» If you plan on running cables through walls, you need these additional tools:

- *A hammer*
- *A keyhole saw:* This one is useful if you plan on cutting holes through walls to route your cable.
- *A flashlight*
- *A ladder*
- *Someone to hold the ladder*
- *Fish tape:* Possibly. A *fish tape* is a coiled-up length of stiff metal tape. To use it, you feed the tape into one wall opening and fish it toward the other opening, where a partner is ready to grab it when the tape arrives. Next, your partner attaches the cable to the fish tape and yells something like "Let 'er rip!" or "Bombs away!" Then you reel in the fish tape and the cable along with it. (You can find fish tape in the electrical section of most well-stocked hardware stores.)


WARNING

If you plan on routing cable through a concrete subfloor, you need to rent a jackhammer and a backhoe and then hire someone to hold a yellow flag while you work. Better yet, find some other route for the cable.

Pinouts for twisted-pair cables

Each pair of wires in a twisted-pair cable is one of four colors: orange, green, blue, or brown. The two wires that make up each pair are complementary: one is white with a colored stripe; the other is colored with a white stripe. For example, the orange pair has an orange wire with a white stripe (the *orange wire*) and a white wire with an orange stripe (the *white/orange wire*). Likewise, the blue pair has a blue wire with a white stripe (the *blue wire*) and a white wire with a blue stripe (the *white/blue wire*).

When you attach a twisted-pair cable to a modular connector or jack, you must match up the right wires to the right pins. It's harder than it sounds; you can use any of several different standards to wire the connectors. To confuse matters further, you can use one of the two popular standard ways of hooking up the wires: EIA/TIA 568A or EIA/TIA 568B, also known as AT&T 258A. Both of these wiring schemes are shown in Table 7-2.


WARNING

It doesn't matter which of these wiring schemes you use, but pick one and stick with it. If you use one wiring standard on one end of a cable and the other standard on the other end, the cable doesn't work.