NuVo™

Complete Crimping Instructions For CAT-5

The NuVo audio systems require CAT-5, four twisted pairs, for communication between the keypads and the main amplifier unit. Each end of the wire is terminated with an RJ45 connector.

The correct wiring scheme for the CAT-5 wire is standard EIA/TIA 568A, which is the industry standard for computer networking. Properly terminating the CAT-5 wire is crucial for the operation of the system. It is very important to use a good quality crimp tool, and testing each termination with a CAT-5 wire tester will insure that your system operates flawlessly.

The steps below are written for use with the KHS6640 system. Any color scheme will work, but the pin-out is reversed on the other end of the CAT-5. In other words, Pin 1 on the amplifier end should go to Pin 8 on the controller end, Pin 7 to Pin 2, Pin 6 to Pin 3, etc.

Step-by-Step Crimping Instructions

1. Strip a portion of the insulation, at least 3/4", exposing the 4 twisted pairs.
2. Untwist the wires and fan them out individually. Arrange the wires into the correct color scheme. Note that each of the wires is either a solid color, or a white wire with a colored stripe. The colors are green, orange, blue, and brown. The colors need to be in the order shown in **Fig. 1.**
3. Flatten the wires in their correct order, and trim them evenly across the top. Most crimp tools have a wire trimmer built-in. It is best to trim the wires to about 1/2" in length.
4. While holding the wires flat between your thumb and forefinger, insert the wires into the RJ45 connector, so each wire is in its own slot. Push the wire into the RJ45, so all 8 conductors touch the end of the connector. The insulation jacket should extend beyond the crimp point of the RJ45.
5. Insert the RJ45 into the crimp tool receptacle and squeeze the tool firmly. Note that a ratchet type tool should tighten down until it no longer clicks.
6. The RJ45 should be firmly crimped to the CAT-5 insulation. It is necessary that the color scheme be repeated identically on each end of the wire.
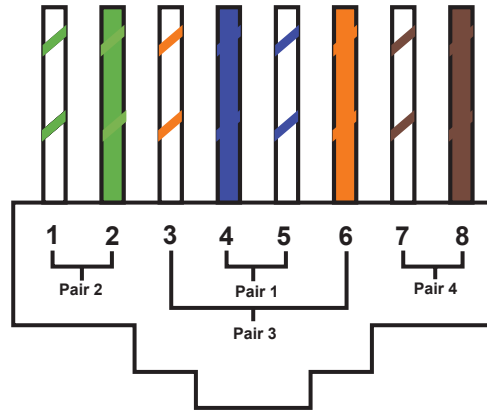
Fig. 1: CAT-5 wiring scheme

Pin #
1. Green Stripe
2. Green
3. Orange Stripe
4. Blue
5. Blue Stripe
6. Orange
7. Brown Stripe
8. Brown

Note: Colors listed as "Stripe" are a white wire with a colored stripe. In other words, Orange Stripe is a white wire with orange stripes.

Step 1

Step 2

Step 3

Step 4

Step 5

Step 6