
Subject: K250-1 bulbs in switches
Posted by [Jerry H](#) on Thu, 18 Apr 2024 13:43:40 GMT
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I am working on a K250-1 for a friend's grandson. I have wired a 3 wire cord. I have swapped the working and intact polarity switch for the broken power switch. I have removed the wiring to the polarity switch except for the green wire for the bulb terminal located at the end of the switch which remains. The other terminal goes to ground. The amp is working fine. I have 335 replacement bulbs which I understand are 28 volts. However, I measure 40 volts at the bulb terminal. Is this normal? If so, what keeps the bulbs from burning out? Thanks in advance. Jerry H

Subject: Re: K250-1 bulbs in switches
Posted by [steveM](#) on Thu, 18 Apr 2024 16:16:12 GMT
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I can only guess that your measurements are with no bulb in that circuit and if that's the case then that's why your measuring the full 40 volts that the power supply has.

With no bulb in the circuit there is no current draw thru the resistors bolted down on the floor of the chassis that drop the 40 volts down to 28.

The short of it is no bulb, no current draw and there for no voltage drop.

Subject: Re: K250-1 bulbs in switches
Posted by [steveM](#) on Thu, 18 Apr 2024 16:20:06 GMT
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Note that if you only have 1 bulb in the amp then with the lesser load the voltage on the bulb your powering will be higher then 28 volts, so that will to some extent shorten the life of that bulb.

Subject: Re: K250-1 bulbs in switches
Posted by [Jerry H](#) on Thu, 18 Apr 2024 19:25:03 GMT
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SteveM, you are amazing. I feel a bit like a doofus. In any event, I appreciate you and the group.
Jerry H

Subject: Re: K250-1 bulbs in switches
Posted by [steveM](#) on Thu, 18 Apr 2024 22:50:12 GMT
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Don't kick yourself !

Back in the 70s when myself and 24 other kids where in tech school for electronics and after all the needed math the teacher had us troubleshooting a circuit that had no problem . He knew it had no problem but of course did not tell us, and the voltage we all where reading was high due to no load.

Do you think any of us newbies even after the math / ohms law lesson figured out that there simply was no problem, nope none of us ! Lol.

Subject: Re: K250-1 bulbs in switches

Posted by [Jerry H](#) on Fri, 19 Apr 2024 10:55:16 GMT

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Just a quick follow up. I measured the resistance of the 335 bulbs and found it to be +/-65 ohms. Thanks again.
