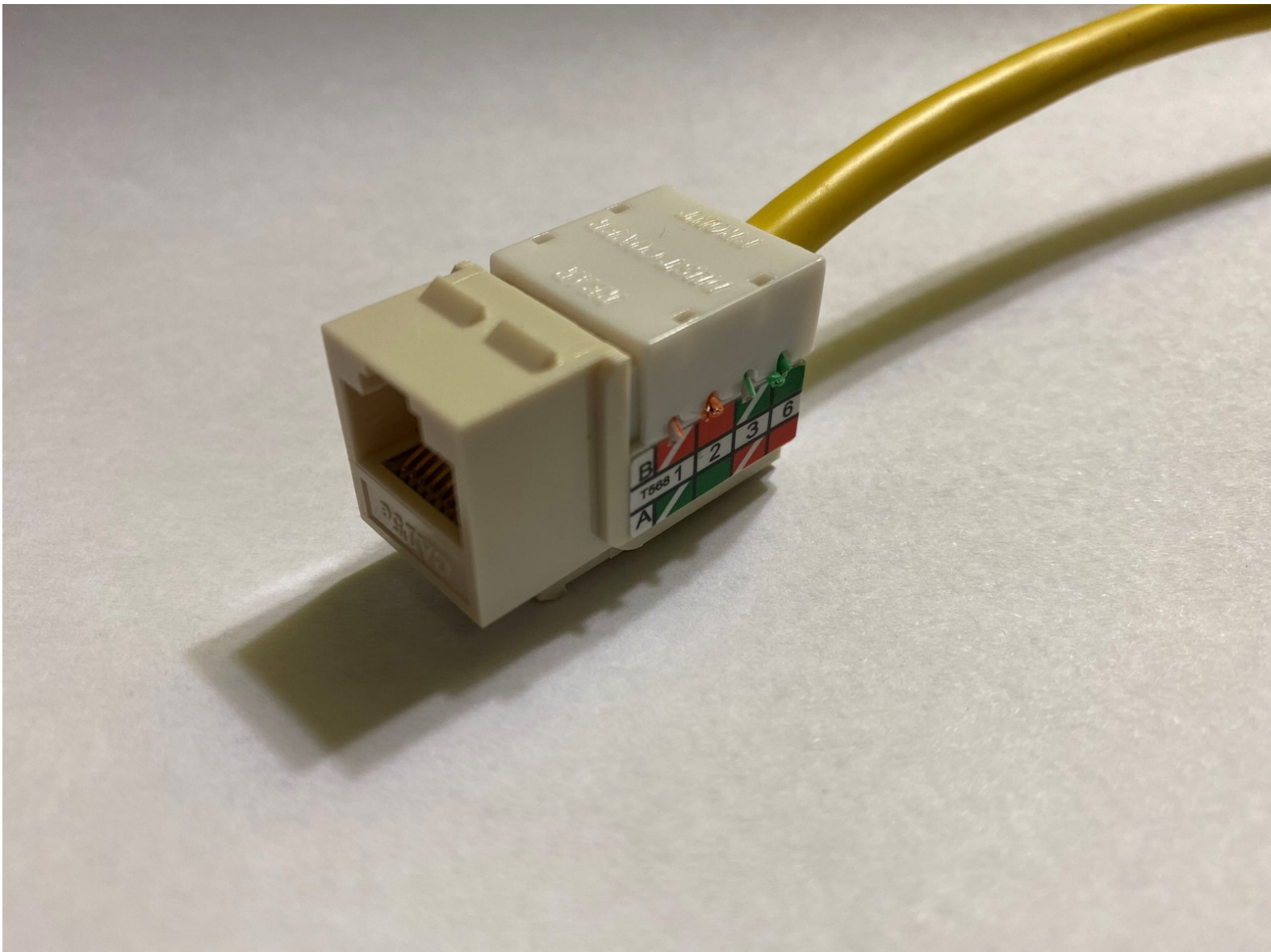# Cat5e RJ-45 Keystone Jack Replacement

Fix your ethernet connection by replacing an old or malfunctioning Cat5e RJ-45 Keystone Jack.

