



2 Bay SATA 3Gb RAID Solution

Performance, Protected, JBOD

User Manual



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➤ Introduction

Thank you for purchasing your CalDigit S2VR Duo. CalDigit was established in North Orange County, California, with a team of world class software and hardware engineers and support personnel. This team working in close conjunction, developed an unparalleled hardware product line in the S2VR series SATA 3Gb/s RAID solution. CalDigit engineers emphasize the use of quality components to produce products that would both lessen the chances of component failure, and loss of productivity.

The S2VR Duo has 2 removable hard drive trays and can be configured for Performance, Protected, and JBOD RAID modes. S2VR Duo is designed for home users working with video/audio editing, it's also the most affordable solution for small-medium business, digital content creators etc. S2VR Duo is the ideal choice for users who want to protect big capacity files while maintain at the lightning speed of SATA-3Gb/s.

Important Info:

Please read this manual thoroughly as it is an important part of your S2VR Duo software installation. Neglecting to read through this manual and follow the directions herein could possibly result in your S2VR Duo operating abnormally, and out of the specification of the performance for which it was designed. Please pay special care to note any **WARNING** notations or **RED** typeface indicators.

➤ Features and benefits of the S2VR Duo:

- SATA 3Gb/s Interface
- I/F Bandwidth 3Gigabytes per second
- Modular Design
- Hot Swappable HDD and Power Supply
- JBOD pre-configured, can also be set for Performance or Protected modes
- Easy RAID Configuration
- SuperLane Technology, simplifies your cabling
- Password Protection
- E-mail and Voice notification
- Temperature and Power Warning
- 3 Year Limited Warranty

Important Info: Any loss, corruption or destruction of data while using a CalDigit solution is the sole responsibility of the user, and under no circumstances will CalDigit be held liable for the recovery or restoration of this data. To help prevent the loss of your data, we highly recommend that you keep TWO copies of your data; one copy on your S2VR DUO, and a second copy on another S2VR DUO unit, for instance.

➤ Specifications:

Physical Dimensions: 9.76" L X 5.12" W X 4.26" H (247.87mm L X 130mm W X 108mm H)

Power: Input 100-240V auto switch 50~64Hz 1.5A, Output 5V 4.2A, 12V 3A

Operating temperature: 0-40 degrees C or 32° to 104°F

Weight (net): 7.5lb (3.4 kg)

➤ Firmware Update

Firmware updates are made available to maintain compatibility with the latest software releases or Correct problems with previous versions. If you are experiencing problems with any CalDigit product, you might want to visit our website at www.caldigit.com to check for any available firmware updates and download them for your particular product.

➤ Opening the Box

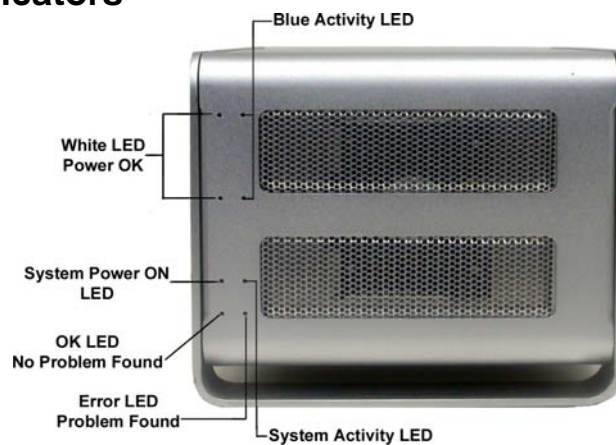
Remove all components from the shipping container. Retain all boxes and packaging materials. In the event that you have to return the product to the manufacturer. Examine the package contents for any shipping damage. Contact the freight carrier immediately should damage exist.

Important Reminder: Please keep carton, all contents & packing materials in case you need to return unit.

➤ Package Contents

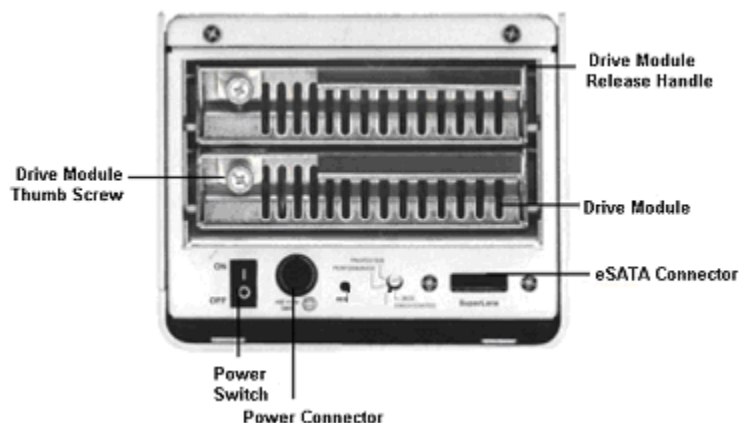
- S2VR Duo
- 2 Hard drives in tray modules
- FASTA-4e HBA or FASTA-4x HBA depending on model. **(Host Card)**
- e-SATA cable
- Quick Installation sheet
- Driver CD & Manual
- Power Cord

➤ Front Panel LED Indicators



Note: During **Performance** operations, it is normal that one or more blue LEDs on the front panel of the S2VR will blink intermittently, or turn off altogether, (generally for only a few minutes at most), during the read/write process. Please don't confuse this normal LED operation as an indicator that the drive is bad or failing, as this is not the case.

➤ Back Panel View S2VR DUO



➤ Hardware Requirements

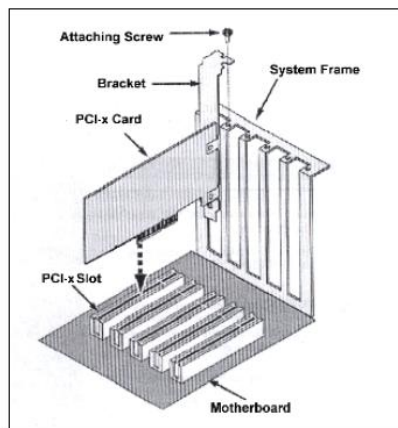
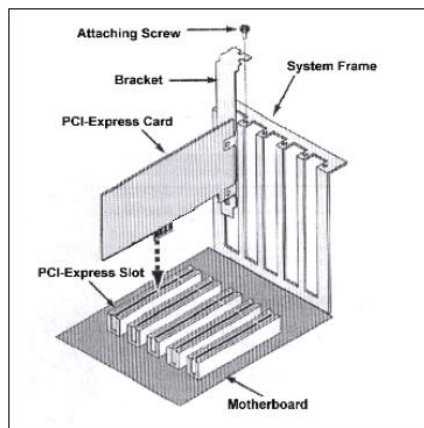
- PC or Mac with an available PCI-e or PCI-x slot 500 Mhz or faster**
- CD-ROM drive
- 1GB of RAM minimum

****Note:** You may be able to install the S2VR solution into an older Mac or PC, however the overall performance will be slower than with newer systems. For uncompressed HD video editing, we recommend a Dual G5 or newer CPU with 1GB machine or better.

➤ Installing the Host Controller Card FASTA-4e or FASTA-4x

Your S2VR HD comes with a Host Adapter card, PCI-e or PCI-x. You must have this card properly installed in your computer in order for your computer to work with the S2VR HD Storage System.

1. Turn off your computer and unplug the AC cord, attached to wall or power strip, etc.
2. Remove the cover of your computer and locate an available PCI-e or PCI-x slot on your motherboard & install the required Host Adapter card.

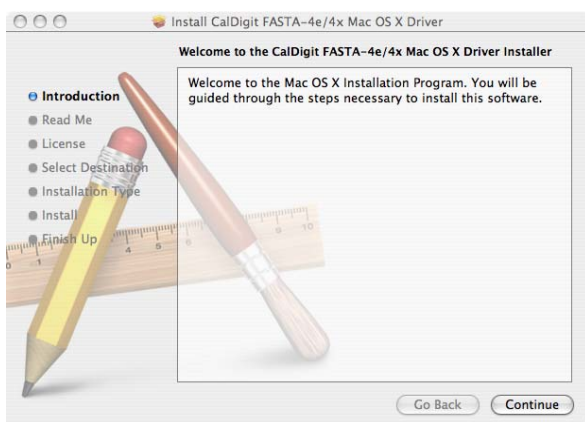


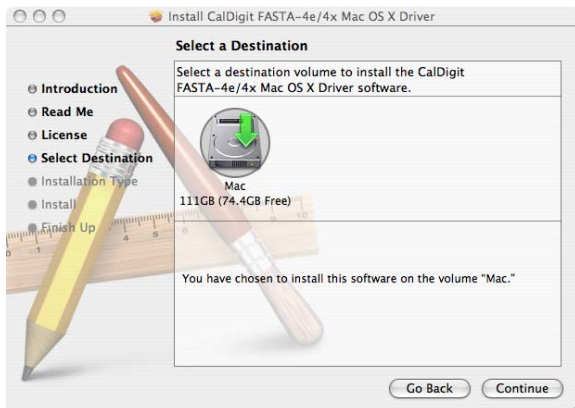
Important Note: PCI-e and PCI-x cards are NOT interchangeable please check with your computers original documentation to see which of these interfaces are supported in your particular system. The PCI-x card will work with older PCI slots, however your performance will be reduced.

