EZ Upgrade 3.0

USB 3.0 NOTEBOOK HARD DRIVE UPGRADE KIT

User's Guide

Attention:

You can download the latest version of EZ Gig IV from Apricorn's website at:

http://www.apricorn.com/ezgig

Review the most current EZ Upgrade FAQ's at:
http://www.apricorn.com/support.php

THE LEADER IN PERSONAL STORAGE

APRICORN

TABLE OF CONTENTS

Getting to know your EZ Upgrade

Introduction

With its Super Speed USB 3.0 connection, EZ Upgrade 3.0 is a complete hardware and software solution that makes upgrading notebook hard drives fast and easy. This kit includes everything you will need to quickly transfer all files, e-mail, settings, applications and the operating system from the hard drive in your notebook to a new SATA hard drive or SSD whether you have a Windows or Mac operating system.

Once the new drive is installed in the notebook, the old drive can be installed in EZ Upgrade's Hi-Speed USB 3.0 enclosure for an external storage and backup solution.

The Package Contains

EZ Upgrade Enclosure for SATA Hard Drives or SSDs
USB 3.0 Cable for Data and Power (Backwards Compatible with USB 2.0)
Upgrade Suite CD
  • Apricorn EZ Gig IV with Data Select
  • ShirtPocket SuperDuper! Lite
Quick Start Guide

If external power is needed, an **External AC power adapter** may be purchased separately from Apricorn. 1-800-458-5448

System Requirements

Hardware: Pentium CPU II or Apple G3 or later
                128MBs RAM
                Available USB Port
                CD ROM or CD-RW drive

Supported Operating systems:

Microsoft: Windows 7, Vista, XP and 2000

Mac: OS 9.2 or later
            OS X 10.2 or later

Connecting your EZ Upgrade

USB 3.0 Port

Power Port

Hard Drive Installation

Follow these steps to install the Hard Disk into the EZ Upgrade Enclosure:

Step 1   Hold the EZ UP enclosure with both hands. Locate the OPEN switch (diagram 1) and with one hand over the opposite end of the drive slide the OPEN switch in the direction of the arrow to release the hard drive tray. The hard drive tray will slide out of the enclosure into your other hand. (diagram 2)

Step 2   Instructions for inserting the hard drive. (diagram 3)

For SATA hard drives:
Hold the hard drive tray in one hand with the SATA connector (the connector that is closest to the plastic end cap where you connect the cables) away from your body. Now, with the label side up grab the sides of the hard drive with the other hand and set the hard drive into the tray with the SATA blade connector away from your body. Carefully slide the hard drive by placing your thumb on the back edge and pushing it towards the black socket facing away from your body until it is completely seated. The sidewalls of the hard drive tray will act as a guide, properly aligning the SATA blade connector.

For Upgrades Proceed to Step 4. To permanently mount your old hard drive proceed to Step 3.

Step 3   Turn over the hard drive tray and secure the hard drive with the four screws.

Step 4   Once the drive is secured, slide it back into the tray. Make sure the Apricorn logo is facing up and the hard drive tray slides into the enclosure with the label side of the hard drive facing up. When the tray completely slides in you will hear the latch snap shut as the hard drive tray locks into place.

Step 5   Connect the USB 3.0 cable into the open port on the EZ Upgrade and then connect the other side of the cable into an open USB port on your computer. The EZ Upgrade is backwards compatible with USB 2.0 and 1.1, but for optimal data transfer speeds, connect to a USB 3.0 port on your notebook. (diagram 4)

If additional power is needed use the optional AC power adapter.

Once your hard drive is connected

Now you can upgrade your notebook drive using the Upgrade Suite CD. Instructions for upgrading your Microsoft computer are provided on the following pages. If you are upgrading your Mac, please refer to page 25.

Before Running the Software

After many years of use, hard drives can become cluttered with unusable file fragments and other file-system errors. Most file system errors are not immediately obvious to the user, but can be identified and repaired with a few simple steps. Although the steps below are not absolutely necessary to run EZ Gig, it's best to try and clean-up disk errors BEFORE they are copied over to the new drive.

Before running EZ Gig we recommend

1) Clean up any file-system errors by running Windows ScanDisk (or a similar disk cleanup utility) on your internal hard drive.
2) Defragment your hard drive using the Windows Disk-Defragment Utility (or a similar disk defragment utility) on your internal hard drive.
3) Backup any critical files or data.
4) Attach the AC adapter to your laptop, and make sure it is not running on battery power.
5) Attach the USB cable from your computer to the DriveWire.

EZ Gig instructions for Windows 7 & Vista

Windows 7 and Vista User Account Control helps stop unauthorized changes to your computer. The User Account Control window pops up in Administrator Approval Mode whenever a program tries to run on your Windows system.

When the User Account Control window pops up there will be a warning symbol and message that reads, "A program needs your permission to continue." The instructions will read "If you started this program, Continue."
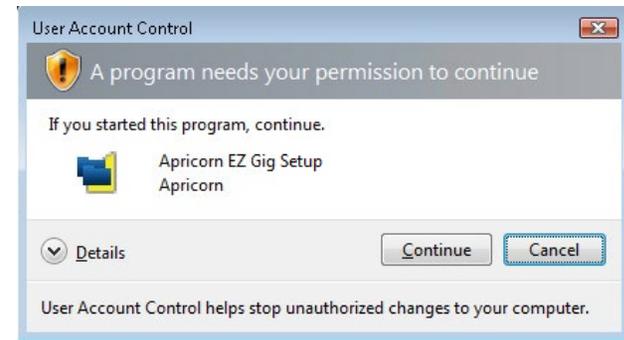
Please click the Continue button and proceed to the EZ Gig Start-Up screen.

Changing the default "Power Options"

Be default the Windows 7 operating system will "Turn display off" after 20 minutes and "Put the computer to sleep" after 1 hour of keyboard or mouse inactivity. It will take more than 20 minutes to clone most of today's larger hard drives. If the system goes into display is turned off or the computer goes to sleep during the clone, your clone may fail. This will not damage your original hard drive in any way but you will have to restart the cloning process. To avoid this issue change the default "Power Options" before starting the backup on Windows 7 Systems.

From your Window Start menu type "Power Options" in the "Start Search bar" and the "Power Options" program will be listed in the results window. Alternately you can go to Start Menu – Control Panel – Power Options. Click on "Power Options" to launch the program. On the left window click on "Choose when to turn off display" and make the changes as listed below.

Turn Display Off   Never
Put computer to sleep   Never

Once you have completed the clone go to "Power Options" and restore the default settings.

Connecting Your Hard Drive

Before starting the EZ Gig software, please ensure that your new hard drive is connected to your notebook's USB port via the EZ Upgrade. EZ Gig automatically verifies which Apricorn upgrade product is being used. If used without one of Apricorn's upgrade products, EZ Gig will not work.

EZ Gig
Start Up Options

Depending on how you received EZ Gig, you have two options.

