

Like I don't already have enough mic experiments going on at my house, I went out and bought an old Gretsch drum kit, talk about an impulse buy, and I don't even really play drums. But there's several great drummers here at Line 6... The only thing I still do with MIDI is sampled drums, so if I got a decent sound miking real drums, I could totally eliminate MIDI and get rid of one computer and my last controller synth keyboard. My goal is to keep the drum miking as minimal as possible, and stay away from direct mics on each drum with individual EQ's, etc., 'cause the simpler it is, the more fun it will be.

Actually, the best sound I've gotten so far has been just the pair of KM 183s set up as room mics about 4 feet high and 4-5 feet in front of the kit on either side of the kit. It's far from studio quality, but the kit is also in a tiny drywall square room, about 10' x 11', absolutely terrible. I found that I can also get a good sound out of the Royer ribbon mics, but since they don't have that high end like the Neumann condensers, I have to boost the high frequencies a lot and then the mix gets weird because I'll need to bring the snare up, but then that frequency band makes the cymbals sound horrible. What a challenge. This weekend, I'm gonna try some large diaphragms in different configurations in combo with a 183(s) or ribbon(s) or 57 or whatever. If large diaphragms do something I like, I may be in for an M149, yikes!

Here's some configurations I'm using so far:

5'4" Kawai Baby Grand:

Stereo KM 184s - Great contemporary piano sound; sits well in band mix without EQ; requires careful mic placement on my piano.

Stereo KM 183s - Great solo piano sound; Big bass without muddiness; Sound's warmer than 184s despite taller high freq bump in spec sheet than 184; May be too much bass for band mix without EQ, haven't check yet. Seems like easier mic placement than 184s, but not totally sure yet, maybe I just lucked out.

U87 on Low Strings, M147 on High strings - Interesting "older" sound. Midrangy and warm, and somewhat more "mic'ed" sounding, if that makes any sense. Mic placement more difficult. I have to roll off low end to keep from getting muddy.

Royer SF-12 stereo ribbon - with no EQ, it sounds just like my piano, which isn't great. My piano has that boxy, midrangy baby grand sound. EQ's well to make a nice solo piano sound. Seems like less volume than the condensers despite the same peak readings.

Drums:

Stereo 183s in front of kit as room mics - This is a way more contemporary drum sound than with the ribbon mics, with lots more high end, no need to boost highs. Cymbals and snare come across as sounding like completely different instruments, and when compared to using ribbons, this setup takes way more sound volume, even with seemingly the same peak meter readings. Works as a "couldn't be any easier" setup to get a decent, quick modern drum sound.

Guitar Amp (Mesa Boogie with 4x12):

Royer 121 - backed up 3-6 feet from the cabinet. It sounds great. The Royer 121 is just really easy to work with with my amp, and I swear, it's not because of all the hype. It really is a great guitar amp mic.

Various configurations of Royer 121 and M147 together at different distances and panned.

Acoustic Guitar

I've been doing my acoustic guitar tracks in mono with either a U87 or M149. But then I tried a U87 around the bridge or at the 12th fret and a KM 184 at the tuning pegs and the difference was amazing, just like comparing mono piano recording to stereo. I'm hoping to try out the 183's on acoustic guitar, but haven't gotten to it yet.

Grant Krauss is a development engineer at Line 6 corporation.

