

2BIG NAS: ABOUT RAID MODES

Refer to the table below for an overview of RAID modes available to the LaCie 2big NAS. Note that the levels of performance and protection will differ based upon the number of drives in the volume. The *New storage volume* wizard includes a helpful tooltip with star ratings for performance and protection.

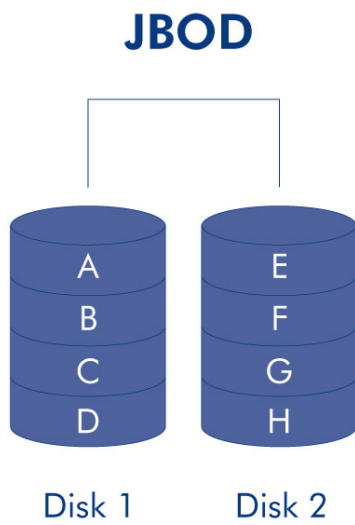
RAID Mode	Minimum Hard Drives	Factory Default (full disk version only)
JBOD	1	-
RAID 0	2	-
RAID 1	1 (no data protection)	-
RAID 1	2 (data protection)	Yes

Note on enclosures with one hard drive: You can create a JBOD or RAID 1 volume with a single drive in the enclosure. However, there is NO DATA PROTECTION with RAID 1 since a second drive is not available. A JBOD volume with one or more hard drives does not offer data protection.

Important info on NAS backup: It is recommended that all users back up data to DAS or another NAS as further protection against disk failure or secondary points of failure (e.g. hardware, network, etc.) See [Backup Jobs](#) for details.

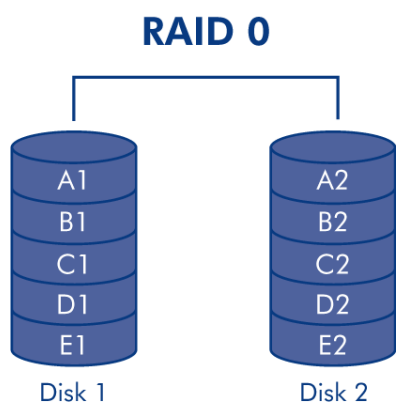
JBOD (Just a Bunch of Disks)

Disks in a JBOD configuration store data sequentially. For example, data is written to Disk 1 first. Once Disk 1 is full, data will be written to Disk 2. Two advantages to this level of RAID are the availability of 100% of the disks' total storage capacity and easy expansion. However, all data will be lost if a single disk fails.



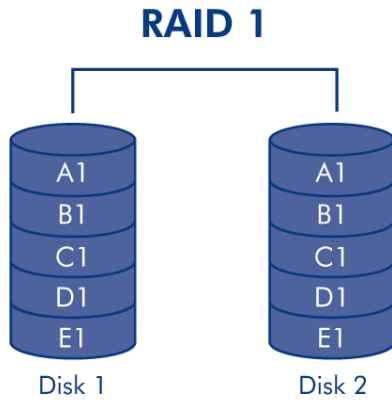
RAID 0

RAID 0 is the fastest RAID mode since it writes data across both of the volume's disks. The capacities of each disk are also added together for optimal data storage. While RAID 0 gives you higher performance and data capacity than RAID 1, it lacks data protection. If one disk fails, all data becomes inaccessible.



RAID 1

RAID 1 provides enhanced data security since all data is written to each disk in the volume. If a single disk fails, data remains available on the other disk in the volume. However, due to the time it takes to write data twice, performance is reduced when compared with RAID 0. Additionally, RAID 1 reduces the available disk space by 50% since each bit of data is stored on both disks in the volume.



Note on RAID 1 disk requirements: A standard RAID 1 configuration includes two disks of equal capacity. When using disks of unequal capacities, the available storage space for data is that of the smaller disk.

It is possible to create a RAID 1 volume using a single disk. While such a volume cannot provide any data protection, it is ready for expansion when you add a new disk. Data protection would become available once the second disk is added to the RAID 1 volume.