1. If you have EZ Gig on a CD, please choose the Start option (proceed to page 11 of this manual to continue).

2. If you downloaded EZ Gig from Apricorn's website, you can either choose the Start option (go to page 11) or create a bootable EZ Gig CD to use in the future (go to page 10 for instructions).
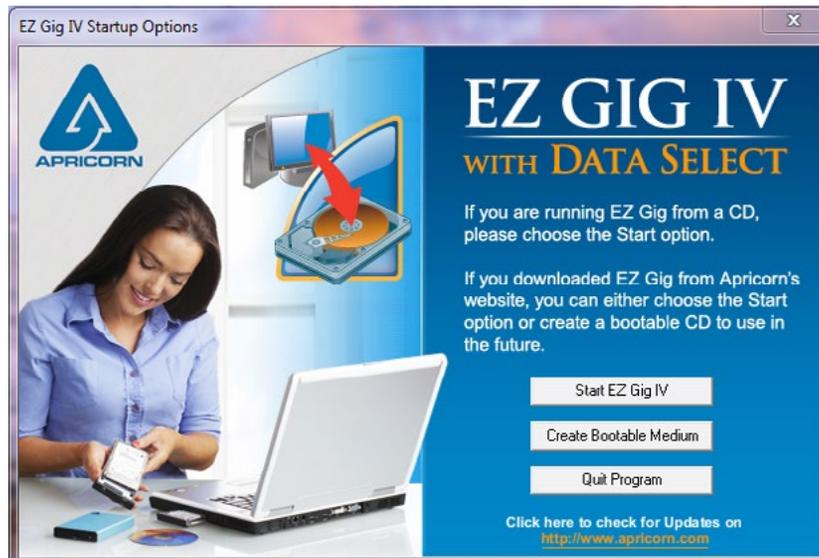
Creating a Bootable EZ Gig CD

If you downloaded EZ Gig from Apricorn's website, you have the option of creating a bootable EZ Gig CD or thumb drive to use in the future.

To create a bootable media disk follow the appropriate directions below:

- To create a bootable CD/DVD, choose the desired drive at 'CD/DVD writer' and click "Create CD/DVD".

- To create a bootable USB key, choose the desired drive at 'USB medium' and click "Make bootable".

Follow the instructions and wait until the installation program reports successful creation of the bootable medium.

Once you have created you bootable media device, click "Exit" and then choose "Start EZ Gig".
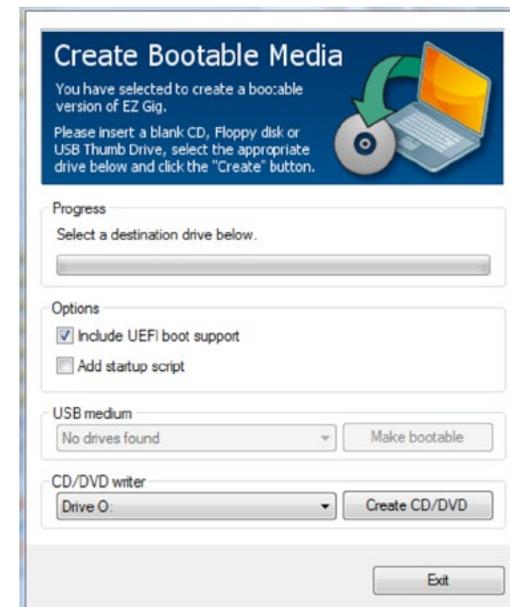
Cloning your hard drive with EZ Gig

1. Click the "Let's Get Started" button to proceed.

2. EZ Gig will then scan for connected drives. This may take a few moments.
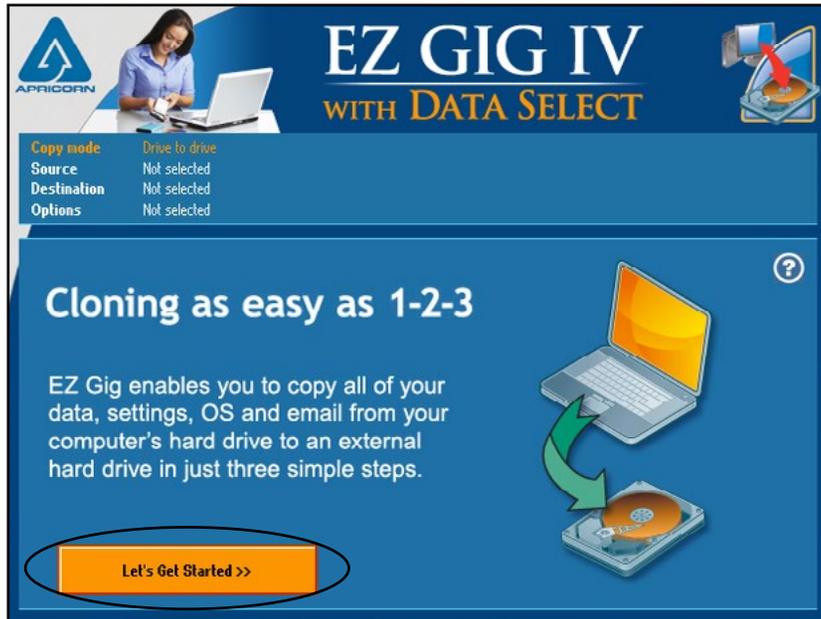
Selecting the Source Drive

Once EZ Gig has scanned for connected drives, you will be asked to select your Source Drive. This is the drive you would like to copy from and in most cases is the internal drive in your notebook.

NOTE: Your computer's internal drive will usually be denoted by the prefix AHCI or IDE.

Select the appropriate drive from the menu and click "Next" to continue.
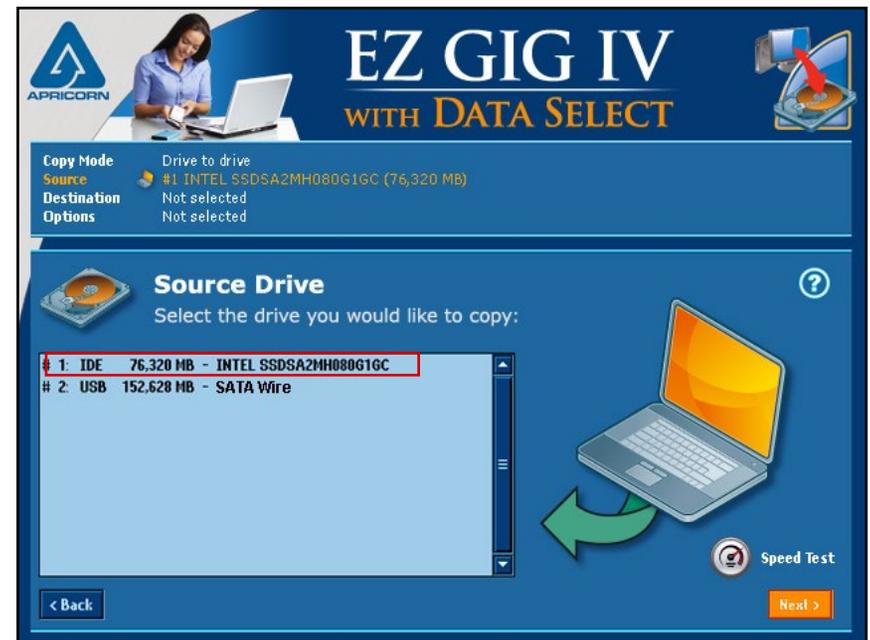
Selecting the Destination Drive

Once you have selected your Source Drive, EZ Gig will ask you to select your Destination Drive. This is the drive you would like to copy to and in most cases is the external drive connected to your notebook's USB port.