➤ Driver Installation for Host Controller Card

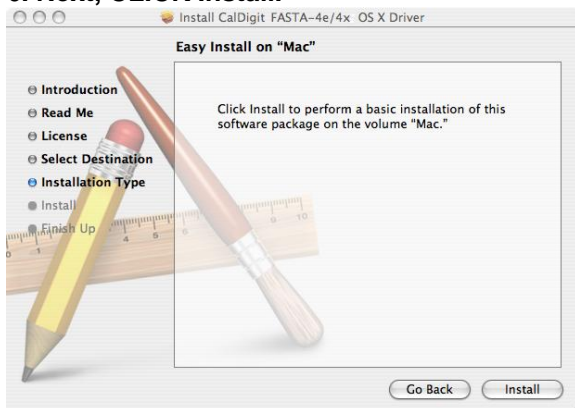
Note: Your installation screens will indicate that you are installing either the FASTA-4e or FASTA-4x card in the header, unlike what the above illustrations indicate.

1. Turn computer on.
2. Insert CD in CD-ROM drive.
3. Open CD, then open file CalDigit FASTA-4 v1.4.1.pkg by double clicking on it.
4. Introduction Screen, **CLICK Continue.**





6. Next, CLICK Install.



7. Finishing Installation, CLICK Continue.

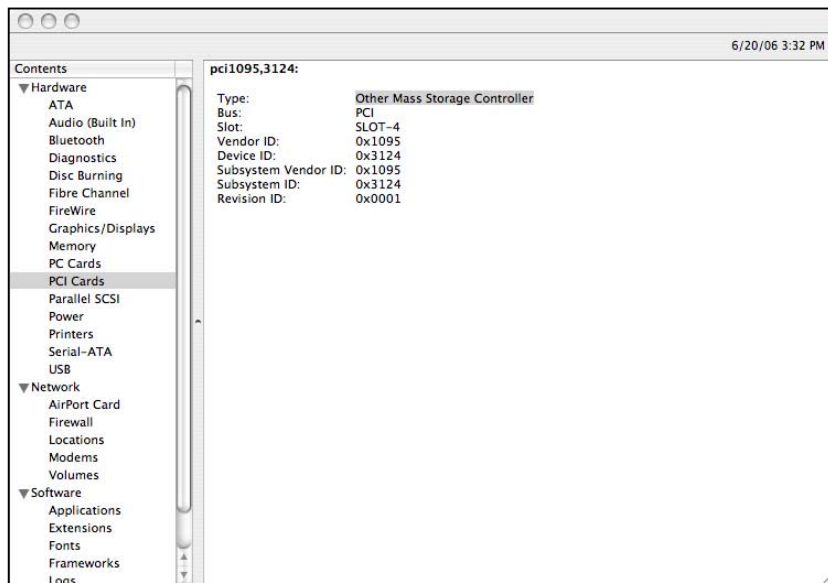


8. Installation complete, CLICK CLOSE.



➤ Verify System Profiler

Check to make sure that the card has been installed under System Profiler.



Informational Factoid: Did you know that there are demonstration videos available on the CalDigit website that will show you some of the technical aspects & real life usage of the S2VR product line? Go to: <http://www.caldigit.com/S2VRDuoOnlineDemo.asp> for more information. CalDigit, Professional Grade Products.

➤ Install S2VR Manager

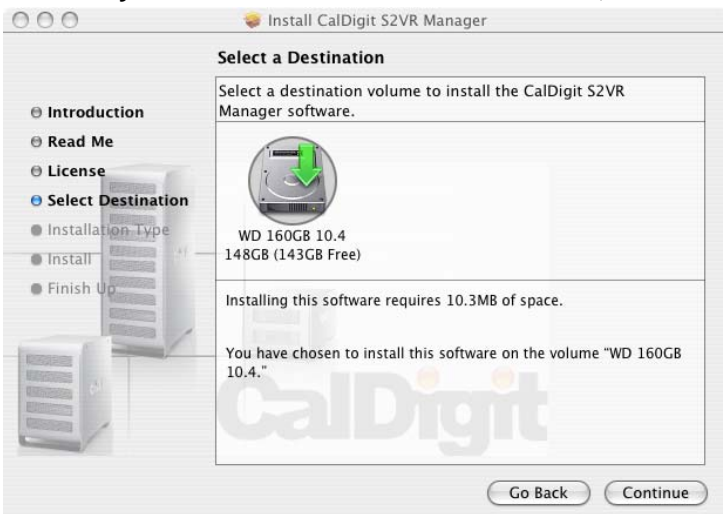
1. Double **CLICK** the application on the provided CD, **CalDigit S2VR v1.0.1.pkg**.



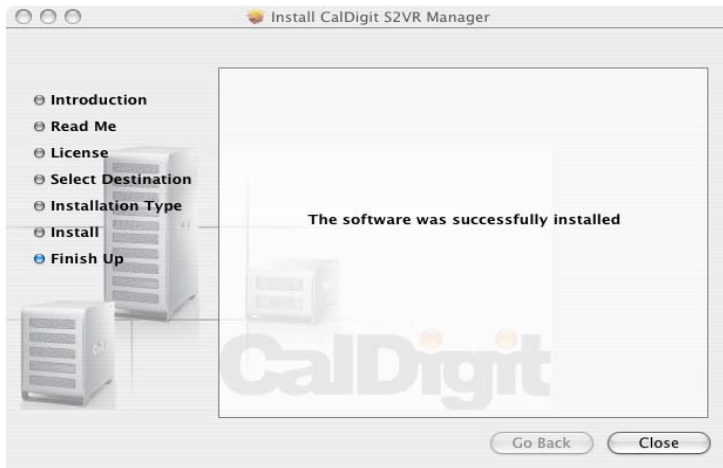
2. Introduction, **CLICK Continue**.



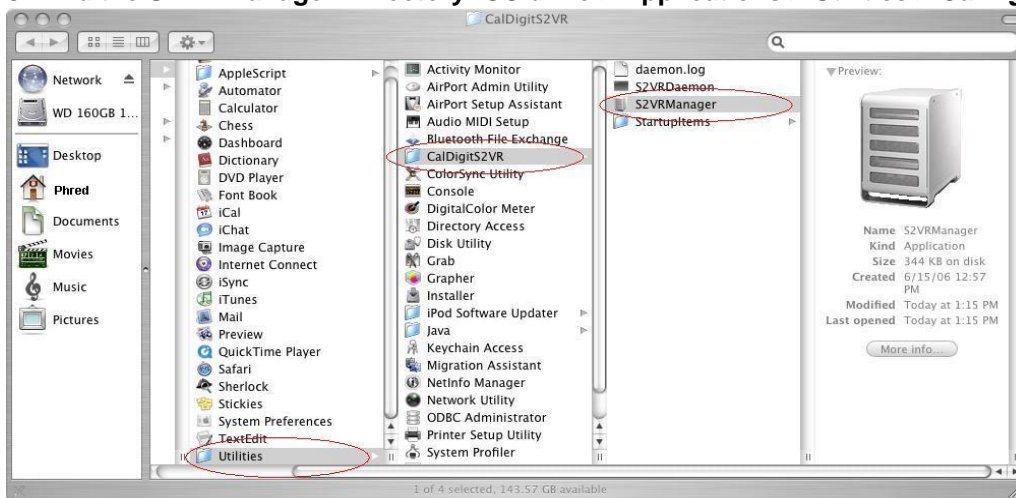
3. Select your OS Hard Drive as the destination, then **CLICK Continue**.



