PRODUCT MANUAL





with removable drives

High-Performance Removable Drive Storage System



g-technology.com



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Safety & General Use

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Safety Precautions

G-RAID's warranty may be void as a result of the failure to respect the precautions listed here. If you detect a problem with your drive, please contact our Technical Support department.

If the product is returned with damage caused by improper handling, the warranty will be void and liability will rest with the user. Please read our Limited Warranty.

- **Servicing:** Your drive contains no user-serviceable parts. If it appears to be malfunctioning, have it inspected by a qualified Technical Support representative.
- **Moisture:** Place the device away from moisture or liquids. To reduce the risk of damage, do not expose this drive to rain or moisture. Do not use it in damp or wet conditions. Never place objects containing liquids on the drive as they may spill into its openings.
- Ventilation: Place the device in a vented area. The drive should never be placed near or over a radiator or heat source.
- **Temperature:** Do not expose this drive to temperatures outside the range of 5°C to 35°C (41°F to 95°F); or to operational humidity beyond 5-80%, non-condensing, or non-operating humidity beyond 10-90%, non-condensing. Avoid placing your drive near a source of heat, or exposing it to sunlight (even through a window), or in an environment that is too cold or humid.
- **Physical Damage:** Do not place heavy objects on the drive. Never use excessive force on your drive.



Backup Your Data

The disk drive contained in your G-RAID device is a delicate electronic instrument and is susceptible to damage due to excessive physical shock. Under no circumstances will G-Technology be held liable for the recovery or restoration of lost data. Any loss, corruption or destruction of data while using a G-Technology drive is the sole responsibility of the user.

Make Two Backups

To help prevent the loss of your data, we highly recommend that you keep TWO copies of your data in separate storage locations. Keep one copy on your G-Technology drive. Keep a second copy on your internal hard drive, another G-Technology drive or a form of removable storage media. If possible, it is advisable to keep your data in two physically disparate locations for added safety.



About Your G-RAID

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Introduction

Thank you for purchasing G-RAID from G-Technology. The G-RAID hard drive is a highspeed, low-cost RAID that provides an ideal storage solution for content creation professionals. With its unique industrial design and all-aluminum housing, G-RAID is the de facto standard for many post-production facilities worldwide.

G-RAID features eSATA, USB 3.0 and FireWire 800 interfaces. When connected via USB 3.0 or eSATA interfaces, G-RAID provides data transfer rates up to 330MB/second to support the most demanding professional content creation applications such as Final Cut Pro[®], Avid and Adobe Premiere[®].

With its built-in RAID controller, the G-RAID is not tied to a single workstation and can be easily transported for use in the edit bay or on the road. The unit contains an internal RAID controller and can be configured in RAID 0 (Performance), RAID 1 (Protected) or JBOD mode.

In the RAID 1 or JBOD mode of operation, if a single hard drive failure toccurs, your data will still be safe and accessible (in RAID 1 all your data is safe, whereas in JBOD all your data in the good drive is safe).



What's in the Box

The following items are included in the box:

- G-RAID storage solution with two removable disk modules
- USB cable (3.0; backward compatible with USB 2.0 ports)
- eSATA cable
- FireWire 800 to 800 cable
- External AC power supply and cable

If any items are missing, please contact G-Technology at support@g-technology.com or call (888) 426-5214.



System Requirements

G-RAID supports the following operating systems:

- Mac OS[®] 10.7 +
- Windows[®] 8.1, 8 and 7 (via reformat)

The drive has been preconfigured at the factory in RAID 0 (Performance) mode for use with Mac OS[®] systems, formatted as "HFS+ with Journaling."

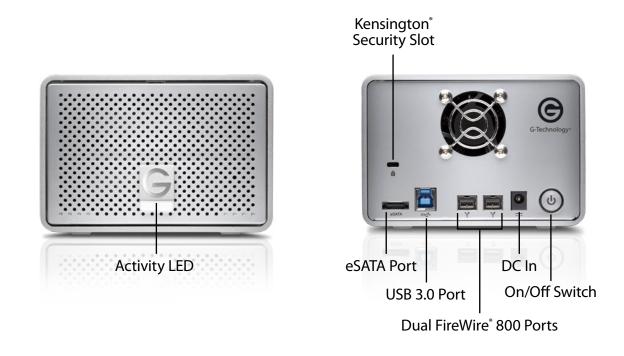


Overview of the Drive

The following diagram shows the helpful features of your G-RAID.

