

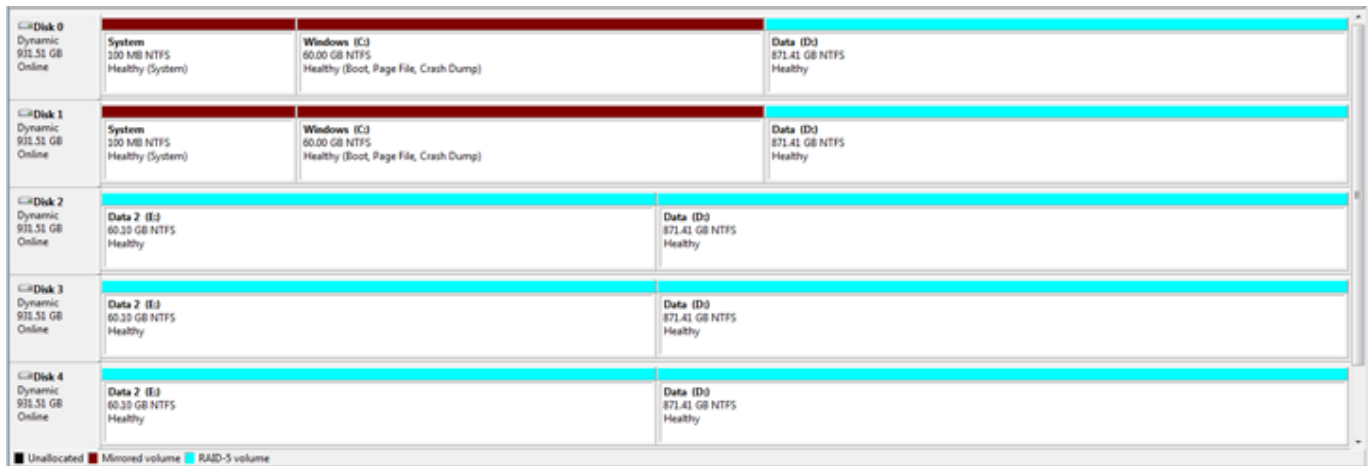
# DISK NUMBERING

The 5big Office and 5big Office+ use Windows Disk Management to configure RAID. Before creating or repairing a RAID array, you may find it helpful to know how the utility assigns numbers to the physical disks.