Written By: Austin Olin

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INTRODUCTION

Use this guide to either replace a faulty Cat5e RJ-45 Keystone Jack, or install a new one onto a Cat5e ethernet cable.

A Cat5e RJ-45 Keystone Jack is used to connect two different ethernet cords together and extend LAN network coverage across long distances. Cat5e RJ-45 Keystone Jacks essentially act as female ports for ethernet cables to connect to. Faulty Cat5e RJ-45 Keystone Jacks cause unstable wired network connections. In some cases, severed wires within Cat5e RJ-45 Keystone Jacks cause wired network connections to fail completely.

This guide does not require any special skills to complete. Make sure to disconnect the Cat5e ethernet cable from any power sources before replacing and installing the Cat5e RJ-45 Keystone Jack.

Before using this guide, make sure to try and isolate the problem to the Cat5e RJ-45 Keystone Jack, as problems can also exist within ethernet cables and ethernet cable connectors. If you are encountering problems with your Cat5e ethernet cable, you can look for solutions here, or perhaps look into replacement options.
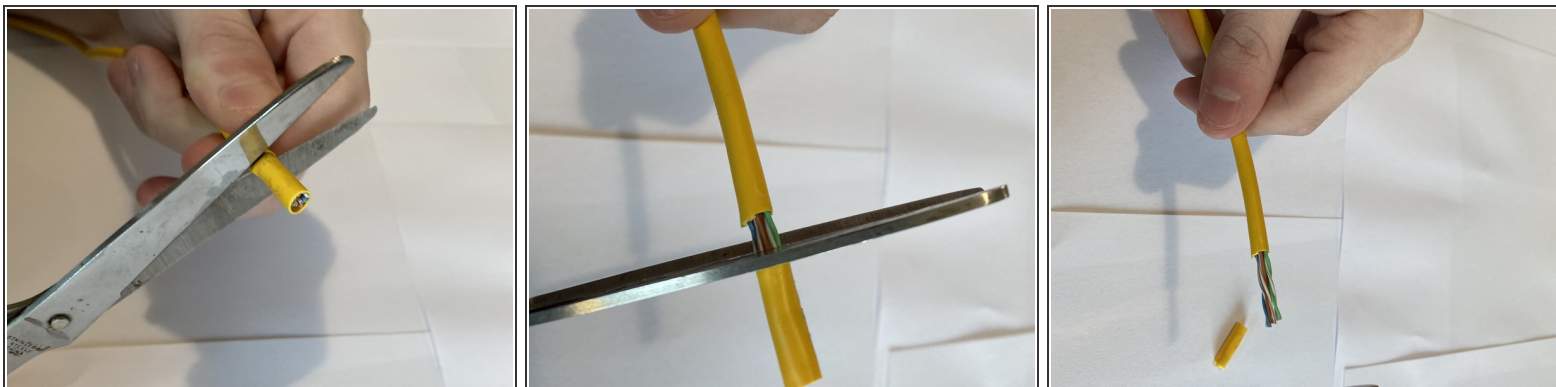
TOOLS:
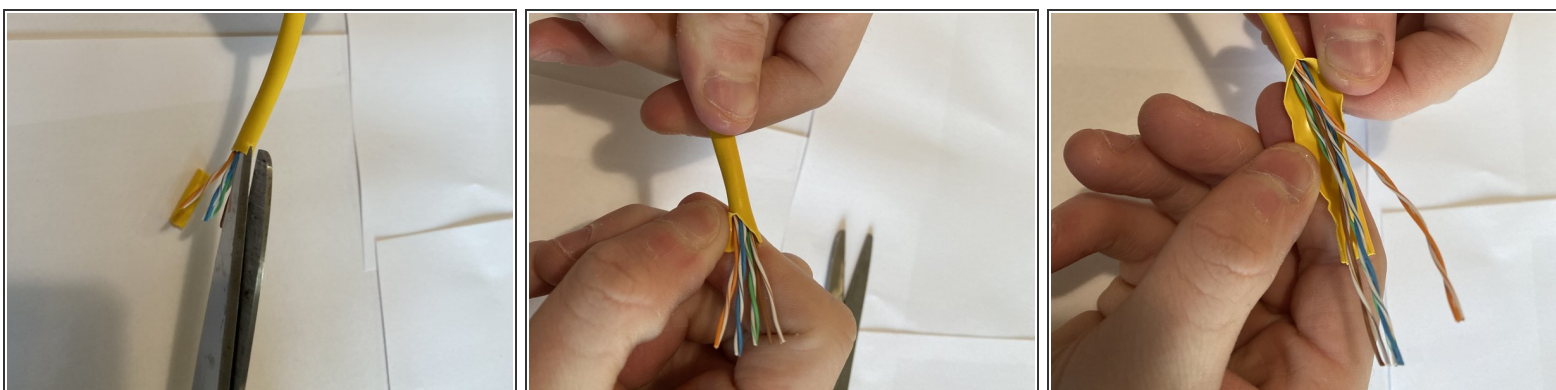- Utility Scissors (1)
- Punch Down Tool (1)

