



Mute This Topic (<https://groups.io/g/HP-Agilent-Keysight-equipment/ft/91047233?csrf=5513314409256117711&mute=1&p=Created%2C%2C%2C20%2C2%2C0%2C0>)

E3631A Powersupply problem

Date ▾ (<https://groups.io/g/HP-Agilent-Keysight-equipment/topic/91047233?p=Created%2C%2C%2C20%2C1%2C0%2C0>)



Gyorgy Albert

6:22am (<https://groups.io/g/HP-Agilent-Keysight-equipment/message/126370>)

Hi Lothar,

I have 3x E3631A, and fortunately none of them suffer because of the RPG. One has been diagnosed as RPG defect when I bought it (by the seller). But it turns out, that there is nothing with it (the symptoms were same as you described). I run the calibration, and all come back to normal. So maybe you can do this, before replace the RPG. In every case, it is better to calibrate it from time to time. You can do it from the keyboard, manually, but also from GPIB. A 34401 DMM is needed (or similar), and a 0.1 Ohm resistor (preferably a precision one). If you have a Windows PC with GPIB32.dll on it (NI kit installed), I can send you a small script, which will do the calibration in 20 seconds. You just have to plug the DMM cables to the outputs (and the Shunt resistor when it calibrates the current). Manually with the keys it will take some minutes.

BR,
Gyorgy

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Lothar baier

May 11 (<https://groups.io/g/HP-Agilent-Keysight-equipment/message/126360>)

If this was a proprietary HP part or cost \$20 than It would make sense to take it apart and clean it but for \$2 I wont go there , beside of the obvious oxidation issue there is also mechanical wear associated with thjs type of switches and I have no desire to spend 1hr to dis and reassemble the unit to clean a switch just to have to do it again a year down the road

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Ted Cuff (</g/HP-Agilent-Keysight-equipment/profile/1763733>)

May 11 (<https://groups.io/g/HP-Agilent-Keysight-equipment/message/126358>)

I had that issue also and I took the encoder apart and cleaned it and put new lubricant in it. Works like new now. Known issue.

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Harvey White

May 11 (<https://groups.io/g/HP-Agilent-Keysight-equipment/message/126356>)

I don't remember which one is used, but it's a commonly available and somewhat easy to replace.

IIRC, it was under 5 dollars.

Don't have the manual, but I think I had to go researching a bit to find the number.

Harvey

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Dave McGuire (/g/HP-Agilent-Keysight-equipment/profile/77825)

May 11 <https://groups.io/g/HP-Agilent-Keysight-equipment/message/126354>

Yeah, seems like replacing it is the best bet.

If you get it working with either of the parts that I mentioned, I'd appreciate your letting me know, so I can add it to my notes.

-Dave

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--
Dave McGuire, AK4HZ
New Kensington, PA

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Lothar baier

May 11 <https://groups.io/g/HP-Agilent-Keysight-equipment/message/126353>

Looks like mouser got them in stock for \$2 so I just order a few and change them out on my supplies as I got about 5 around , at \$2ea I just don't think its worth messing around with cleaners

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Dave McGuire (/g/HP-Agilent-Keysight-equipment/profile/77825)

May 11 <https://groups.io/g/HP-Agilent-Keysight-equipment/message/126352>

If it's the same shaft encoder that they used in the 33120A, a compatible replacement is the Bourns PEC16-4215F-N0024. It's different in that it has detents, while the original does not, but it does work. (in a 33120A)

The one without detents is PEC16-4015F-N0024, but I've not tried it, and am not 100% certain that it will work.

-Dave

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--
Dave McGuire, AK4HZ
New Kensington, PA

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Tom Lee

May 11 <https://groups.io/g/HP-Agilent-Keysight-equipment/message/126351>

Hi Lothar,

The shaft encoder is a congenital weakness of the E36xx power supplies. It is electromechanical (i.e., not optical), with contacts prone to oxidation. Deoxit is easily applied without disassembly, thankfully. The procedure is straightforward: Place unit face up, pull front knob, spray deoxit, work the knob. That will fix most of these. I just went through an exercise over spring break to fix a pile of "broken" supplies that had amassed in the corner of one of our teaching labs. All of them were brought back to life quickly.

Deoxit is unlikely to fix your other problem, but one thing at a time.

--mfg,
Tom

--
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On 5/11/2022 15:49, Lothar baier wrote:

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Lothar baier

May 11 <https://groups.io/g/HP-Agilent-Keysight-equipment/message/126350>

my E3631A started to act up on me today , first of the voltage adjustment is erratic , when you turn the knob it clicks but the voltage increases in random steps and sometimes decreases it seems there is a issue with the RPG so my question here is does anybody know what RPG agilent used ? is it a generic part or keysight specific ?
Also the +=25V output displays 0.027A current even with nothing connected to the terminals

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