The compact and quiet G-RAID features two removable HGST 7200 RPM SATA III hard drives. It has a uniquely designed all-aluminum enclosure with an activity/failure LED in the front panel. The rear panel features a Kensington[™] security slot, a high-speed USB 3.0 port, two FireWire 800 ports, an eSATA port, a DC power in slot and a soft-touch on/off switch. The features combine to provide universal connectivity and industry-lead-ing performance. All cables are included.

IMPORTANT: G-RAID has been set up at the factory in RAID 0 (Performance) mode. To change to RAID 1 (Protected) mode or JBOD mod, read Configure the RAID Mode.





Activity and Failure LEDs

G-RAID contains LEDs for drive activity (WHITE) and drive failure (RED) that are next to each other on the front panel and describe the following operations:

- System initialization
- System ready
- Disk activity
- Disk drive failure

The following table explains the meaning of each combination of LEDs on the drive. When both LEDs are illuminated, the color turns lighter RED.

State	Activity/Power LED Drive Failure LED		
System Initialization	System Initialization On Flashing		
System ready	System ready On Off		
Disk Activity	Flashing	Off	
Disk 1 or Disk 2 Failure (RAID 0) On On (constant R		On (constant RED)	
Fail Safe Mode (RAID 1) Disk 1 failure	de (RAID 1) Disk 1 failure On Flashing 1 time/sec		
Fail Safe Mode (RAID 1) Disk 2 failure	On	Flashing 4 times/sec	

The activity light will glow when power is applied. It will flash brighter as data is transferred to or from the hard drive.

In the event of a disk drive failure, the RED drive failure LED located on the front panel will illuminate. In RAID 1 mode - If the red light flashes once per second, it indicates that the top drive has failed; if the red light flashes four times per second, it indicates that the bottom drive has failed. If a drive failure occurs in RAID 0 mode then the LED in the front panel turns constant RED.

- If configured in fail-safe RAID 1 mode, all the data stored on the system will be intact.
- If configured in JBOD mode, only the data in the bad drive will be lost; the rest of the data will be intact.
- If configured in RAID 0 mode, all data will be lost. Please contact Technical Support for help if the RED LED is constantly lit indicating drive failure.



Using Your Drive on Mac

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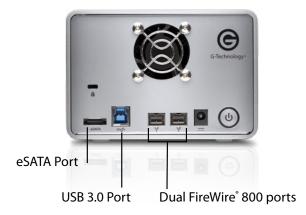




Easy Installation for Mac

G-RAID attaches to your computer via a USB 3.0 high-speed eSATA, or one of two FireWire 800 ports. Choose the connection appropriate for your system and connect the drive with the matching cable (supplied).

Connect the power cord to the unit and plug the other end into a surge protector or wall outlet. Press and hold the power button until the unit turns on. The drive will automatically mount on the desktop if you are running Mac OS X.



Optimize Performance

G-RAID can be connected to any Mac or Windows machine equipped with a USB 3.0, USB 2.0, eSATA, FireWire 800 or FireWire 400 port.

For maximum performance, we recommend connecting G-RAID via the USB 3.0 or eSATA port.



Use with Time Machine®

Your G-RAID can be easily used as a backup drive via Time Machine when connected to a Mac. Time Machine is an application that ships with your Mac and provides automatic file backup. The following steps will quickly set up G-RAID with Time Machine.

When you attach your G-RAID for the first time, the Time Machine dialog box should automatically appear. Click the **Use as Backup Disk** button.



If the Time Machine dialog box does not launch, go to the **Apple Menu > System Preferences**. Click on the Time Machine icon. The Time Machine Preference panel will open. Click the **Select Backup Disk** button.





In the subsequent dialog box, select the G-RAID. Click the Use Disk button.

000	Time Machine		
I ≤ Show All		9	
0	G-RAID		
100	8 TB		
	Other Time Capsule		
	Set up a Time Capsule that is not listed here		
Time Ma			
THILE IVIC			
OFF			
	? Encrypt backups Cancel	Use Disk	
_	Ine oldest backups are dele	tea when your aisk becomes f	ull.
	Show Time Machine in	menu bar Options	
	• show the machine m	options	
the second s	And a second		

Make sure the Time Machine switch is set to ON. You can set its options by clicking the Options button. Do this to choose volumes, folders, or files you do NOT want to backup.

G-RAID will now back up your important files automatically with Time Machine. It's really that easy!