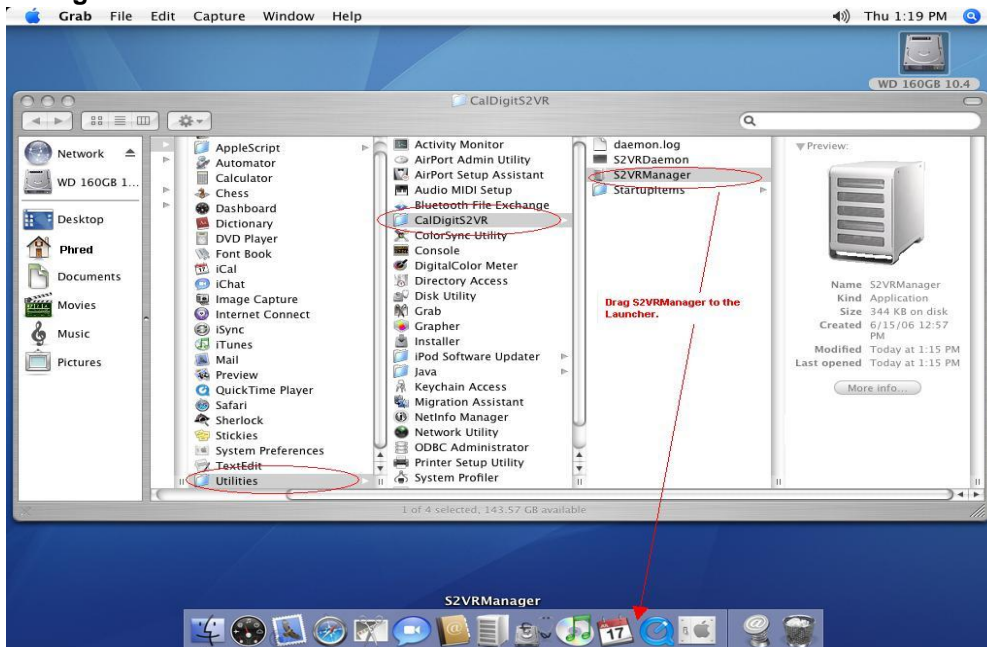
4. Installation Successful, CLICK Close.



5. Find the S2VR Manager. Directory: OS drive > Applications > Utilities > CalDigit S2VR > S2VR Manager



6. Drag S2VR to the Launcher.



7. Restart your computer for the S2VR Manager Installation to be complete.

➤ Installing the Hard Drive Tray Modules

Note: Your S2VR Duo is shipped with the drive modules packaged separately to prevent them from damage.

1. Slide tray drives into enclosure, lift lever, tighten the thumbscrew
2. After drives have been installed, check all levers & make sure thumbscrews are locked down.
3. Repeat with all other drives.

➤ Connecting the S2VR to the HBA Controller

The S2VR Duo RAID contains 2 configurable hard drives. After installing the host adapter card and drivers, connect the S2VR to your computer via your eSATA cable.

1. Attach the S2VR Duo RAID to the installed host adapter controller with the provided eSATA cable.
2. Plug the S2VR Duo into an AC power outlet & turn the power switch of the S2VR Duo to ON, (back of unit) wait approximately 20 seconds & then move on to **Power S2VR Duo ON/OFF** for the next steps.

➤ Power S2VR Duo ON/OFF

The power switch for the S2VR Duo is located on the rear panel of the unit. Turn off the S2VR Duo by pressing the Switch to ON (O) position, to turn the unit off, press the (|) position.

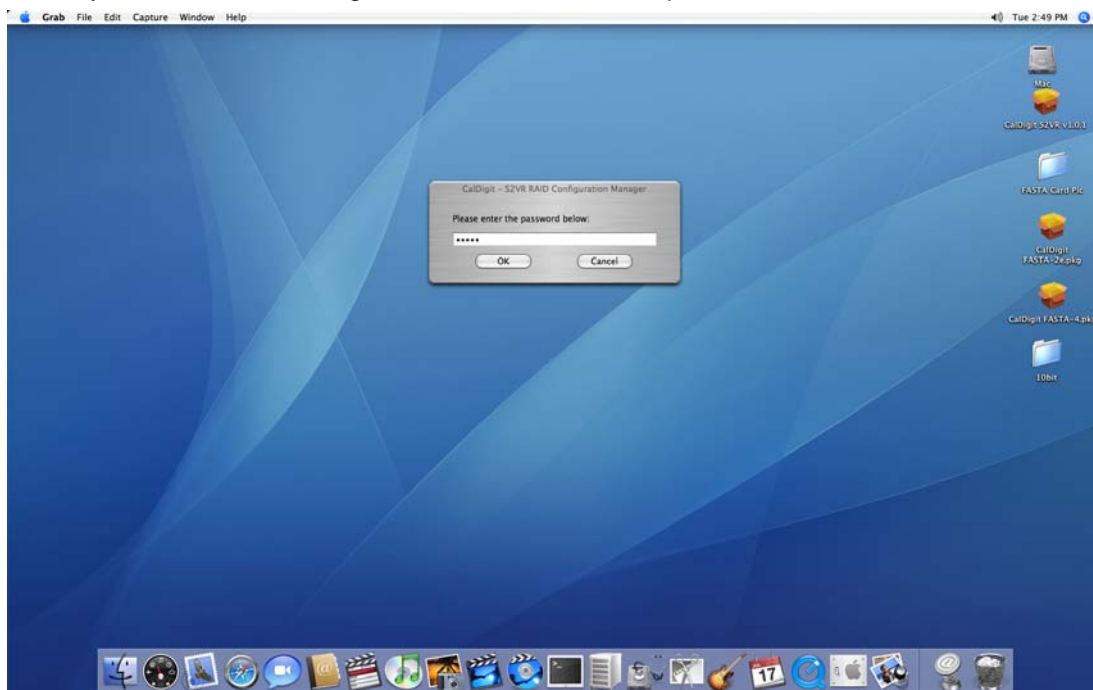
Turn on the S2VR Duo first, and then wait 20 seconds and then power up your computer.



Please be careful around the power supply. Accidental contact with internal parts while the power supply is powered on could lead to electrical shock.

➤ Open S2VR Manager

The S2VR Duo Manager limits configuration access with a password prompt. The password information is stored locally on the server running the daemon. The default password is **admin**.