PARTS:
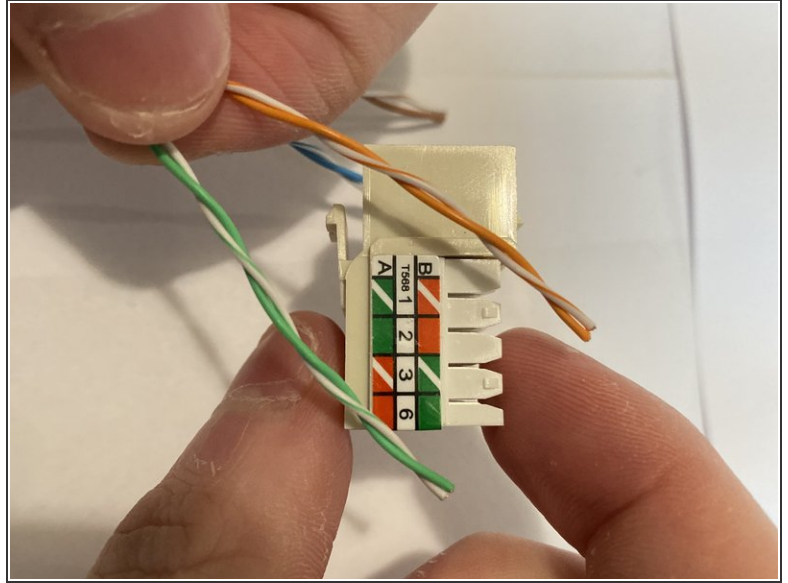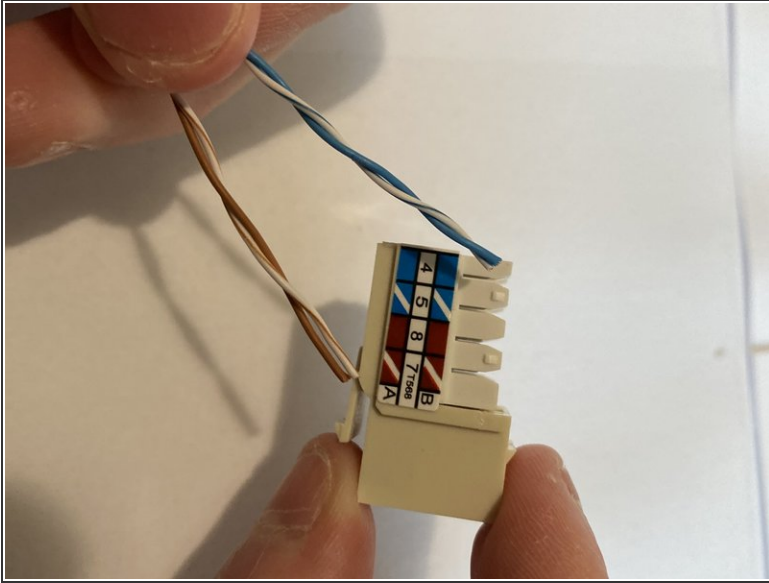- Cat 5e keystone Jack (1)

Step 1 — Cat5e RJ-45 Keystone Jack

- (i) Disconnect the Cat5e ethernet cable from any power source(s) before continuing.