Disconnect the Drive

A great feature of G-RAID is its ability to connect and disconnect while your computer is running. To prevent failures and/or data loss, it is important to follow the steps below when disconnecting or "unmounting" the drive from your computer.

1. Before powering down and disconnecting the drive, unmount the system by dragging the G-RAID icon to the trash located in the dock. **Keyboard shortcut**: Select the drive icon and hit **Command+E**.



- 2. It is safe to remove the drive from your system when the drive icon is no longer present on your desktop.
- 3. To power off G-RAID, press and hold the on/off power button until the unit shuts down.

Helpful links

- To use G-RAID on Windows, go to Windows Use.
- To use G-RAID on Mac and Windows together, go to Cross-Platform Use.



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Supported RAID Modes

G -RAID is preconfigured in RAID 0 (Performance) mode, for use with Mac OS systems. The drive can also be configured in RAID 1 (Protected) mode or JBOD mode. The following table explains the advantages and disadvantages for each RAID level.

RAID Level	Description	Advantage	Disadvantage	Ideal For
RAID 0	Disk Striping	Highest read/write performance. Storage capacity is 100% utilized.	No fault tolerance. Single drive failure will result in complete data loss.	Highest storage capacity utilization and highest performance.
RAID 1	Disk mirroring	Complete data protection in case of a single drive failure.	Read/write performance is reduced to half of RAID 0 performance.	Sensitive data, which requires constant backing up. High performance not required.
JBOD	Disks not RAIDed	Storage capacity is 100% utilized. Partial data protection if a single drive fails.	Read/write performance is reduced to half of RAID 0 performance.	Highest storage capacity utilization when partial data loss is acceptable.

To change the RAID mode of G-RAID, follow the steps in Configure the RAID Mode.

RAID 0 (Performance)

G-RAID ships in RAID 0 (Performance) mode. This RAID mode has 100 percent storage capacity and is ideal for video editing. In RAID 0 mode, the drives are combined and data is split between the two drives for increased performance.



RAID 1 (Protected)

RAID 1 is great for protecting and securing data, making it ideal for sensitive data, but it operates at the speed of a single drive. In RAID 1, the array will be at 50 percent of its total capacity as the same data is written or mirrored to both drives simultaneously.

JBOD

JBOD mode is great for maximum capacity utilization without fear of losing all your data, as in the case of RAID 0, but they each operate at the speed of a single drive.

The RAID Configuration Utility for Mac

The G-Technology RAID Configurator is used to change the RAID level of your G-RAID. You can use USB 3.0, eSATA or FireWire 800 with the RAID Configurator. To configure G-RAID, it will need to be the only device connected to your computer.

The RAID Configurator utility is available for download from the G-Technology website at g-technology.com/support.

Once you have downloaded the RAID Configurator, you should launch it directly from the mounted disk image.





Configure the RAID Mode for Mac

You can easily configure G-RAID Studio's RAID mode with the following steps.

Important Note: Changing the RAID level will erase all data on the drive. Be sure all of the data and files you want to save are backed up to separate media.

1. Launch the G-Technology RAID Configuration utility. A dialog window will ask you to disconnect all other external hard disks from your computer. This is important to ensure that the configurator does not affect other eSATA, FireWire or USB devices on your system.



2. Click the Continue button. A window will appear telling you that the utility is searching for G-RAID.





3. Once the utility finds your G-RAID, the following window will appear. Select your desired configuration: RAID 1 (Protected), RAID 0 (Performance) or JBOD. Then click the Configure button to continue.

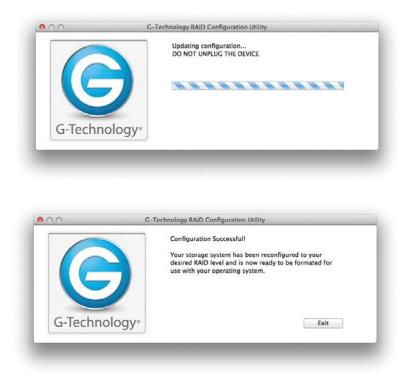
Device detected:	S-RAID
Select RAID	level
• RAID 0 (I	Performance)
ORAID 1 (I JBOD	Protected)
Configure	Exit

4. Two warning windows will appear, letting you know that the following step will erase all your data. Click the Yes buttons to continue.





5. A window will appear telling you that the configuration is in progress. The next window will confirm that your G-RAID is configured in RAID 1, RAID 0 or JBOD mode.



