

SatShop-Ft AR100598

SatShop-Ft CAT6a Tool-Free RJ45 Network Connector User Manual

Brand: SatShop-Ft | Model: AR100598



1. INTRODUCTION

This manual provides detailed instructions for the installation, operation, and maintenance of the SatShop-Ft CAT6a Tool-Free RJ45 Network Connector. This connector is designed for quick and easy termination of network cables without the need for specialized crimping tools, supporting high-speed data transfer up to 10 Gigabits per second. It is compatible with CAT5, CAT6, CAT6a, CAT7, and CAT7a network cables.

The tool-free design simplifies network cable termination, making it suitable for both professional installers and home users. Its robust metal housing ensures durability and excellent signal integrity for reliable network connections.

2. PRODUCT OVERVIEW

The SatShop-Ft CAT6a Tool-Free RJ45 Network Connector offers a reliable solution for creating custom-length Ethernet cables. Key features include:

- **Tool-Free Installation:** No crimping tools required, simplifying the termination process.
- **High-Speed Data Transfer:** Supports speeds up to 10 Gbps, ideal for demanding network environments.
- **Wide Compatibility:** Works with CAT5, CAT6, CAT6a, CAT7, and CAT7a cables.
- **Durable Construction:** Shielded metal casing with zinc alloy and gold-plated phosphorus bronze contacts for enhanced signal integrity and longevity.
- **Flexible Wiring Standards:** Supports both T568A and T568B wiring schemes.
- **Reusable Design:** The connector can be opened and re-terminated if needed.



Figure 1: SatShop-Ft CAT6a Tool-Free RJ45 Network Connectors. This image displays the main components of the tool-free RJ45 plug, including the metal housing and the internal cable manager, along with three individual plugs.



Figure 2: Key features of the SatShop-Ft RJ45 connector. This graphic highlights its tool-free nature, 10 Gigabit per second speed capability, shielded design, and universal compatibility.

