

How to Configure RAID

RAID is a great way to add additional security and redundancy to a computer workstation. A RAID array is a setup of two or more hard drives that have been synchronized to provide protection against data loss due to a malfunctioning hard...

Method 1 of 2:

Selecting the RAID

Here is a list of the most used RAID levels:

- RAID 0 (Disk striping): RAID 0 splits data across any number of disks allowing higher data throughput. ...
- RAID 1 (Disk Mirroring): ...
- RAID 5 (Striping with parity): ...
- RAID 6 (Striping with double parity): ...
- RAID 10 (Striping + Mirroring): ...

Advantages and disadvantages of various RAID levels. - 10Gbps.io blog
<https://10gbps.io/blog/advantages-disadvantages-various-raid-levels/>

1.

Decide what type of RAID you want. There are a variety of RAID levels, each offering its own type of protection and security.

1. RAID 0 improves hard drive performance by splitting data over multiple hard drives, but offers no data protection.
2. RAID 1 writes the same data to multiple hard drives, protecting data against a hard drive failure.
3. RAID 5 offers improved performance and protection, but requires at least three hard drives.
4. Research the different types to find the one that best suits your needs.

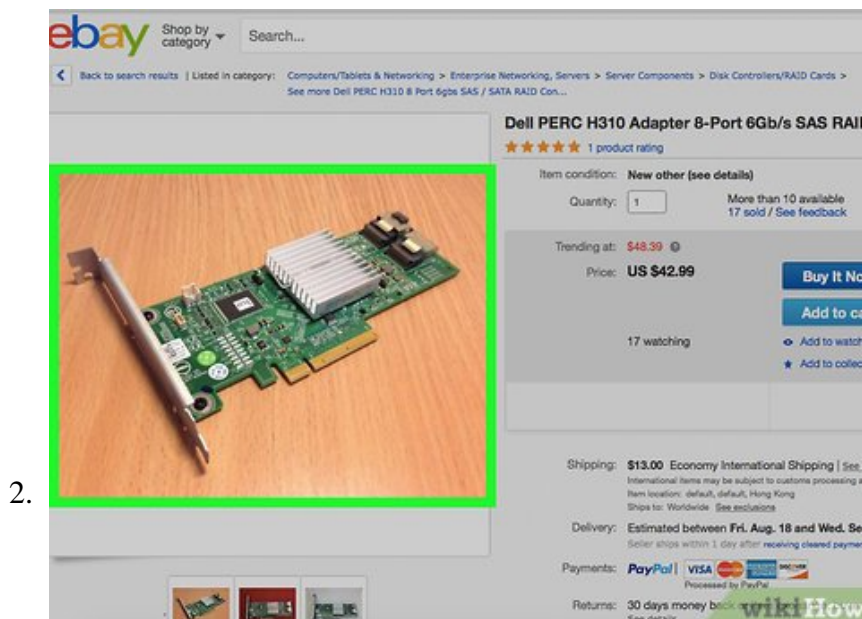
Method 2 of 2:

Installation



Keep in mind when you are handling the inner parts of any computer or its components make sure the power source is turned off and unplugged. Also, make sure you have yourself grounded to prevent damage from static electricity.

1. Making sure that the computer has been shut off and unplugged will prevent accidental damage to the computer parts as well as accidental injury to the user.
2. Grounding yourself will prevent accidental shock damage generated by static electricity.
3. When handling any electrical computer component, don't touch any of the metallic chips or circuitry. The oils on your hands and fingers can and will damage the parts from working correctly.



Install the RAID adapter in your PC. Install the adapter in an available PCI or PCI Express slot. You will need to consult the instructions in both your RAID adapter manual and your motherboard manual, as the directions will vary depending on the individual models involved. If your motherboard already came with RAID, then you can just skip this test.

1. You must set the controller mode to RAID. This is done in the system bios. During the start up of your system, a specific keystroke will bring you to this screen.



Configure the RAID adapter in your BIOS. During your PC's boot up sequence, press the key combination to bring up the configuration panel for your RAID adapter. You will find this information in the adapter's manual. Typically, the combination is either **Ctrl+R** or **Ctrl+A**.

1. In some cases, depending on your computer hardware setup, you may be asked to run your computer's CMOS setup program in order to set up your hard drives for RAID.



Partition and format the array. Install the adapter in your operating system. During the boot-up sequence of your computer, keep your eyes open for any messages prompting you to install a third-party SCSI or RAID driver. If you see it, then you will need to press **F6** to initiate the installation process. In this case, you will be prompted to insert the floppy disk that came with your adapter, as this disk holds all of the third-party drivers.

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