6. Changing the RAID mode of G-RAID will require you to re-initialize the disk with the Disk Utility application. The disk insertion dialog below should appear. Click the Initialize button to launch Disk Utility. Then follow the simple steps to initialize G-RAID for use with Mac OS.



7. NOTE: If the Disk Insertion dialog does not appear, go to **Application** > **Utilities** and open the Disk Utility program. Once Disk Utility is open, you are ready to initialize and partition G-RAID for use with Mac.

RAID 1 Degraded Mode and Rebuild for Mac

If your G-RAID is in RAID 1 configuration and either a single drive failure occurs or if a member of the RAID 1 set is removed, then the active drive will operate in degraded mode.

What is Degraded Mode? In a two-drive RAID 1 array, if one of the drives fails or if one of the drives is removed then the active drive keeps the user data intact but without any fail-safe mechanism until the RAID array is rebuilt. This state of operation is called degraded mode.

To rebuild the RAID 1 set, please insert a new drive in place of the failed drive or the drive that has been removed. If this new drive is not formatted then the Disk Utility function will automatically launch and you can format the drive. If this replacement drive is formatted then you are ready to rebuild the RAID set. To see how to replace a failed drive, please refer to the section Replace a Failed Drive Module.

G-RAID has auto rebuild feature built into it. Once you insert a formatted replacement disk the RAID 1 will start rebuilding automatically. Total rebuild time is dependent on the total capacity of each drive. The rebuild time is approximately two hours per terabyte.



The RAID Configuration Utility for Windows

The G-Technology RAID Configurator is used to change the RAID level of your G-RAID. You can use USB 3.0, eSATA or FireWire 800 with the RAID Configurator. To configure G-RAID, it will need to be the only device connected to your computer.

The RAID Configurator utility is available for download from the G-Technology website at g-technology.com/support.

Once you have downloaded the RAID Configurator, you should launch it directly from the zipped package with the application inside.

A	This application may files in this folder.	depend on othe	er compressed
	For the application to that you first extract a		is recommended



Configure the RAID Mode for Windows

You can easily configure G-RAID Studio's RAID mode with the following steps.

Important Note: Changing the RAID level will erase all data on the drive. Be sure all of the data and files you want to save are backed up to separate media.

1. Launch the G-Technology RAID Configuration utility. A dialog window will ask you to disconnect all other external hard disks from your computer. This is important to ensure that the configurator does not affect other eSATA, FireWire or USB devices on your system.



2. Click the Continue button. A window will appear telling you that the utility is searching for G-RAID.





3. Once the utility finds your G-RAID, the following window will appear. Select your desired configuration: RAID 1 (Protected), RAID 0 (Performance) or JBOD. Then click the Configure button to continue.

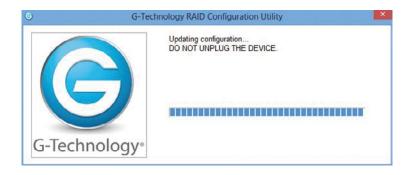
Device detected: HGS	THDS724040ALE640
Select RAID	level
C RAID 0 (P	erformance)
C RAID 1 (Pi	rotected)
JBOD	
Configure	Fxit

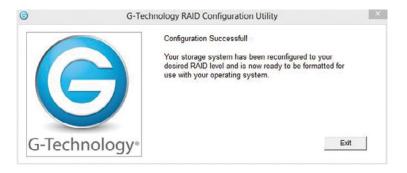
4. Two warning windows will appear, letting you know that the following step will erase all your data. Click the **Yes** buttons to continue.





5. A window will appear telling you that the configuration is in progress. The next window will confirm that your G-RAID is configured in RAID 1, RAID 0 or JBOD mode.





6. Changing the RAID mode of G-RAID will require you to re-initialize the disk. For helpful information on initialization of your drive with Windows, please visit <u>g-technology.com/windows</u>.



RAID 1 Degraded Mode and Rebuild for Windows

If your G-RAID is in RAID 1 configuration and either a single drive failure occurs or if a member of the RAID 1 set is removed, then the active drive will operate in degraded mode.

What is Degraded Mode? In a two-drive RAID 1 array, if one of the drives fails or if one of the drives is removed then the active drive keeps the user data intact but without any fail-safe mechanism until the RAID array is rebuilt. This state of operation is called degraded mode.

