

Hands-on #2 - Cable Wiring

Sep 19, 2023

Why is stranded rather than solid cable used for patch cables?

Stranded cable is more flexible than solid cable. Thus, the tolerance for bending is greater. The effectiveness of the stranded cable can be tested against corners as it simulates a real-world environment.

Why is it critical not to score the jacket too deeply when stripping the cable?

Scoring the jacket deeply can expose the wire strand. The exposure allows connections to be vulnerable to several factors. Furthermore, when a mistake is made, the length is significantly reduced. Thus, the cable can be reused or thrown away since it does not fit the length necessary to connect devices.

Why is it recommended to expose more than .5 inches of the wire pairs?

This would allow the worker to have a better “play” on the wire. The worker will have difficulty moving the twisted pairs when the jacket is cut short. However, when exposed correctly, the worker can manipulate the wires and prevent too much exposure.

Why is it critical to use the proper pin colors in order?

The IT world has a lot of people working. The standard exists to prevent a single person from doing what they want. For example, a network engineer assembled a cable. The IT person may wish to use the cable. If the cable is wired properly, it can prevent businesses from losing money.

Why is it critical to cut the wire pairs off .5 inches or less before inserting into the connector?

The cable jacket needs to be inside the connector. This would keep the inner wires to be

safe and be bent accordingly. Cutting too far allows the wires to be loose inside the connector, which can cause the cable to break because of tension. Cutting too close to the ends prevents the wires from connecting the ends of the cable to the connector.

Why is it critical to make sure that all of the wires are pushed to the end of the connector?

The crimper crimps the connector. If the wires are not in the proper place, the connection will not reach. Thus, the continuity tester will fail the cable. Money will be wasted when a mistake happens.

Why is it recommended to double-check the wire order and make sure the wires are to the end before crimping?

If the wires are out of order, the cable won't be able to transmit data. Data would be transmitted to the wrong connector. Furthermore, a mistake can be costly to the company. Thus, it is recommended to double-check the wires before crimping.

How is a continuity tester different from a certification tester?

The continuity tester tests the cable to see if properly connected. The continuity tester ensures that the cable inside is not broken and is properly connected. The certification tester, on the other hand, ensures that the cable passes the industry standards. Numerous tests can be performed on the cable to determine if the cable is within the guideline.