Addonics
TECHNOLOGIES

Jupiter Cipher Combo Hard Drive

For the following models:
JCCHDIU64, JCCHDIF64, JCCHDIS64
JCCHDIU128, JCCHDIF128, JCCHDIS128

User's Guide
Version 1.0

FCC Warning Statement

This equipment has been tested and found to comply with the limits for a class B digital device pursuant to Part 15 of the FCC rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy. If not installed and used in accordance with the instructions, it may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If the equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment on and off, the user is encouraged to try and correct the interference by one or more of the following suggestions.

- Reorient or relocate the receiving antenna
- Increase the distance between the equipment and the receiver
- Connect the equipment to a different power outlet other than the one where receiver is connected
- Consult a certified television or radio technician

LIMITED WARRANTY

Addonics guarantees that every product is free from physical defects in material and workmanship during the warranty period specified for each product when used within the limits set forth in the Specifications section in the user guide. Unauthorized tampering of the product or using it outside the scope of the product specifications will result in voiding the warranty. If the product proves defective during this warranty period, call Addonics Technical Support to obtain a Return Authorization number. BE SURE TO HAVE YOUR PROOF OF PURCHASE ON HAND WHEN CALLING. RETURN REQUESTS CANNOT BE PROCESSED WITHOUT PROOF OF PURCHASE. When returning a product, mark the Return Authorization number clearly on the outside of the package and include your original proof of purchase. Customers are responsible for paying the shipping and handling of the products to Addonics warranty service location.

IN NO EVENT SHALL ADDONICS' LIABILITY EXCEED THE PRICE PAID FOR THE PRODUCT FROM DIRECT, INDIRECT, SPECIAL, INCIDENTAL, OR CONSEQUENTIAL DAMAGES RESULTING FROM THE USE OF THE PRODUCT, ITS ACCOMPANYING SOFTWARE, OR ITS DOCUMENTATION. Addonics makes no warranty or representation, expressed, implied, or statuary, with respect to its products or the contents or use of the user guide and all accompanying software, and specifically disclaims its quality, performance, merchantability, or fitness for any particular purpose. Addonics reserves the right to revise or update its products, software, or documentation without obligation to notify any individual or entity.

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Chapter 1

General Information

The Addonics Technologies Jupiter Cipher Combo Hard Drive is a portable 2.5” Hard Disk Drive kit. It consists of the Jupiter Cipher ExDrive and IDE drive cradle.

Features

- Stylished and rugged black anodized aluminum housing
- Compact size and light weight
- Shock proof - up to 3 feet drop damage protection for the hard drive
- Easy hard drive installation
- Choice of standard or encryption drive enclosure
- The most versatile hard drive kit in the market
- Connect as an External Hard drive to any computer via USB2.0, CardBus, Firewire/iLink and Serial ATA port (only one of these cables is included in
- Turn any 2.5” hard drives into external hard drive or removable hard drive
- Use as a removable Hard Drive on Desktops PC
- Plug & Play Operation under Windows 98SE, Me, 2000, XP and 2003 Server
- Portable: Enclosure fits any Briefcase or Notebook PC Case.

Encryption

- Hardware based 64-bit DES or 128-bit TDES full disk encryption
- High performance - Data is encrypted and decrypted on the fly by a certified cryptographic engine inside an ASIC without taking any CPU resources
- Encryption / Decryption via a hardware key, just like using a regular key to open a door.
- Simple to deploy with no training required, no software to install and no password to remember
- Platform independency - There is no software or driver to install to use Addonics encryption products. As a result, it can be deployed in any systems running any OS. This is important in organization with multi platform computing and legacy systems.

Jupiter Cipher Combo Hard Drive

Item Number	Product Description
JCCHDIU64	Jupiter Cipher 64-bit Combo Hard Drive USB 2.0 for 2.5” IDE hard drive
JCCHDIF64	Jupiter Cipher 64-bit Combo Hard Drive Firewire/iLink for 2.5” IDE hard drive
JCCHDIS64	Jupiter Cipher 64-bit Combo Hard Drive SATA for 2.5” IDE hard drive
JCCHDIU128	Jupiter Cipher 128-bit Combo Hard Drive USB 2.0 for 2.5” IDE hard drive
JCCHDIF128	Jupiter Cipher 128-bit Combo Hard Drive Firewire/iLink for 2.5” IDE hard drive
JCCHDIS128	Jupiter Cipher 128-bit Combo Hard Drive SATA for 2.5” IDE hard drive

Chapter 2 Jupiter Cipher Combo Hard Drive key

Check to make sure you have the correct version of Jupiter Cipher Combo Hard Drive key. The key should match the label at the bottom of the drive enclosure.