To rebuild the RAID 1 set, please insert a new drive in place of the failed drive or the drive that has been removed. If this new drive is not formatted then the Disk Utility function will automatically launch and you can format the drive. If this replacement drive is formatted then you are ready to rebuild the RAID set. To see how to replace a failed drive, please refer to the section Replace a Failed Drive Module.

G-RAID has auto rebuild feature built into it. Once you insert a formatted replacement disk the RAID 1 will start rebuilding automatically. Total rebuild time is dependent on the total capacity of each drive. The rebuild time is approximately two hours per terabyte.



Maintenance for Your Drive

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Initialize Drive for Mac

G-RAID is factory formatted or "initialized" for use with the Mac OS. You can follow these steps to reinitialize if you would like to quickly erase the contents of the drive.

- 1. Open the **Disk Utility** application. Disk Utility is located on your hard drive under **Applications/Utilities/Disk Utility**. The window below will appear. Your G-RAID will be displayed in the left column.
- 2. Select G-RAID by clicking its drive icon in the left column. Information about the drive will be displayed at the bottom of the window.
- 3. Select the Erase tab to view the formatting options. By default, the Format pop-up menu is set to the Mac OS Extended (Journaled) option.

500.28 GB APPLE SSD SM5 Macintosh HD 8 TB G-RAID Media	To erase all data on a disk or volume:
G-RAID Media	Select the disk or volume in the list on the left. Specify a format and name. If you want to prevent the recovery of the disk's erased data, click Security Options.
G-Technology RAID Confi g_technology_assistant10 AdobeFlashPlayerInstaller	4 Click Erase. To prevent the recovery of previously deleted files without erasing the volume, select a volume in the list on the left, and click Erase Free Space.
	Format: Mac OS Extended (Journaled)
	Name: G-RAID



- 4. Choose the Format option you prefer.
 - Mac OS Extended (Journaled): Use this format if you intend to use the drive for Time Machine or to create a separate bootable installation of OS.
 - Mac OS Extended: Use this format for best performance and media storage. To select, click the Format drop-down menu and its option of Mac OS Extended.

Click Erase. event the recovery of previously deleted files without erasing the volume, select a volume list on the left, and click Erase Free Space. Format: / Mac OS Extended (Journaled) Mac OS Extended (Journaled, Encrypted)
Name: Mac OS Extended (Case-Sensitive, Journaled) Mac OS Extended (Case-Sensitive, Journaled, Encrypted) ExfAT Erase Free Space Erase





5. Click the Erase button in the lower-right corner of the window. A dialog box will appear asking if you want to erase the G-RAID partition.

500.28 CB APPLE SSD SMS Macintosh HD 8 TB C-RAID Media	same disk.	all the data on that ect other partitions on the]
G-Technology RAID Confi g_technology_assistant10 AdobeFlashPlayerInstaller	To prevent the recovery of previou in the list on the left, and click Era		the volume, select a volume
	Pormac.	Mac OS Extended (Journaled) G-RAID	:)
	Erase Free Space	Security Options.	Erase
Mount Point : //ols		tity : 8 TB (8,001,112,989,696 ble : 8 TB (7,999,617,007,616	

WARNING: THIS NEXT STEP WILL ERASE ALL DATA ON YOUR DRIVE.

6. Click the Erase button to continue. A progress bar in the lower-right corner of the window will show the progress of the disk's reformatting.





- 7. After the drive is reinitialized, you should automatically see the Time Machine dialog box.
 - Click the Use as Backup Disk button if you want to use the drive with Time Machine.
 - Click the Don't Use or Decide Later buttons if you do not want to use Time Machine at this point.

5	Do you want to use G Machine?	-RAID (8 TB) to back	up with Time
	Time Machine keeps an up- keeps a spare copy of every can revisit your Mac as it ap	file, it remembers how you	
	Encrypt Backup Disk		
?)	Decide Later	Don't Use	Use as Backup Disk

8. Quit the Disk Utility program. After you reinitialize the drive, the custom icon for G-RAID will be erased. You can optionally restore this icon with the steps on the next page.

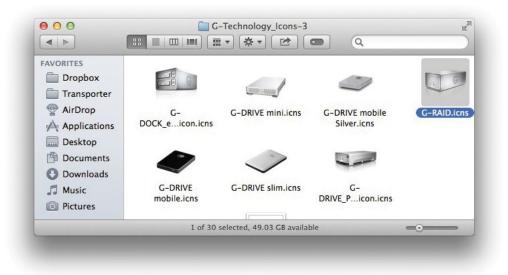


Restore the Drive Icon

If the G-RAID drive icon was erased during the configuration process (see the **previous section**), you can restore the icon with the following easy steps.