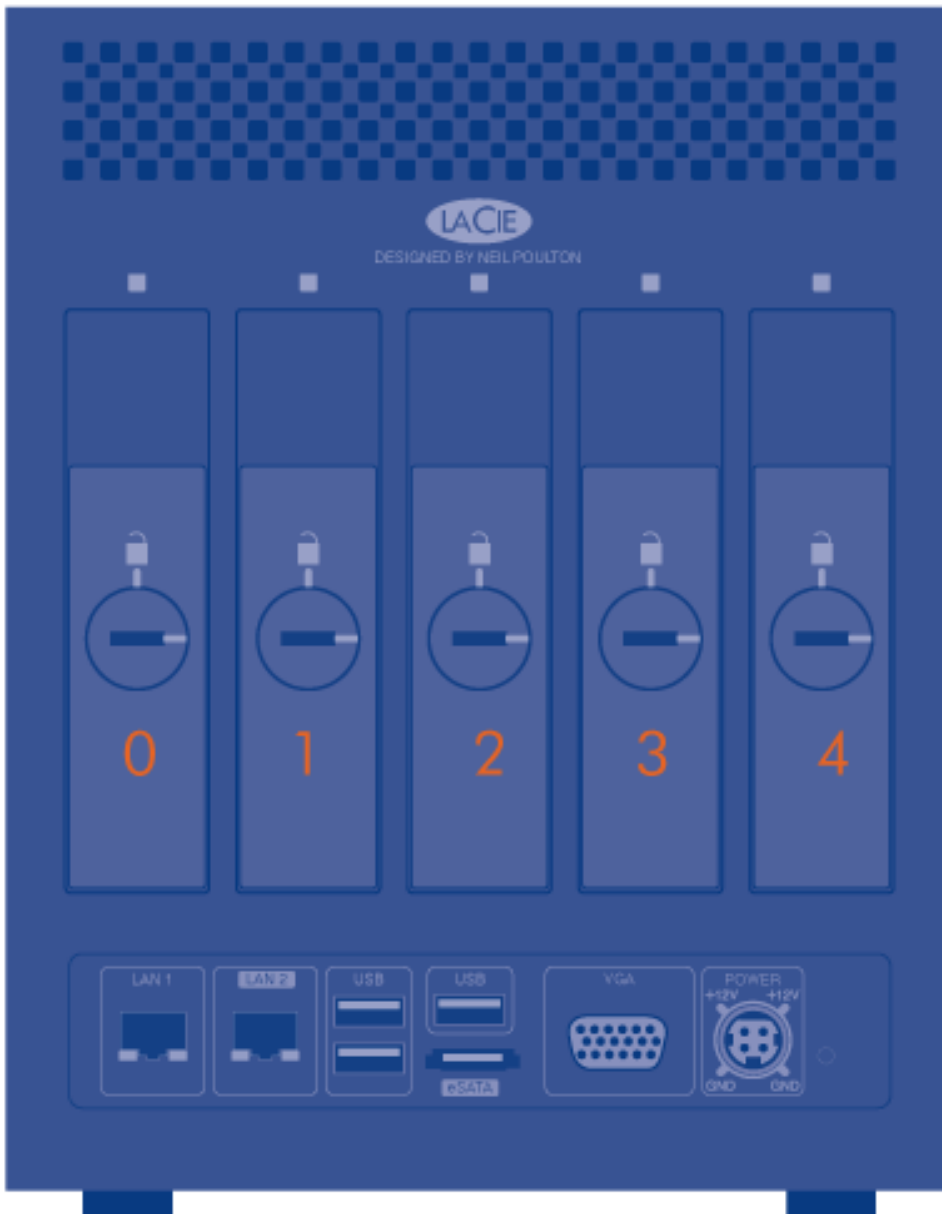
**Note:** To best demonstrate disk numbering, this section uses the recommended configuration of a 5big Office/Office+ with five disks. The amount of disks as well as the RAID configurations may appear different based upon your LaCie professional server.

## DISK NUMBERING: WINDOWS DISK MANAGEMENT

The screenshot below of Windows Disk Management shows a standard RAID configuration with five disks.



The illustration below shows how the Windows Disk Management disk numbers correlate with their physical placement in the 5big enclosure.



Please note that each disk takes part in two RAID configurations. For example, approximately 60GB of Disk 0 is part of a mirror that runs the Windows operating system. The remainder of Disk 0 is also one of five drives that make up the Data volume, a RAID 5 array.