Yellow label DES-64 stands for Jupiter Cipher Combo Hard Drive 64-bit key



Green label TDES-128 stands for Jupiter Cipher Combo Hard Drive 128-bit key

IMPORTANT

There is no back door for the Jupiter Cipher Combo Hard Drive encrypted hard drive if the key is lost or stolen.

To ensure that there is a spare key, your Jupiter Cipher Combo Hard Drive bundled kit comes with one pair of Jupiter Cipher Combo Hard Drive keys. These 2 keys have identical encryption code. One of these keys should be kept in a safe and secure location and can be sent back to Addonics for duplicating additional keys. If you are down to the last key, be sure to make a back up of all the data stored inside your encrypted hard drive prior to sending the last key to Addonics. Addonics is not responsible for key lost in the mail or retrieval of the data inside the encrypted hard drive.

- The CIPHER key MUST be inserted at the front of the drive enclosure in order for the drive to be ACTIVATED.
- Once the drive is INITIALIZED using the Cipher Key that comes with the kit, the drive can only be accessed by the original key.
- The 2 keys that come with each Jupiter Cipher Combo Hard Drive bundled kit has their own unique encryption code. So the keys among different kits are not interchangeable.

If you have multiple sets of Jupiter Cipher Combo Hard Drive kits and would like all the keys to have the same encryption code, you may make this request at the time of your order or mail the keys together with master key back to Addonics to recode them for you. Again be sure that you keep a spare key with you. Make a back up of your data if you are mailing in your last key.

Chapter 3 Keeping track of the hard drive

If you are using the Jupiter Cipher Combo Hard Drive enclosure to encrypt multiple hard drives, it is important to label your hard drive if you are taking the drive out of the enclosure. The hard drive with Jupiter Cipher Combo Hard Drive encryption will look like a brand new drive when attach directly to the IDE or SATA controller of a computer. There will be no partition or any hint to indicate that the drive contains encrypted data. When the drive is partitioned, all the encrypted data will be lost.

The same holds true if a hard drive already has data on it is installed into the Jupiter Cipher Combo Hard Drive enclosure. The computer detects the hard drive as a brand new drive or a drive that is unallocated. Once you proceed to partition the drive, the data that was on the hard drive will be erased and cannot be recovered.

A Jupiter Cipher Combo Hard Drive encrypted hard drive can be moved to another Jupiter Cipher Combo Hard Drive enclosure. But the same key used in encrypting the hard drive must be used in the new drive enclosure in order to access the drive.

If you are installing multiple Jupiter Cipher Combo Hard Drive kits into a large organization, it is important to keep track of the drive and the encryption key. Once it gets mixed up, there is no possible way to recover the data on the encrypted hard drive.

Chapter 4
Jumper Settings Inside the Jupiter Cipher Combo Hard Drive

Settings when Jupiter ExDrive is used as an External Enclosure

1. If the Jupiter ExDrive will be used externally with the external AC adapter, the switch from the case must be switch to the right, labeled EXT to grab power from external power supply.



Application: Jupiter ExDrive can be set to receive power EXT and be used with all three types of USIB cables: USB2.0 USIB, Firewire USIB & SATA USIB

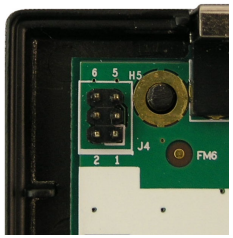
2. If the Jupiter ExDrive will be used externally without the external AC adapter, the switch from the case must be switch to the left, labeled INT to grab power from system.