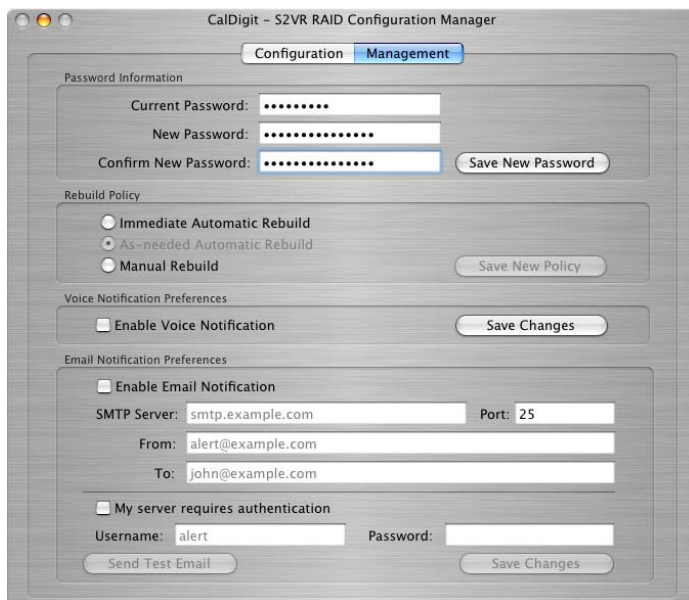


➤ **Go to “Management Tab” setup password, Voice & E-mail notification**



➤ **Password (Changing the Password)**

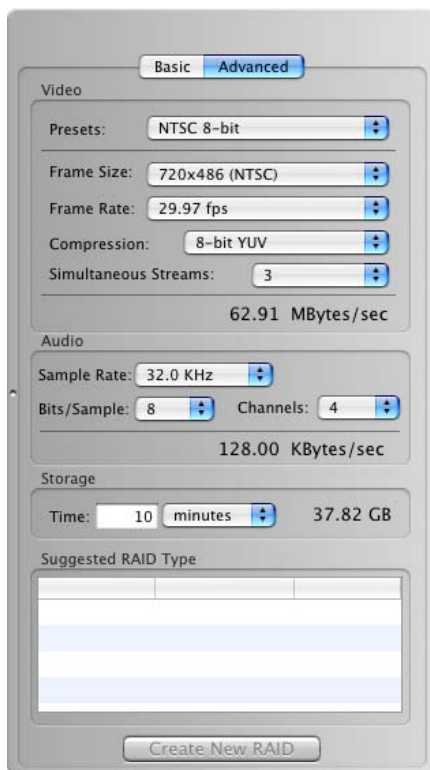
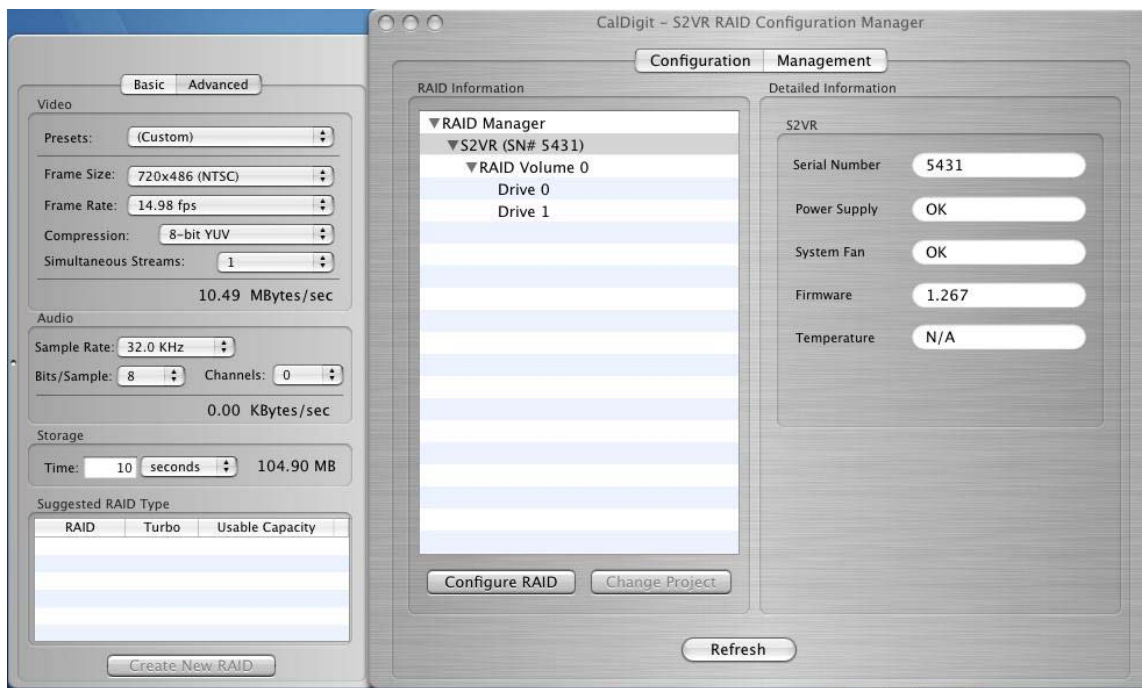
1. Select Change Password from the File menu.
2. Enter the current password (or use admin if you have not changed the default password).
3. Enter the new password within the provided fields.
The entered password must be a combination of 5 or more characters.
4. Click OK to implement the new password.



5. Click the “Enable Voice notification box” of the S2VR Duo GUI to configure voice notification, to warn you in the event of drive failure, fan failure, or power supply failure.
6. Click the “Enable email notification box” of the S2VR Duo GUI to configure e-mail notification, to contact you in the event of drive failure, fan failure, or power supply failure.

➤ Advanced Mode

1. Select S2VR (Box with serial #)
2. CLICK on Configure RAID
3. CLICK on Advanced tab



Video: By changing the settings in this section, your S2VR manager will automatically provide a calculated data rate for the selected settings.

Audio: as above, select the desired settings, and the audio data rate will be calculated.

Storage:
Your S2VR manager will calculate the approximate capacity of the 2 sections above.

Your S2VR manager will also provide a suggested RAID type for your project/task.

Important Note: The numbers that appear overall, are for reference only, the actual configuration settings depends on your system performance.

➤ TURBO Mode

You can choose from 30 – 100% of the hard drive capacity, to remain at the desired performance level.

Important Note: As is the nature of any hard drive, the performance of the drive will decrease as you fill up the drive with the data. Please note that this is not a performance issue with your S2VR.

Your OS will only be showing the capacity of your current S2VR Duo Turbo mode setting. For example: 100GB RAID system with Turbo @ 80%, your system will only display 80GB.

Note: For the Performance/Capacity rate relationship chart, please visit our website www.caldigit.com for the details.



Informational Factoid: The FAQ section on our website has answers to the most common questions and or potential problem(s) that you may encounter, please go to <http://www.caldigit.com/faq.asp> for more information.

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➤ Configure RAID Level

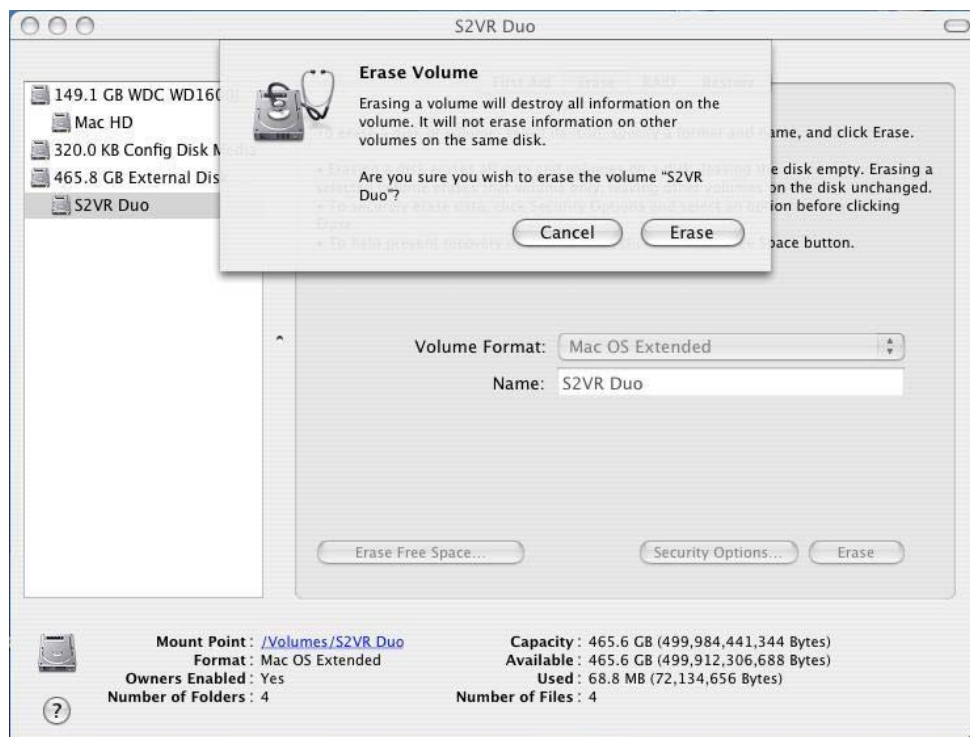
Important Note: You can only modify the Raid settings for you S2VR by using the S2VR Manager software. The hardware RAID changing function on your S2VR Duo back panel is disabled as default.

➤ SOFTWARE RAID CHANGE

YOU MUST DELETE YOUR S2VR RAID SET ON DISK UTILITY WHENEVER YOU ARE CONFIGURING YOUR S2VR INTO A NEW RAID SETTING. OTHERWISE YOUR SYSTEM WILL STILL READ THE OLD SETTING FROM SYSTEM MEMORY, WHICH WILL CAUSE FALSE INFORMATION ON DISK UTILITY.



Your data will be lost as this process will reformat your drives. Backing up your data on another S2VR Duo is highly recommended.



YOU MUST RESTART YOUR COMPUTER AFTER EVERY RAID SETTING CHANGE.

HOWEVER, FREQUENTLY CHANGING YOUR S2VR SETTING IS NOT SUGGESTED. IF YOU ARE NOT SURE ABOUT WHICH RAID SETTING BEST SUIT YOUR PROJECT, PLEASE USE THE ADVANCED MODE ON YOUR S2VR MANAGER.

