

Mute This Topic (<https://groups.io/g/HP-Agilent-Keysight-equipment/ft/70123341?csrf=5513314409256117711&mute=1&p=Created%2C%2C%2C20%2C1%2C0%2C0>)

Another repair: Date ▾ (<https://groups.io/g/HP-Agilent-Keysight-equipment/topic/70123341?p=Created%2C%2C%2C20%2C1%2C0%2C0>)  
E3631A



Mark Bielman (</g/HP-Agilent-Keysight-equipment/profile/502679>)

2020-01-29 (<https://groups.io/g/HP-Agilent-Keysight-equipment/message/102379>)

Thanks Toby & Ted. Did a calibration and it looks great.  
Wasn't sure I'd get through this one. (corroded traces!!!)

Mark

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

2020-01-29 (<https://groups.io/g/HP-Agilent-Keysight-equipment/message/102372>)

I recently repaired one of these as well.  
Just needed to clean the rotary encoder.  
Got lucky.  
Glad you got yours repaired.

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Toby

2020-01-29 (<https://groups.io/g/HP-Agilent-Keysight-equipment/message/102359>)

On 2020-01-29 2:31 PM, Mark Bielman wrote:

All fixed! In total:

- 4 dissolved traces (jumper wire fix)
- 3 open resistors (ADC circuit)

Not sure what type of environment this unit was running in, but must have been nasty!  
(the fan cover is all rusted too)

Well done! Always good to hear a happy repair ending.

--Toby  
(E3631A owner)

Mark

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Mark Bielman (/g/HP-Agilent-Keysight-equipment/profile/502679)

2020-01-29 [🔗 \(https://groups.io/g/HP-Agilent-Keysight-equipment/message/102352\)](https://groups.io/g/HP-Agilent-Keysight-equipment/message/102352)

All fixed! In total:

4 dissolved traces (jumper wire fix)

3 open resistors (ADC circuit)

Not sure what type of environment this unit was running in, but must have been nasty!

(the fan cover is all rusted too)

Mark

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Mark Bielman (/g/HP-Agilent-Keysight-equipment/profile/502679)

2020-01-26 [🔗 \(https://groups.io/g/HP-Agilent-Keysight-equipment/message/102222\)](https://groups.io/g/HP-Agilent-Keysight-equipment/message/102222)

Ran extended self test... 2 errors. That should help.

632

**P6V hardware test failed** This test checks the the status of voltage and current error amplifiers for +6V power circuit. If both amplifiers are not operational, the power supply will beep and the error annunciator will be on.

634

**N25V hardware test failed** This test checks the the status of voltage and current error amplifiers for -25V power circuit. If both amplifiers are not operational, the power supply will beep and the error annunciator will be on.

mark

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Mark Bielman (/g/HP-Agilent-Keysight-equipment/profile/502679)

2020-01-26 [🔗 \(https://groups.io/g/HP-Agilent-Keysight-equipment/message/102218\)](https://groups.io/g/HP-Agilent-Keysight-equipment/message/102218)

I have some of these from a previous repair. (33120A)

But it works fine so low priority right now.

Mark

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victor.silva

2020-01-26 [🔗 \(https://groups.io/g/HP-Agilent-Keysight-equipment/message/102217\)](https://groups.io/g/HP-Agilent-Keysight-equipment/message/102217)

The mechanical encoder that is turned by the knob on the front panel.

I usually replace them with this part, which I believe is much better quality than what HP used.

<https://www.digikey.com/product-detail/en/cui-devices/ACZ16NBR1E-15FD1-24C/102-1785-ND/1923380> (<https://www.digikey.com/product-detail/en/cui-devices/ACZ16NBR1E-15FD1-24C/102-1785-ND/1923380>)

This also adds a mechanical detent per step, which I like better.

CUI also has the same no detent version.

--Victor

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Mark Bielman (/g/HP-Agilent-Keysight-equipment/profile/502679)

2020-01-25 (<https://groups.io/g/HP-Agilent-Keysight-equipment/message/102213>)

Which encoder? Do you mean the RPG? It works just fine.

mark

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victor.silva

2020-01-25 (<https://groups.io/g/HP-Agilent-Keysight-equipment/message/102212>)

I've picked up quite a few of these from Equipment Disposition auctions and all of them just needed the encoder replaced.

--Victor

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Mark Bielman (/g/HP-Agilent-Keysight-equipment/profile/502679)

2020-01-25 (<https://groups.io/g/HP-Agilent-Keysight-equipment/message/102211>)

That could be it George... yes, electrolytic. Although the dissolved trace is a bit away... 1/2 inch or so. But still...  
Probably worth replacing anyway.

Recently repaired a 54810A scope that had **15** obviously leaking caps on the CPU motherboard. That killed the K6 CPU!!!  
As well as the MOSFETs on the CPU core power supply. (I think a chain reaction over-way 'round) Should probably write that up here.

Mark

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george edmonds

2020-01-25 (<https://groups.io/g/HP-Agilent-Keysight-equipment/message/102210>)

Hi

Suggest electrolyte from the input filter capacitor, if electrolytic.

George

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Mark Bielman (/g/HP-Agilent-Keysight-equipment/profile/502679)

2020-01-25 (https://groups.io/g/HP-Agilent-Keysight-equipment/message/102209)

Hi Group. Another non-working unit from ebay. Said "does not power on - no fuse".

Suspected a power/short so brought it up slowly with variable AC... no issue there.

Thew error 625 (I/O processor does not respond) and display say +6V = -9V at -4A. Hmm.

Discovered that via Display Limit button I could set the output voltage and it's there. So the output circuits appear to be fine. (6V is low though... only reaches 5.2V) Press on...

Found that the +5V regulator for Earth Referenced Logic had no output. Simple 7805 circuit. Turns out the trace was GONE from the input filter cap to the regulator. (!) Added a jumper wire and now no errors, I have the beeper, but still get the odd display values. So still have an issue. Perhaps even more traces have disintegrated. Not sure if that's from "water" damage or what but the one I fixed looks eaten away from something.

Need to pull that board now for a closer look.

Mark in Oregon  
KJ7CYN

Reply

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(<https://groups.io/g/HP-Agilent-Keysight-equipment/topic/70062737?p=,,,20,0,0,0::,,,0,0,0,70062737>)

(<https://groups.io/g/HP-Agilent-Keysight-equipment/topic/70262420?p=,,,20,0,0,0::,,,0,0,0,70262420>)

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