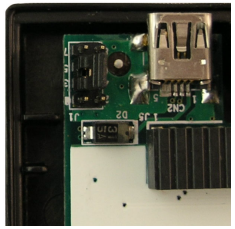
Application: Jupiter ExDrive can be set to receive power INT and be used with the following types of USIB cables: USB2.0 USIB & Firewire USIB

Note: We recommend setting the hard drive to MASTER mode/setting at all times. (Default setting)

J4 Pin Definition for Master Setting



Hard Drive Brand	J4 Jumper Setting
Hitachi NEC Fujitsu Toshiba Seagate	Pin 1~6 Open

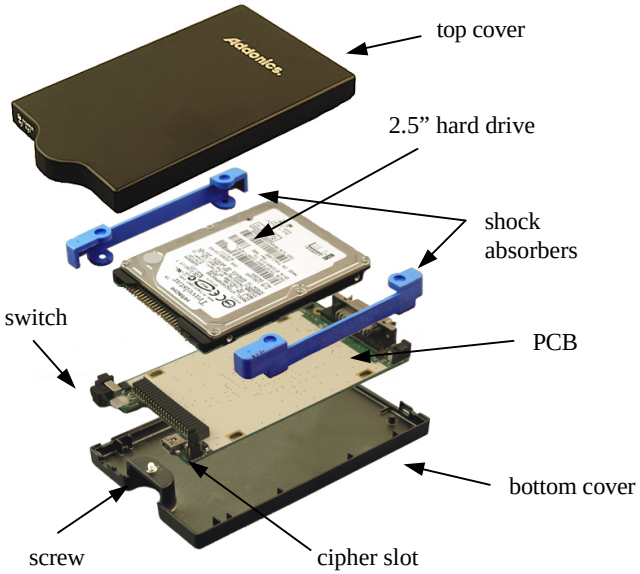


J1 Pin Definition for USIB Interface

Hard Drive Setting	J1 Jumper Setting
Master	Pin 3 - Pin 5 Short

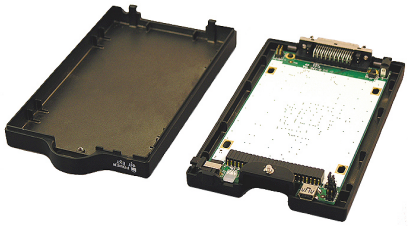
Chapter 5
Hardware Installation Guide

Exploded View of Enclosure shown with various components





Step 1
Separate the top from the bottom cover of the drive enclosure by loosening the screw as shown on the photo.

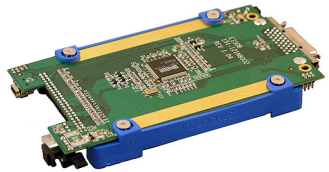




Step 2
Align the male IDE connector on the 2.5” hard drive with the female IDE connector on the PCB. Push the hard drive till the connector pins on the hard drive is fully seated inside the connector on the PCB.



Step 3
Wrap the shock absorber around the hard drive and PCB.



Step 4
Turn over the PCB and secure the hard drive to the PCB with the mounting screws that come with the kit.



Step 5
Mount the board to the bottom cover.



Step 6
Put the top cover on by holding it in near vertical position and sliding the two metal clips inside the two small slots on the rear of the bottom cover.



Step 7
Lower the front of the top cover and making sure the two covers lined up properly. Tighten the small retaining screw on the front of the bottom cover to close the enclosure.





Jupiter Cipher Combo Hard Drive

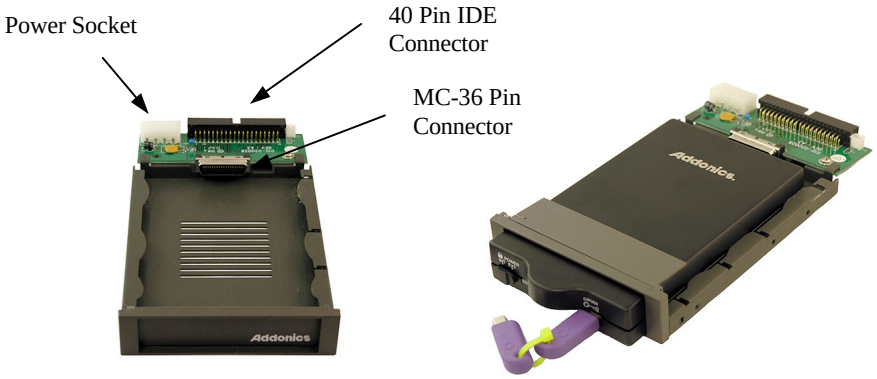
Note: Combo hard drive is the combination of Jupiter Cipher ExDrive kit and the IDE drive cradle.
Allows a 2.5” Jupiter Cipher ExDrive to be used as an external hard drive and also be plug-in to a desktop computer internally. You may use an available 3.5” Floppy bay like the image shown below to install the Jupiter Cipher ExDrive cradle. If none is available you can mount one to a 5.25 bay with mounting brackets to fit the bay.