- Using utility scissors, cut in a circular motion around the jacket of the Cat5e ethernet cable until it is separated from the rest of the cable.

- Slide the disconnected jacket off of the ethernet cable.

- (i) Cut around 1-2 inches from the edge of the Cat5e ethernet cable.

Step 2

- Using your utility scissors, cut a small inlet into the edge of the remaining ethernet jacket.

- ⚠ Avoid damaging internal wires during this process.

- Using both sides of the cut inlet, peel the jacket around 3-4 inches further into the ethernet cable to expose more wiring.

- Once the jacket is peeled, cut off the remainder of the peeled jacket with utility scissors.

Step 3

- Turn the RJ-45 Keystone Jack on its side and examine the color coding provided.

- Align each pair of wires with the designated color coding on the RJ-45 Keystone Jack.

- (i) There are four pairs of wires twisted together within a Cat5e ethernet cord. Two pairs of wires match the color scheme on one side of the RJ-45 Keystone Jack, and the other two pairs match the color scheme on the opposite side of the jack.
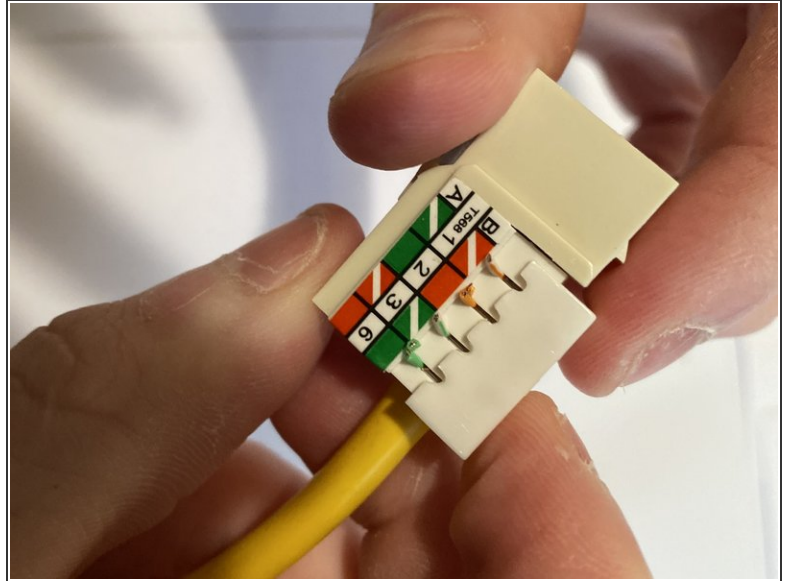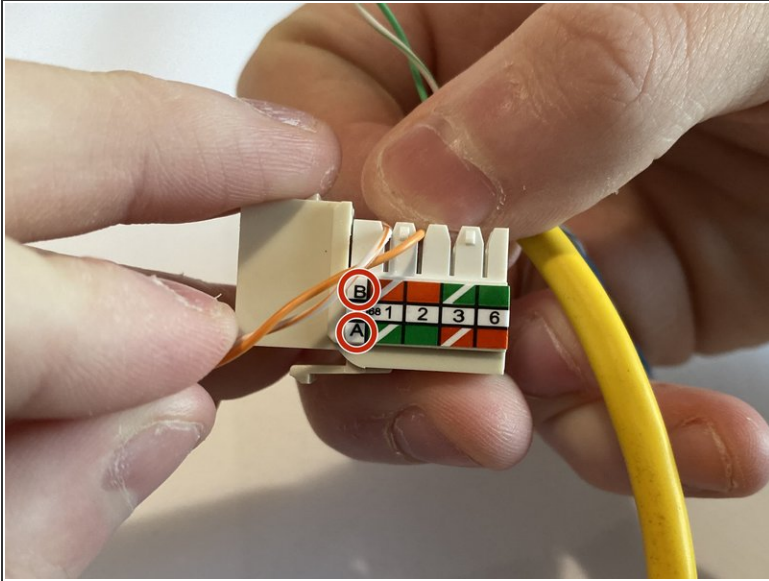
Step 4
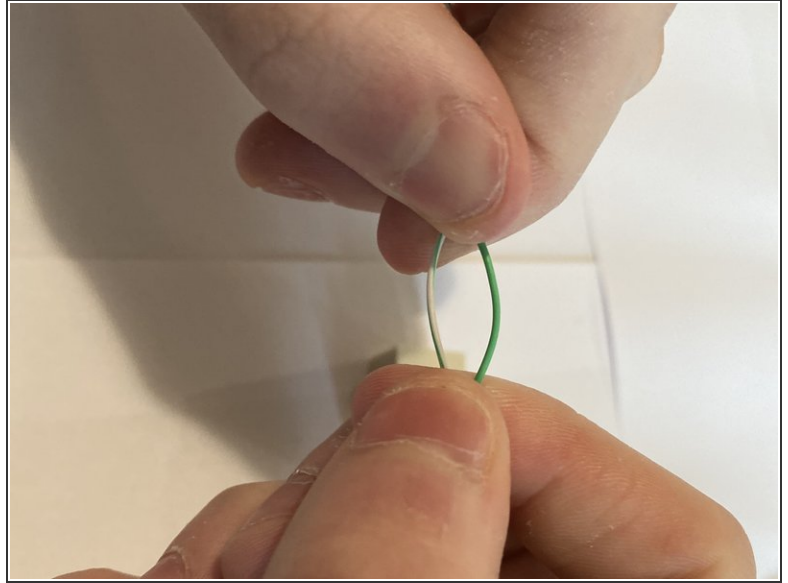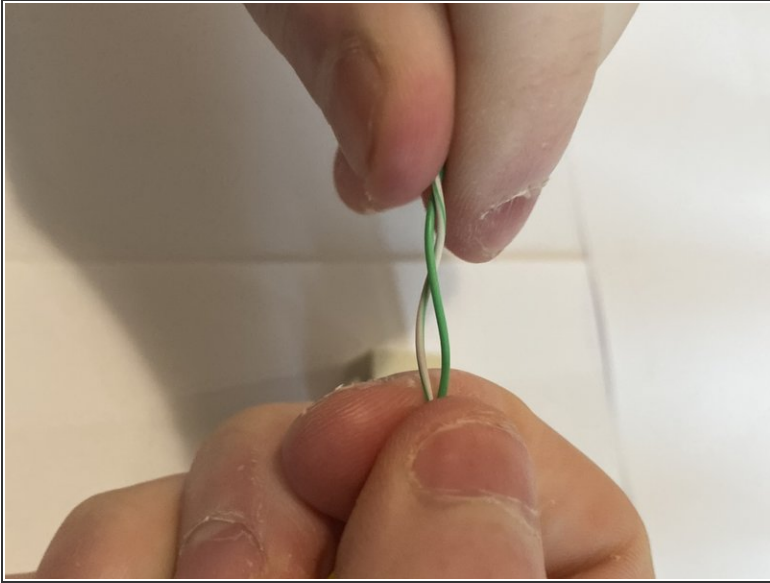
- Gently untwist each pair of wires to reveal eight individual wires.

