

User's Manual
CADA-SA2 Series



Preface

Copyright

Please respect copyrighted content. Duplication or modification of this publication in whole or in part is prohibited without written authorization.

Usage

Strong impacts or dropping the product may cause damage. Allow only qualified personnel to repair this product. Disassembling or opening this product will void your warranty.

Disclaimer

Cavalry is not liable for compensation for data loss which may result from a malfunction of the product or from changes due to improper use, repairs, defects, or battery change. Please back up your data to avoid unexpected losses. Cavalry reserves the right to make changes to the content of this manual without notice. The most current manuals and software are available for download at our download page: www.cavalrystorage.com/su_download.htm

Thank you for choosing Cavalry.

We at Cavalry extend our sincere gratitude for your purchase of this product. We hope our dedication to delivering high quality products with excellent customer service will ensure your continued interest in our products.

This manual will assist in the operation of the product. To optimize your experience with this product, we recommend reading this entire manual before usage. Please keep this manual for future reference.

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List of Accessories

1. External power adapter / power cord
(may vary with product)
2. SATA to eSATA adapter cable
with bracket
3. eSATA cable
4. USB 2.0 cable
5. Resources CD



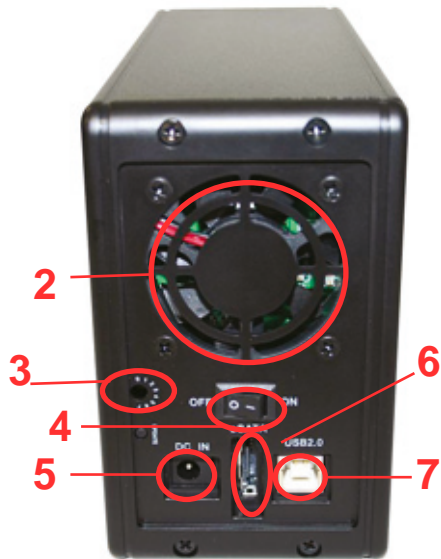
Front



1. LED status indicators

Back

- 2. Ventilation fan
- 3. 0-7 Settings Dial
- 4. Power switch
- 5. Power jack
- 6. eSATA port
- 7. USB 2.0 port



Features

Plug-and-play for Windows 2000/XP/Vista

USB 2.0 and eSATA interface

Pre-formatted to NTFS

Supports RAID levels 0, 1, 0+1

Exceptional heat dissipating ability

LED light indicators

Nearly silent operation

Designed for use with a PC

Setup Instructions

Follow the steps below to successfully set up your Cavalry External Hard Drive with your computer.

Step 1. Start your computer and wait for Windows to load completely.

Step 2. Connect the power adapter to the drive. Then plug the power adapter into an electrical outlet. (Fig. 1)

Step 3. Connect the square end of the USB cable to the hard drive. (Fig. 2) Then connect the flat end of the USB cable to the USB port on your computer. (Fig. 3)



Fig. 1

SATA Users: If you do not already have an eSATA interface on your computer, first install the bracket when the computer is off. Then connect the drive to the bracket, turn on the unit, then turn on the computer. For a guide to install the eSATA bracket, see the "Content/CADA-SA2" folder of the CD.

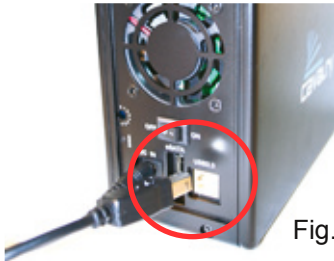


Fig. 2



USB Port

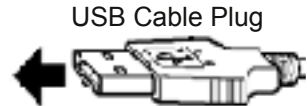


Fig. 3

Step 4. Turn the power switch on.

NOTE: Connect the USB cable to the drive **before** connecting the cable to the computer. To disconnect, remove the cable from the computer **first**.

Step 5. Installing drivers for the Cavalry External Hard Drive.

Windows 2000/XP/Vista

Plug-and-play. No device drivers or configuration required. The computer will detect the USB External Hard Drive as a new USB device and display messages on the bottom-right corner reading "USB Mass Storage Device Detected" and "Your new hardware is installed and ready to use."

Windows 98SE/Me

1. Make sure Windows 98SE/Me is fully updated
2. Download drivers from www.cavalrystorage.com/su_download.htm by clicking on "Windows 98 Driver". Extract the file.
3. Navigate the device manager.

4. Right-click on the yellow question mark indicating an unknown external storage device.
5. When the device driver wizard starts, click on the "Browse" button to select the search directory to find drivers.
6. Find the USB 2.0-98 driver in the extracted file.
7. Click "Next" to continue.

Mac OS X 10.4 and older

Reformat the external hard drive using Disk Utility on the OS.

Step 6. Your external hard drive is now ready to use.