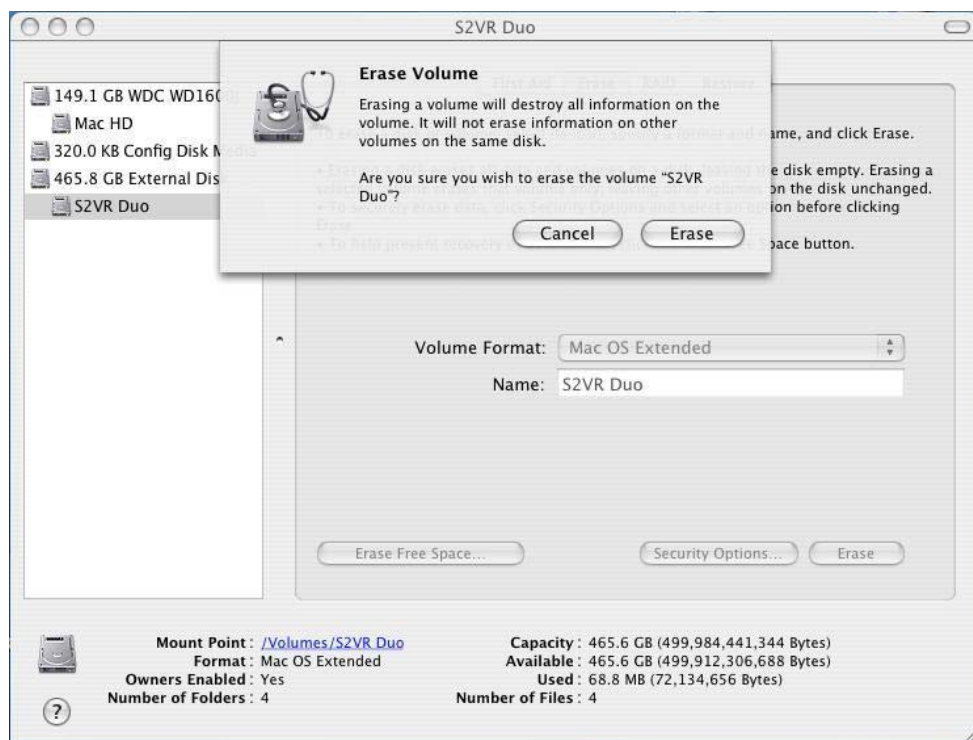
➤ JBOD Mode



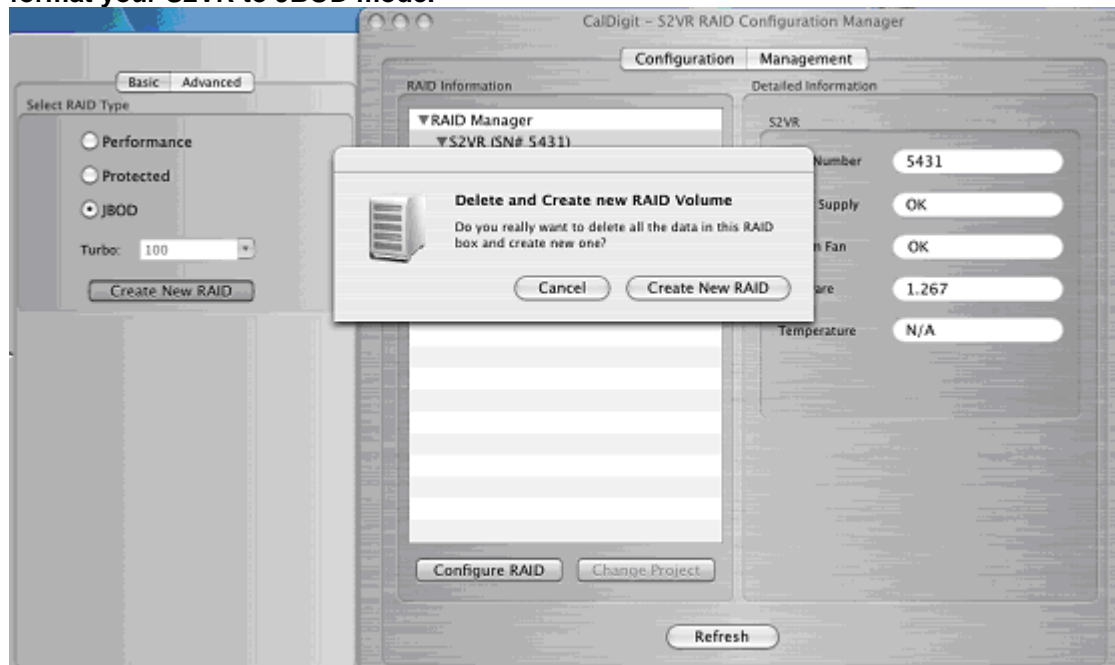
**Your data will be lost as this process will reformat your drives.
Backing up your data on another S2VR Duo is highly recommended.**

Your S2VR Duo comes reconfigured in Performance mode. (Out of the box)
If you want to change the project & format into JBOD function, follow these steps.

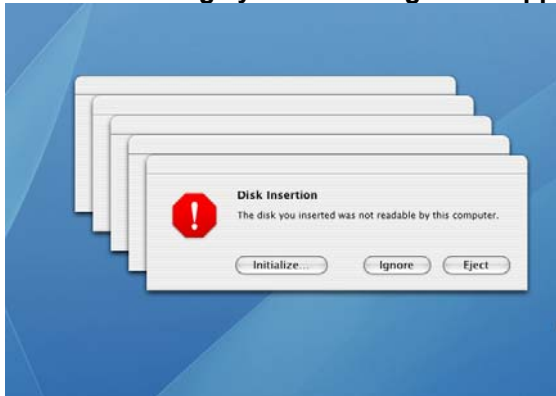
Please delete your original S2VR's RAID setting via Disk Utility



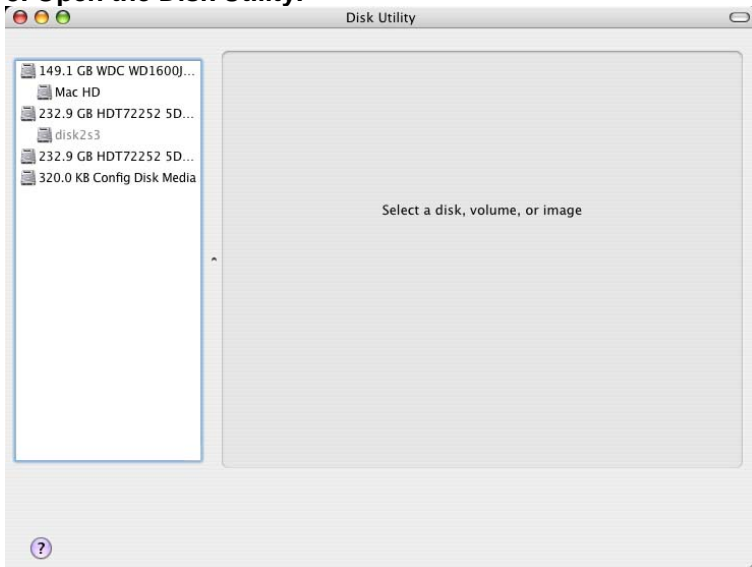
1. Open S2VR Manager, Select JBOD mode & follow prompt to format your S2VR to JBOD mode.



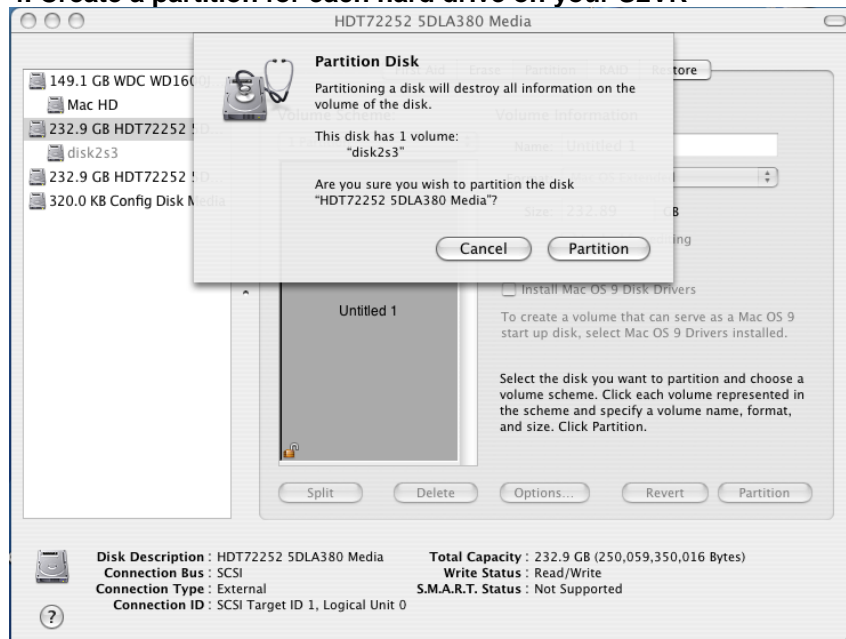
2. The Following system messages will appear, click Ignore.



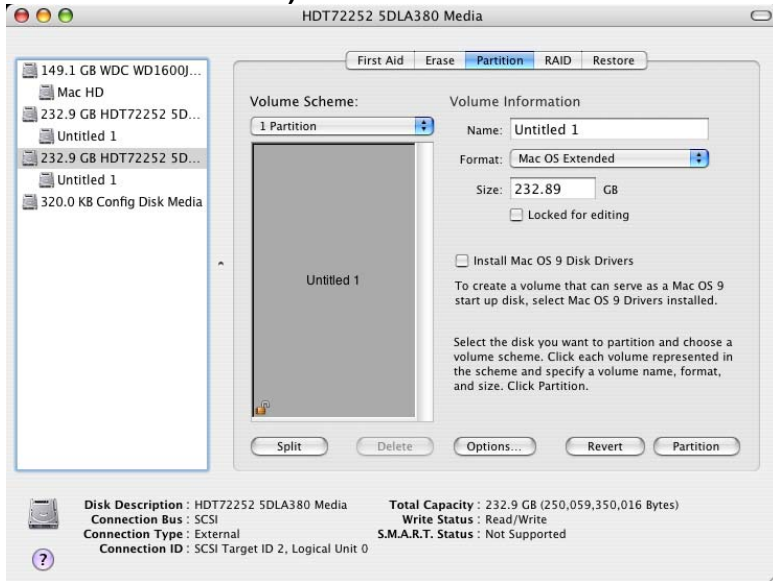
3. Open the Disk Utility.