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RJ45-KONTAKT CAT 6A



Lämplig för CAT.6-, CAT.6-,
CAT.7- och CAT.7A-kablar

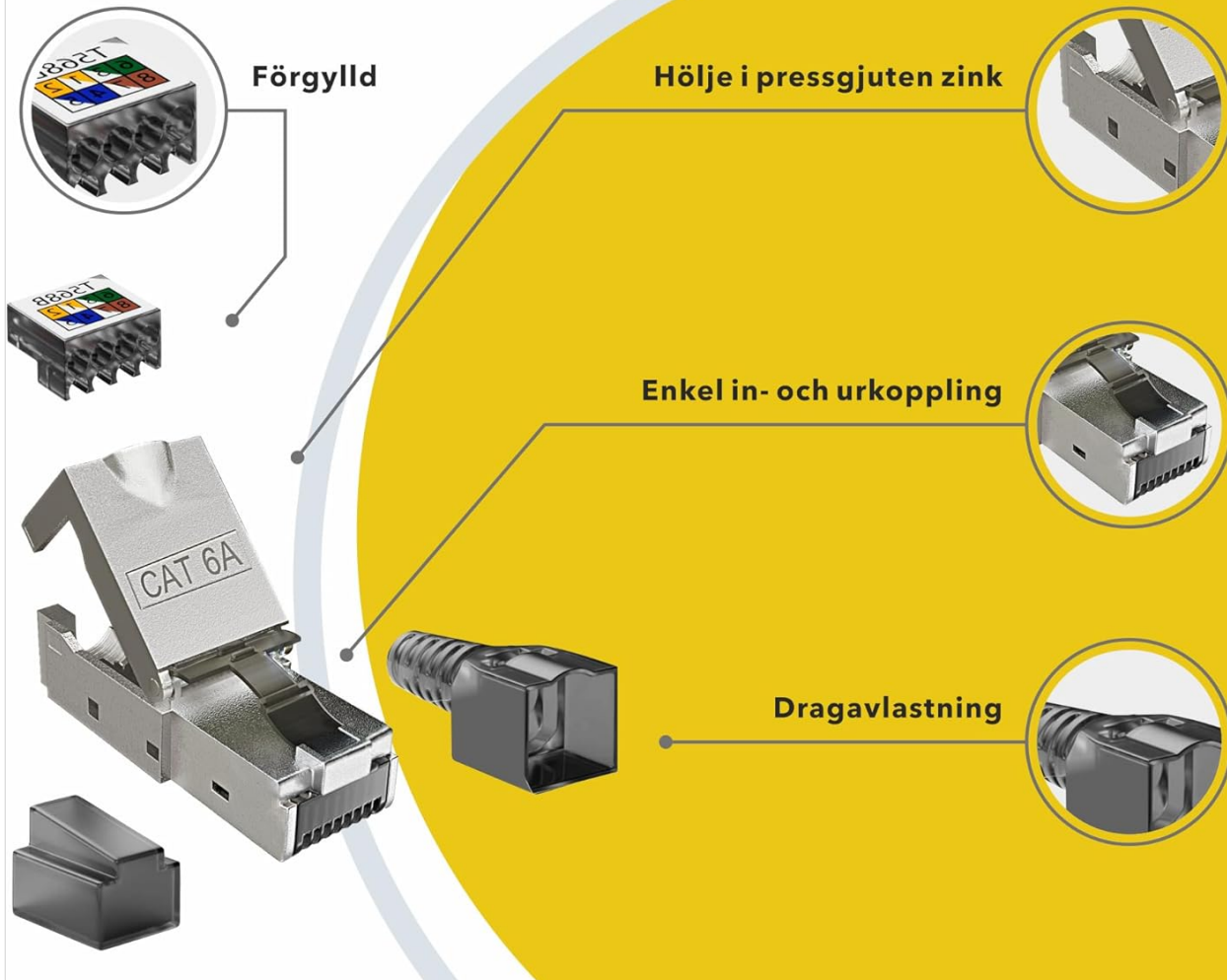


Figure 3: Exploded view of the SatShop-Ft RJ45 CAT 6A connector components. This image details the gold-plated contacts, die-cast zinc housing, easy plug-in/out mechanism, and strain relief boot.

3. SETUP AND INSTALLATION

The SatShop-Ft CAT6a Tool-Free RJ45 Network Connector is designed for use with solid core installation cables, not typically for stranded patch cables. Understanding the cable type is important for proper termination.

