Subject: 3-15's cabinet

Posted by lowa Boy on Fri, 01 Sep 2017 03:45:43 GMT

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I have several of these 3-15's cabinets and have been trying to figure a way to get the best use out of them for PA. Since originally they had 16 ohm speakers, the best you could get out of all three speakers was 5.33 ohms. Well that doesn't help you if you have a K-200 or K-300 head, or even most amp heads with a 4 ohm total load.

I did come across a wiring diagraph of 2-8 ohm 15's wired in series and then a 16 ohm 15 inch speaker wired in parallel to the 8 ohms speakers. This now gives you a cabinet with 8 ohms. Now you could use 2 of these 3-15's cabinets with any amp that requires a total load of 4 ohms. What would be the disadvantage of wiring these cabinets like this other than if one of the 8 ohms blows, you loose both for output?

Also, I have 2 cabinets that have sirens in them. I'm assuming that the drivers were 16 ohms? They are the originals but I see no markings to indicate ohms or watts. I would like to get rid of the caps and put in crossovers in place of them but know of no 16 ohm crossovers. Hoping they are 8 ohms but doubt if I could be that lucky. If nothing else, I might have to replace the drivers with 8 ohm ones. Appreciate anyone's thoughts on this.

Subject: Re: 3-15's cabinet

Posted by stevem on Fri, 01 Sep 2017 12:00:15 GMT

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Your thinking in terms of pure resistance in regards to 3 16 ohm speakers being 5.33 ohms, in reality most 16 ohm rated 15 inch drivers check in at about 12 ohms on a meter, but if you view the RE specs on drivers which deals with real life operating mpeadance and not resistance you will see that it's almost never that a operating drive ever gets down to its as advertised 4 ,8 or 16 ohm impeadance!

Subject: Re: 3-15's cabinet

Posted by chicagobill on Fri, 01 Sep 2017 16:15:24 GMT

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I'm of the school of thought that too much worrying about speaker impedance only takes away from making music time. You don't want to use a speaker that is way off in impedance from the amp, but it's not that critical that it matches 100%.

The series parallel wiring with 2 series 8 ohms paralleled with a single 16 ohm should be fine. Just be sure to correctly polarize the wiring so that all of the drivers are in phase and move forward at the same time. The only other thing would be what speakers you used for the cabinet and how efficient they are.

Because the sirens are coupled with a capacitor, the resistance of the driver doesn't affect the

resistance of the cabinet as a whole. I've not sure what the driver's impedance is in the sirens. If you have an ohm meter, you can check one and see for yourself.

Subject: Re: 3-15's cabinet

Posted by Iowa Boy on Sat, 02 Sep 2017 01:55:19 GMT

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The 15's are all Eminence speakers, some are new Delta's and some are the original Kustom speakers.

My main concern was not to fry any of my amp heads using 2 3-15's cabinets together and running the load below 4 ohms.

The sirens I want to replace the cap with an internal 2-way crossover. I would imagine the sound quality would be improved by doing this and make the sirens more efficient as well. Be nice if anyone knew the specs on these things.

Subject: Re: 3-15's cabinet

Posted by stevem on Sat, 02 Sep 2017 10:24:21 GMT

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The stock driver on the sirens are 16 ohm for the record.

Subject: Re: 3-15's cabinet

Posted by Iowa Boy on Sat, 02 Sep 2017 17:47:02 GMT

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Well that bites if I want to use a 2-way crossover.....thanks Stevem for the info.