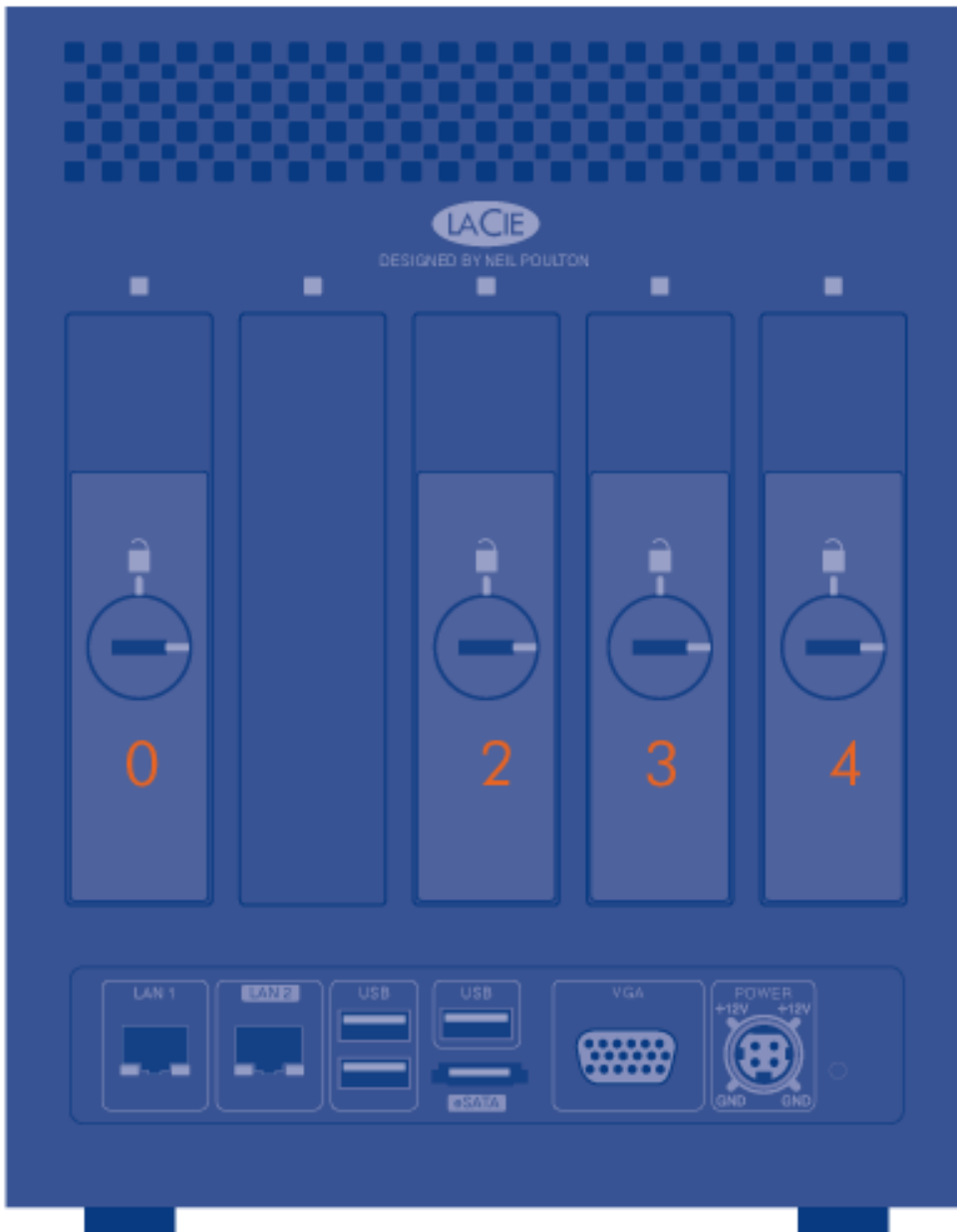
During standard operation, the numbering will not change. However, if a disk should fail, the default disk numbering could become confused, especially if the 5big Office/Office+ is restarted when a disk is missing. A missing disk could indicate:

- A disk physically removed from its slot/Disk failure
- Disk failure

In the figures below, Disk 1 has been physically removed from its slot. Unsurprisingly, Disk Management has removed Disk 1 from the list and noted that a hard drive is *Missing*. The other four disks keep their default number assignments since the 5big Office/Office+ has not been restarted.

<b>Disk 0</b> Dynamic 931.51 GB Online	<b>System</b> 100 MB NTFS Failed Redundancy (System)	<b>Windows (C:)</b> 60.00 GB NTFS Failed Redundancy (Boot, Page File, Crash Dump)	<b>Data (D:)</b> 871.41 GB NTFS Failed Redundancy
<b>Disk 2</b> Dynamic 931.51 GB Online	<b>Data 2 (E:)</b> 60.10 GB NTFS Healthy		<b>Data (D:)</b> 871.41 GB NTFS Failed Redundancy
<b>Disk 3</b> Dynamic 931.51 GB Online	<b>Data 2 (E:)</b> 60.10 GB NTFS Healthy		<b>Data (D:)</b> 871.41 GB NTFS Failed Redundancy
<b>Disk 4</b> Dynamic 931.51 GB Online	<b>Data 2 (E:)</b> 60.10 GB NTFS Healthy		<b>Data (D:)</b> 871.41 GB NTFS Failed Redundancy
<b>Missing</b> Dynamic 931.51 GB Missing	<b>System</b> 100 MB NTFS Failed Redundancy (System)	<b>Windows (C:)</b> 60.00 GB NTFS Failed Redundancy (Boot, Page File, Crash Dump)	<b>Data (D:)</b> 871.41 GB NTFS Failed Redundancy