4. Create a partition for each hard drive on your S2VR



5. After you initialize, this is what you should see. (Your S2VR will now serve as an enclosure for 2 individual Hard Drives)



6. Restart your computer, and your newly configured S2VR is ready to use!

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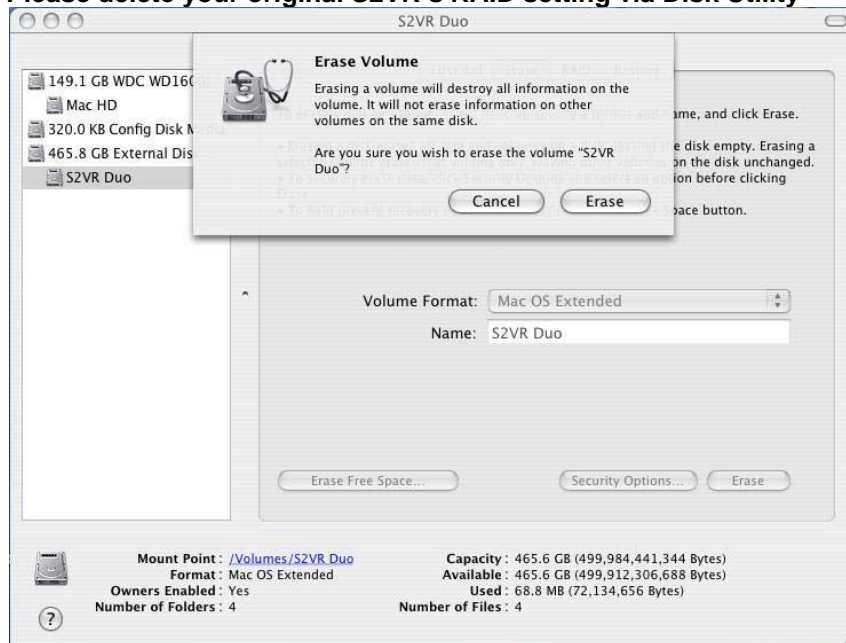
➤ Performance Mode



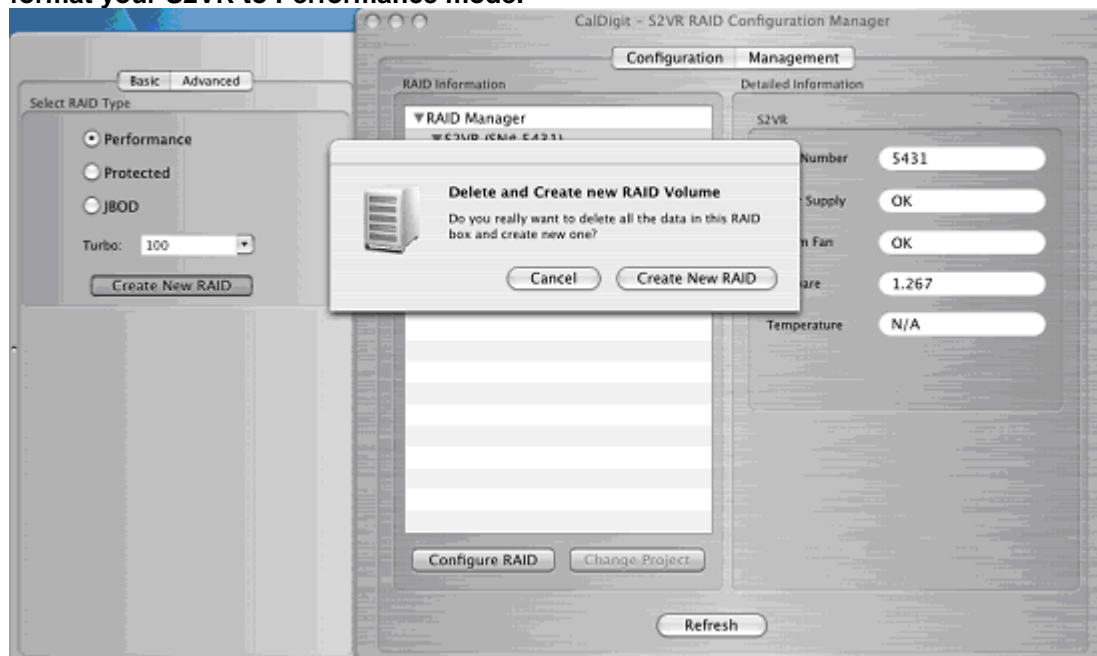
**Your data will be lost as this process will reformat your drives.
Backing up your data on another S2VR Duo is highly recommended.**

Your S2VR Duo comes pre-configured in Performance mode. (Out of the box)
If you want to change project and format into Performance function, follow these steps.

Please delete your original S2VR's RAID setting via Disk Utility



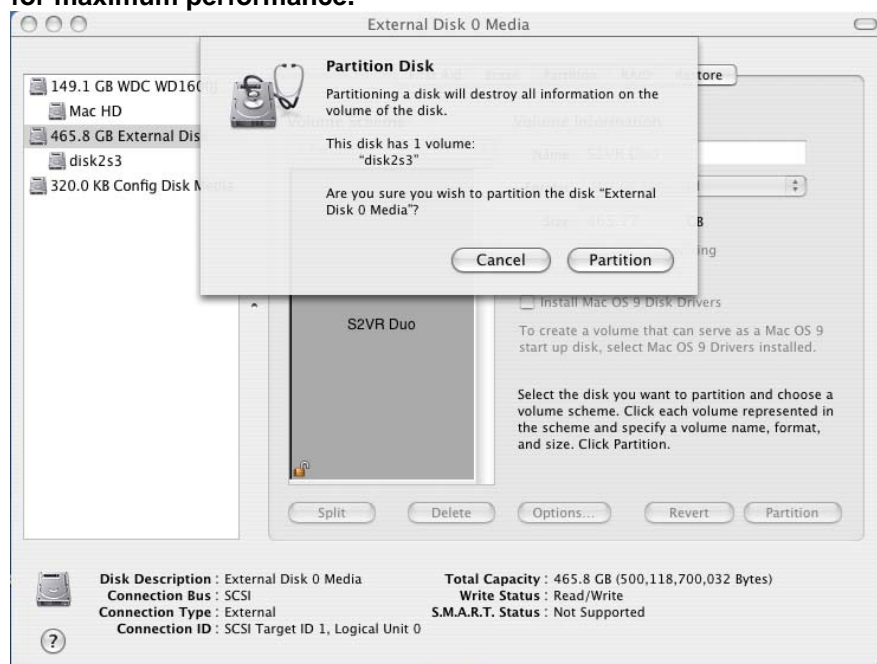
1. Open S2VR Manager, Select Performance mode & follow prompt to format your S2VR to Performance mode.



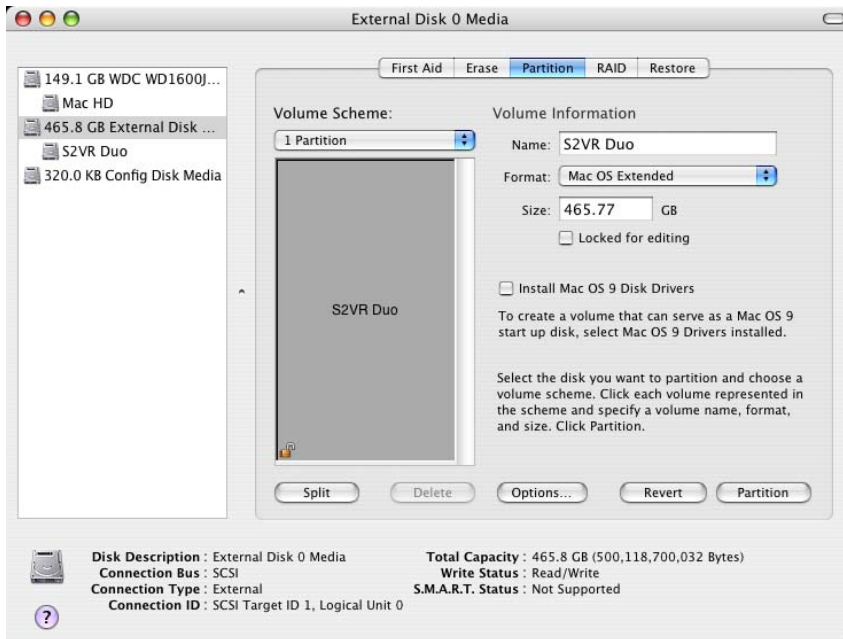
2. After you change your S2VR's setting into Performance mode, you S2VR Manager will be showing as below.



