

## Re: ot –keyboard woes

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- *From:* OM <om@xxxxxxxxxxxxxxxxxxxxxxxxxxxx>
  - *Date:* Thu, 01 Nov 2007 04:37:39 –0600
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....It's after 4am, and seeing as how nobody else out there wants to play tech support rep, I guess I'll forego a little sleep to see if I can help further. You owe me, Patrick:

On Wed, 31 Oct 2007 17:46:57 –0600, Pat Flannery <flanner@xxxxxxxx> wrote:

OM wrote:

0) You're running Win98? Does the KB behave properly in normal, non–Windows DOS mode? I don't mean a DOS box, but actual DOS with no Windows loaded?

no, it's nonfunctional in DOS also.

....Otay, we've now ruled out any sort of software cause to the failure. This is leaning more towards either water trapped somewhere within the KB circuit board that's shorting out these three keys.

1) \*HOW\* did you clean your KB? Air gun? Tuner spray? Dishwasher??  
And  
did you clean it with it disconnected from the PC?

moist plastic brush. some water got under the keyboard, so i disassembled it.

....First mistake was a moist brush. Use a Q–Tip moistened with isopropyl clear – not the green stuff, as the dye will leave a nonconductive residue that'll screw with things, and if removing the keys themselves is possible, do so \*before\* applying the Q–Tip. Also, if you can get Q–Tips that are dense packed, you'll be able to clean a bit easier and not worry too much about leaving cotton threads behind.

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the interior consists of three overlapping plastic sheets; the top sheet has one set of contacts, the middle sheet serves as a insulator with holes punched in it under the keys, the bottom sheet has the other contacts...each key has a small individual suction cup under it with a bump on its inside the presses the the contact on the top and the bottom sheet together through the hole in the middle sheet, completing the circuit. the sheets had gotten water between them contaminated by dust from inside the case, so i thoroughly rinsed them in fresh water and dried then top and bottom before reinstalling them. i once had this problem before with the keyboard and that approach worked fine then.

....Again, using isopropyl clear is preferred for most modern–era keyboards. The tougher IBM "loud–assed click" versions sport mechanics and circuitry that are better suited for tossing in the dishwasher.

1.5) And if you did use a liquid method, did you allow the KB to completely dry \*BEFORE\* plugging it back into the PC?

the plastic sheets were completely dry when i cranked everything back up after working on it.

....Maybe not from the sound of things.

2) Is it \*ALL\* windows, ctrl & shift keys that aren't working, or just ones on one side?

they are nonfunctional on both sides.

....Otay, now we're getting somewhere. This sounds more like the KB controller's gotten zapped somehow, possibly from an ESD while cleaning. These controllers are usually pretty robust WRT resisting ESD, after all, even moreso than the mouse or the USB vibrators out there, the KB is the most common source of contact between a PC and a potential discharge. Possibly while you were cleaning things, you may have discharged into the controller chipset and damaged it.

....A second possiblity may be more mechanical. Those particular keys on most circuit board designs tend to run parallel to one another and towards a common trace lead point before heading into the KB controller. You \*might\* have damaged one or more of those traces, caused them to short across one another, or – more likely – when reassembling the three layers, you didn't seat them against one another completely. If the latter is probable, try taking the KB apart again and put it back together. If there were any retaining clamps

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holding the three layers together, make sure they're still there \*and\* securely attached.

....One other thing I would recommend if you do take the KB back apart again: get a hair dryer, set it on LOW, and run it across each of the layers on both sides to blow out any leftover water that might still be present. Remember to watch for excess heating, as you're wanting more to blow the water out rather than evaporate it. Afterwards, you might also consider using a shop vac if your keys are sturdily attached. Some water can get trapped and blowing won't help due to surface tension, while a good vacuum will do the trick.

3) Have you turned the KB up on one end and let it bang on that end from about 1" high?

yup, no effect.

....This rules out any physical contamination such as ground-in dust preventing the keys from making contact.

4) Did you open up the KB case at all? If so, did you make sure the KB cable connector is firmly seated on all pins?

yeah, it lays down flat on the contacts printed on the top and bottom sheets, it's screwed down as tight as it will go without stripping the threads on the plastic sockets.

....And it's either a five or six-pin connector, most likely. And if they've got the screws and the cable tension mounts in place, this eliminates the problem being related to the cable.

5) Are the CTRL or SHIFT lock \*lights\* on? Or do they flicker when you press \*HARD\* on the KB?

the three illuminated indicators are number lock, caps lock, and scroll lock...all these are working as usual, with number lock on being the default setting when the keyboard is started; this makes no difference in the behavior of the shift key though with number lock off or on and caps lock activated, it is impossible to display the upper case characters on the number keys.

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....Ok, we're now leaning more towards physical damage, shorting or no connectivity between the three layers.

6) Have you tried another KB?

i only have one other, and that's a usp version, this computer doesn't have usp inputs, unlike my original aspire that some of it's parts are from.

....Ok, here's a major clue: There's no such thing as a proprietary keyboard these days. The 5–pin–DIN and PS/2 connector standards were pretty much universal from Day One, although this applies only to PCs. Mac PS/2 KBs won't work on a PC, IIRC. This came in handy about 20 years ago when one of the earliest PC clones, the TI PC, was discontinued. Although it had a display that would run rings around IBM's early CGA efforts, the only thing that was actually "compatible" with anything IBM or Compaq made was the really large, desktop–hogging keyboard. I wound up cannibalizing them at the Bio Lab to replace four test stations for use by several students with manual dexterity handicaps – read: fumble fingers that needed BIG buttons to push – and they worked perfectly with the IBM jobs.

....Which means this: Keyboards are cheap, they work regardless of what PC you're using, and they even make a USB–PS/2 adapter that'll cost you about \$6.00 USD last I looked. On the other hand, you might be better off just buying a new keyboard. One with lots of fancy LEDs, volume controls. and maybe a pencil holder :-P

I've been digging all over the web on how to get it back to the original default settings, and ran into all sorts of ways to change the functions of keys or disable particular keys, and i think i unintentionally did that.

....Again, the fact that you have the problem in DOS \*and\* Windows means that it's not the OS, but the keyboard itself that's fucked.

OM

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] OMBlog – http://www.io.com/~o\_m/omworld [
] Let's face it: Sometimes you *need* [
] an obnoxious opinion in your day! [
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