

USB STRATEGIES FOR LAPTOPS

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SUMMARY

The shortage of USB ports has always plagued power users of laptops. Most MacBooks and "Windows 10.." laptops now have only 2 USB 3 ports and a single USB-C or Thunderbolt 3 port.

TOPICS

- Three USB Ports on Typical Laptops
- Configuration Limitations
- A "Two Hub Configuration" That Works For Most Laptops

TYPICAL 3-PORT CONFIGURATION ON LAPTOPS

- Most MacOS and Windows 10.. laptops that you buy at the present time (November 2018), will have two USB 3 ports and a single Thunderbolt or USB-C port
- Most laptop power users quickly run out of ports if they do not install one or two USB and/or Thunderbolt hubs

CONFIGURATION LIMITATIONS

- Most add-on 5 to 10 port USB hubs will cause the laptop USB hubs that they are attached to to overheat:

CONFIGURATION LIMITATIONS

- To avoid this problem, you can use two strategies:

Strategy 1:

Only use USB hubs that have 4 or fewer USB ports.

Strategy 2:

If you have a USB hub with 5 or more USB ports, connect it in "cascade mode" to a Thunderbolt or USB-C hub that is then connected to your laptop

CONFIGURATION LIMITATIONS

(configuration)

- To boot up a laptop with an external USB DVD drive (for installing an operating system or for troubleshooting with a "LiveCD"), the external DVD drive has to be attached directly to one of the laptop's USB or Thunderbolt ports. Do not connect a USB DVD drive to a USB or Thunderbolt hub!

CONFIGURATION LIMITATIONS

(configuration)

- A USB 3.1 active extension cable (such as StarTech's) has to be attached directly to one of the laptop's USB ports. Do not connect a USB 3.1 active extension cable to a USB port that is part of a USB hub or a Thunderbolt hub that is already attached to your laptop.

A TWO-HUB CONFIGURATION THAT WORKS FOR MOST LAPTOPS

- Save a laptop's USB 3 ports for devices that must be connected to them (such as USB DVD drives or active USB extension cables)
- Connect a Thunderbolt hub to the laptop's Thunderbolt / USB-C port.
- Connect a 4 to 10 port USB 3 hub to one of the USB 3 ports on the Thunderbolt / USB-C port₁₀