NOTE: This process is not required for the operation of the G-RAID. However, it will make your drive's appearance on the computer desktop look cleaner and more accurate.

- 1. To get the G-Technology icon package, go to www.g-technology.com/support and navigate to your product. There will be a link to download the icons on the product support page.
- 2. Once downloaded, the G-Technology icons folder shown below should load automatically. If not, double-click the zip file to open. Next, double-click the DMG file to open the G-Technology icons package.
- 3. Click to select the drive icon for G-RAID in the package window. Press **Command+C** to copy the icon.





- 4. Select the default G-RAID drive icon on your desktop and press **Command+I**. This opens the **Get Info** window (below left).
- 5. Select the default icon in the Get Info window (below left).
- 6. Press **Command+V** to paste the custom G-RAID icon into the Get Info window (below right).

G-RAID Modified: Today, 10:28 PM	G-RAID Modified: Today, 10:49 PM
Add Tags	Add Tags
 ▼ General: Kind: Volume Created: Today, 10:28 PM Modified: Today, 10:28 PM Format: Mac OS Extended (Journaled) Capacity: 8 TB Available: 8 TB Used: 1,494,573,056 bytes (1.49 GB on disk) Shared folder 	 ✓ General: Kind: Volume Created: Today, 10:28 PM Modified: Today, 10:49 PM Format: Mac OS Extended (Journaled) Capacity: 8 TB Available: 8 TB Used: 1,494,573,056 bytes (1.49 GB or disk)
▼ More Info:	▼ More Info:
<u>V</u>	G

The icon for your G-RAID has been restored and you can close the Get Info window. Your drive is now ready for use!



Reformat with Partitions

Partitioning a hard drive is the process of dividing a hard drive into separate, discrete sections called volumes. Each volume works like a separate disk. You can create up to 16 different partitions on a hard drive in Mac OS X, and each partition can be a different size and format.

With hard drives getting bigger, it is useful to partition your hard drive so you can use sections of its space for different purposes. For instance, you can segment user data from backup data, set up a multi-boot environment with different operating systems, or create a dedicated capture scratch disk for programs such as Final Cut Pro and Adobe Premiere.

The following steps will guide you through the simple process of partitioning your drive. *In this example, we will partition an 8TB G-RAID connected via USB 3.0. The steps will be identical for your drive, although the name may be different.*

1. Open the Disk Utility program. This application is located on your hard drive under Applications/Utilities/Disk Utility. The window below will appear. Your G-Technology drive will be displayed in the left column.

First Aid Erase Partition RAID Restore te all data on a disk or volume: elect the disk or volume in the list on the left. pecify a format and name. you want to prevent the recovery of the disk's erased data, click Security Options.
you wan to prevent the recovery of the disk's erased data, click security options. lick Erase. vent the recovery of previously deleted files without erasing the volume, select a volume list on the left, and click Erase Free Space.
Format: Mac OS Extended (Journaled) *



2. Select the USB, eSATA or FireWire icon — not the G-Technology drive icon — by clicking it in the left column.



3. Click on the Partition button in the main window.

Eirct Aid	Fraco	Partition	PAID	Postore
FILST AIU	LIASE	raitition	NAID	Restore



4. Select the number of partitions you would like from the Volume Scheme menu. Below, we have selected "2 Partitions" to create two partitions.

erify Info Burn Mount Eje	ect Enable Journaling New	/ Image Convert Resiz	e Image		Lo
500.28 GB APPLE SSD SM5 Macintosh HD	Partition Layout:		Information	Restore	
8 TB G-RAID Media	Current	+ Name:	G-RAID		
	✓ Current	Format:	Mac OS Exter	nded (Journaled) ÷	
G-Technology RAID Confi g_technology_assistant10 AdobeFlashPlayerInstaller	2 Partitions 3 Partitions 4 Partitions	Size: To erase		TB	
	5 Partitions 6 Partitions 7 Partitions	each part	ition, and click		
	8 Partitions 9 Partitions 10 Partitions		a partition on t nd click Apply.	he selected disk, drag its resize:	
	11 Partitions 12 Partitions 13 Partitions	The selec	ted partition we	on't be changed.	
	14 Partitions 15 Partitions 16 Partitions				



5. Click on the first partition in the Volume Scheme area. Your partition will be in a white box surrounded by blue lines.