NOTE: Your external drive will be denoted by the prefix USB

Select the appropriate drive from the menu and click "Next" to continue.
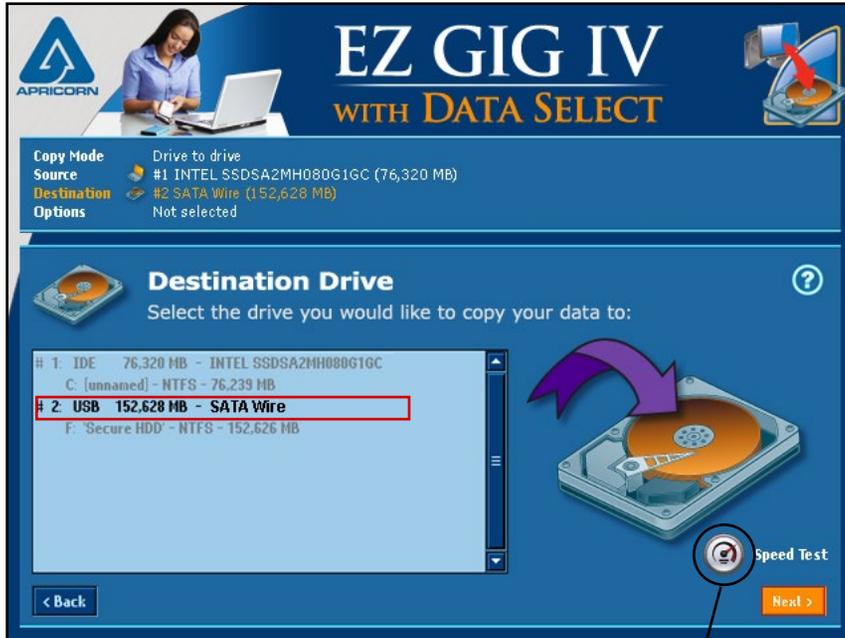
Speed Test

Click the Speed Test icon on either the Source or Destination drive for an estimate of the drive's read speed.

From this estimate, a rough estimate of the clone time may be gauged
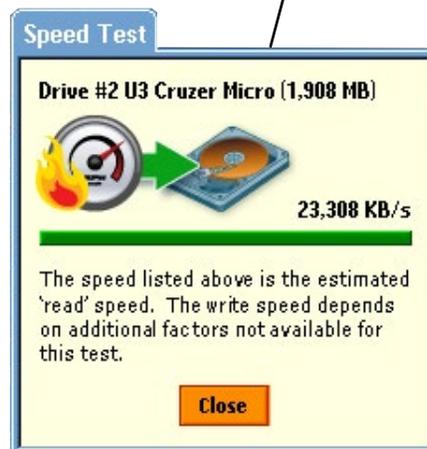
Drive Verification

You are almost ready to start your clone, but before you do, EZ Gig asks that you verify that the choosen drives are correct.

If they are you have one of two options. Either click "Next" to continue (go to page 24) **or to deselect files from the cloning process, press the "Data Select" button** (go to page 15).

If you need to change your drive selection, click the "Back" button

At this point you can also modify the default options for your clone using the "Advanced Options" button. Only select this option if you would like to change your options from the default (go to page 19 for more info on Advanced Options).
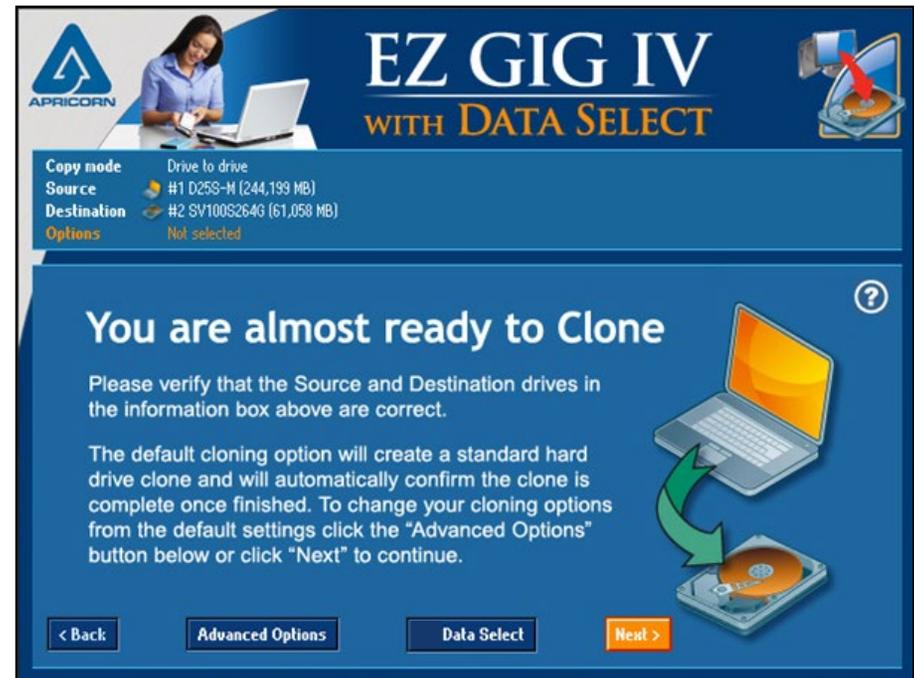
Data Select

EZ Gig's Data Select feature provides a simple method to deselect data folders from the cloning process which is helpful when migrating from a large HDD to a smaller SSD and perfect for creating a Boot Disk. This gives you the option to run your OS and applications from a fast, smaller SSD boot drive, while keeping your documents and media files on your original hard drive.

