
Subject: Upgrade input transistor - may be repeated question

Posted by [Saransk](#) on Sat, 03 Jun 2017 23:46:02 GMT

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A common thread is that Q1400/ Q1500 (the first input transistor on the 1400/1500 (SE4002)) is prone to "destruction" when overdriven.

Since the various vintage Kustom amplifiers were designed when the output of most guitar pickups was lower than the "hot" pickups which are now standard on most guitars, the first input transistor often is blown by pedal boards and high output pickups.

At the risk of asking a previously discussed question, is there a simple upgrade for the first input transistor that will handle the higher input voltages of today. Either a darlington configuration or just a "stronger" transistor for that first position that can handle a higher input.

While I could put a transistor socket in the first position to facilitate quick replacement, it might be nice to avoid the issue altogether.

Thanks

Michael

Subject: Re: Upgrade input transistor - may be repeated question

Posted by [stevem](#) on Mon, 05 Jun 2017 12:48:22 GMT

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Even today's hottest non active pickups will not blow out the factory transistor .

Most failures I believe have been for 2 reasons, (1) static discharge, or (2) hitting the transistor with big signal level from a stomp box.

SS amps are nowhere near forgiving in regards to number 2 like a tube amp is, I don't even think that if you could mod the amp to take a dirt cheap 5558 chip would buy you better protection?

Subject: Re: Upgrade input transistor - may be repeated question

Posted by [chicagobill](#) on Mon, 05 Jun 2017 17:26:03 GMT

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Agree with Steve about the input transistors being reasonably immune from damage. If they were that bad, there would be no working amps out there with original transistors.

Transistors can die from any number of things, the fact that some of them have given out, doesn't mean that they all should be replaced. It's like getting a flat tire and supposing that all 4 tires are defective because one went flat.

Subject: Re: Upgrade input transistor - may be repeated question

Posted by [Saransk](#) on Mon, 26 Jun 2017 01:49:52 GMT

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I think the comment about "hammering" the Q1 input transistor of vintage Kustom amp with a "hot" stomp box is probably very true. Maybe the way to avoid this is to rewire the input jacks,

changing them from the design that had a capacitor used to cut the frequency response to the more common design, even used in the later Kustom 150 series, of having a jack with high and low sensitivity using a pair of 68K resistors and the switching jacks.

As for the transistors, maybe a little less gain might match today's higher signals and pedalboards.

Subject: Re: Upgrade input transistor - may be repeated question
Posted by [steven](#) on Mon, 26 Jun 2017 10:08:39 GMT

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It's funny you mention the hammering effect, but you need to think about the era even the metal face amps were made in, as there were no overwound hot pickups back then unless you had them made for you.

The metal face amps that came about in '71 did as you posted have the two different inputs with one being 3 db down (1/2 volume) from the other, but in general Kustom was getting complaints from six string players about needing more gain out of the 5066 preamp board (the preamp without selectone) so the engineers issued a mod in Nov of '71 for the '72 production run of the 150 and 250 series amp that provided more gain.

They also sent out to all their dealers info on how to do this mod on the earlier amps should a customer want such.

The mod is a simple swap out of 3 resistors and 1 cap.