Subject: Challenger Reverb Problem
Posted by ARKustom on Sat, 01 Dec 2018 22:16:02 GMT
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I just got one of these and can't get the reverb to work. When I bought it the reverb only made a loud hum when the knob was turned up, so I got the guy to come off the price. When I opened it up to clean and inspect connections, one of the reverb springs was loose. The ferrite beads were loose in the reverb pan, so I bought a replacement pan. I got it today and connected it, still no reverb. It will crash, so the output works, The background hum increases when the reverb knob is turned up (not like the loud hum before), but there is still no reverb effect. Any ideas? It seems like none of the signal is getting diverted through the reverb tank.

Subject: Re: Challenger Reverb Problem
Posted by stevem on Sun, 02 Dec 2018 11:22:06 GMT
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If you have or can get your hands on a voltmeter set it fior D.C. Volts and see what you read when you hook it up across the RCA jack that goes to the input side of the pan.
You should read near zero, if you do not then the two section IC chip (I1A and I 1B) is bad on the I1A side of it.
Please report back on this test.

Subject: Re: Challenger Reverb Problem
Posted by ARKustom on Sun, 02 Dec 2018 19:54:05 GMT
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I got a reading of 9.8v.

Subject: Re: Challenger Reverb Problem
Posted by chicagobill on Mon, 03 Dec 2018 03:25:23 GMT
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Seems like the chip is bad.

You also need to be certain that the input jack of the replacement tank has its ground connection isolated from the metal case, as the input coil is part of the feedback loop of the op amp.

Subject: Re: Challenger Reverb Problem
Posted by ARKustom on Tue, 04 Dec 2018 23:17:43 GMT
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The tank has insulated input and grounded output. I suppose I'm going to need to find a suitable

replacement chip.

Subject: Re: Challenger Reverb Problem
Posted by chicagobill on Wed, 05 Dec 2018 02:16:26 GMT
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The chip is a 5558 dual op amp. You can use almost any modern 8 pin dual as a replacement.

1458, TL072, 4560, etc.

Have you tested the two 12 volt power supplies?

Subject: Re: Challenger Reverb Problem
Posted by ARKustom on Fri, 07 Dec 2018 17:18:18 GMT
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Cool, thank you for the replacement info.

Subject: Re: Challenger Reverb Problem
Posted by ARKustom on Fri, 07 Dec 2018 17:19:29 GMT
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I haven't tested the power supplies.

Subject: Re: Challenger Reverb Problem
Posted by chicagobill on Fri, 07 Dec 2018 17:56:50 GMT
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I'm not saying that this is your problem, but if one of the two low voltage supplies is low, it can cause strange things to happen to on the outputs of op amps.

Subject: Re: Challenger Reverb Problem
Posted by ARKustom on Sat, 23 Feb 2019 21:04:53 GMT
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Well, I finally got around to opening this amp up. The chip that it came with is already a LM1458. I had also ordered some LM1458's, but there's a problem. The ones that I ordered are tiny compared to the stock chip. I did make sure to get non surface mount, though. What's a good source for the full sized LM1458's?

Subject: Re: Challenger Reverb Problem
Posted by chicagobill on Sun, 24 Feb 2019 02:31:37 GMT
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I'm not sure that I understand what you got instead of the standard 8 pin DIP style case. The correct type would be an LM1448-N, or whatever 5558, TL072, etc. N should be a standard 8 pin DIP.

Subject: Re: Challenger Reverb Problem
Posted by ARKustom on Thu, 04 Apr 2019 03:26:57 GMT
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I think they just sent the wrong thing. I ordered a couple of National Semiconductor LM1458N's from eBay and popped one in this afternoon. The reverb works great now.

Subject: Re: Challenger Reverb Problem
Posted by stevem on Thu, 04 Apr 2019 10:14:34 GMT
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great to hear, congrats!