There are two ways to get to the Data Select feature:

1. **If the Destination drive is smaller than the Source drive, EZ Gig will direct you to the below screen. To deselect files from the clone click the "Data Select" button, this will open the Data Select feature.**

2. **On the "You are almost ready to Clone" screen, you may press the "Data Select" button to open the Data Select feature.**
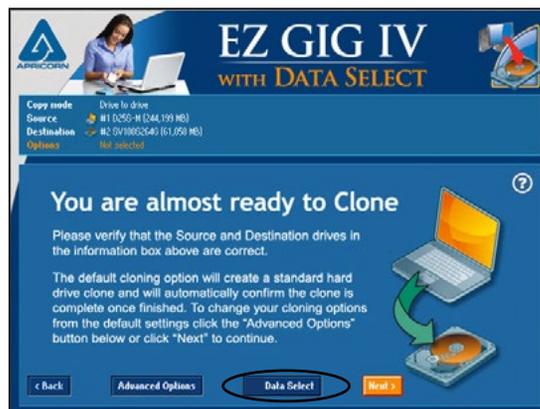
Using the Data Select feature

The Data Select feature shows the capacity of the:

•   Destination Drive

•   Source Drive

•   Available Capacity

If the Source drive is smaller than the Destination drive, the available capacity will be highlighted in orange and shown as a negative value.

EZ Gig will only proceed with a clone if the available capacity is positive (i.e. the Destination capacity is larger than the Source capacity.)

In order to decrease the size of the clone (i.e. the Source image), EZ Gig enables you to deselect files from the cloning process to save space.

The files you may deselect from the cloning process are from the folders:

1. Documents

2. My Videos

3. My Music

4. My Pictures

Analyzing files

To analyze the amount of space used by each of the folders, select the checkbox to the left, under the "Select Folders to Analyze" column. EZ Gig will then analyze the space used in the ajoining "Space Used" column.

To analyze the amount of space used by each folder, select the appropriate checkbox.

EZ Gig will then display the space used in the ajoining column

Selecting Folders to Omit
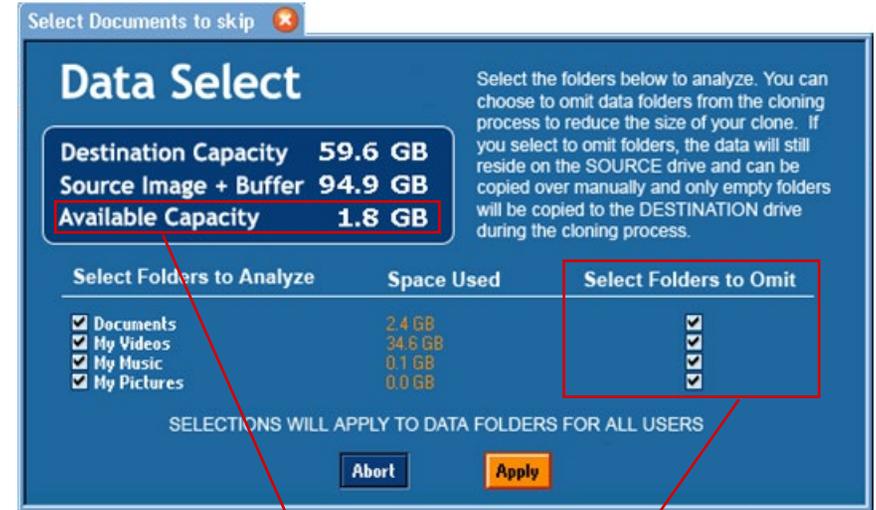
To select folders to omit, select the checkboxes to the right, under the "Select Folders to Omit" column. Any selection from this column will automatically be reflected in an updated amount for the "Available Capacity" value. Once the "Available Capacity" value is positive, you will have the option to "Apply" the changes.

Once you hit the "Apply" button, you will be directed to the "You are almost ready to Clone" screen. The Data Select button will have a check mark to the left, indicating that you have choosen to omit files from the clone.

To continue with the clone, click the "Next" button (go to page 21).
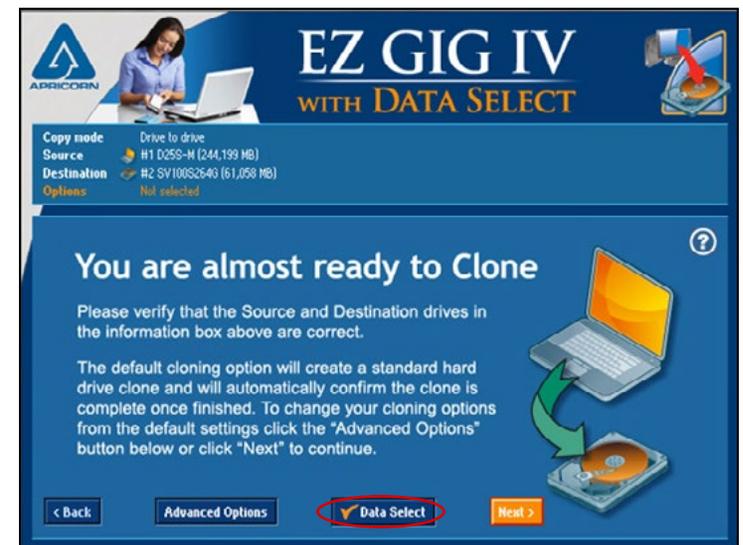
Advanced Options

Verify Copy

Compares the data of source and target after copying. If verify copy is chosen, the free areas between partitions will also be copied. This option has no influence on the copying performance itself, but offers the possibility to synchronize the data of the source and target after the copying process. However, the whole process of copying and verifying then normally takes approximately the double amount of time. Choose this option according to your needs of copying and your time available.

Copy Free Areas

This option is off when doing a default clone, but when selected allows you to copy free space between partitions from your internal drive to your external drive.

SmartCopy

SmartCopy enables you to clone your file systems in a fraction of time usually required - this option is chosen by default

Media Direct (Dell)

Used to deactivate MediaDirect software on the Destination drive. Check your Dell notebook specs to see if you have Media Direct on your system.

More Advanced Options

To access additional advanced options, click on the Apricorn logo in the bottom right corner of the "Advanced Options" window

FastCopy
Special copy algorithm. Can increase the regular copy speed up to double.

SafeRescue
Special algorithm for data recovery. Tries to recover as large areas on the drive as possible. Can also stay turned on for normal copies.

CachedMemory
Use fast intermediate memory.

SharedMemory
Use fast data transfers.

Animation
Switch off copy animation, may lead to a slight speed increase.

HotCopy / LiveImage
Allows or denies EZ Gig access to the Windows shadow copy mechanism. If this option is deselected, EZ Gig is not able to create copies or file images of the system volume or of volumes, which are used by other programs at the same time.

Avoid exclusive read access
Usually, EZ Gig when running on Windows, at first tries to reserve the source drive for exclusive access. This is the most reliable way for creating an identical copy, but it may interfere with other programs running at the same time. If this option is selected, EZ Gig tries to create a HotCopy or a LiveImage at first.

Partitions

When used in the Default mode, EZ Gig will automatically resize your partitions according to the new hard drive space.

