VCELINK SJ657

VCELINK Cat7 Cat6A Pass Through RJ45 Plug (Model SJ657) Instruction Manual

Model: SJ657 | Brand: VCELINK

1. Introduction

Thank you for choosing the VCELINK Cat7 Cat6A Pass Through RJ45 Plug. This product is designed for reliable and high-speed Ethernet connections, supporting data transfer rates up to 10 Gigabit Ethernet. Its innovative pass-through design simplifies the installation process, making it easier to achieve correct wire sequencing and reduce errors. Please read this manual carefully before installation and use to ensure optimal performance and longevity of your network connections.

Image: VCELINK Cat7 Cat6A Pass Through RJ45 Plug with wire order diagram. This image illustrates the internal structure of the RJ45 plug and the recommended wire arrangement for proper termination.

2. Package Contents

The standard package for the VCELINK Cat7 Cat6A Pass Through RJ45 Plug (Model SJ657) includes:

- 20 x RJ45 Cable Plugs
- 20 x Bend Protectors
- 20 x Load Bars (optional use)
- 1 x User Manual

3. Product Features

- **High-Speed Transmission:** Supports data transfer rates up to 10 Gigabit Ethernet, ideal for high-bandwidth applications.

- **EZ Pass-Through Design:** Allows wires to pass through the connector, enabling visual verification of the wire sequence before crimping, which significantly reduces installation errors.
- **Shielded Construction:** Features a copper alloy shielded body and contact plate to minimize signal interference and ensure stable transmission quality.
- **Durable Materials:** Constructed with robust materials for easy and secure insertion and removal, enhancing the longevity of the connection.
- **Gold-Plated Contacts:** 3u gold-plated contact plates improve conductivity and resist corrosion, ensuring a reliable connection.
- **Swallowtail Design:** Provides a secure and firm grip on the network cable, preventing loosening.

Image: Key features of the VCELINK Cat7 Cat6A Pass Through RJ45 Plug, including 10Gbps transmission, swallowtail design, metal shell, 3-prong gold-plated blades, and pass-through design.

Image: Advantages of the pass-through RJ45 plug design, highlighting the ability to verify wire order before crimping to reduce errors.

4. Compatibility

This RJ45 plug is specifically designed for use with **Cat7 and Cat6A shielded cables**.

- **Supported Cable Types:** Cat7, Cat6A shielded Ethernet cables.
- **Wire Thickness:** Each individual wire within the cable must have an outer diameter (OD) of **1.35mm to 1.45mm** (AWG: 23).
- **Incompatible Cable Types:** This plug is **not compatible** with Cat8, Cat6, Cat5e, or Cat5 cable versions. Using incompatible cable types may result in improper wire seating and connection failures.

