

Re: I'm puzzled – Firewire Problems, need help Please.

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- *From:* Lonnie <Lonnie@xxxxxxxxxxxxxxxxxxxxxxxxxxxxxx>
 - *Date:* Fri, 18 Apr 2008 02:53:00 -0700
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Thanks for the reply.

Wow, this is a heck of a lot of info :-). I'll begin trying to assimilate it all. Thanks again for the help.

"Bill Drake" wrote:

Hi, Lonnie. I've read this entire thread up to the date of this post. Comments as follows:

1. The drive has malfunctioned on two different machines in exactly the same way. This would tend to rule out a port failure on the original machine – and indicate a problem with the components supplied with the drive itself
2. Firewire 400 is *supposed* to be Plug-'n-Play in WXP. However, there are a bunch of "gotchas" that can interfere with this process. You are running into this problem.
3. Firstly, if you can "see" the drive in Windows Explorer while connected using the Firewire interface – then you have communication with the drive. This should show in Device Manager as the presence of TWO Device Manager items, the Drive Itself in the "Disk Drives" section and the Firewire Interface for the drive in the "SBP2 IEEE1394 Devices" section of Device Manager. These are the only two items that are required to be working properly to communicate with the firewire interface in the external hard disk.

Note: You indicate a problem with the "Buttons and Lights" interface. This is a custom piece of driver software unique to the WD drive's software – and is used to allow you to interface to the "One Button Backup" hardware in the drive itself. This driver/hardware interface allows you to use the button on the drive to automatically start the WD backup software.

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However, this interface is NOT required for correct operation of the disk itself.

You can verify correct operation of the disk by copying 250MB or more of data to the external disk. Then use the COMP command in a dosbox to verify the files in the target test–folder are binary–identical to the files in the source test–folder. If so, the drive is usable for backup with generic (non–WD) backup software.

4. If the drive fails when the WD software is installed, then you have a problem with the WD software. It is probably installing "updated" firewire drivers which are incompatible with the firewire hardware in your machines. This is a common failure with older versions of manufacturer–supplied backup software. Check to ensure you are using the latest version of the WD–supplied backup software. If so, then WD have a compatibility problem which requires further investigation on their part.

5. Microsoft have identified several deficiencies with firewire chipsets – and MS have been able to work around these deficiencies with updates to the Microsoft firewire drivers. The latest firewire driver update of which I am aware is described in the KB904412 article, available from the Microsoft Support website. Please note that you need *at least* the V2 (Version 2) update. If the WD software is installing the V1 (Version 1) update – this may be exactly why your failure is occurring. Follow the procedure detailed in the KB article to update your WXP Firewire drivers.

Note: My experience with this update has been that it solves "disconnect in the middle of things" problems, not "initial mount" failure.

While updating this driver is a good idea regardless, it is not a foolproof guarantee as a fix for the problems you describe.

6. Even with all the above problems sorted out, you could still have hardware problems with the drive. The first of the hardware "gotchas" is the drive–interface problem.

Many of the cheaper external hard disks use older firmware on the drive and/or el–cheapo components supplied with the drive – where these items have various and sundry bugs. Most of these bugs cause compatibility problems resulting in the very errors you are describing.

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As a result, your first step will be to find a firewire external Hard Disk that actually works properly – so you can use that as a test unit to verify the rest of your components. This is usually done by contacting a high-quality computer dealer in your area – not a chain store, not an el-cheapo outfit – to have them connect up a known-good firewire external disk. This is used only to verify the rest of your system's firewire components are working correctly.

7. Firewire is very sensitive to cable quality, and many of the Firewire cables supplied with external hard disks are el-cheapo units with poor electrical characteristics or poor connector quality. Once you have established a valid connection with the test unit described in item 3, your next step is to establish that you are using a known-good cable for your own external disk. Swap your cable with the cable supplied with the test unit and use their drive to verify your cable is valid. Test on both your desktop and laptop machines. If the known-good drive works properly with your cable, then at least that item has now been verified-good.

8. The next item to verify is the Power Supply for your external disk. It is extremely common for the Power Supply for an external hard disk to be marginal – especially when used with larger hard disks (anything over 250MB).

This problem **will** manifest as a successful mount using USB and a failure-to-mount using firewire. I have had six or seven different units exhibit this problem.

This is normally solved by purchasing a high-quality replacement power pack with a higher current capacity. Normally, power packs for external hard disks are 12 Volt units with a positive centre-electrode. Take the old power pack with you to an electronics supply house to verify they have a replacement supply which is compatible with your external disk.

The problem power supplies I have seen are in the 1.7Amp to 2.0Amp range and should be replaced with a 2.5Amp, 3.3Amp or 5.0Amp unit. Normally, for an external Hard Disk of anything under 300MB, a 2.5Amp supply is fine. For a 500 or 750MB Disk, a 3.3Amp supply is fine. For a 1GB Disk, buy a 5.0Amp supply.

Note: The replacement supply should be a high-quality switchmode-style regulated unit. Do NOT use an unregulated supply – and insist the supplier provide the switchmode type. If the supplier does not know what you are talking about, you are using the wrong supplier. Leave and find

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someone competent. Do NOT shortcut this.

Furthermore, if you want to test this procedure without buying the supply, take the laptop with you to the electronics supply store. Hook up your external disk with the new supply in the store and test as above. If the original supply is the problem, the drive will mount with the new supply in place. If not, using either supply will still show the problem.

9. If the problem is neither the cable nor the supply, then you have a problem with the firewire interface in the external hard disk. This is extremely common with older and/or el-cheapo external firewire hard disk enclosures.

Many enclosures can have the firmware for their firewire interfaces upgraded. Pretty well every one of the older firewire units I have used has required a firmware update to the latest available for that chipset before the drive actually worked stably and reliably – especially for disks larger than 180MB.

However, this procedure is NOT for the technologically faint-of-heart. This procedure requires the same expertise as a motherboard firmware update and the same attention to detail. Use the services of the same outfit as described in Item 3 if your enclosure requires a firmware update.

Best I can do for now. <tm>

Bill

Lonnie wrote:

Ok, I've got a WD External Firewire drive that seems to be malfunctioning. Now Western Digital Support is telling me that the Firewire Drive is plug & play and that windows should already have the driver for it. HUH, since when did Firewire become plug & play? I've got Yellow Exclamation marks in device manager. Doesn't that mean that there isn't a proper device driver installed for the drive?

Thank you for any comments/suggestions/clarifications.

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I'm thinking WD support is giving me the run around and need answers as soon as possible before my warranty runs out. Thank you very much for any assistance.