■ Unallocated 
 ■ Mirrored volume 
 ■ RAID-5 volume



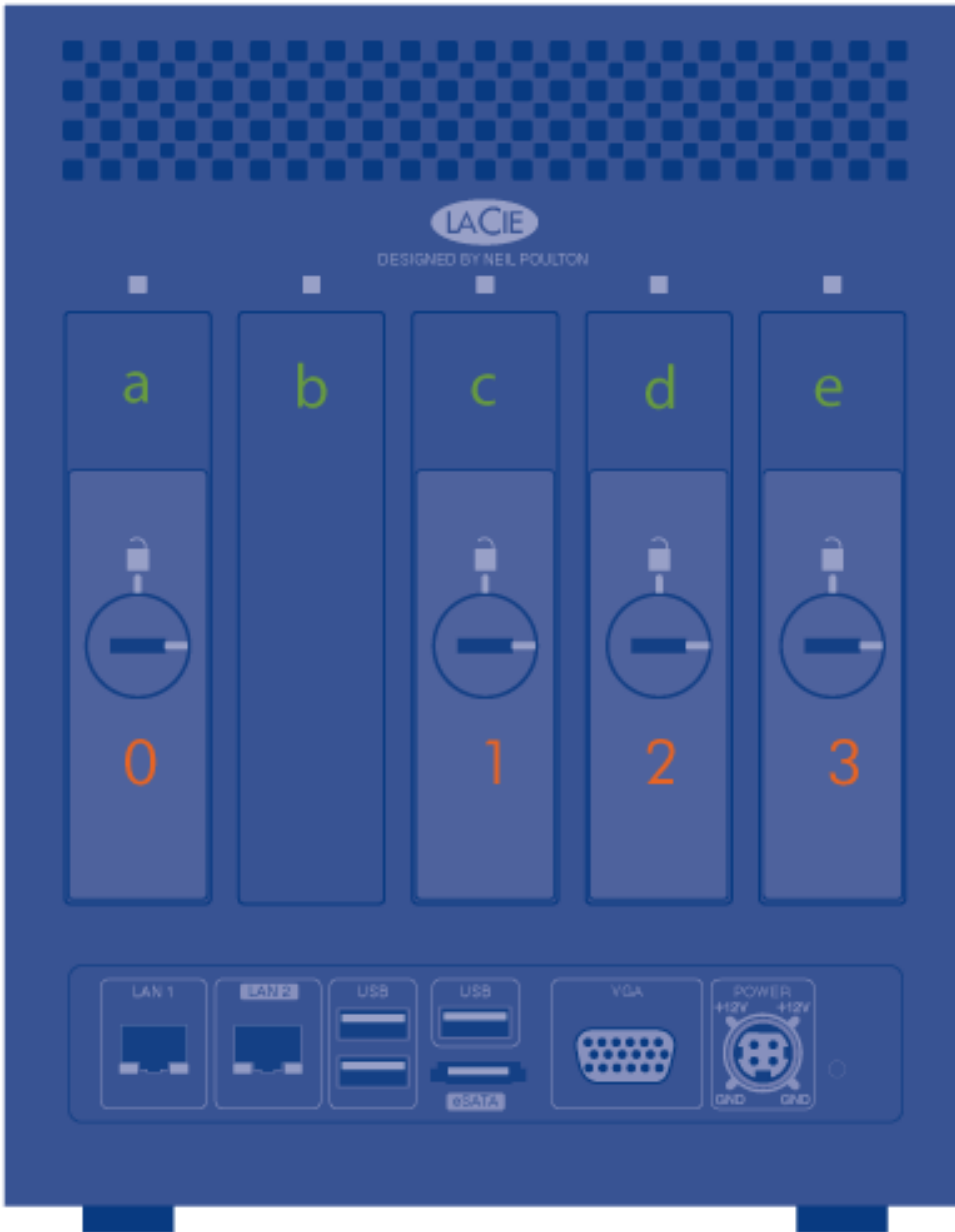
Due to the way in which Windows assigns drive numbers, LaCie highly recommends troubleshooting and, if

necessary, replacing a Missing disk before rebooting the 5big Office/Office+. If the system restarts before the Missing disk is repaired, Windows will reassign numbers to the remaining disks based upon their physical order. In our example, Disk 1 was removed from its slot, becoming the Missing disk in Windows Disk Management. If the 5big Office/Office+ is restarted with the empty slot, Windows will assign new numbers to three of the five drives:

- Disk 0 remains Disk 0
- Disk 2 becomes Disk 1
- Disk 3 becomes Disk 2
- Disk 4 becomes Disk 3

Disk	Volume	Size	NTFS	Health/Status
Disk 0	System	100 MB	NTFS	Failed Redundancy (System)
	Windows (C:)	60.00 GB	NTFS	Failed Redundancy (Boot, Page File, Crash Dump)
	Data (D:)	871.41 GB	NTFS	Failed Redundancy
Disk 1	Data 2 (E:)	60.10 GB	NTFS	Healthy
	Data (D:)	871.41 GB	NTFS	Failed Redundancy
Disk 2	Data 2 (E:)	60.10 GB	NTFS	Healthy
	Data (D:)	871.41 GB	NTFS	Failed Redundancy
Disk 3	Data 2 (E:)	60.10 GB	NTFS	Healthy
	Data (D:)	871.41 GB	NTFS	Failed Redundancy
Missing	System	100 MB	NTFS	Failed Redundancy (System)
	Windows (C:)	60.00 GB	NTFS	Failed Redundancy (Boot, Page File, Crash Dump)
	Data (D:)	871.41 GB	NTFS	Failed Redundancy

■ Unallocated 
 ■ Mirrored volume 
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While Slot b once had a disk that Windows recognized as Disk 1, that number is now taken by the drive in Slot c. The Missing disk will remain on the list until it is manually removed from Disk Management.

If the former Disk 1 is healthy and reinserted into the slot, slight confusion could occur as it is now listed as Disk 4.

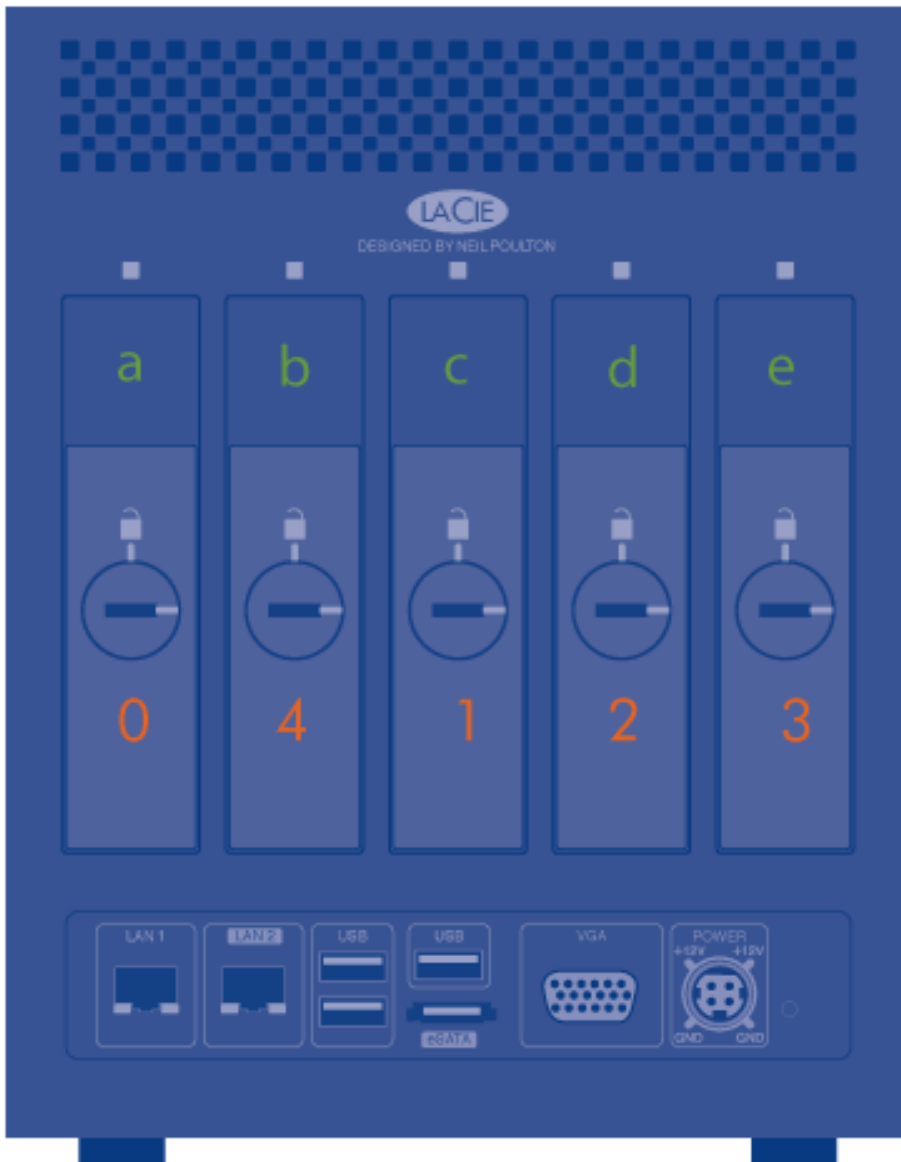
<b>Disk 0</b> Dynamic 931.51 GB Online	<b>System</b> 100 MB NTFS Failed Redundancy (System)	<b>Windows (C:)</b> 80.00 GB NTFS Failed Redundancy (Boot, Page File, Crash Dump)	<b>Data (D:)</b> 871.41 GB NTFS Failed Redundancy
<b>Disk 1</b> Dynamic 931.51 GB Online	<b>Data 2 (E:)</b> 60.10 GB NTFS Healthy		<b>Data (D:)</b> 871.41 GB NTFS Failed Redundancy
<b>Disk 2</b> Dynamic 931.51 GB Online	<b>Data 2 (E:)</b> 60.10 GB NTFS Healthy		<b>Data (D:)</b> 871.41 GB NTFS Failed Redundancy
<b>Disk 3</b> Dynamic 931.51 GB Online	<b>Data 2 (E:)</b> 60.10 GB NTFS Healthy		<b>Data (D:)</b> 871.41 GB NTFS Failed Redundancy
<b>Disk 4</b> Dynamic 931.51 GB Online	<b>System</b> 100 MB NTFS Failed Redundancy (System)	<b>Windows (C:)</b> 80.00 GB NTFS Failed Redundancy (Boot, Page File, Crash Dump)	<b>Data (D:)</b> 871.41 GB NTFS Failed Redundancy

