
Subject: Lead III Cab Ports

Posted by [benn](#) on Thu, 20 Feb 2014 01:32:29 GMT

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I was wondering what people's thoughts on the Lead III cabs and their ported rear panels are. What I've read about ported guitar cabs gives me the impression that I'd enjoy the bass-enhancing, pseudo-open back sound of a ported 4x12, but as I know these were sort of a budget model (or so I assume from their MDF construction), I am skeptical as to how functional the ports are. Are these cabs actually "tuned" for any particular frequency shaping, or are the ports just random/cosmetic? What can I expect? Also, everyone tells me cab construction is important for tone as well as durability. Can anyone comment on the build quality of these cabs? Thanks.

PS - Just had the thought that some of the port-slots could theoretically be plugged up to sort of custom tune it to whatever speakers I use (either G12-65s, G12T-75s, or Eminence Swamp Thangs).

Subject: Re: Lead III Cab Ports

Posted by [pleat](#) on Fri, 21 Feb 2014 14:00:45 GMT

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Kustom in the hard tolex series amps, they had two versions. The early Kustom logo version and the later Big K logo versions. The later big K series, they did use MDF but the earlier series started with plywood construction. The rear ports give the impression of an open back and I like that sound on stage. Covering the ports or closing off all the ports will give it a more focused sound. But then again, sound is what the musician hears and everyone hears differently. I'd start experimenting and it appears to be a huge task considering all the different speaker options that you can choose from and then tackle the ports.

pleat

Subject: Re: Lead III Cab Ports

Posted by [benn](#) on Fri, 21 Feb 2014 15:23:47 GMT

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Thanks for the insight. A friend of a friend has one of the "big K" cabs (empty) for sale, so I'll probably give it a shot. My concern is over-excursion of the speakers - I know Celestion warns against using ported cabs for guitar speakers, which is probably overly-cautious so long as the cab is designed for the speakers that go in it. But popping all different kinds of speakers into a cab ported with other speakers in mind seems like it could be a problem, so maybe I'll proceed, but with caution.

Subject: Re: Lead III Cab Ports

Posted by [pleat](#) on Fri, 21 Feb 2014 19:37:22 GMT

It really depends on how you wire the speakers and what each speaker impedance is. Using 8 ohm speakers and wiring them in series/parallel would get you a 8 ohm total load. With that in mind, each speaker is taking 25% of the amp's power. Giving today's PA's and not much need to fill a room by the amp itself, I run a lower wattage speakers in my T&R custom amps, and if I need more gain, I toss a mic in front of the cab and let the PA do the work to fill a venue.

pleat

Subject: Re: Lead III Cab Ports
Posted by [steven](#) on Sat, 22 Feb 2014 12:57:46 GMT
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I do not know if you have ever played through a 4-12 cab, but with a 50 watt amp even with 4 drivers rated for only 94 db it's loud, very loud!!

I would not concern yourself with over excursion of the Celestions unless you intend to drive them to over 75% of their rated wattage.

If they are used drivers with their surround and spiders well played and on the loose side then the excursion thing may be something to consider, otherwise sleep well if you use them.

Wiring of the 4 drivers will have the greatest effect on tone other than the sound of the drivers themselves.

The difference in the amount of inductance between wiring in series parallel to get 8 ohms, or wiring in parallel series to get 8 ohms will make a big difference in the top end shine you get from the drivers.

I would try your chosen drivers wired each way to see what makes you smile.

Other than better drivers and wiring them to your liking the next greatest improvement you can get from a cabinet is to line it with sound absorption material if it has none.

In regards to the loudness thing, if you are driving your cabinet with a tube that has different impedance taps you should wire in a double pole double throw toggle switch so you can cut out 2 of the drivers and only have half of the SPL level on hand, you will also then have in effect what's called a detuned cabinet which is quite popular these days with some.

Mixing different drivers is also a great way to get to your sonic utopia.

Subject: Re: Lead III Cab Ports
Posted by [benn](#) on Sat, 22 Feb 2014 17:24:54 GMT
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Hmm I hadn't thought much about wiring - I guess I just use series/parallel and forget about it. I was under the impression that it had a pretty subtle effect, but I'll give it a whirl. Thanks.

As for volume - I have indeed used lots of 4x12s and, unfortunately, I play punk and metal in venues that never have PAs set up for anything but vocals (and the PAs used are generally under-powered). So the volume and spread of a 4x12 is needed, plus the visceral experience/full-body-vibration is something desired/enjoyed by those in the scene. Different strokes for different folks, ya know? I'm usually playing a 100 watt tube amp with the volume

around 75%, so over-excursion is a concern, especially since the Celestions I have on hand are from the early to mid 1980s.

So the impression I'm getting is that at low-medium volumes I could take advantage of the ports regardless of what they're tuned to, but with older speakers at higher volumes it would be a rather extreme and unpredictable environment for them. Though I'm interested in ported cabs for the style of music I play, it sounds like if I want to play at high volumes, I should probably go for a speaker/cab combo that was tuned and designed to handle it. Thanks for all the advice!

Subject: Re: Lead III Cab Ports
Posted by [steven](#) on Sun, 23 Feb 2014 12:24:54 GMT
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Due to the way the human ear responds to sound pressure level a 100 watt is not twice as loud as a 50 watt amp, but it does have twice the amount of clean head room before the output tubes start to distort.

To double the SPL level of a 50 watt amp you need to step up to a 500 watt amp, or a 100 watt needs to be a 1000 watt amp!

The best way to get more volume is with more speakers/ cabinets if you do not mind lugging the stuff around.
