

# USB Splitter Cables

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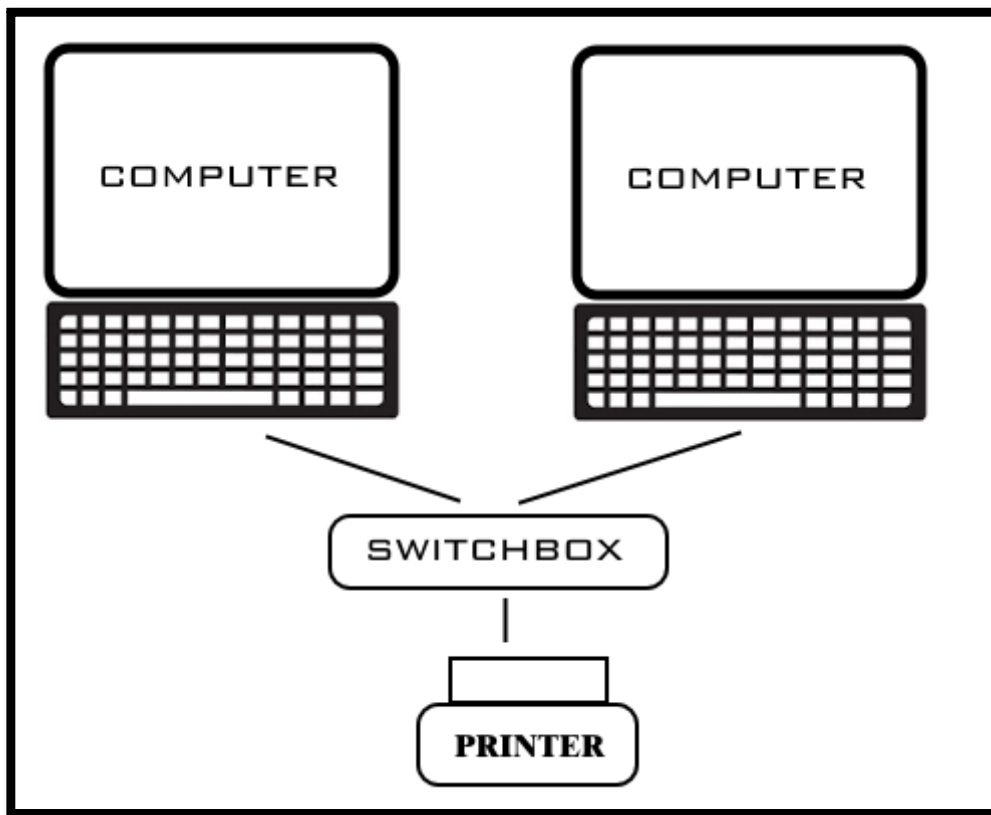
There is a lot of information out there surrounding the functionality of USB splitter cables. We wanted to write a document that would help to answer those questions in a thorough and technically intelligent way. That may sound quirky, but the reality is that there are many problems with items sold in the market, and with there not being any technically sound documentation on it, we decided to help fill that void.

First, yes, there are true USB splitter cables! USB is a digital signal, so it's not your ordinary pinout that works with analog signals. To have a fully functional USB splitter, there must be some electronics or switching involved. We will consider 2 methods of splitting.

## Splitting a device (such as a printer) to 2 computers

There are 2 methods for this type of connection. These are not valid by the USB-IF cable specification, but are a practical way to make things work.

- a. USB Auto Switchbox – this is the recommended way. An auto-switch will sense the computer that has a print job, and auto-switch the printer to that computer. When it's done printing, it will release that computer and begin re-sensing.
  - i. Examples of these switches: IO Gear GUB211, Lindy 42843
- b. USB Manual Switchbox – this is the old way of switching. It's not ideal, although it does work. Every time that you want to use the device, it 'hard switches' the power and data lines to the computer that you want to use. You simply choose computer A or B.
  - i. Example of these switches: Plugable USB2-SWITCH2, ProSignal CS13283
  - ii. *Note: The manufacturer does not recommended for storage devices! I would also add that these are not recommended for anything that requires a release as it can cause data loss if not properly released.*



**2.) Splitting a single port into 2 ports.** There is really only one method for these, practically, but they are implemented in a few ways. And although you will find items that appear to be splitters, but are not! You must be vigilant to read the details to find out.

a. USB Splitter Cable – The true version of this works as a USB hub. It allows 2 devices to charge or communicate with a single port on a computer. These are best suited for tight fitting applications, such as behind a computer that has inaccessible USB ports, or if you want to put one in a laptop case. USBFireWire.com / PN RR-USB2-SPLITTER

Link: <http://www.usbfirewire.com/parts/rr-usb2-splitter.html?RR-USB2-SPLITTER>

b. USB Hub – It's similar in function in that it allows multiple devices to computer. These, most of the time, have the advantage of an external power adapter, which can be necessary if you're running a device that requires extra power, like a wide format scanner, large hard drive (ie, one that has a spinning platter rather than a solid state), or anything else that may use more power.

Link: <http://www.usbfirewire.com/parts/rr-usb2-hub7.html>

Diagram of a USB Splitter or USB Hub situation