NOTE: When the hard drive is on, the red "Power" LED light will appear on the front of the drive. The green "HDD1 ACCESS" and "HDD2 ACCESS" lights will flicker when the computer is accessing these drives.

RAID

Your product is preconfigured in RAID 1 (mirrored). "Mirrored" means that each of the two disks in your disk array contains the same data, providing protection against the failure of one drive; however, when the drive appears on your computer, it will be recognized as a single hard drive.

NOTE: Although the box indicates two hard drives are included, the total capacity in RAID 1 mode will not equal the sum of the two because the second drive is used as a "backup" of the first drive. (e.g. two 250GB drives do not have a 500GB capacity. Instead, only 250GB is available for storage, while the other 250GB is a backup of that data.)

The drive is preset in RAID 1 mode. If you would like to change RAID settings, please refer to the next section.

Change RAID Settings

There are two ways to change the RAID settings. We recommend you use the SteelVine software included with your product; however, an alternative is using the "0-7 Settings Dial" (p.17). Changing the RAID settings will result in loss of data currently stored on the drive. After configuring RAID settings, you will need to partition and format your drive (p.20).

I. Using the SteelVine (GUI) software (In order to use GUI, your unit's "0-7 Settings Dial" must be set to "7," which is the factory default)

Step 1. Turn the product on.

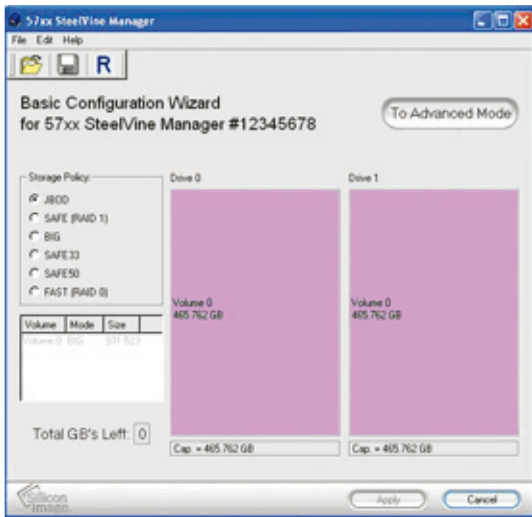
Step 2. Open the Resources CD in "My Computer," open the folder "Contents/STEELVINE/" and open the folder corresponding to your operating system. Install the "setup" file (Windows) or pkg file (Mac).

Step 3. Follow the on-screen instructions to install the software.

Step 4. After installation is completed, go to Start >> All Programs >> Silicon Image >> SteelVineManager.

Step 5. Finally, load the program by right-clicking the blue SteelVine icon on the bottom-right corner of the screen (in the system tray). Proceed by clicking "Open 57xx SteelVine Manager."

Step 6. Once the program has loaded, go to Edit >> Configure Box. When prompted, enter the default password "admin."



Step 7. Select the setting that you prefer under "Storage Policy", then press "Apply." NOTE: Changing the settings will erase any data on the unit.

Step 8. Your unit will take a few moments to start rebuilding. Once it has started, it may take several hours rebuild, depending on the setting you choose. You can monitor the progress in the SteelVine Manager main window. Keep the unit turned on and stationary while it rebuilds. The "HDD1" and "HDD2" lights will be lit during the rebuilding process. When completed, your SteelVine Manager should indicate so.

Step 9. Proceed to part III, where you partition and format your RAID system.

NOTE: If you encounter problems trying to install/use the Steelvine software, you may need a different version of the software. There are older versions of the software in the "Contents/STEELVINE/Extra Software/" folder. Try installing the "older MAC.pkg" (for Mac) or the "setup" file in the "older windows" folder (for Windows). If you still have problems, contact us at customersupport@cavalrystorage.com.

II. Using the "0-7 Settings Dial" (Not recommended; only use if you cannot use the SteelVine software)

Step 1. Make sure the unit is off.

Step 2. Refer to the following and identify the appropriate number of the setting you would like. Cavalry recommends RAID 1 for data protection:

- | | |
|---|--------------------------------------------------------------------------------------------|
| 0 | SPANNING, drives are concatenated into one large volume |
| 1 | JBOD, drives show up individually |
| 2 | RAID 0 / Striped, single big volume, parallel access, fastest, no data redundancy |
| 3 | RAID 1 / Mirrored, 100% data redundancy, data retained as long as one drive is functioning |
| 4 | RAID 0+1: 33% mirrored, remaining space is concatenated |
| 5 | RAID 0+1: 66% mirrored, remaining space is concatenated |
| 6 | Unused |
| 7 | SteelVine (GUI) software (default setting) |

Step 3. Turn the unit on its side and look into the hole with the numbers "0" to "7" printed around it (Figure 1). Inside the hole you should see a dial (Figure 2).