- (i) Keep the separated wires together according to their colors. For example, keep the solid green wire close to the striped green wire, and so on.

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Step 5

- Using the appropriate wiring scheme, align each individual wire into the designated slot on the RJ-45 Keystone Jack.

- There are two different wiring schemes available. These are labeled as scheme A and scheme B on the RJ-45 Keystone Jack. Make sure that the same wiring scheme is used on both ends of the Cat5e ethernet cord. If the other end's scheme is unknown, use wiring scheme B as it is the most common.

- ⓘ Striped cords align with the color blocks that have a white line crossing diagonally through the color coding.

Step 6
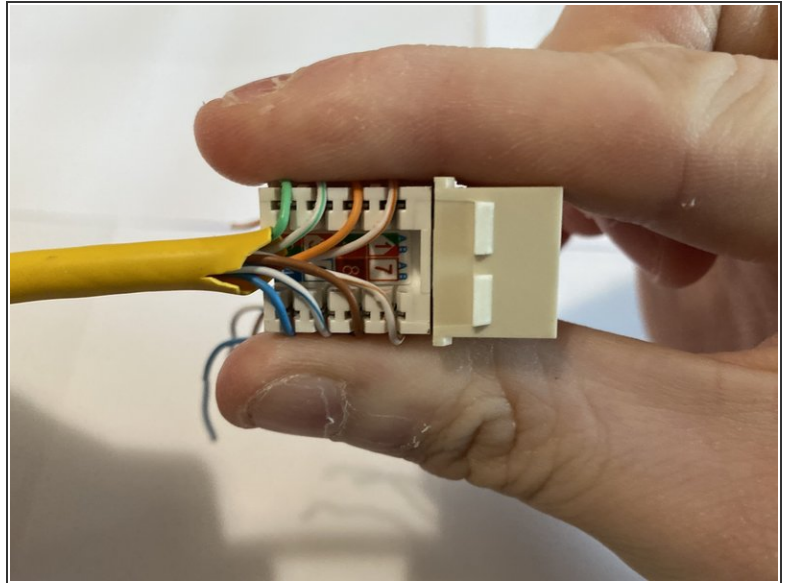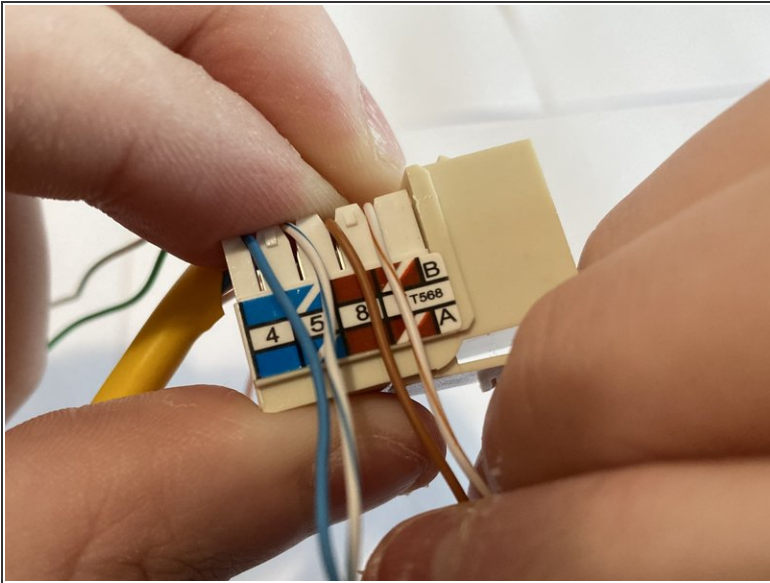
- Align the other four wires into the designated slots on the other side of the Cat5e RJ-45 Keystone Jack.