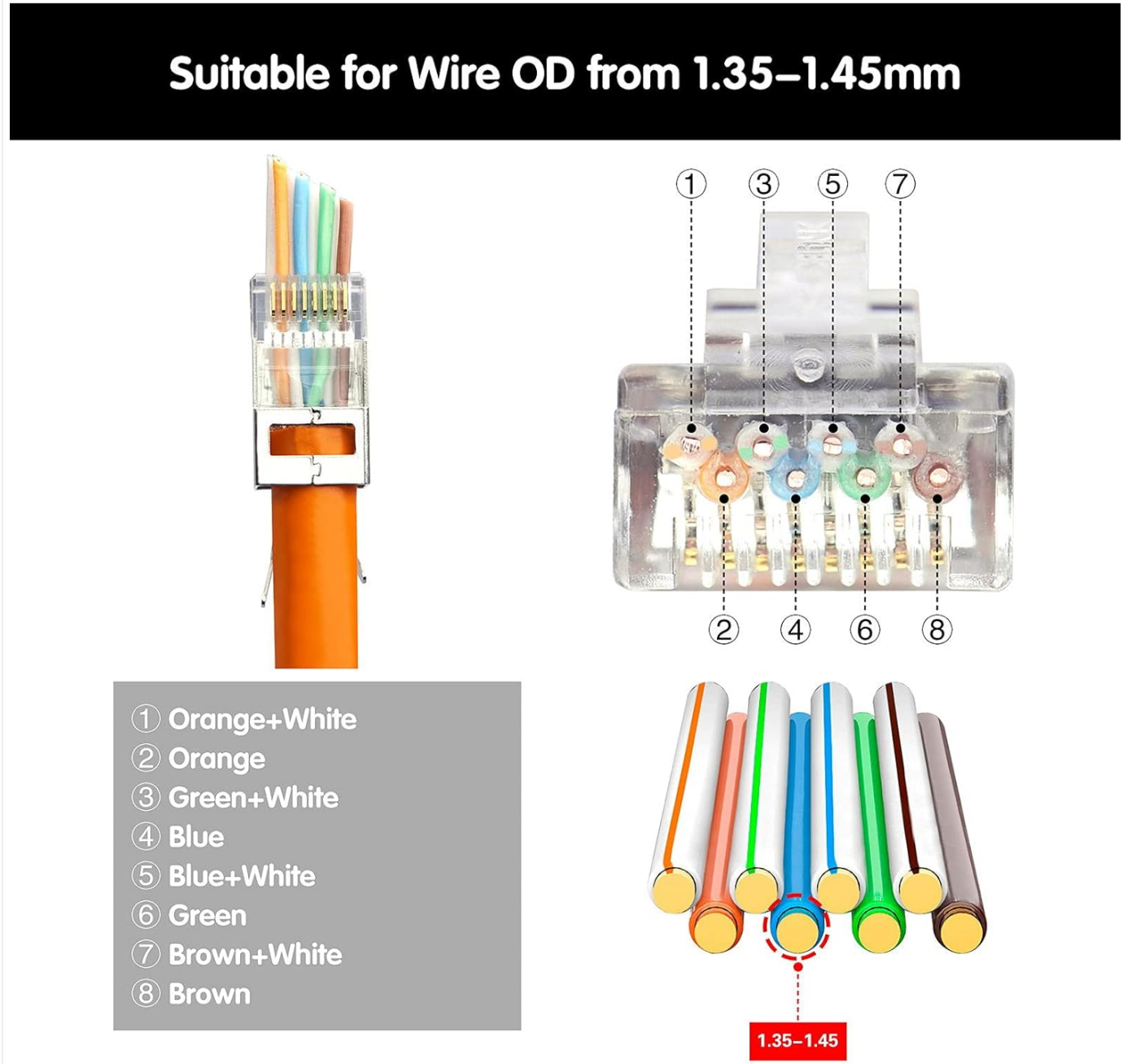

Image: Diagram showing the suitable wire outer diameter (OD) of 1.35-1.45mm for individual wires within the Ethernet cable.

5. Setup & Installation

To properly terminate an Ethernet cable with the VCELINK Cat7 Cat6A Pass Through RJ45 Plug, follow these steps. A professional RJ45 crimping tool designed for pass-through plugs is required.

Required Tools:

- RJ45 Crimping Tool (Pass-Through type recommended)
- Cable Stripper
- Wire Cutters

Image: Illustration emphasizing the importance of selecting the correct crimping tool for pass-through RJ45 plugs.

Installation Steps:

1. **Insert Cable Cap:** Slide the cable cap onto the Ethernet cable.
2. **Strip Cable Jacket:** Use a cable stripper to remove approximately 2-3 cm of the outer jacket from the Ethernet cable.
3. **Remove Shielding (if applicable):** For shielded cables, carefully remove any foil or braid shielding, leaving the drain wire intact.
4. **Untwist and Arrange Wires:** Untwist the individual wire pairs and arrange them according to the T568B or T568A wiring standard (T568B is most common). Ensure the wires are straight and parallel.
5. **Trim Wires:** Trim the wires to a length of approximately 1.2-1.5 cm from the edge of the jacket. Ensure all wires are of equal length.
6. **Insert Wires into Plug:** Carefully insert the arranged wires into the RJ45 plug, ensuring they pass completely through the front of the plug. Verify the correct wire sequence through the transparent plug body.
7. **Crimp the Plug:** Insert the RJ45 plug into the crimping tool. Squeeze the handles firmly until the connector is fully crimped. The crimping tool will cut off the excess wires protruding from the front of the plug.
8. **Secure Bend Protector:** Slide the bend protector over the crimped plug until it clicks into place, providing strain relief and protection.
9. **Test Connection:** Use an Ethernet cable tester to verify proper continuity and wiring sequence.