Figure 1.

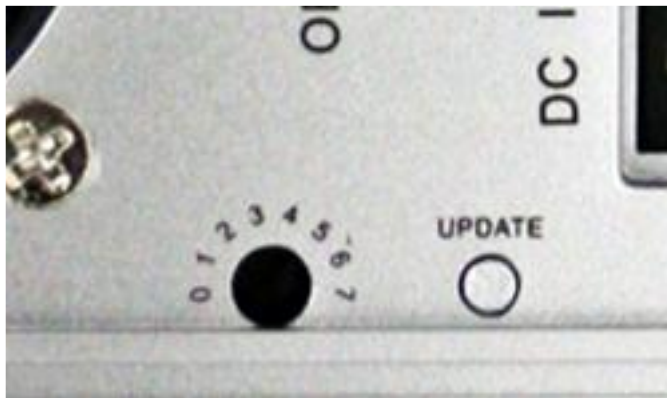


Figure 2.



Step 4. Using a small, flathead screwdriver, turn the dial to the appropriate number of the setting you chose from Step 2. Once you have done this, lay the unit upright and set the unit where you would like it to be.

Step 5. Turn the unit on.

Step 6. Press the "Reset" or "Update" button located on the back of the product (Figure 1.) This will cause the unit to automatically "rebuild" into the new setting. The "HDD1" and "HDD2" indicator lights will flash while the unit is rebuilding. This process could take up to 12 hours. Do not move or turn off the unit while this process takes place. Your unit will be ready to use once the indicator lights stop flashing.

III. Partitioning and formatting your RAID system

These instructions are for Windows 2000 / NT / XP / Vista users only. If you have another operating system, please refer to the Formatting Guide, found in the "Contents" folder of the Resources CD or online at www.cavalrystorage.com/su_download.htm

Step 1. From the Start menu, right-click on "My Computer" or "Computer" for Vista users. Select "Manage". The computer management console will appear.

Step 2. Expand "Storage" and select "Disk Management". All physical drives will appear. If your external drive fails to appear, contact customer support.

Step 3. Right click on the external drive partition. Be sure you are on your external drive and not your computer's hard drive. Select "Create Partition".

Step 4. Follow the wizard defaults. For faster formatting you can check the "quick format" box. Please note that the formatting process may take a while.

Step 5. Your hard drive is ready to use!

If you have questions or problems with configuring RAID settings, partitioning, or formatting your drive, please contact customer support at customersupport@cavalrystorage.com.

Troubleshooting

LED light indicator does not turn on

Make sure the power adapter is securely connected to a working electrical outlet. Secondly, make sure the USB or eSATA cable (whichever interface you chose to use) is inserted correctly into the hard drive and the computer. Turn on the power switch (Page 7).

Computer does not detect hard drive

Make sure the USB/SATA cables are securely connected. If this does not work, attach another known working device and working cable into the USB/SATA port on the computer. If the computer does not detect your known working device the problem could be your computer's USB/eSATA port. If the the known device and cable both work and the hard drive is still not recognized, please contact customer support.

Loud noises coming from external hard drive

In most cases, loud noises coming from the drive suggest it may either be defective or a part is loose. We apologize for any inconvenience this may cause. Please contact customer service for assistance.

"HDD1" or "HDD2" LED lights become red

This indicates one of the drives may need replacing. If the drive is configured to RAID1, the hard drive must be replaced by another hard drive of the same capacity, brand, and model number. Open the enclosure, remove the failed hard drive and replace with the new drive. After inserting the new drive and closing the unit, turn it on and the new hard drive will automatically be rebuilt using a copy of the data from the good hard drive. The unit does not need to be connected to the computer in order to be rebuilt. Do not turn off the power during the rebuilding process.

Cannot use SteelVine (GUI) software

Please confirm that your "0-7 Settings Dial" is set to "7." Follow instructions on p.17 to change the dial to 7 if necessary. If you still cannot use SteelVine, change settings manually. If problems persist, contact customer support.

Hard drive will not work with my Mac

If you have Mac OS 10.5 and wish to reformat for use with a Mac, you cannot do so. Mac 10.5 formatting will not work with the RAID hardware. If this is the case, contact Cavalry customer support. For Mac OS 10.4 and older, format the hard drive according to the instructions provided by your Mac.

If you have more questions, please refer to the **Frequently Asked Questions** section online at: www.cavalrystorage.com/su_faq.htm. For further inquiries, you may contact Bason/Cavalry tech support at customersupport@cavalrystorage.com.

Warranty

This product comes with a one year warranty from the date of purchase. Please register your product at www.cavalrystorage.com/prodreg.htm to activate the warranty. Please have your Serial Number and Model Number ready. We are not responsible for any loss of data. Please back up your data often to avoid unexpected losses.

Contact

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