- ⓘ Make sure that all eight wires are aligned according to the same wiring scheme on both sides of the RJ-45 Keystone Jack.
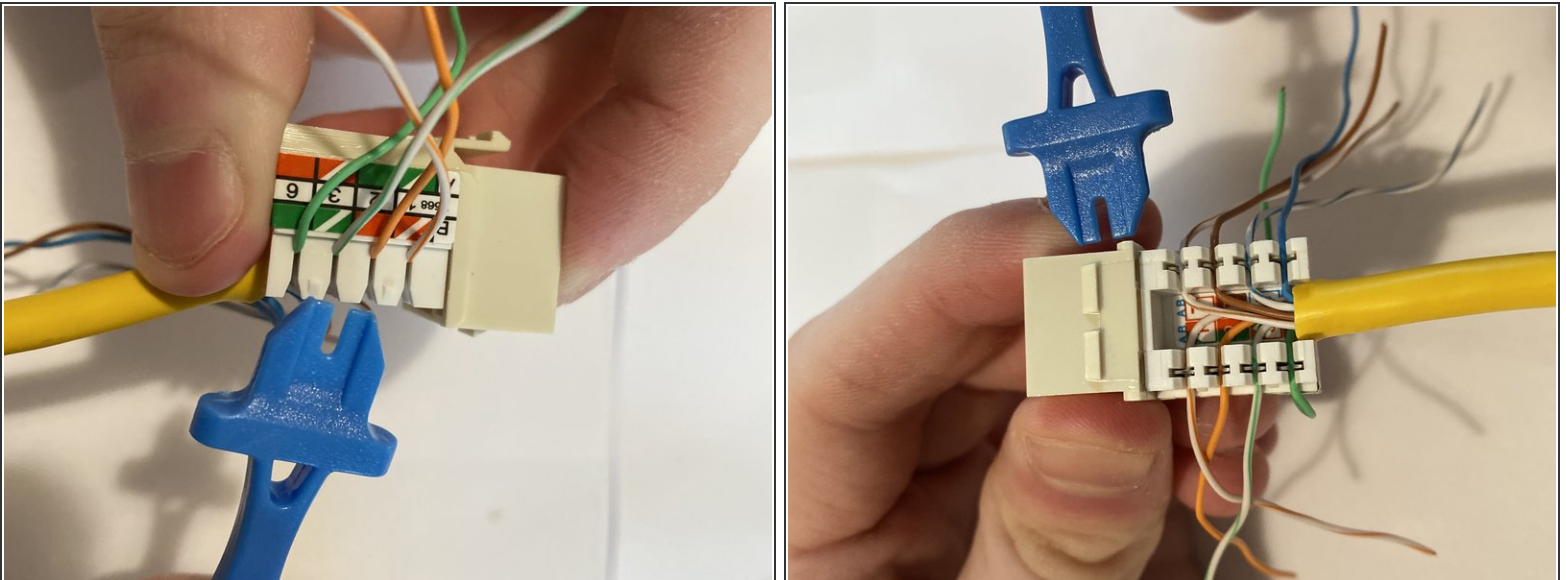
Step 7
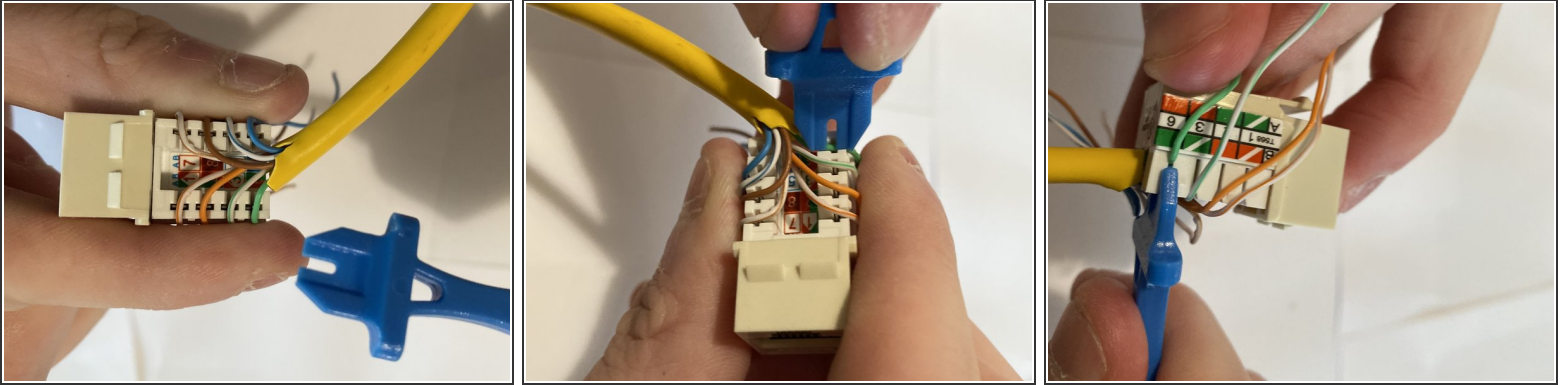
- Using a punch down tool, force each individual wire deep into the base of the appropriate slots on the RJ-45 Keystone Jack.

