

FireWire Cable!

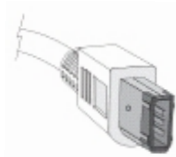
De-mystifying Which is Which

FireWire, technically known as IEEE 1394, was designed to be an inexpensive universal interconnect protocol for consumer electronic devices. Currently, there are two standards. The original **FireWire 400** and a newer **FireWire 800**. The names imply the theoretical data throughput rates: FireWire 400 providing 400 Megabits/second, and FireWire 800 maxing out at 800 Megabits/second. [As an aside, **USB** is another data transfer protocol altogether and is more comparable to the features of FireWire 400.]



Macs have traditionally come equipped with at least one FireWire 400 port. More recent G5 machines have also included FireWire 800 ports. New MacBook Pro models come only with one FireWire 800 port.

The physical ports differ since the FireWire specifications provide for three different types of connectors. The Firewire 400 port accepts the **6-pin** connector. Firewire 800 port accepts a **9-pin** connector.



6-pin



9-pin

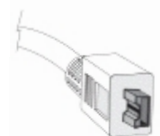
When attaching to an external FireWire hard disk drive, you have to know which FireWire protocol the drive supports. Current FireWire drives typically come with support for both FireWire 400 and FireWire 800. Older FireWire drives are only FireWire 400. I have never heard of a FireWire 800-only drive. And then, of course, there are the less-expensive USB-only drives. The most versatile but pricey drives are the so-called “Quad-port” drives which support both FireWire protocols as well as USB and e-SATA connections.

When purchasing external hard disk drives, you will generally find that all the necessary data cables are included. However, *if you need to purchase FireWire cables*, you are confronted with daunting choices between 6-pin cables vs 9-pin cables vs 4-pin cables. And then there are the 9-pin to 6-pin cables and adapters, 6 to 4, 9 to 4, and so on.

If you're connecting a FireWire 400 drive to your FireWire 400 port on your Mac, then you need a standard FireWire 6-pin to 6-pin cable.

If your Mac only has a FireWire 800 port, then you can use a FireWire 9-pin to 9-pin cable to connect to a FireWire 800 supported drive, and you gain the full advantage of the increased data throughput. However, if your drive is FireWire 400, then you need either a FireWire 9-pin to 6-pin *cable* or a FireWire 9-pin to 6-pin *adapter*. In this scenario, you do not gain the speed benefit from FireWire 800.

FYI, the **4-pin** FireWire connector is a very small connector typically used for connecting digital video cameras to a Mac. These usually come with the camera, but I have seen situations where they were after-market purchases. Just be sure to get the correct cable (e.g., a 6-pin to 4-pin FireWire cable).



4-pin

One additional thing to note is that you will find that FireWire drives have duplicate FireWire ports. That is because FireWire devices can be **daisy-chained** together which is a real convenience. Theoretically, sixty devices can be daisy chained. I have attached five FireWire drives to one Mac port using daisy-chaining. And, yes, you can mix-and-match FireWire 400 and 800, but your data rate steps down to the FireWire 400 level.

Finally, retail stores will charge an arm, a leg, and a couple of hands for FireWire cable. I purchase my quality cables (and save lots of \$\$\$) from www.MonoPrice.com or www.CablesToGo.com.