

How to Make or Repair Cat 5/Ethernet Cables

You normally get short Ethernet cables free when you buy electronics which use them, and replacements up to 100 feet are fairly inexpensive. So why make your own? I'll get to that at the bottom of the post so you can see pictures first. Warning: some of the photos are quite blurry. I desperately need a new cell phone.

Get the Equipment



You'll need a crimper, but if you pay more than 20 bucks for it, you're probably spending too much. You'll also need connectors made for Cat 5e cable and likely see "RJ-45" somewhere in the description. I buy the inexpensive connectors in 50-packs because they're practically free per piece. You can buy expensive ones, but you might get ripped off pretty easily going that route. If you notice people whining in reviews about the cheaper connectors, it could be because they don't know what they're doing. There's a learning curve to this. I'll admit that inexpensive connectors are definitely not of the highest quality. A couple of mine have broken during moves, but they've all worked. So far.

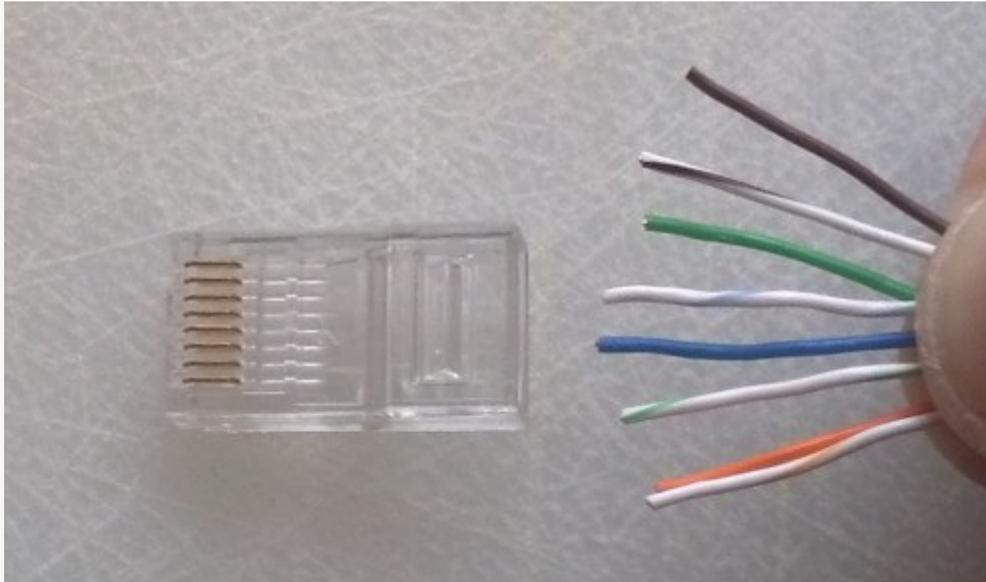
Prepping the Wires



Blurry photo courtesy Motorola.

If you're repairing an end with a broken connector, cut it off with the appropriate crimper blade. If you're starting with fresh cable, you can obviously skip that step. Put the cable into your crimper where you see a notch in the tool. Use the above photo as a reference. Strip at least an inch of insulation off the cable. Fan out the 4 pairs of twisted wires. From left to right... orange, green, blue and brown.

Ordering the Wires



Grab the cable near the end of the insulation. Unravel the 4 pairs, straighten them out and move them into this order:

Orange	stripe
Orange	
Green	stripe
Blue	
Blue	stripe
Green	
Brown	stripe
Brown	

Move the 8 wires closer and closer together until they look like they'll fit into the connector. With the connector tab-side down, push the wires inside. They'll move into the 8 channels quite easily and will straighten out even further.

Trimming the Wires



Remove the 8 wires from the connector. Hold them tightly and make sure they're still in the correct order. Cut enough length off the 8 wires so the insulation will fit inside the connector once officially crimped. If you need a measurement, I'd estimate that the colored wires will end up being around 5/8" long after trimming. Make sure all 8 wires are the same length.

Crimping: The Camera Finally Decides to Focus



Slide the 8 wires into the connector one last time, making sure none of them are sticking out past the end. In other words, some of the insulation should be inside the connector. Put the connector into the correct part of the crimper and squeeze hard. Don't worry... a strong squeeze won't break the connector. Repeat the entire process above if you're making an entire length of cable from scratch and not just repairing one end. If you messed up the order of the wires, your cable will not work. Don't panic. Looking through the clear plastic connectors will likely reveal which end you messed up.

WHY YOU WOULD DO THIS

- You're a do-it yourself nerd. Yeah, I'm among this group.
- You break a lot of connectors. If this is your problem, you can buy connectors with protective sleeves.
- 100 feet of pre-made Ethernet cable is pretty cheap. But if you need a length longer than that, it can get expensive. I bought all this stuff because I

was running Cat 5 throughout my entire condo, starting in the living room, running the cable across the attic and down into different rooms. When I was working construction, I then had the tools to fix cables and only had to charge the clients for labor. You do something like that for a client and you'll likely get a repeat customer.

Source : <http://writerzim.com/2014/04/15/how-to-make-or-repair-cat-5-ethernet-cables/>