- In the Name field, type a name for the partition.
- From the Format menu, choose your desired disk format. If you will use your drive primarily on Mac OS, it is recommended to use Mac OS Extended or Mac OS Extended (Journaled). For details about formats, go here.
- In the Size field, type in a size for the partition. Alternately, you can drag the bar between each partition to quickly change the size.
- 6. Repeat this process for each partition you have created.
- 7. Click the Apply button in the lower-right corner of the window. A dialog box will appear asking if you want to erase the G-Technology drive partition. WARNING: THE NEXT STEP WILL ERASE ALL DATA ON YOUR DRIVE.

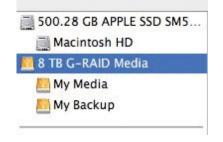
500.28 GB APPLE SSD SMS	First Aid	Erase Partition RAID Restore	
Macintosh HD 8 TB G-RAID Media	Partition Layout:	Partition Information	
disk1s2	2 Partitions	Name: My Media	
Misk1s3		Format: Mac OS Extended (journaled)	
		Size: 4.00 TB	
G-Technology RAID Confi	My Media	5126: 4.00	
g_technology_assistant10		To erase and partition the selected disk, choose a layout	
AdobeFlashPlayerInstaller		from the Partition Layout pop-up menu, set options for each partition, and click Apply.	
		The selected partition will be created.	Are you sure you want to partition the
		The selected partition will be created.	disk "G-RAID Media"?
	My Backup		Partitioning this disk will delete all the data on this
			disk.
			This partition will be erased:
			"G-RAID"
	+ - Options	Revert Apply	
			These partitions will be added:
			"My Media"



8. Click on the Partition button to continue. A progress bar in the lower-right corner of the window will show you the progress of the disk's reformatting.



- 9. When partitioning is complete, the multiple partitions will be displayed in the left panel of Disk Utility.
- 10. Quit the Disk Utility program. After reinitializing the drive, the custom icon for the G-Technology drive has been erased. You can optionally restore this icon to each partition with the steps on this page.



11. The multiple partitions of the G-Technology drive will be displayed on your desktop. Your drive is now set up with two or more partitions and is ready for use.





Replace a Failed Drive Module

The internal components of G-RAID continually monitor the health of each of its disk drives. In the event of a drive failure, a visual alarm will appear. Read more in Activity and Failure LEDs.

RAID 0: If G-RAID was configured in RAID 0 (Performance) mode, a drive failure will result in data loss.

RAID 1: If G-RAID is configured as RAID 1, a single drive failure will not result in data loss. However, the array is now in a degraded or unprotected state, and the failed drive should be replaced as soon as possible to avoid data loss.

Read more in Supported RAID Modes.

Follow the steps below to identify and replace a failed drive.

- 1. With the unit powered on, the flashing RED LED will indicate which drive module failed. For more information, see Activity and Failure LEDs.
- 2. Remove the failed drive by pressing the module release button, and gently sliding the drive module out of the enclosure.
- 3. Replace the failed drive with a new disk module. Secure it in place by pushing in the drive and latching the handle.

NOTE: During the 3-Year warranty period, contact G-Technology Technical Support for replacement of a defective drive module.





- 4. If G-RAID was set up in RAID 1 mode, the unit will begin rebuilding data on the drive. During this process, the activity LED will indicate data access. The rebuild time is approximately two hours per terabyte.
- 5. Once the rebuild is complete, G-RAID is back to normal and once again protecting your valuable data.

Helpful tips

You can continue using G-RAID even while the drive volume is being rebuilt. However, it will run at a slower data rate.

It is good practice to keep at least one spare drive module on hand in case of a disk failure. That way, you can rebuild your array in hours rather than wait days for a new one to ship.



Using Your Drive on Windows

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Windows Use

G-RAID Studio is set up at the factory for use with Mac OS systems. A simple initialization will prepare your drive for use with Windows 7, 8 and 8.1 systems.

For helpful information on configuring and using your drive with Windows, please visit g-technology.com/windows

Cross Platform Use

You can set up G-RAID Studio for use on both Windows and Mac system by formatting the drive as 'exFAT'. To do this, use the Disk Utility application on the Mac system and format the drive to exFAT.

