

Pre-Diagnostic Procedures

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Before you begin diagnostics on any laptop...

There are several things to consider before beginning diagnostics on any laptop, regardless of the manufacturer.

Verifying you have a data backup is very important as extended hardware tests may put additional stress of the components during testing. Using MIT's Code42/CrashPlan, DropBox, Google Drive, Apple iCloud, or an Apple Time Machine backup will help prevent data loss.

- Visually inspect the system for liquid residue, cracks, dents, missing screws, and other physical damage. Depending on the warranty coverage, physical damage repairs may be billable.
- Using canned air duster, blow the dust and lint out of the vents. *Make sure the fan is still spinning freely, as the air duster can blow lint into the fan blocking the blades and preventing it from spinning.*
- If the system will not turn on, or if it turns on and immediately turns back off, remove and reseal the battery. This may not be possible as newer machines use an integrated battery. Plug the system back in using a shop AC Adapter and if it still doesn't turn on, there may be an issue with the CPU/Motherboard/Memory.
- If the system turns on but there is nothing showing up on the display, or if the display is unreadable, connect the laptop to an external monitor. On Lenovo and Dell machines, press the appropriate Function+F key combination on the keyboard to switch to the external display and proceed with diagnostics. The specific F key to press is typically marked with a picture of multiple displays or a projector. On Apple machines you can wait until the system is likely booted into the Operating System, plug in an external monitor and close the lid. The machine should automatically switch to the external display.
- There are many video card issues that can look like a bad LCD, but actually be a system board or a video component if the laptop uses separate video and system board parts. These can manifest themselves as "split screens", "artifacting", "shimmering", and may or may not appear on an external display.
- Other video issues, such as lines, half or a third of the screen disappearing, ghosting, blurriness and light or dark spots are normally related to a failing LCD Panel and will never show up on an external display.

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