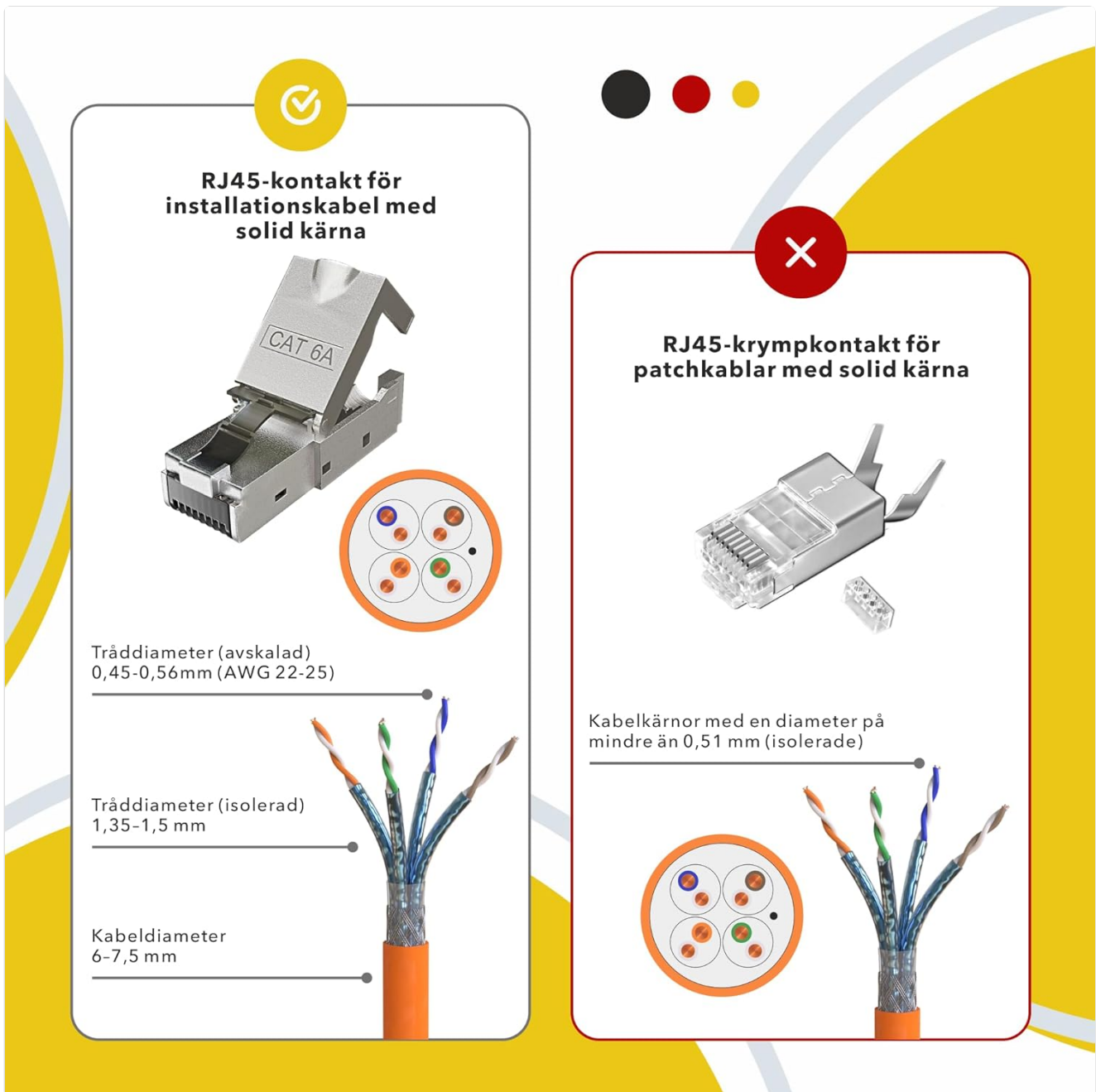


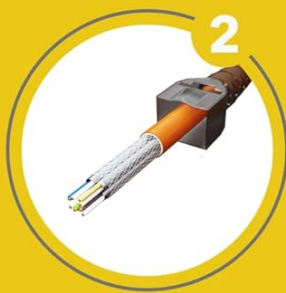
Figure 4: Comparison of RJ45 connector types. This image illustrates the difference between an RJ45 connector for solid core installation cables (left, compatible with this product) and a crimp connector for stranded patch cables (right), showing wire diameters and cable structures.

Follow these steps to properly terminate a network cable with the SatShop-Ft CAT6a Tool-Free RJ45 Network Connector:

INSTALLATIONSANVISNINGAR



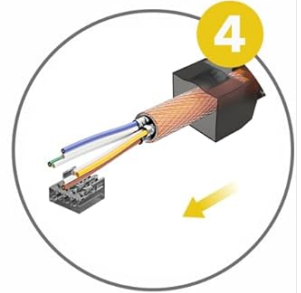
Sätt dragavlastningen på kabeln



Avisolera kabelisoleringen ca. 20mm



Placera skärmflätan åt sidan



Sätt i kablarna i kabelhanteraren



Klipp av eventuella utskjutande trådar



Sätt i kabelhanteraren i kontakten



Fäst med buntband



Redo



Figure 5: Step-by-step visual guide for installing the tool-free RJ45 connector. This diagram illustrates the 8 stages of cable preparation and connector assembly.

- 1. Prepare the Cable:** Slide the strain relief boot onto the network cable.
- 2. Strip the Cable Jacket:** Carefully strip approximately 20mm (0.8 inches) of the outer jacket from the network cable.
- 3. Fold Back the Shielding:** If your cable has braided shielding, fold it back over the cable jacket.
- 4. Arrange Wires in Cable Manager:** Untwist the wire pairs and arrange them according to either the T568A or T568B wiring standard into the cable manager. Ensure each wire is fully seated in its designated slot.
- 5. Trim Excess Wires:** Use a wire cutter to trim any protruding wires flush with the top of the cable manager.
- 6. Insert Cable Manager into Connector:** Carefully insert the cable manager, with the arranged and trimmed wires, into the main RJ45 connector body.
- 7. Secure the Connector:** Close the connector housing firmly. Apply gentle pressure until it clicks into place, ensuring the wires are properly seated and making contact.
- 8. Final Check:** Verify that the connection is secure and all wires are correctly aligned. The connector is now

ready for use.

