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Subject: A fix for Oddwatt type amps running on low AC mains voltage

Posted by [gofar99](#) on Sun, 09 Jul 2023 01:55:35 GMT

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Hi Everyone, This could apply to other amps as well. Nearly all of the Oddwatt power amps use 12 DC for the heater source and the output tubes have the heaters in series. With nearly all tubes made after the 40s this is fine as the current draw for each is quite similar and the voltage is rather close to evenly distributed. 12 volts were used as it was easier and had less loss than trying to get 6 volts. Regardless if your mains are well below 120 VAC (or 220VAC in some areas) you might find the amps will not balance. I recently ran into that situation with one of the commercial amps. The line voltage was 109 and occasionally went up to 114. At 109 the tubes were seeing right around 5 VDC on the heaters. This was insufficient to allow proper operation. So they would not balance as the split while only about 0.2 volts caused one not to conduct as well as the other. Balance was not possible with the existing control range. Additionally when the AC Mains went to the 114 range the setting would be off and have to be adjusted. This was a daily occurrence. The solution is a mod to the amps. The SMPS in the link fixes the issue perfectly and is simple to do. Disconnect the existing AC heater wires (to the rectifier) and attach the SMPS there. Feed in your AC mains to the SMPS. It will take anything from 100 to 240 (actually a bit more on either end). It is line isolated and trouble free. I use similar ones in valve tube phono preamps now. Mounting is easy...I used high strength double stick tape. BTW there are other sources that are a bit cheaper but require shipping and handling.

[https://www.amazon.com/gp/product/B083P6DC51/ref=ppx\\_yo\\_dt\\_b\\_asin\\_title\\_o00\\_s00?ie=UTF8&psc=1](https://www.amazon.com/gp/product/B083P6DC51/ref=ppx_yo_dt_b_asin_title_o00_s00?ie=UTF8&psc=1)

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