- 1. First, open the Mac system's Disk Utility program. This application is located on your hard drive under Applications/Utilities/Disk Utility. The window below will appear. Your G-RAID Studio will be displayed in the left-hand column.
- 2. Select the G-RAID Studio by clicking on its drive icon in the left-side column. Information about the drive will be displayed at the bottom of the window.
- 3. Select the Erase tab to view the formatting options.





4. Select exFAT File System from the Format pop-up menu. This will format to exFAT.

NOTE: You may need to rename the drive because exFAT does not support more than 11 letters in the drive name.



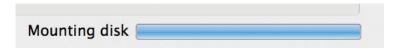
WARNING: THIS NEXT STEP WILL ERASE ALL DATA ON YOUR DRIVE.

5. Click the Erase button in the lower right corner of the window. A dialog box will appear asking if you want to erase the G-RAID Studio partition.





6. Click the Erase button. A progress bar in the lower right corner of the window will show the progress of the disk's reformatting. Your drive will be formatted to its full capacity as exFAT.



- 7. Quit the Disk Utility program. You are finished!
- 8. After reinitializing, the custom icon for the G-RAID Studio will be erased. No icons are available for exFAT.

With this format, you will be able to read/write on Windows Vista, and Windows 7 and on Mac OS machines.



Support & Warranty

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Technical Support

Thank you for purchasing G-RAID. If you have any comments or questions about this manual or the product, please let us know!

G-Technology appreciates and values its customers, striving to give you the finest service and support. If you encounter any difficulties while installing or using G-RAID, please contact G-Technology Technical Support at: g-technology.com/support

Helpful information for support

When contacting Technical Support, it's best to be in front of your computer and have the following information available:

- Your G-RAID serial number (on bottom of unit)
- Operating System and version
- Computer model
- List of other devices attached to your computer



Limited Warranty

HGST, a Western Digital Company ("HGST") including G-Technology for External Hard Disk Drives

What does this limited warranty cover?

This Limited Warranty applies to new HGST products purchased from an authorized HGST dealer by the original purchaser for normal use and not for resale. HGST warrants that a covered product is free from defects in materials and workmanship, with the exceptions stated below.

How long does limited warranty coverage last?

This limited warranty lasts for 1 year, 2 years, 3 years or 5 years, or a fixed period from date of purchase, depending on when and where it was originally purchased. To determine the warranty specifically for your product, visit **www.g-technology.com**. A valid proof of purchase may be required to prove eligibility. If you do not have a valid proof of purchase, the limited warranty period will be measured from the date of sale from HGST to the authorized distributor.

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The limited warranty does not cover damage resulting from commercial use, misuse, accident, modification or alteration to hardware or software, tampering, unsuitable physical or operating environment beyond product specifications, improper maintenance, or failure caused by a product for which HGST is not responsible.

There is no warranty of uninterrupted or error-free operation. There is no warranty for loss of data—you must regularly back up the data stored on your product to a separate storage product. There is no warranty for product with removed or altered identification labels.

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What must you do?

If you are having trouble with a product, before seeking limited warranty service, first follow the troubleshooting procedures that HGST or your reseller provides.

To obtain limited warranty service, you must first obtain a Return Materials Authorization (RMA) and ship-to address by contacting G-Technology at http://www.g-technology.com/support. Please follow the instructions found on the website. You must return the covered hard disk drive using approved packaging to our logistics center. You must pay any associated transportation charges, duties and insurance in shipping the drive to our logistics center. You should remove all personal information from the product prior to its return.

What will HGST do?

HGST will replace the drive with a functionally equivalent replacement product, transportation prepaid. HGST may replace your product with a product that was previously used, repaired and tested to meet HGST specifications. You receive tile to the replaced product at delivery to carrier at HGST shipping point. You are responsible for importation of the replaced product, if applicable. HGST will not return the original drive to consumers; therefore, the consumer is responsible for moving data to another media before returning. Data Recovery is not covered under this warranty and is not part of the warranty returns process. HGST warrants that the replaced products are covered for the remainder of the original product warranty or 90 days, whichever is greater.

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CAPACITY DEFINITION AND DISCLAIMER

For G-Technology products 1TB or greater: "One gigabyte (GB) is equal to one billion bytes and one terabyte (TB) equals 1,000 GB (one trillion bytes). Accessible capacity will vary from the stated capacity due to formatting and partitioning of the hard drive, the computer's operating system, and other factors."

For G-Technology products less than 1TB: "One gigabyte (GB) is equal to one billion bytes when referring to hard drive capacity. Accessible capacity will vary depending on the operating environment and formatting."

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