3. Create Partition via Disk Utility, remember to choose 'Mac OS Extended' for maximum performance.



4. Restart your computer, and your newly configured S2VR is ready to use!



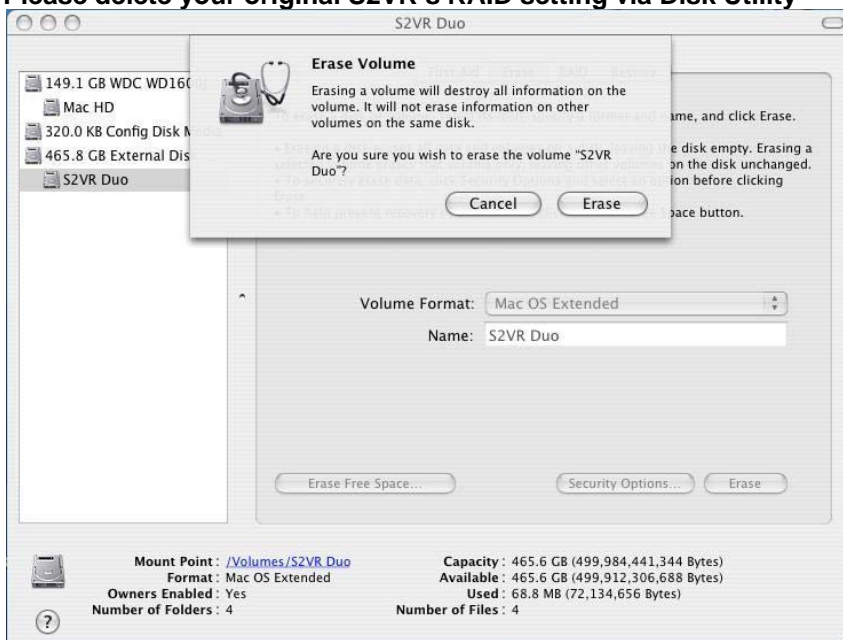
➤ Protected Mode



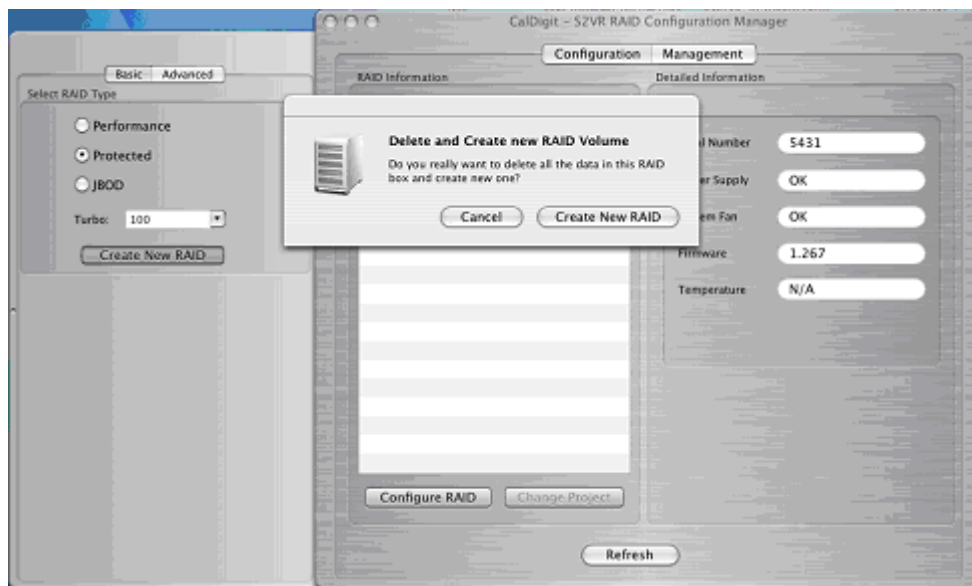
**Your data will be lost as this process will reformat your drives.
Backing up your data on another S2VR Duo is highly recommended.**

Your S2VR Duo comes pre-configured in Performance mode. (Out of the box)
If you want to change the project and format into Protected function, follow these steps.

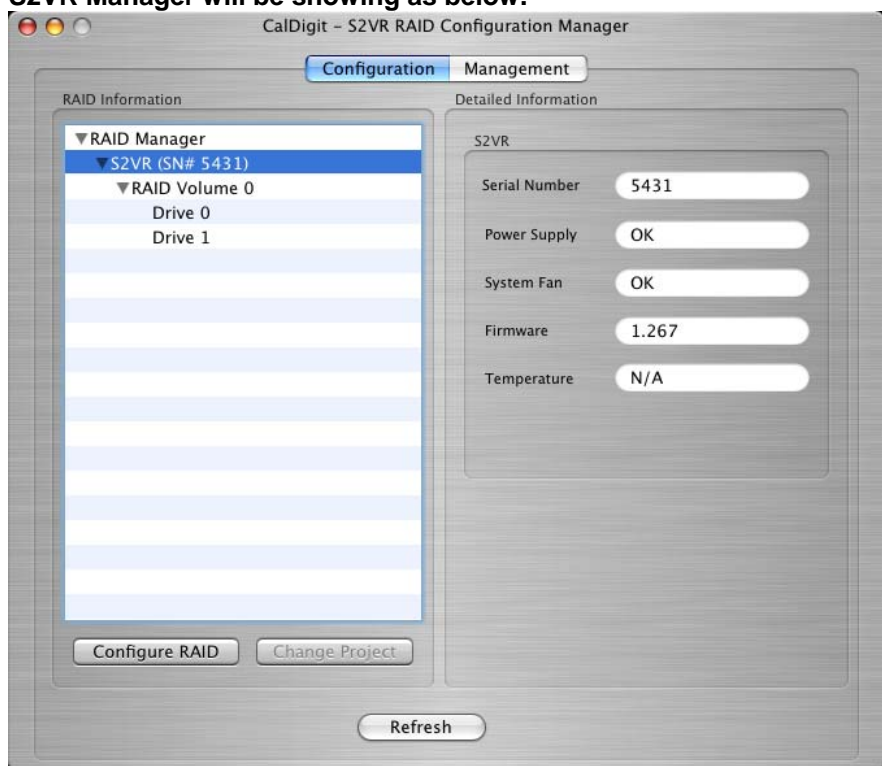
Please delete your original S2VR's RAID setting via Disk Utility



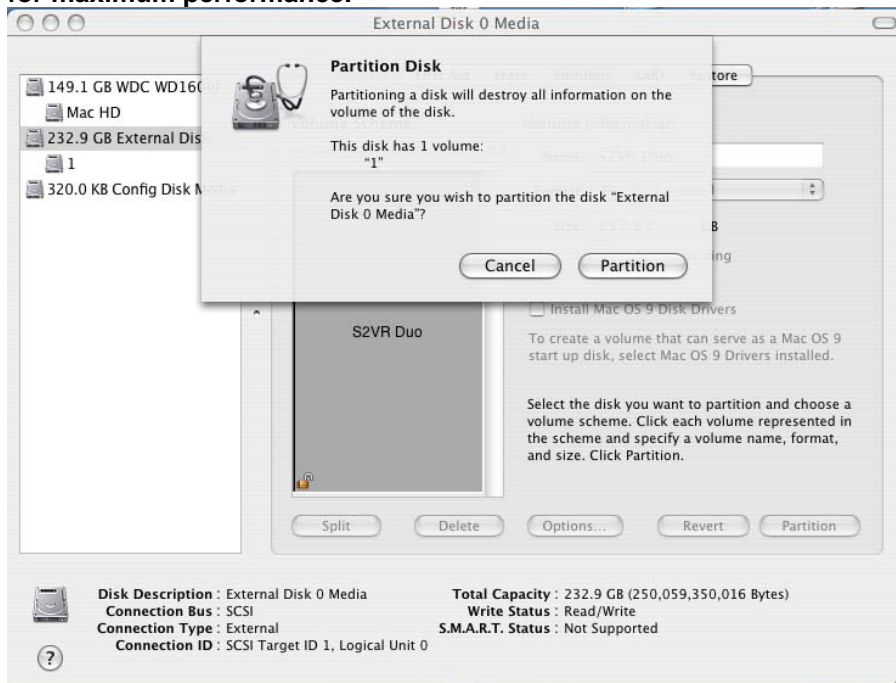
1. Open S2VR Manager, Select Protected mode & follow prompt to format your S2VR to Protected mode.



