



AmazonBasics Helpful Hints | Cat5e Internet Patch Cable

You have created a wired Local Area Network (LAN) in your home or office using Cat5e cables, but you are not getting the network performance you expected. Before you begin trouble shooting, make certain that you did not compromise your cable during your set up process.

Setting Up your Network with Cat5e Cable

A Cat5e cable consists of four unshielded twisted pairs of wire surrounded by an outer jacket. Each pair is wound together for the purposes of canceling out noise that can interfere with the signal. Although the Cat5e cable is thick and appears to be durable, because it is made up of several much smaller wires bound together, the use of excessive force in setting up your network can permanently damage it. It is imperative that you follow these general guidelines as you set up your network.

Avoid Excessive Pulling

Do not pull your cable through tight spaces. You should purchase cable lubricant if you have tight spaces to slide your cable through. (Use of oil or other lubricant not specifically designed for network cable pulling can cause permanent damage to the insulation.)

Avoid Use of Staples

If you use staples to affix your cable, only use T-59 insulated staples. Use of any other staple can result in damage to the cable. Similarly, your cable ties should be tied snugly, but should not create an indentation in the cable's outer jacket. Velcro ties, when used with moderate pressure, work well.

Do Not Bend or Crimp the Cable

A Cat5e cable can not be bent sharply, kinked or twisted. Cat5e cables can only be bent up to 4 times their radius, or about the bend of the diameter of a half-dollar piece. Excessive bending or kinking will cause permanent damage.

Problem: My computer is receiving a network signal, but I am not able to send or receive any data over our Internet connection or to or from our network servers.

Solution 1: Check for Electro Magnetic Interference

Your cables should be as far away as possible from sources of Electro Magnetic Interference, or EMI. This includes power cords, power strips, adapters, light fixtures, transformers, etc. Your Cat5e cable should maintain at least a 1-foot separation from EMI sources.

Solution 2: Check for Cable Length

Cat5e cables must be kept to a maximum distance of 100 meters (328 feet). If you are running cable or a series of cables that are longer than 100 meters in length, you have exceeded the Cat5e standard. To create wired networks over distances of greater than 100 meters, you should use a fiber optic cable.