⚠ When using a metal punch down tool, make sure to have the long edge of the tool on the exterior of the RJ-45 Keystone Jack. This part of metal punch down tools act as a cutting function to automatically remove excess wiring.
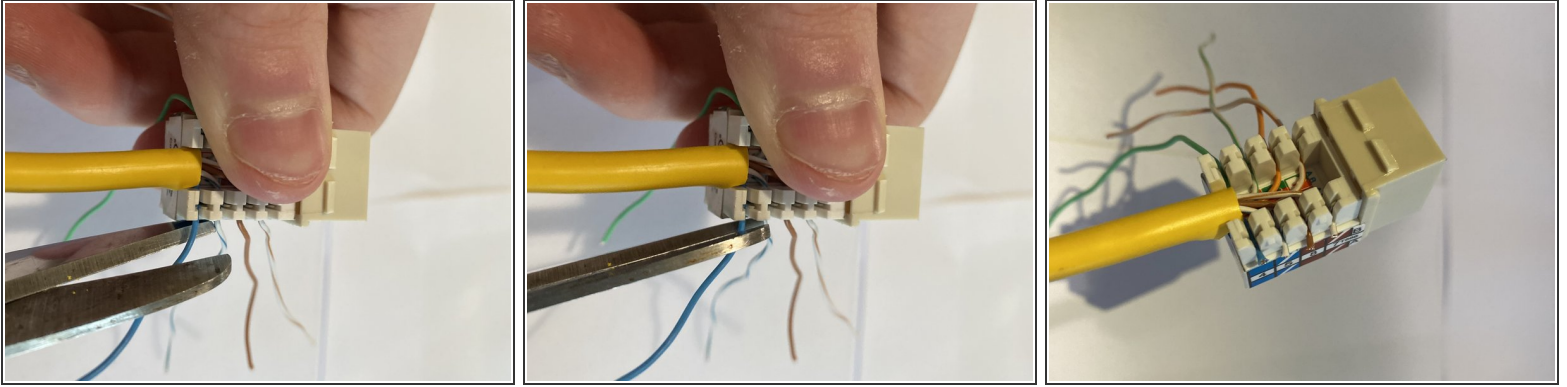
Step 8

- Once each wire is placed into the correct slots, use your punch down tool a second time in order to ensure that each wire is connected securely to the RJ-45 Keystone Jack.
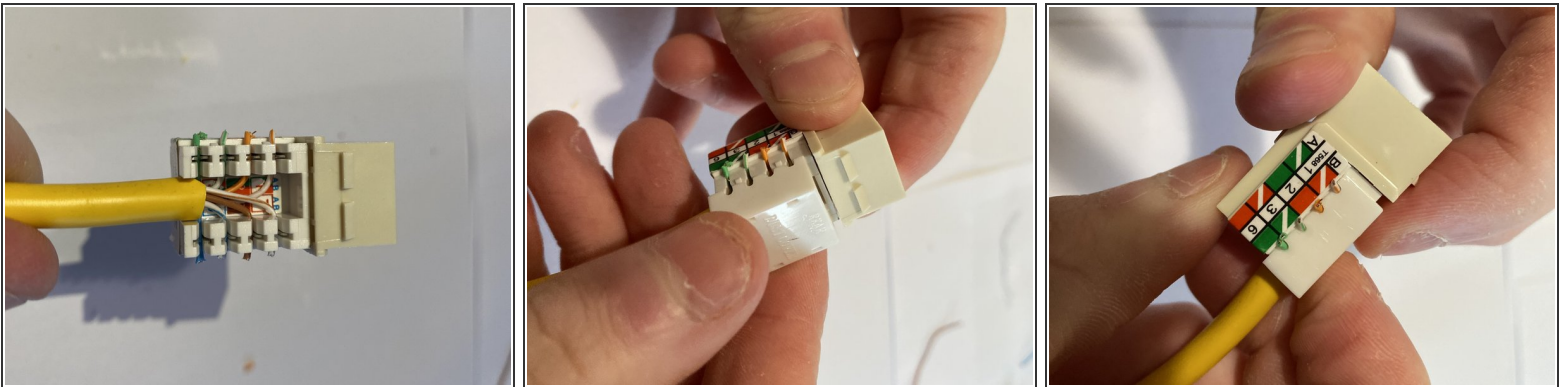
Step 9

- Using utility scissors, cut off any external wiring on the outside of the RJ-45 Keystone Jack.

- ⓘ Cut as close to the RJ-45 Keystone Jack as possible.

Step 10

- Align the plastic covering over the exposed wiring within the RJ-45 Keystone Jack.

- Push the plastic covering against the RJ-45 Keystone Jack until it clicks into place.

Your device is now ready for use.

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