However, EZ Gig also gives the option of keeping your partition sizes the same or allows you to resize your partition sizes manually.
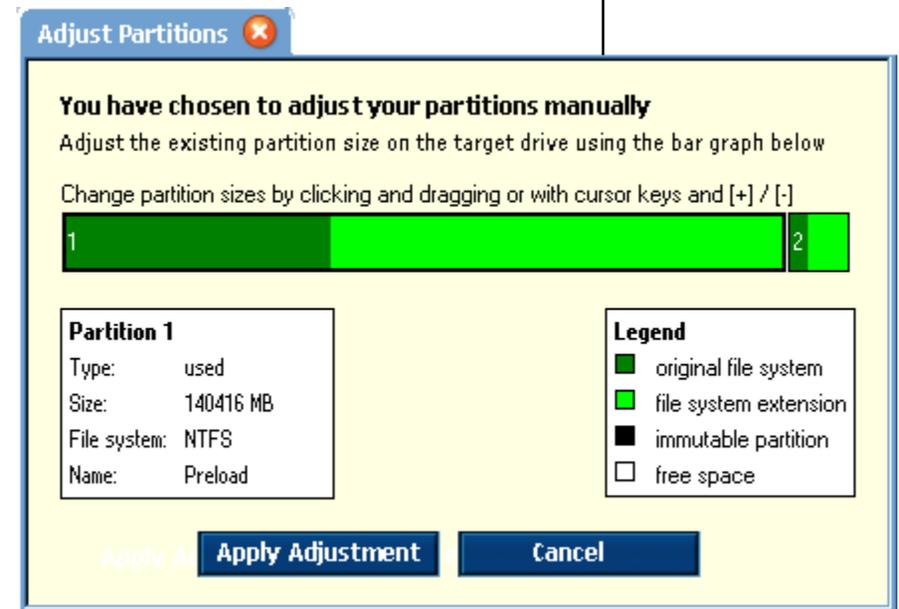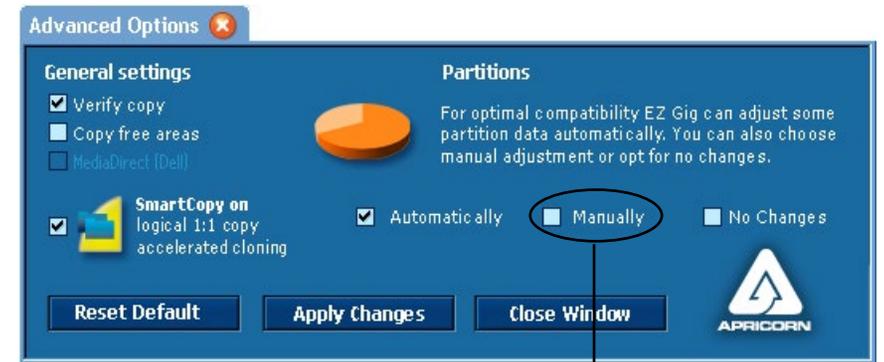
Resizing your partitions manually

To resize your partition manually:

1. Choose the "Manually" radio button on the "Advanced Options" window.

2. Once this radio button is selected, click the "Apply Changes" button. The "Adjust Partitions" window (shown left) will pop up.

Positions and sizes of the partitions to be copied to the Destination drive are displayed graphically in a bar. The original size of the partition is displayed in dark green, while the additionally assigned space is displayed in light green. The size of partitions displayed in black cannot be altered. Free space not yet assigned to any partition is displayed in white.

3. To resize, click the desired partition's extended space (light green portion) and drag with your mouse. You can also use the [+] and [-] cursor keys to the same effect.

4. Once you have resized the partitions to the desired size, choose "Apply Adjustment" which will then close the window.

5. Once the "Adjust Partition" window is closed, close the "Advanced Options" window by clicking the "Close Window" button.

Start Clone

Now you're ready!

Press the "Start Clone" button to start the cloning process.

EZ Gig will keep you up-to-date with the status of the clone throughout the entire process with a progress bar and percentage completed. Depending on your system size a clone can take anywhere from several minutes to a couple of hours.
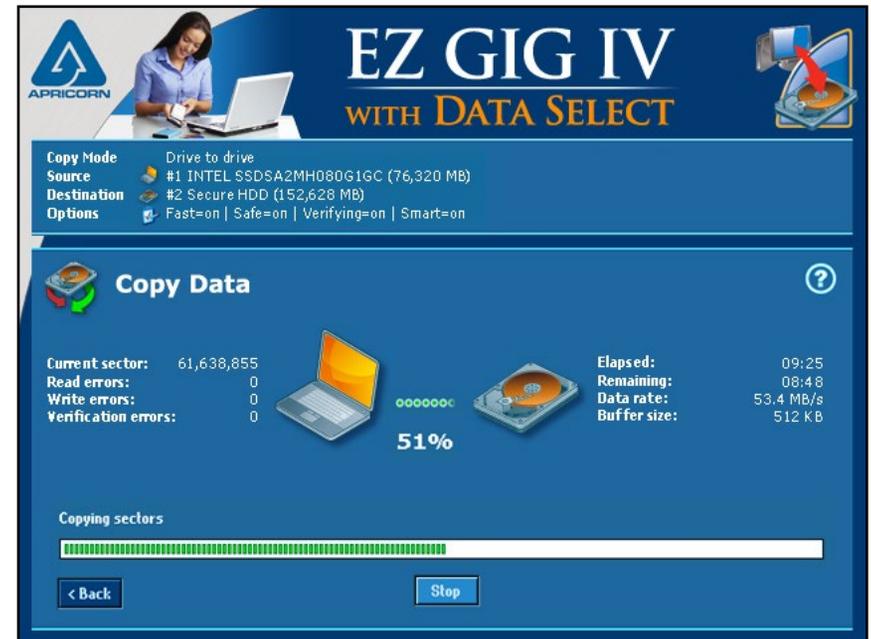
Interupting the Cloning Process

The cloning process can be stopped at anytime using the "Stop" button. Continue cloning by clicking "Continue copying". To stop the clone completely, select "Abort copying."

Aborting the Cloning Process

If the cloning process aborted, a new clone must be commenced.

Interupting the Verification process

If you chose the "Verify Copy" option before starting the clone, EZ Gig will automatically compare the information on the "Source" and "Destination" drives once the clone is complete. If this process is interupted or stopped at anytime, the aborted verification run will have no influence on the copied data. The copy itself is already finished at that point of time.

When the final report is read, EZ Gig will report that the clone is only partially verified.

