

Mars Amp Repair

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Ampeg SVT-VR&CL ground loop hum solution

hello folks,
I don't know if anyone has encountered this issue, but I have a few times & have finally found a solution to the overly noisy, hummy, front end on some of these Ampeg SvT-VR's & probably the Svt-CL's, too.

Even with the volumes fully down the amp has hum & noise. If you insert an input in the 'Amp in' jack, the hum/noise all goes away.

The first indication you can try to determine if this design snafu is your problem is to remove the green grounding lead that goes to the preamp chassis. If the nasty ground hum/noise is remedied, then continue on.

You might have also noticed on these amps that in attached pic that the jumpers that are supposed to chassis ground the Star ground spot on the board have been left out. This was to remedy an initial ground loop issue. It worked until another ground was created via the heat sink of IC-1 12V regulator. It punctures its way through the paint in the chassis & then becomes the new grounding point. See pic showing heatsink under main pcb. If you loosen the 3 pcb mounting screws & gently lift the pcb up so the heatsink doesn't contact the chassis, the hum should go away.

The solution is of course to electrically isolate the regulator from the heat sink & then isolate the heatsink from the ground trace.

This can be done easiest by replacing the 7812 with the plastic version 7812CP. see pic.

Then you can dremmel out the connection from the center lead of the regulator to the heatsink. see pic.

Since I received this amp second hand from another service center, I don't know if Ampeg had any kind of insulator in there as a counter measure to keep this heatsink from contacting the chassis or not...I just know what I was up against.

Amp was nearly completely quiet after this countermeasure.

Hope this helps someone down the line...glen

Attached Thumbnails