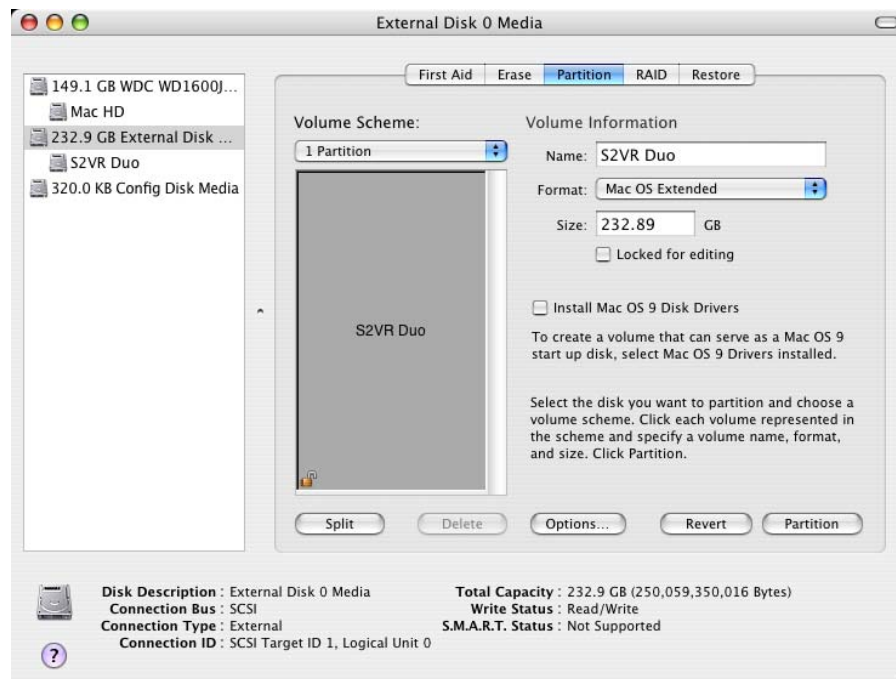
2. After you change your S2VR's setting into Protected mode, you S2VR Manager will be showing as below.



3. Create Partition via Disk Utility, remember to choose 'Mac OS Extended' for maximum performance.



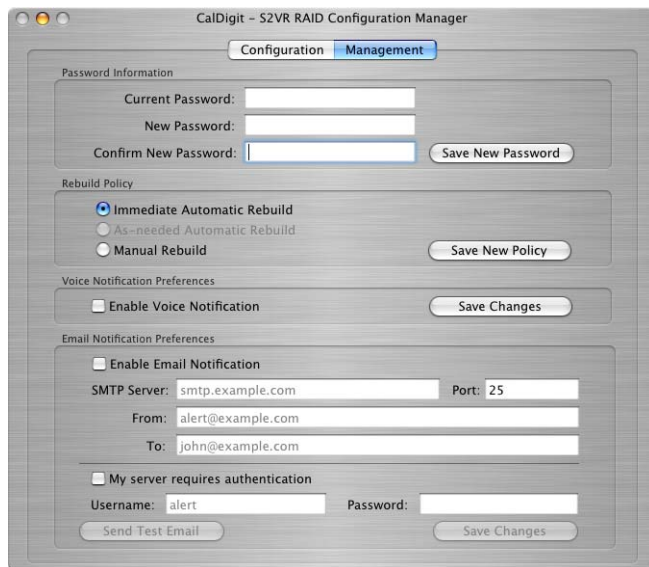
4. Restart your computer, and your newly configured S2VR is ready to use!



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➤ Protected Mode, rebuild information

Protected mode combines the best features of striping and mirroring to yield large arrays with high performance in most uses and superior fault tolerance. CalDigit S2VR Duo comes with the world-leading technology to ensure the safety of your important data. You can rest free knowing that your data is protected by the best technology in the market.



Your S2VR Duo allows you to choose from three rebuild settings:

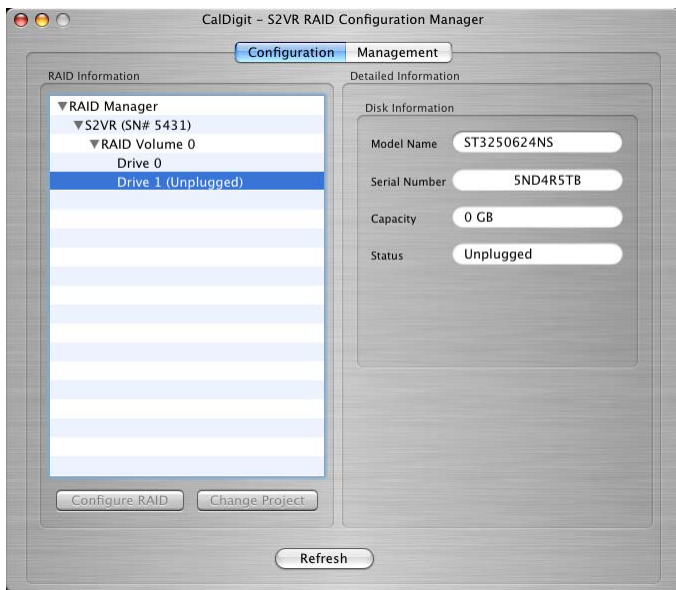
Immediate Automatic Rebuild: In the event of hard drive failure, your S2VR Duo will immediately start the rebuild process.

As-needed Automatic Rebuild (Default): In the event of hard drive failure, your S2VR Duo will start the rebuild process once you access your S2VR Duo.

Manual Rebuild: In the event of hard drive failure, you can start the rebuild process at anytime you preferred.

➤ Demonstration of HDD failure

1. Your S2VR manager will monitor your S2VR Duo and will notify you in the event of a problem.



2. Your S2VR manager will provide a real time monitor of the rebuilding progress.
3. Service your drive ASAP.

Important Note: Always back up your important data! Having another copy of your important work is always and highly recommended.

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➤ Troubleshooting

In the event that your S2VR Duo is not working correctly, please refer to the 3 items below to find out where the problem is coming from. Should the steps below not remedy the situation, please check the FAQs on our website www.caldigit.com. One of these FAQs should provide the solution to your specific problem. If you need further assistance, please contact your Century Global reseller.

1. Inspect your S2VR Duo

Make sure the power source of your external SATA device is connect properly.

2. Inspect the SATA cable

Verify the SATA connection and try an alternate SATA cable.

3. Check your system profiler

Go to your system profiler by clicking apple menu, "About This Mac", "More Info...", and click on PCI Cards to see if your SATA card is listed. If not, remove the card and install to another available PCI-e port (referring to Hardware installation on page 3)

➤ General Safety Precautions



**Make sure to read all messages with this icon for important information
On various important points on the S2VR Duo. Failure to pay attention
to these warnings could result in loss of data or other serious consequences.**

1. Do not attempt to service this unit yourself. Opening or removing the side covers will expose you to dangerous voltages or other hazards.
2. Do not use this unit near water – such as; bathtub, sink, in a wet area or near a swimming pool, doing so increases the chances of a short circuit or electrocution.
3. Do not place this unit on any unstable surface such as; a cart, stand, bracket or table. The unit may fall causing serious injury and/or damage to the unit.
4. Do not block the front and rear ventilation. Proper airflow is required to ensure reliable operation and to prevent overheating.
5. Do not defeat the safety purpose of the grounded power plug. Use a grounded power outlet and the power connector intended for the unit.
6. Power cord provided is for North America use only. Outside of North America the proper power cord must be procured and used.

➤ Agency Approvals

This device complies with part 15 of the FCC rules. Operation is subject to the following conditions:
(1) This device may not cause harmful interference, and (2) This device must accept any interference received, including interference that may lead to undesired operation.

EC Declaration of Conformity:

Conforms to Standards EN50081-1:1992

EN55022:1998

➤ Technical Support

CalDigit Website:	www.caldigit.com
CalDigit knowledgebase:	go to website, click on Support, click on knowledgebase
CalDigit e-mail support:	support@caldigit.com

Phone support:	714-572-6668 M-F 9AM – 6PM PST
Fax:	714-572-9881

➤ **Serviceability**

The S2VR Duo is designed to provide easy disk drive replacement, should a disk drive module need to be serviced, simply unscrew the thumbscrew, pull down on the tray handle and pull the drive out. Replace the bad drive module with a new module, sold as a separate accessory item through CalDigit or your authorized reseller/dealer.

➤ **Glossary**

Daemon - A component of the S2VR manager responsible for status tracking and SAFE volume rebuilds.

HBA (Host Bus Adapter) - A HBA is an I/O device that fits in the computer PCI slot and provides the external ports to connect peripheral devices to your computer.

RAID - Redundant Array of Independent (or inexpensive) Discs