Congratulations your Clone is Complete

Once your clone is complete, EZ Gig will let you know with a pop up window. To get a report of the cloning process, click the "Details" button.
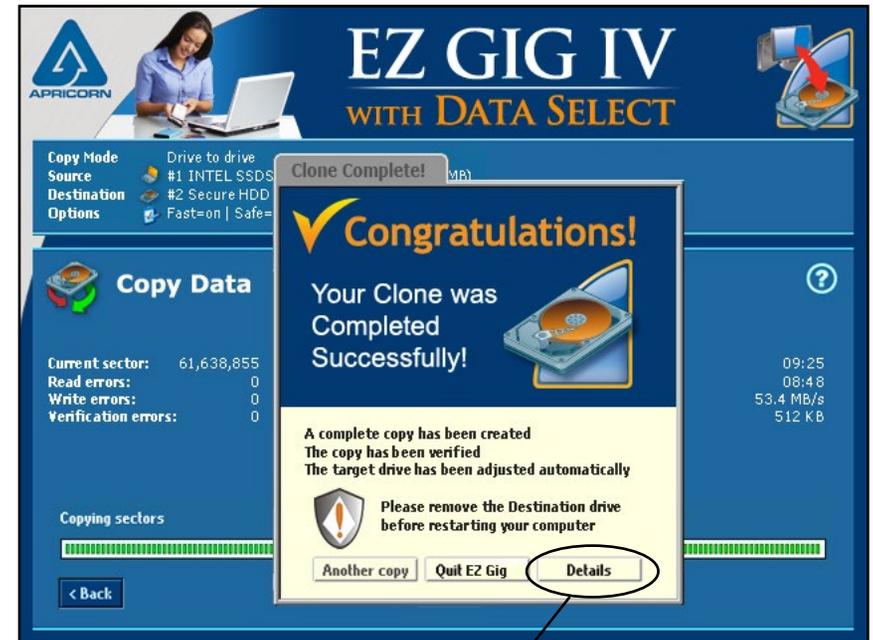
The final report will outline the number of sector copied, read errors, write errors and if verified, will also report verification errors.

Once you have finished your clone, click "Quit EZ Gig". You will then be prompted to turn your computer off and disconnect the attached hard drive.

SuperDuper! Backup Software for Mac

1. Insert Apricorn CD into your CD-ROM drive

2. When the Apricorn CD appears on your desktop, double click to open.

3. Double click on the **SuperDuper!.dmg** icon

4. This will open the package and mount a drive on your desktop.

5. Open this drive by clicking on the newly created disk icon. The below window will open on your screen.

User's Guide

6. To install **SuperDuper!** drag **SuperDuper!** icon to Applications and run.

7. Follow the instructions included on the SuperDuper! User's Guide to setup.

After the Clone

Once the transfer is complete, you are ready to install your new hard drive.

Turn off the laptop and disconnect the EZ Upgrade's data and power cables. Disconnect the Laptop's AC adapter, and remove the laptop battery to reduce the risk of damage or electrical shock.

Consult the Computer's User Manual for instructions on how to remove the original hard drive from your computer. Some laptops may have the disk drive mounted under a cover. Other laptops may have the original drive mounted inside a "drive caddy" to allow quick removal of the drive from the laptop (although it might appear that the drive caddy and the EZ Upgrade drive are not the same, once you open-up the drive caddy you will find an identical hard drive inside). If the hard drive is mounted inside a drive caddy, carefully remove the hard drive from the caddy. Be careful not to damage the hard drive pins or any custom connectors. The hard drive may have a connector covering the pins. Please take note of all connectors and their orientation.

Remove the original drive and replace it with the new one. If the laptop drive is mounted inside a caddy, install the new drive into the caddy and then insert the assembled caddy back into the computer. For specific instructions, please refer to your computer's User Manual or manufactures' web site.

Boot the laptop from your new hard drive. The new hard drive should boot up as though it was the old drive.

Using the EZ Upgrade as a external backup drive

WARNING: Formatting a Hard Drive will erase everything on the drive! Please do not reformat the original drive until you have verified that your new drive is working properly.

After successfully copying everything over to your new drive, the EZ Upgrade enclosure can be used as an external USB backup drive. At this point we recommend that you wait until you are certain that your new hard drive is working properly. When you are certain that your system is working properly, follow these basic steps listed below to use the EZ Upgrade as a backup drive.

1. Install the old hard drive into the EZ Upgrade universal. (Please refer to Page 6 for hard drive installation instructions.)
2. Connect the EZ Upgrade to your system.
3. Reformat the old hard drive (See FAQ #4 on page 29 of this manual for a link to the Microsoft website with complete instructions for both XP, Vista & 7)
4. Follow instructions in the appropriate section of this manual for Cloning to create a full bootable backup or just use the drive for external storage.

Device Removal (Windows)

<u>Windows 2000, XP, Vista and 7</u>

1) Locate the system tray on your Windows Desktop (the system tray is the part of the taskbar that displays the date and time).

2) Click on the "Safely Remove Hardware" icon ![icon] (2000, XP) ![icon] or (Vista, 7) in the system tray. A dialog box will appear.

⚠️ Please note that in Windows Vista and 7 the "Safely Remove Hardware" icon is different.

3) Click 'Safely Remove Mass Storage Device – Drive (D:) in the dialog box. (Your drive letter may differ).

4) Wait for few seconds until the system prompts 'The hard disk storage device can now be safely removed from the system." Click OK, and then unplug the EZ Upgrade.
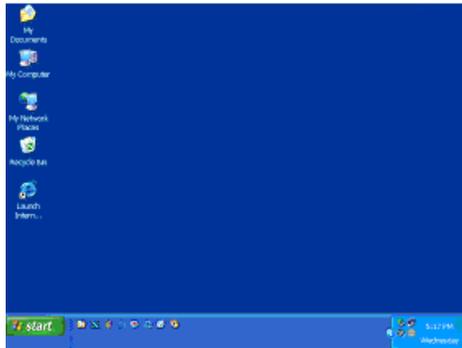
The "Safely Remove Hardware" button is located in the System Tray near the time clock

NOTE: To protect against unexpected data loss, Windows checks that all files on the disk are closed before allowing the USB device to be removed. If you receive an error message that says *"The device cannot be stopped right now. Try stopping the device again later."* Close all Windows and Programs that are using files from the Drive, then repeat the procedure.

EZ Upgrade FAQs

1. **Why does my new drive or connector look different from my old drive or connector?**

   The first thing you need to do is to determine if you bought the right drive. There are now two standards for 2.5" laptop hard drives, Serial ATA (SATA) and Parallel ATA (PATA). Check with your manufacturer for the drive specifications and compare it to the specifications on the drive you purchased. All SATA drive connectors should look exactly the same. Use Apricorn's hard drive configurator at www.apricorn.com to make sure you are getting the correct drive for your laptop or notebook computer.

   The most frequent question about hard drive connectors involve PATA hard drives. If your laptop uses a PATA hard drive, it may have a translation board or adapter on the connector. All 2.5" laptop PATA hard drives use the same type of connector (male 44 pins). Laptop manufacturers may use a translation board or adapter to connect the drive to the computer. This adapter can be removed and placed on the new drive. It will look like it is actually part of the old drive, but it can be removed.

   ⚠️ NOTE: EZ Upgrade 3.0 is only compatible with SATA hard drives or Solid State drives. If you have a PATA hard drive, you need to purchase Apricorn's EZ Upgrade Universal with a USB 2.0 connection.