Image: Detailed step-by-step visual guide for terminating an Ethernet cable with the pass-through RJ45 plug, from stripping the cable to crimping and testing.

6. Operating Instructions

Once the RJ45 plug is correctly terminated onto your Cat7 or Cat6A Ethernet cable, it is ready for use.

- **Connection:** Insert the crimped RJ45 plug into any compatible RJ45 port on devices such as routers, switches, modems, computers, or other network equipment.
- **Secure Fit:** Ensure the plug clicks securely into place. The latch on the plug should engage with the port to prevent accidental disconnection.
- **Disconnection:** To disconnect, gently press down on the latch of the RJ45 plug and pull it straight out from the port. Avoid pulling the cable directly without disengaging the latch, as this can damage the plug or the port.

Image: An RJ45 cable connected to a laptop, demonstrating its use in a network setup and highlighting its capability for high-speed data transmission compared to older cable categories.

7. Maintenance

The VCELINK RJ45 plugs are designed for durability and require minimal maintenance.

- **Keep Clean:** Ensure the contact pins of the RJ45 plug are free from dust and debris. Use compressed air or a soft, dry cloth if cleaning is necessary.
- **Avoid Physical Damage:** Do not bend the cable sharply near the connector. Avoid stepping on or placing heavy objects on the cable or connector.
- **Proper Storage:** When not in use, store cables with terminated plugs in a clean, dry environment to prevent damage to the connectors.

8. Troubleshooting

If you encounter issues with your network connection after installing the RJ45 plugs, consider the following

troubleshooting steps:

- **No Network Connection:**
  - Verify that the RJ45 plug is fully inserted into the port and the latch is engaged.
  - Check the wire sequence (T568B or T568A) on both ends of the cable using a cable tester. Incorrect wiring is a common cause of connection failure.
  - Ensure all 8 wires are making proper contact within the plug. The pass-through design allows for visual inspection.
  - Confirm that the cable type (Cat7/Cat6A) and wire thickness (1.35-1.45mm OD) are compatible with the plug.
  - Test the cable with a known working device or a different cable tester.
- **Slow Network Speed:**
  - Ensure both ends of the cable are terminated correctly for Cat7/Cat6A standards.
  - Check that all network devices (router, switch, network card) support 10 Gigabit Ethernet speeds.
  - Inspect the cable for any damage or kinks that could degrade signal quality.
- **Intermittent Connection:**
  - Re-crimp the plugs if there's any doubt about the connection integrity.
  - Ensure the cable is not subjected to excessive bending or strain.
  - Verify that the shielded design is properly grounded if applicable to your setup, to prevent external interference.

Image: An RJ45 cable tester, a recommended tool for verifying the correct wiring and continuity of terminated Ethernet cables.

9. Specifications

Attribute	Detail
Brand	VCELINK
Model Number	SJ657
Connector Type	RJ45 (8P8C)
Cable Compatibility	Cat7, Cat6A Shielded Ethernet Cables
Individual Wire OD	1.35 - 1.45 mm (AWG 23)
Data Transfer Speed	Up to 10 Gigabit Ethernet
Contact Plating	3u Gold-plated
Body Material	Copper Alloy (Shielded)

Compatible Devices	Laptops, Routers, Switches, Modems, Network Adapters
Product Dimensions	2.2 x 1.2 x 1.1 cm
Weight	Approximately 100 grams (for the package/set)

10. Warranty & Support

VCELINK is committed to providing high-quality products and excellent customer service.

- **Lifetime Quality Guarantee:** We offer a lifetime customer quality guarantee for all quality-related issues with our products.
- **Customer Support:** Our priority is to ensure your satisfaction. If you have any questions, problems, or require assistance with your VCELINK products, please do not hesitate to contact our customer support team. We are happy to help resolve any issues you may encounter.

Image: VCELINK brand vision, emphasizing connection and future-oriented solutions.