



How to Setup the Sony SR-PC4 for Ethernet Transfer (1GbE and 10GbE) and How to Transfer Files

This information is accurate as of February 2, 2012.

Some setup needs to be performed on the SR-PC4 before taking the steps below. Please review our "Primer on Setting Up the Sony SR-PC4 and Choosing a Connection/Transfer Protocol" to make sure your device is ready for further setup.

About the SR-PC4's Ethernet Option

Here is a multi-step guide to connecting your SR-PC4 to your Mac via Ethernet, either Gigabit Ethernet (1GbE) or 10 Gigabit Ethernet (10GbE), and dropping the files off in your boot drive. Once you have this up and running you will see how to place the incoming files wherever you want.

1GbE is the regular Ethernet port that most computers come with as standard. The use of 10GbE requires the installation of a high speed networking card into the computer. The cards recommended in the Sony Installation manual are:

- Intel E10G41AT2 (10GbE - copper)
- Intel EXPX9501AFXSR (10GbE - fiber)
- Myricom 10G-PCIE-8B-S (10GbE - SFP connector)

The Intel cards are compatible with PC. The Myricom cards are compatible with Mac. There are many types of networking cards available from these manufacturers, but please make sure you only get the ones on the approved list.

For file transfer you need Snow Leopard OS or Lion OS installed on your Mac.

Connecting the SR-PC4 via eSATA is certainly a simpler process, and is covered in another tutorial, but the top speeds of a 10GbE network greatly exceed that of eSATA. Connecting to your SR-PC4 via 1GbE or 10GbE requires the use of some higher level IT type commands.

This guide will walk you through connecting your SR-PC4 with your Mac via the standard 1GbE connection. This connection will be slower than eSATA or 10GbE and only serves as an example of how to hook up a proper 10GbE connection.

Ethernet (1GbE and 10GbE) File Transfer Setup (for Mac only)

The instructions below apply to setting up either 1GbE or 10GbE transfer solutions. If setting up a 10GbE connection, pay attention the extra information needed in Step 13 below.

1) Download the program “NFSManager” at: <http://www.bresink.com/osx/NFSManager.html> (This is a program that works on OS X Snow Leopard and also Lion. Its features are limited in Lion, but the features that you will need do work. It does not work on Leopard. It will help set up a share point through NFS (Network File System), which is the file transfer protocol that the SR-PC4 uses.)

2) Enable root access on your Mac. Click “System Preferences” -> “Accounts” -> “Unlock” (click on the lock icon).

- At the bottom of the list of accounts you should click on “Login Options”.
- Click “Network Account Server” -> “Join”.
- Click “Open Directory Utility” -> “Unlock”.
- From the “Edit” menu in the top menu bar, select “Enable Root User”.
- Once completed, quit out of “System Preferences”.

3) Create an “export” folder

- In the Finder, create a New Window (Command-N).
- In this window, click on your boot drive, and open it up. In that folder (for example “Macintosh HD”) create a folder called “export”. (Spelling and punctuation are critical.)
- Right-click (Control-click) on this folder, click “Get Info”, go to the field “Sharing and Permissions”, set to “Read and Write for All Users”.

4) Launch NFSManager. (Running in demo mode will get you started.)

5) Select “Share Definitions”, hit the “+” icon located on the right side of the screen. (This will create a new share point. This share point will designate where the SR-PC4 will transfer the files.) Keep this share point selected. You will see it has a description next to it of “-ro”, denoting it is Read-Only.

6) Now click “Select” immediately below it. In this window, navigate to your “export” folder, and select it.

7) Deselect the button marked: “Share – Read Only” from the same page. (Doing so will remove the “-ro” tag to the right of the share point.)

8) Click “Show Advanced Options”. Under the “Options” tab select “Enforce 32-bit folder cookies although NFSv3 requires 64-bits”. (This will enable proper communication between the selected folder and the SR-PC4.)

9) Close this window and click “Apply”. Enter your password and close NFSManager.

10) On your Mac, go to “System Preference”->”Network”.

- Set your IP address to 192.168.0.x (x = any number between 0-255, except for 1).
- Set your Subnet Mask to 255.255.255.0

11) Open an internet browser.

- Type in the IP address of the SR-PC4 into your address bar to open the interface to the SR-PC4. (Its default address is 192.168.0.1)

12) Click the tab “Diagnosis” and the sub-tab “Network”.

13) Under the heading “Network” (which in this case means 1GbE) enter the following information*:

- IP Address: 192.168.0.1
- Subnet Mask: 255.255.255.0
- MTU: 1500
- Click “Apply”.
- Follow the prompt to power cycle the SR-PC4. Wait until it has loaded (5-10 seconds). (You can keep the browser open during this process.)

*If setting up for 10GbE, fill in the same information for “Network 1”. If the Ethernet card has two ports, fill in the same information for “Network 2” as well. Just make sure that the correct drive in the “Drive Setup” tab is selected.

14) Once the SR-PC4 has rebooted, stay in the UI (User Interface) and click the tab “Disk Setup”.

- Select “NFSv3”. Type the following information in the fields:
- Server IP: the IP address of your Mac (same as the one entered in Step 10).
- Server Dir: “/exports”. (Please note that drives with spaces in the name will cause a problem. Remove any spaces. To do so properly, go to “Get Info” on the drive, then open the tab “Name and Extension”. Changing the name there will cascade the name change throughout the machine.)
- Click “Mount”.

Transferring Files

1) At this point, if all the steps have been followed properly and there are no spelling, punctuation or permissions errors, you will get a successful connection and the UI will display the “export” folder in this page.

2) When it is displayed, insert the SR Memory card into the SR-PC4 and click on the tab “Import”, then the sub-tab “Mem Control”.

3) Select all the clips on the card by shift clicking the first clip in the clip list, then click “Add”. (This will load those clips into the transfer queue.)

4) At the bottom of the page, click “Start”. The files will transfer over, displaying with a progress bar.

Remember that the top read speed on the SRMemory cards is 700MB/sec. The SR-PC4 has to do some muxing to create the MXF file so you won’t be able to get that full read speed out to your drive, but it should be something very close.

The Real Workflow Begins

Once successfully copied, these F65RAW files can be viewed in F65RAW Player. F65RAW Player can also output stills in DPX and OpenEXR format.

To manipulate, color and transcode the F65RAW footage, import them into a Baselight, Colorfront or YoDailies system to create dailies, color correct, and/or watch playback. Blackmagic Resolve support should be available soon, as will other post production programs.

VERY IMPORTANT NOTICE:

This is the current procedure recommended by Sony. Unfortunately, this procedure opens up the “export” folder to the entire world, doing away with most of the security protocols typically used in Mac OS X. We recommend disabling all internet access, WiFi and Bluetooth capabilities on any transfer station once it is set up, unless under the control of a IT professional. Band Pro will be providing a future update to this email to provide greater security when that becomes available.

F65RAW Player

At the date of the publication of this manual, HD-SDI playback of F65RAW is not supported. This will be enabled with the upcoming release of SR-PC4 firmware v1.1.

If requested, F65RAW Player will be provided to Band Pro customers. It is currently a beta version but will allow software playback of files and adjustment of metadata. Also, it allows F65RAW files to be output as DPX or OpenEXR stills. F65RAW Player is only compatible with Mac computers running Lion OS. Contact Randy Wedick for more information.

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This manual will be updated regularly in the coming weeks and more topics will be added as well. To stay updated please contact Randy Wedick.

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