Jupiter Cipher ExDrive is used as External Enclosure



Note: Use the jumper settings in chapter 4 for the above configuration

Jupiter Cipher ExDrive is used as an Internal Enclosure





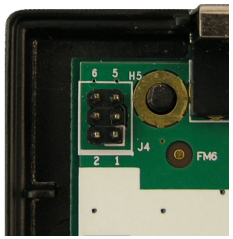


Note: Use the jumper settings on the next page for the above configuration

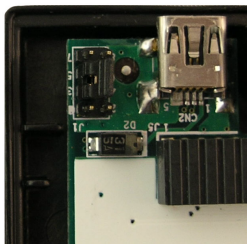
Configuration:

Jupiter Cipher ExDrive enclosure is placed inside IDE drive cardle. IDE drive cradle is connected to the IDE Controller on the mainboard with an IDE cable.

A. Jupiter Cipher ExDrive is set to MASTER



Hard Drive Brand	J4 Jumper Setting
Hitachi NEC Fujitsu Toshiba Seagate	Pin 1~6 Open



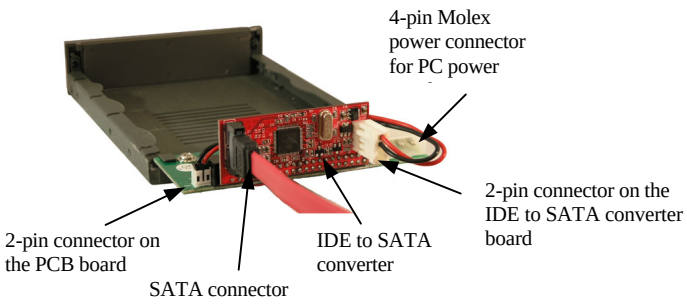
Hard Drive Setting	J1 Jumper Setting
Master	Pin 1 – Pin 3 Short Pin 2 – Pin 4 Short

Since the Jupiter Mobile Rack will be used internally without external AC adapter, the switch from the case must be switch to the left, labeled INT to grab power from system.



Optional Hardware

A. SATA Cartridge Cradle System

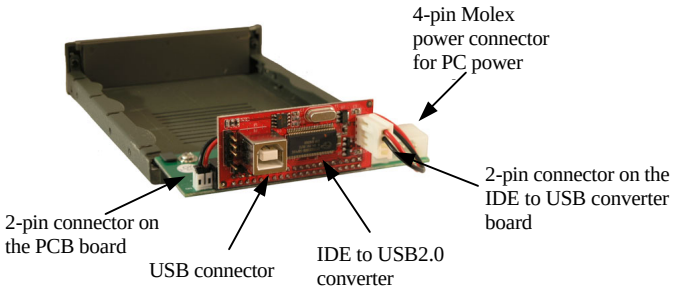


For Win98SE, Me, 2000 and XP

Note: There are no drivers needed to use the Serial ATA cable as long as the drivers are installed for the Serial ATA Controller card/chip. It is plug and play.
Hot Swap using Serial ATA connection is supported only on host controller using Silicon Image chipset.

Disk Management for Windows 98
Note: Refer to the SATARAID Management Utility Manual SATARAID Manual V1.30 (for non-RAID5 Controllers) found in the Addonics Technologies website

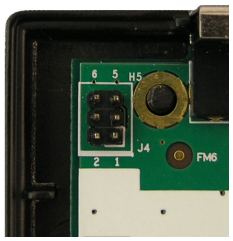
B. USB 2.0/1.1 Cartridge Cradle System



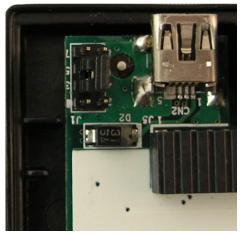
Note: The Hot Swap feature for the above configurations is enabled by the connection of the power cable connected to the 2-pin connector on the PCB board on the cradle and the 2-pin connector on the IDE to SATA or IDE to USB converter boards. With this feature you can remove the Jupiter Cipher ExDrive from the cradle without shutting down the system.