2. **What is Serial ATA (SATA)?**

   Serial ATA is the next generation interface for the high-speed transfer of data in PCs, workstations, and laptops. SATA allows an increase in bandwidth from PATA's 100 MBps to 150 MBps and higher down the road. SATA cable connectors are much smaller than PATA connectors and have no pins to be bent or broken. SATA connectors are more stable and require very little pressure to attach the hard drive making them much easier to use than PATA connectors. If your laptop requires a SATA hard drive you must replace it with a SATA hard drive. Use Apricorn's hard drive configurator at www.apricorn.com to make sure you are getting the correct drive for your laptop or notebook computer.

3. **How do I format my drive?**

   For Windows 2000 and XP cut & paste or type the URL below into your Internet browser or click the link below:
   http://support.microsoft.com/?kbid=313348

For Windows Vista & 7 cut & paste or type the URL below into your Internet browser or click the link below:
http://windows.microsoft.com/en-US/windows7/Create-and-format-a-hard-disk-partition

4. What is USB 3.0?

USB 3.0 represents the next generation of PC peripherals and connectivity.   USB 3.0 is the most recent evolution of the Universal Serial Bus standard, which was originally designed to bring low cost connections and "plug-and-play" consumer devices to the PC world. USB 3.0 adds new functionality to your laptop, by allowing faster connections and greater flexibility without the need for upgrading your existing USB devices.

5. Why USB 3.0?

Modern PC peripherals can run faster and do more than the original USB designers ever dreamed. The USB standard was upgraded to keep pace with the rapid advances in technology, and the explosion of new consumer devices. USB 3.0 host controllers add the faster speeds and greater flexibility than these new devices require. USB 3.0 will allow your computer to connect to the newest USB devices: High-Speed Video and Ethernet, ultra-fast scanners and disk drives, etc.

6. How much faster is USB 3.0?

USB 2.0 devices can communicate at about 480 Megabits/sec. USB 3.0 devices can communicate at speeds of up to 5 Gigabits/sec. That is over 10x faster.

7. The EZ Upgrade power LED is on, but the drive is not automatically detected by the operating system.

The mass storage device drivers are not installed correctly or there is a resource conflict in the system. Use the Windows Add New Hardware Wizard to detect the drive, or, if the drive has already been installed, use the Windows Update Device Driver Wizard. Be sure that there are no resource conflicts in the Windows Device Manager before installing the drive.

8. What software is included with my EZ Upgrade?

PC Software Includes: EZ Gig IV with Data Select

EZ Gig for Windows is one of the most powerful yet easy to use backup utilities available. EZ Gig IV is the fourth generation of the award winning EZ Gig Data Transfer Utility.

MAC Software Includes: ShirtPocket SuperDuper! for Mac

SuperDuper! is the wildly acclaimed program that makes recovery painless, because it makes creating a fully bootable backup painless. Its incredibly clear, friendly interface is understandable, easy to use. And it runs beautifully on both Intel and Power PC Macs! SuperDuper's interface confirms all your actions in simple, clear language to ensure that the end result is exactly what you intended.

9. Can I make a clone of my drive and put it in a different machine?

A clone is for disaster recovery purposes (i.e. when your drive fails and you need to get back up and running). You should not make a clone of your drive and put it in another or multiple machines. There are licensing issues for the software on your machine.

10. Is it possible to restore a single file from a clone stored on my EZ Upgrade?

Yes. EZ Gig allows you to mount an image as a "virtual" hard drive. You can access this "virtual" drive as if it were a physical hard drive. You would use your **Windows Explorer** or **My Computer** and copy the file or folder and paste it on to your hard drive.

11. I am unable to format my 80GB or larger EZ Upgrade with FAT 32 in Windows 2000 or XP?

Windows 2000 and XP limit a FAT32 partition to 32GB. If you choose to format the drive in a larger partition, you will need to use the NTFS file system.

12. Can I boot Windows to my USB Device?

No. Because of limitations (both hardware and software) Windows is currently prevented from booting and running off a USB drive.

EZ Gig FAQs

The below FAQs refer to cloning your hard drive with EZ Gig only. For information on issues using Shirt Pocket SuperDuper! software for Mac, please go the ShirtPocket's website at www.ShirtPocket.com

Load errors
During the start of the program, before EZ Gig is loaded itself, a message and a progress bar will appear on the boot screen. In case of an error, one of the following error codes will be indicated here.

Error #5002 and 'Disk error'
This error will be displayed if the boot medium is not readable when booting the program. The error is reported by the BIOS of the computer and points to a defective data carrier or a problem with the used boot drive. In many cases, in particular when booting from a floppy disk, an incompatibility between drive and data carrier is the cause. Principally this problem can be fixed. Please try the following steps, at best in the indicated order:

- Try again to boot the program, perhaps with/without cold start.

- Create once again a bootable disk (page 12).

- Floppy disk: format the floppy disk (no quick format) before creating a new one.

- Floppy disk: use another floppy disk.

- Use (if possible) another boot drive.

NOTE: If you didn't receive EZ Gig as an installation package but on a bootable disk and if a disk shows this problems also after multiple trials on different devices, please contact Support.

Keyboard and mouse
EZ Gig supports keyboards and mice with PS/2 standard or USB connector. This also includes many wireless mice, given they are connected as a true USB device. Input devices connected with Bluetooth are currently not supported. In this case, please connect a separate USB device. If keyboard or mouse (or both) do not function with EZ Gig, this is usually due to a wrong legacy emulation setting in BIOS setup. On most computers, you can fix this problem by changing (activating or deactivating, depending on the current setting) the emulation for PS/2 devices in BIOS

setup. Please consult your computer manual on how to change this setting since it may be named differently according to the respective BIOS. In most of the cases, you can find it under the name USB Legacy Support or USB Keyboard Support (often under Integrated Peripherals or Advanced Options).

NOTE: In some of the cases, problems with the PS/2 keyboard and/or mouse occurred with an activated emulation for PS/2 devices. If you do not use any USB input de-vices, please switch off the PS/2 emulation in the BIOS setup.

General problems

Slowed down system
If you think the speed of the total system or the copying speed – also with IDE and SCSI devices – is too slow, a USB controller can be the cause, even if it is not used.

Read, write and verification errors
If EZ Gig reports errors, these are usually defective areas on the respective medium. However, general problems with the hardware can possibly also cause (putative) read and write errors. This is mostly noticeable by a very high number of displayed errors. First of all, try to fix the problem via the help instructions for the respective hardware types (IDE, SCSI, USB) because the causes are usually found there. If the problems cannot be fixed this way either, deactivate step by step the following options, at best in the indicated order:

- CachedMemory
- Read cache and write cache
- FastCopy
- DMA
- SharedMemory

If the problem does not occur any more after having deactivated a certain option, the previously deactivated options can be reactivated as a test.

IDE/ATA/SATA

Hard disk not recognized
If EZ Gig does not recognize a hard disk, there can be several reasons. Perhaps the controller which the disk is connected to has not been found (See next section: IDE controller not found). A further possible reason can be a non-standardly connected hard disk. This is for example the case if

a hard disk is configured as slave and if a CD/DVD drive or no drive at all is connected at the same IDE channel as master. Normally, EZ Gig can handle that, too.