KABELHANTERARE



- ✓ Enkel installation utan specialverktyg
- ✓ Mycket enkel installation tack vare kabelhanterare med T568-A/B-tilldelning
- ✓ Återanvändbar RJ45-kontakt
- ✓ Lämplig för kabeldiametrar på 6-8 mm



Figure 6: The cable manager component of the RJ45 connector. This image highlights its role in easy, tool-free installation with T568-A/B assignment, reusability, and compatibility with cable diameters of 6-8 mm.

Important Note: Ensure you follow either the T568A or T568B wiring standard consistently for both ends of the cable to ensure proper network functionality. The connector supports AWG 23-26 network cables and an outer diameter of up to 8mm.

4. OPERATING THE CONNECTOR

Once properly installed, the SatShop-Ft CAT6a Tool-Free RJ45 Network Connector functions identically to any standard RJ45 connector. Simply plug the terminated cable into any compatible RJ45 port on network devices such as routers, switches, computers, or network interface cards.



Figure 7: Data transfer speed comparison. This graphic illustrates the performance of CAT5 (1 Gbps / 150 MHz), CAT6 (1 Gbps / 250 MHz), and CAT6a (10 Gbps / 500 MHz) cables, highlighting the high-speed capabilities supported by this connector, including PoE, PoE+, and uPoE.

5. MAINTENANCE

The SatShop-Ft CAT6a Tool-Free RJ45 Network Connector requires minimal maintenance. To ensure optimal performance:

- Keep the connector clean and free from dust and debris.
- Avoid exposing the connector to excessive moisture or extreme temperatures.
- Ensure the cable is not subjected to sharp bends or excessive pulling force, which could damage the internal wiring or the connector itself.

There are no user-serviceable parts inside the connector. Do not attempt to disassemble it beyond the intended tool-free opening mechanism for re-termination.

6. TROUBLESHOOTING

If you experience issues with your network connection after installing the RJ45 connector, consider the following troubleshooting steps:

- **No Network Connection:**

- Verify that both ends of the network cable are correctly terminated and securely plugged into their respective ports.
- Re-open the connector and check if all wires are properly seated in the cable manager and making good contact. Ensure no wires are loose or misaligned.
- Confirm that the T568A or T568B wiring standard is consistently applied at both ends of the cable.
- Inspect the cable for any visible damage (cuts, kinks).

- **Slow Network Speed:**

- Ensure the cable itself is rated for the desired speed (e.g., CAT6a for 10 Gbps).
- Check for proper termination as described above. A poor connection can degrade performance.
- Verify that all connected network devices (router, switch, network card) support the desired speed.

- **Intermittent Connection:**

- This often indicates a loose connection. Re-seat the cable in the port or re-terminate the connector if necessary.
- Check for electromagnetic interference (EMI) if the cable runs near power lines or other electronic devices. The shielded design of this connector helps mitigate EMI, but severe interference can still be an issue.

If problems persist, consider testing the cable with a network cable tester or consulting a network professional.

7. SPECIFICATIONS

Feature	Detail
Brand	SatShop-Ft
Model Number	AR100598
Connector Type	RJ45 (Male)
Ethernet Cable Category	CAT6a (Compatible with CAT5, CAT6, CAT7, CAT7a)
Data Transfer Rate	Up to 10 Gigabits Per Second
Frequency	Up to 500 MHz (CAT6a standard)
Wiring Standards	T568A or T568B
Compatible Wire Gauge	AWG 23-26
Max Cable Outer Diameter	8 mm
Housing Material	Shielded Metal (Zinc Alloy)
Contact Material	Phosphorus Bronze Alloy, Gold Plated
Special Feature	Tool-free installation, Reusable, Supports PoE/PoE+/uPoE

Feature	Detail
Standard Compliance	CAT 6a ISO/IEC11801, TIA568-C2
Recommended Use	Installation Cable, Network Infrastructure

8. WARRANTY AND SUPPORT

For warranty information and customer support, please refer to the retailer or manufacturer's official website.

Typically, network connectors are covered by a limited warranty against manufacturing defects. Keep your proof of purchase for any warranty claims.

If you require further assistance or have questions not covered in this manual, please contact SatShop-Ft customer service or your product vendor.