Jumper Settings for Internal Cartridge Cradle System

Jupiter Cipher ExDrive is set to MASTER

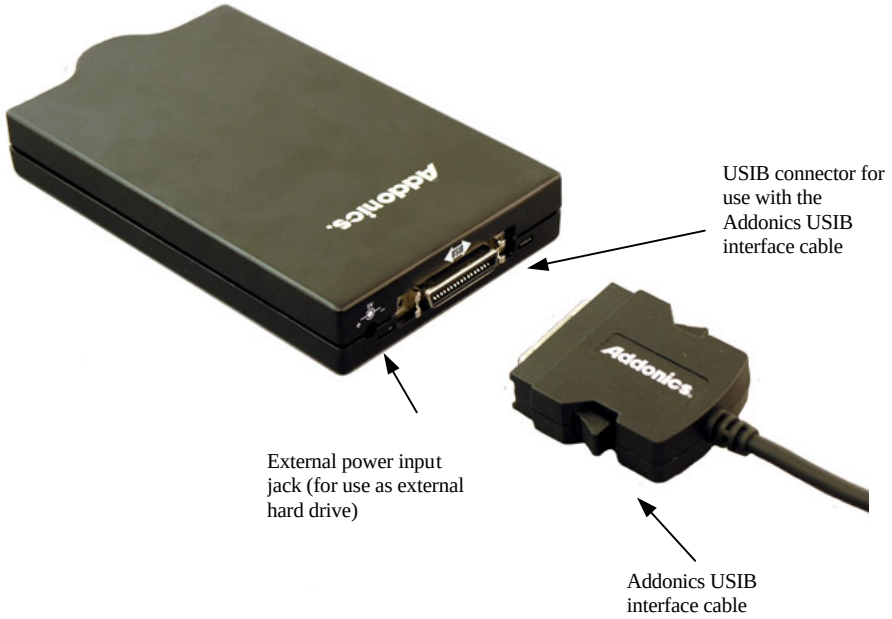


Hard Drive Brand	J4 Jumper Setting
Hitachi NEC Fujitsu Toshiba Seagate	Pin 1~6 Open



Hard Drive Setting	J1 Jumper Setting
Master	Pin 1 – Pin 3 Short Pin 2 – Pin 4 Short

Chapter 6 Attaching USIB interface cable



Chapter 7

7.1 USB2.0 USIB Cable (Model: AAUSBC-309)

Note: USB Jupiter ExDrive is Plug and Play under Windows XP, 2000 and 98Me. There is no third party driver needed.



- Since USB 2.0 Hi-Speed is an evolution of the existing USB 1.1 specification, it is fully forward and backward compatible with current USB systems.
- If you do not have an USB2.0 port, you may install an optional USB2.0 adapter or controller

Driver Installation for Win98 and Win98SE

Downloading the USB2.0 USIB Cable Driver from the Addonics Driver Disk

1. Insert the Addonics Driver Disk in the CDROM drive. The Addonics Driver Disk window opens.
2. Select Drivers > Interface Cables Drivers > USB2.0 Cable (AAUSBC-309) Win98/98SE Only.
3. The Winzip Self-Extractor –AT2LP.exe window opens. Unzip file in My Documents.

Driver Installation for Win98 and Win98SE

1. Make sure your computer is up and running.
2. Insert the USB2.0 USIB cable to the USB Port.
3. A "New Hardware Found" message shall pop up, click Next.
4. “What do you want Windows to do?” message opens. Select “Search for the best driver for your device,” click Next.
5. “Specify Location” message opens. Point to the location of C:\mass_storage_601where you unzip the files for the driver. Click Next.
6. “Driver file search for the device %VID_ODBF&PID_0303%” then Building a driver database message opens. Let Windows finish the installation and click Finish.

Disk Management for Windows 98

1. Select Start > Setting > Control Panel > System. The System Properties window opens.
2. Select the Device Manager tab, under Device type, Disk Drives, select your new hard drive. Click the Properties button.
3. Select the Settings tab and under the Options box, click the Removable check box. The Reserved drive letters box becomes active. Select the drive letter for your new drive. Click Ok.
4. Click Yes to restart your system to make changes take effect.
5. Double click My Computer icon and there should be an extra drive letter for the Jupiter ExDrive drive. You may now access the drive.

7.2 SATA USIB Cable (Model: AASAC-605)



For Win98SE, Me, 2000 and XP

Note: There no drivers needed to use the Serial ATA cable as long as the drivers are installed for the Serial ATA Controller card/chip. It is plug and play.

Disk Management for Windows 98

Note: Refer to the SATARAID Management Utility Manual SATARAID Manual V1.30 (for non-RAID5 Controllers) found in the Addonics Technologies website

7.3 FIREWIRE USIB Cable (Model: AAFWC-406)

Note: Firewire Jupiter ExDrive is Plug and Play under Windows XP, 2000 and 98Me. There is no third party driver needed.