■ Unallocated
 ■ Mirrored volume
 ■ RAID-5 volume

If the former Disk 1 has failed and a replacement drive is inserted into the empty slot, Windows will assign it as Disk 4.

<b>Disk 0</b> Dynamic 931.51 GB Online	<b>System</b> 100 MB NTFS Failed Redundancy (System)	<b>Windows (C:)</b> 80.00 GB NTFS Failed Redundancy (Boot, Page File, Crash Dump)	<b>Data (D:)</b> 871.41 GB NTFS Failed Redundancy
<b>Disk 1</b> Dynamic 931.51 GB Online	<b>Data 2 (E:)</b> 60.10 GB NTFS Healthy		<b>Data (D:)</b> 871.41 GB NTFS Failed Redundancy
<b>Disk 2</b> Dynamic 931.51 GB Online	<b>Data 2 (E:)</b> 60.10 GB NTFS Healthy		<b>Data (D:)</b> 871.41 GB NTFS Failed Redundancy
<b>Disk 3</b> Dynamic 931.51 GB Online	<b>Data 2 (E:)</b> 60.10 GB NTFS Healthy		<b>Data (D:)</b> 871.41 GB NTFS Failed Redundancy
<b>Disk 4</b> Unknown 931.51 GB Not Initialized	Unallocated		
<b>Missing</b> Dynamic 931.51 GB Missing	<b>System</b> 100 MB NTFS Failed Redundancy (System)	<b>Windows (C:)</b> 80.00 GB NTFS Failed Redundancy (Boot, Page File, Crash Dump)	<b>Data (D:)</b> 871.41 GB NTFS Failed Redundancy

■ Unallocated
 ■ Mirrored volume
 ■ RAID-5 volume



Certainly, drive renumbering is not a problem that will impact the integrity of data protected by RAID 1 and RAID 5. However, it may become difficult to manage and troubleshoot due to the irregular order of the disks. Consider that, in this example, Disk 0 will be paired with Disk 4 for the mirrored System volume, disrupting the order seen earlier in Disk Management.