Subject: Reducing amp volume
Posted by Shane on Wed, 12 Apr 2006 16:02:23 GMT
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I've got a Peavey 5150 combo that I used to use when gigging that I seldom use anymore. About once a month I turn it on for 2-3 hours, maybe playing through it for 1/2 hour or so to keep the caps in shape. Problem is that this amp is soooo loud and has tremendous gain that it just can't be played at low volumes and sound right (even at a setting of 2 on the volume this dude is loud and doesn't really "sing" until you hit 5). I seem to remember years ago that Marshall made a unit you could put between the output and speakers to drop the volume levels, but still be able to use all the gain of the amp to keep that nice, saturated distortion you get when cranked up. Anyone have any suggestions on how to accomplish this?

Subject: Re: Reducing amp volume
Posted by Damir on Thu, 13 Apr 2006 11:31:54 GMT
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Reduced volume can be obtained in various ways - switching output tubes to triode operation, switching off one pair of output tubes (when amp has 4 tubes), reducing anode/g2 voltages (by some kind of autotransformer, or switching trafo taps) while keeping heater voltage the same, etc.Some manufacturers have "speaker emulators/attenuator" units, but we have different opinions about safe use of them, especially with simple, resistive units.The simplest method for reducing output power is resistive attenuator. For example, your speaker cabinet is 8 Ohms (check it), and amp "gives" 50W to it. It means 20V/2,5A on the 8-Ohms speaker. We can connect the power resistor of 8 Ohms/25W in parallel with speaker, and another resistor of 4 Ohms / 50W in series with this combination (between the amp, and speaker + 8-Ohms resistor in parallel). Now, amp "sees" 8-Ohms load as before, but only 12,5W reaches the speaker. We dissipated 25W in 4-Ohms resistor, and another 12,5W in 8-Ohms resistor. You can build a small metal case with two jacks (one to the amp, another to the speaker) and resistors inside, connected on the chasis (heatsink).

Subject: Re: Reducing amp volume
Posted by Shane on Thu, 13 Apr 2006 14:45:47 GMT
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Thanks Damir.Here's what I remember from Marshall.
Marshall powerbrake

Subject: Re: Reducing amp volume
Posted by Damir on Fri, 14 Apr 2006 10:19:29 GMT
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Someone "down there" had a schematic of the speaker emulator/attenuator box...
http://audioroundtable.com/GuitarAmp/messages/306.html

Subject: Re: Reducing amp volume
Posted by harry4265 on Sat, 15 Jul 2006 07:13:26 GMT
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just twist the little nob that says volume on it

Subject: Re: Reducing amp volume
Posted by Wayne Parham on Mon, 17 Jul 2006 14:53:15 GMT
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I think Shane's point is that the control doesn't do what he wants it to do, that the system is at full gain when the volume knob has only been turned 10% or 20%. Sounds like it might be worthwhile to solder in a resistor or two.

Subject: Re: Reducing amp volume
Posted by Shane on Thu, 27 Jul 2006 00:13:15 GMT
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Is your reply to everything completely IDIOTIC?I've been using tube guitar amps for 20 years. I think I know how the damn volume control works, and the gain control. Anyone who knows anything about tube amps and distortion realizes that the best sounding saturated distortion when playing full on rock (ie. Megadeth, etc...) happens when the tubes are pushed hard. Can't do that at a low volume and get the correct "tone", especially with this amp. And unless you own a 5150 combo or similar high gain amp don't make any more stupid suggestions.

Subject: Re: Reducing amp volume
Posted by Shane on Thu, 27 Jul 2006 00:20:30 GMT

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Well, it's not at full gain at low volumes. The problem is that you can't get that sweet tube saturation you get at high gain settings and high volume. Marshall actually makes a device that allows you to run the volume up so you're getting full power to the tubes (thus complete tube saturation), but cuts the power between the output tubes and the speaker. You get that full, rich distortion at a low volume. When you turn the gain control clear up then play at low volume it sounds more fuzzy that full on crunch.

Subject: Re: Reducing amp volume
Posted by Wayne Parham on Thu, 27 Jul 2006 13:44:32 GMT
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Gotcha, like putting an L-Pad on the output so the amps are driven harder.

Subject: Re: Reducing amp volume
Posted by Shane on Fri, 28 Jul 2006 02:41:53 GMT
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Exactly. The trick is to be able to do it without burning the amp up. Blowing out the trafo's and power tubes. It must have something to do with keeping the impedance right.