Driver Installation for Win98 and Win98SE

After plugging in the cable some system might prompt you for Win98SE CD, in case you don't have The Win98SE CD and the wizard prompt you for:

NTMAP.SYS please type **C:\WINDOWS\SYSTEM32\DRIVERS**
NTMAPHLP.PDR please type **C:\WINDOWS\SYSTEM\IOSUBSYS**

Reboot your system.

Disk Management for Window 98

1. Select Start > Setting > Control Panel > System. The System Properties window opens.
2. Select the Device Manager tab, under Device type, Disk Drives, select QTS FIREWIRE CABLE. Click the Properties button.
3. Select the Settings tab and under the Options box, click the Removable check box. The Reserved drive letters box becomes active. Select the drive letter for your new drive. Click Ok.
4. Click Yes to restart your system to make changes take effect.
5. Double click My Computer icon and there should be an extra drive letter for the Jupiter ExDrive drive. You may now access the drive.

For Windows 2000 & XP Operating Systems

How to use Disk Management

To start Disk Management:

1. Log on as administrator or as a member of the Administrators group.
2. Click **Start**, click **Run**, type **compmgmt.msc**, and then click **OK**. In the console tree, click **Disk Management**. The Disk Management window appears. Your disks and volumes appear in a graphical view and list view.
3. To customize how you view your disks and volumes in the upper and lower panes of the window, point to **Top** or **Bottom** on the **View** menu, and then click the view that you want to use

How to create a new partition or a new logical drive

To create a new partition or logical drive on a basic disk:

1. In the Disk Management window, complete one of the following procedures, and then continue to step 2:
   - To create a new partition, right-click unallocated space on the basic disk where you want to create the partition, and then click **New Partition**.
   - To create a new logical drive in an extended partition, right-click free space on an extended partition where you want to create the logical drive, and then click **New Logical Drive**.
2. In the New Partition Wizard, click **Next**.
3. Click the type of partition that you want to create (either **Primary partition**, **Extended partition**, or **Logical drive**), and then click **Next**.
4. Specify the size of the partition in the **Partition size in MB** box, and then click **Next**.
5. Decide whether to manually assign a drive letter, let the system automatically enumerate the drive, or do not assign a drive letter to the new partition or logical drive, and then click **Next**
6. Specify the formatting options you want to use by using one of the following procedures:
   - If you do not want to format the partition, click **Do not format this partition**, and then click **Next**.
   - If you want to format the partition, click **Format this partition with the following settings**, and then complete the following procedure in the **Format** dialog box:
     a. Type a name for the volume in the **Volume label** box. This is an optional step. Click the file system that you want to use in the **File system** box.
     b. You can change the disk allocation unit size, and then specify whether to perform a quick format, or enable file and folder compression on NTFS volumes.

   Click **Next**.

7. Confirm that the options that selected are correct, and then click **Finish**.

The new partition or logical drive is created and appears in the appropriate basic disk in the Disk Management window. If you chose to format the volume in step 6, the format process now starts.

How to format a basic volume

To format a partition, logical drive or basic volume:

1. In the Disk Management window, right-click the partition or logical drive that you want to format (or reformat), and then click **Format**.
2. In the **Format** dialog box, type a name for the volume in the **Volume label** box. This is an optional step.
3. Click the file system that you want to use in the **File system** box. If you want, you can also change the disk allocation unit size, specify whether you want to perform a quick format, or enable file and folder compression on NTFS volumes.
4. Click **OK**.
5. Click **OK** when you are prompted to format the volume. The format process starts.

Technical Support

If you need assistance to get your unit functioning properly, please call Addonics Technical Support. Our technical staff will be happy to assist you, but they will need your help to do so. Calling the technical support staff without all the proper information can be both time consuming and frustrating. Here are some tips to help you out:

(1) MODEL NUMBER – Please have this number on hand.
(2) SYSTEM INFORMATION – Type of computer, peripherals, etc.
(3) OPERATING SYSTEM – What version of Windows
(4) WHAT'S THE TROUBLE? – Give enough information
About your problem so that we can recreate and diagnose it.

FREE Software Drivers for all Addonics Technologies Products are available 24 hours per day at the World Wide Web Site: www.addonics.com.

Contact Information

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