NOTE: If an SATA hard disk is not recognized, this can also be due to the used SATA controller.

IDE controller not found

There are the following three reasons why EZ Gig has not automatically recognized an IDE controller:

- The IDE controller/channel is deactivated, e.g. on an onboard IDE controller. Activate the IDE controller/channel via the BIOS setup.

- Standard IDE controllers (ISA) are not taken into account if PCI IDE controllers are available. Connect the respective hard disk to a PCI IDE controller in this case or deactivate the PCI IDE controller or controllers.

- The used controller does not correspond to the PCI IDE standard. Although most controllers support this standardized programming interface, there are some controllers which have only a proprietary programming interface. Connect the corresponding drives to another controller (PCI IDE controller).

Source & Destination Size Differences

Equal Size

If source and target are of the same size, EZ Gig creates an absolutely identical copy(clone). On this clone, all sectors on source and target, from the first to the last sector, are 100% identical, provided that the process was error-free.

Small to large

If the source is smaller than the target, EZ Gig copies only the data that is available on the source. This data is copied from the beginning of the source onto the beginning of the target medium. The area at the end of the target medium, which is larger than the source, remains unaffected. Apart from that the unaffected area remains possibly unused during a later usage, such a copy is usually comparable to a real clone as far as the capacity of use is concerned because the target contains entirely all data of the source

Large to small

If the source is bigger than the target, EZ Gig will direct you to the Data Select feature. EZ Gig's Data Select provides a simple method to deselect data folders from the cloning process. EZ Gig will only allow to proceed with the clone, once the available capacity on the target drive is a positive value.

Automatic troubleshooting

In case of occurring errors, EZ Gig tries to troubleshoot them the best possible. If this is not possible, the errors will be mentioned in a corresponding error statistic in the detailed report after the clone is complete.

Intensive reading/writing

In case of read or write errors, EZ Gig uses different strategies in order to still be able to read or write this data, if possible. The time used for defective areas depends to a large extent on the respective medium. According to the medium and its state, several seconds up to minutes can be needed for the recovery trials. Therefore, it is recommended to always activate the option SafeRescue because then handling defective sectors takes place after the copying of all intact areas has been finished. The process can then be aborted if it takes too long without losing the data of the intact areas.

Read errors

During the copying process, read errors can only occur on the source medium. EZ Gig then tries to read the defective areas immediately after the termination of the copying process (with the option SafeRescue) with the help of special data recovery strategies within a single troubleshooting run. During the troubleshooting run, the number of the indicated read errors can reduce according to the areas on the source medium, which could be recovered.

NOTE: Read errors, that occur during the verification run, are not counted as read errors but as verification errors.

Write errors

Write errors can only occur during the copying process and only on the target medium. EZ Gig then tries to read the defective areas immediately after the termination of the copying process (with the option SafeRescue) with the help of special data recovery strategies within a proper troubleshooting run. During the troubleshooting run, the number of the indicated write errors can decrease according to the areas on the target medium, which could be recovered.

Verification errors

When the option Verifying is activated, EZ Gig executes a verification run after the copying process. A verification error is counted if the data of two sectors on source and target do not correspond. Furthermore, read errors, which occur during the verification run in one or both of the areas to be compared, are also counted as verification errors. Therefore, the number of verification errors gives you absolute information on how exactly source and target correspond to each other after the copying process. In case of an error-free copying process, EZ Gig should not report any verification errors and signalize a 100% conformity of source and target.

Contacting Technical Support

Apricorn provides the following helpful resources for you:

1. EZ Upgrade User's Guide and Quick Start Guide

2. Apricorn's Website (http://www.apricorn.com)

   This gives you the ability to check for up-to-date information.

3. E-mail us at support@apricorn.com.

4. Or call the Technical Support Department at 1-800-458-5448.

   Apricorn's Technical Support Specialists are available from 8:00 a.m. to 5:00 p.m., Pacific Standard Time from Monday through Friday.

RMA Policy

An RMA (Return Merchandise Authorization) tracking number must be issued by Apricorn. If you need to return or replace your upgrade kit, Apricorn requires that you perform the following steps:

1. Find your original receipt.

2. Simply call Apricorn's technical support department with your upgrade kit part number and a description of the problem(s) you are experiencing.

3. If the Apricorn representative finds cause for a return, they will issue an RMA number. Please write this number down.

4. Fill out an RMA authorization form with your package. The RMA form is available on-line at http://www.apricorn.com/support/rma.php.

5. Please send the prepaid package including RMA form and receipt to the following address, make sure the RMA# is written on the exterior of the package:

   Apricorn
   RMA#: _____
   12191 Kirkham Road
   Poway, CA 92064

The purchaser shall be responsible for any loss or damage to the returned product until it is received by Apricorn. Purchaser should consider obtaining insurance with respect to shipping the product.

Warranty Conditions

Warranty:

Apricorn offers a 3 year warranty on EZ Upgrade against defects in materials and workmanship under normal use. The warranty period is effective from the date of purchase (validated by your original receipt) either directly from Apricorn or an authorized reseller.

Disclaimer and terms of the warranties:

THE WARRANTY BECOMES EFFECTIVE ON THE DATE OF PURCHASE AND MUST BE VERIFIED WITH YOUR SALES RECEIPT OR INVOICE DISPLAYING THE DATE OF PRODUCT PURCHASE.

APRICORN WILL, AT NO ADDITIONAL CHARGE, REPAIR OR REPLACE DEFECTIVE PARTS WITH NEW PARTS OR SERVICEABLE USED PARTS THAT ARE EQUIVALENT TO NEW IN PERFORMANCE. ALL EXCHANGED PARTS AND PRODUCTS REPLACED UNDER THIS WARRANTY WILL BECOME THE PROPERTY OF APRICORN.

THIS WARRANTY DOES NOT EXTEND TO ANY PRODUCT NOT PURCHASED DIRECTLY FROM APRICORN OR AN AUTHORIZE RESELLER OR TO ANY PRODUCT THAT HAS BEEN DAMAGED OR RENDERED DEFECTIVE: 1. AS A RESULT OF ACCIDENT, MISUSE, NEGLECT, ABUSE OR FAILURE AND/OR INABILITY TO FOLLOW THE WRITTEN INSTRUCTIONS PROVIDED IN THIS INSTRUC-TION GUIDE: 2. BY THE USE OF PARTS NOT MANUFACTURED OR SOLD BY APRICORN; 3. BY MODIFICATION OF THE PRODUCT; OR 4. AS A RESULT OF SERVICE, ALTERNATION OR REPAIR BY ANYONE OTHER THAN APRICORN AND SHALL BE VOID. THIS WARRANTY DOES NOT COVER NORMAL WEAR AND TEAR.

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