
Subject: ULN-2 : Sketchy connection with MacBook Pro
Posted by [BoogieMonsta](#) on Sun, 01 Jun 2014 22:01:55 GMT
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Hey there,

I've been using the ULN-2 for a few months now and I absolutely adore it.

However, I'm using it with my Retina MacBook Pro OS 10.8.5 via the Thunderbolt/FW800 adapter and the connection is not the greatest...

Without touching the cable or the adapter, I'd be working for hours without an issue and then all of a sudden no more sound.

At this point the only way for me to continue working is to unplug the ULN, restart my computer and replug it. A real PITA :(

I've tried another cable, and another adapter. Doesn't make a difference.
This happens a few times a week.

Good news is, it forces me to take a short break.
Bad news is, well... It forces me to take a short break.

Also, I almost forgot to mention that when I'm done working and I unplug the ULN from my MBP, sometimes this causes the mac to bug out too. The ULN-2 disappears from the list of interfaces on the mac, but the mac can't switch back to its integrated sound card... It's like it's connected to a phantom interface (literally, it says it's connected to an interface but no name next to it). Replugging and Unplugging the ULN again doesn't change anything there either.

Sometimes it even freezes the mac... And then I have to either replug the ULN and hope that it unfreezes it (90% of the time) or in the rest of the cases I'm forced to do a hard reboot on the mac.

Any suggestions? Am I the only one with this problem?
Thanks in advance!

Subject: Re: ULN-2 : Sketchy connection with MacBook Pro
Posted by [dustpandave](#) on Fri, 02 Jan 2015 18:30:14 GMT
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Having the Exact same Problem here! Please Metric Halo can you give some feedback... this happened mid recording the best guitar take of my life and pro tools has to save and quit... It is one hell of a hinderance!

I thought it was Yosemite and ULN drivers but i see your using mountain lion

So has it got to do with thunderbolt to firmwire adapter?

Subject: Re: ULN-2 : Sketchy connection with MacBook Pro

Posted by [bj](#) on Fri, 02 Jan 2015 20:50:24 GMT

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Hi,

It doesn't have anything to do with Thunderbolt. This is actually a bug in Mac OS X and has been reported to Apple and acknowledged, but not fixed (it appeared in Mac OS 10.8.2).

The Apple bug number is `rdar://13093900`

I have discussed this further with Apple engineering and while there is no way for Metric Halo to fix this or patch around it, as it is a bug in Mac OS X, there is a user-level work-around that you can apply that will fix the problem for you while we wait for Apple to fix the root-cause.

The problem is occurring because of a change Apple made to the IO layer in Mac OS X to protect against physical access attacks via Firewire and PCIe (Thunderbolt). This is called VT-d (it is an intel technology built into the Processors and Chip Sets) and it virtualizes hardware access; in particular, it denies Memory Mapped peripherals access to all of the HW memory map except for buffers that have had specific access rights granted by the OS. Apple's FireWire driver is supposed to grant access to the FireWire hardware (Apple's -- not MH's) via their VT-d driver. The bug you are running into appears to be a hang or infinite loop in the VT-d driver while trying to allocate the access window.

So, the work around it to turn off VT-d.

To turn off VT-d, in the terminal type:

```
sudo nvram boot-args="dart=0x0"
```

and when it asks for your password, enter your password.

Then restart your Mac. This will make the problem go away.

B.J. Buchalter
Metric Halo

Subject: Re: ULN-2 : Sketchy connection with MacBook Pro

Posted by [dustpandave](#) on Fri, 02 Jan 2015 22:11:19 GMT

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Thanks BJ i will try that ASAP

Also - I might add.. I rest the PRAM and it hasn't bugged out for 3 hours now? is that just luck or did that do something good?
