Subject: K100 : PC900 Module 8 Volt Regulation Problem
Posted by Shoreline Electronics on Wed, 12 Nov 2014 15:58:25 GMT
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Hi Folks !

Got a head scratcher here.

Kustom K100 5 Head

When amp is first powered on, it works great.

After a few minutes both the regulated +8 & -8 Volt supplies slowly drop go down to about 2V & -2V

When this happens... 39.5 & -39.5 rails are perfect.

Pulled all the tantalum electrolytics and tested out of circuit...they are fine.

First thing I did was to disconnect these feeds from the rest of the amp so it's now isolated to just the PC900 module. Same results

Also tried freeze spray on the circuit in case it was a thermal problem...no change

Replaced both Q911 & Q915 with 2N3055's

Not wanting to spend all day on this, I started replacing other transistors in the circuit and check all resistors. I've replaced all transistors except the 2N3638's....those will be here today as I ran out of them

I did replace Q900 and checked the precision resistors in the biasing circuit for it also as these supplies feed that also.

My feeling is it has to be something in common to both supplies to do this.....but I haven't cracked the code yet!

Anyone out there ever had this issue before?

Thanks !

Subject: Re: K100 : PC900 Module 8 Volt Regulation Problem
Posted by chicagobill on Wed, 12 Nov 2014 18:18:45 GMT
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Welcome to the place.

The 8 volt regulators are pretty straight forward. You need to fix the positive side first, as the

negative side just follows the positive side.

There are voltages on the schematic, how do your voltages compare? If it starts out at 8 volts compare the readings when it's cold to the readings when it fails.

Subject: Re: K100 : PC900 Module 8 Volt Regulation Problem
Posted by Shoreline Electronics on Wed, 12 Nov 2014 18:22:07 GMT
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Will do ! Thanks !

Subject: Re: K100 : PC900 Module 8 Volt Regulation Problem
Posted by stevem on Thu, 13 Nov 2014 11:16:07 GMT
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Welcome to the place also!
If nothing else than by process of elimination you will have it fixed when you recive the transistors you ordered,lol!

Subject: Re: K100 : PC900 Module 8 Volt Regulation Problem
Posted by Shoreline Electronics on Sat, 21 Mar 2015 17:31:33 GMT
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Finally got back to this one : Replacing all of the 2N3638's with 2N4403's (ECG159 equivs) fixed the problem.

One thing I see now is that our 8V supplies are more around 10V now. They dip a half a volt or so when you push the amp hard. Should be good to go !

Subject: Re: K100 : PC900 Module 8 Volt Regulation Problem
Posted by stevem on Sat, 21 Mar 2015 18:56:40 GMT
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Yup, your good!
