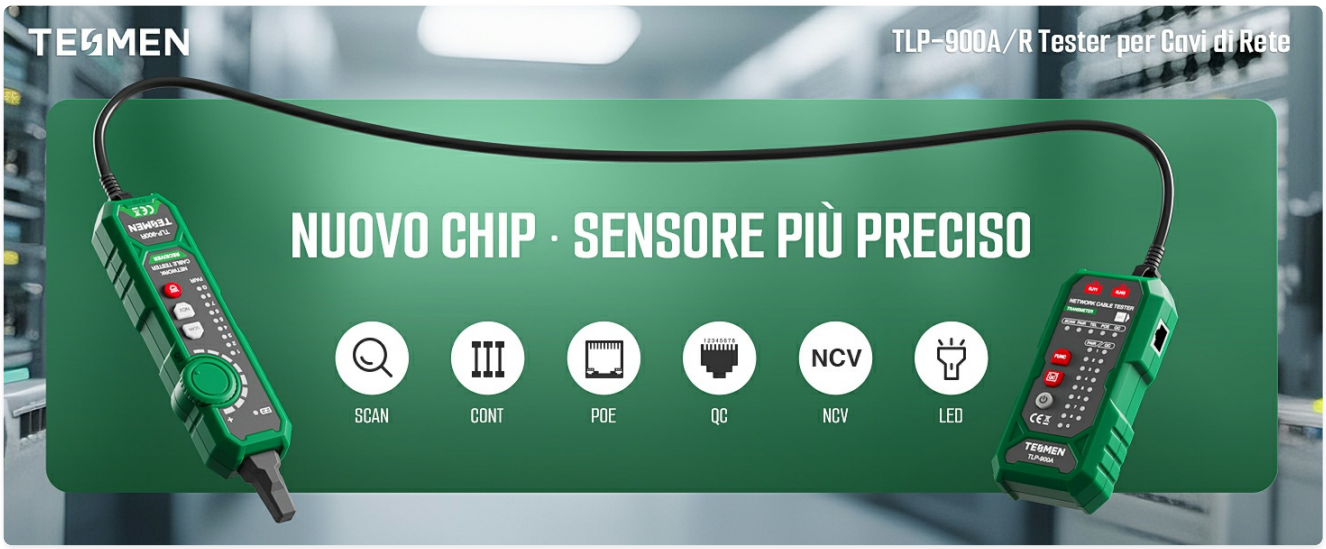
TESMEN TLP-900AR

TESMEN TLP-900AR Network Cable Tester User Manual

1. Introduction

The TESMEN TLP-900AR is a versatile network cable tester designed for professionals and DIY enthusiasts. It accurately traces and locates various cable types including CAT5, CAT6, POE, and shielded cables, as well as telephone lines. Equipped with a sensitive non-metallic probe, it quickly identifies cables in bundles, under carpets, within walls, and ceilings. This device is ideal for network cabling, maintenance, and fault detection, ensuring efficient and reliable network infrastructure.



This image displays the TESMEN TLP-900AR network cable tester, featuring both the transmitter and receiver units. Icons highlight its multi-measurement functions including scanning, continuity, Power over Ethernet (PoE) detection, crimping quality check, non-contact voltage detection, and an integrated LED light.

2. Safety Information

- Always read and understand this manual before operating the device.
- Do not use the device in wet environments or near flammable gases.
- Ensure batteries are correctly installed and replaced when low to prevent inaccurate readings.

- The NCV function detects live voltage; however, always exercise caution and verify with other methods if possible before touching electrical components.
- Disconnect power from cables before performing continuity or pairing tests to avoid interference or damage to the device.
- The device offers 60V flame protection.

3. Package Contents

Verify that all items listed below are included in your package:

- 1 x TLP-900A Transmitter
- 1 x TLP-900R Receiver
- 1 x RJ45 Patch Cable
- 1 x RJ11 Cable
- 1 x RJ11 Cable with Alligator Clips
- 1 x Storage Case
- 1 x User Manual
- 2 x 9V Batteries

This image shows all items included in the TESMEN TLP-900AR package: the TLP-900A transmitter, TLP-900R receiver, RJ45 patch cable, RJ11 cable, RJ11 cable with alligator clips, a protective storage case, the user manual, and two 9V batteries.

4. Product Overview

4.1 Components and Controls

Familiarize yourself with the various parts and controls of the TLP-900AR transmitter and receiver:

A detailed diagram illustrating the TESMEN TLP-900AR transmitter and receiver. It labels all functional buttons, RJ11 and RJ45 ports, LED indicators for tracing, continuity, PoE, QC, NCV, and the sensitivity knob on the receiver.

Transmitter (TLP-900A):

- **RJ11 Port:** For telephone cables.
- **RJ45 Port:** For network cables (CAT5/6).
- **Power Indicator:** Lights up when the device is on.
- **Function Button (FUNC):** Cycles through SCAN, PAIR, TEL, POE, and QC modes.
- **QC Test Port:** Dedicated port for RJ45 crimping quality check.
- **LED Indicators (1-8, G, S, P, T, Q):** Display cable status, continuity, PoE, and QC results.

Receiver (TLP-900R):

- **Inductive Probe:** For tracing cables.
- **Sensitivity Knob:** Adjusts the detection sensitivity.
- **SCAN/NCV/PAIR Button:** Toggles between scanning, non-contact voltage detection, and pairing modes.
- **Integrated LED Light:** Illuminates dark work areas.
- **RJ45 Port:** For connecting network cables during testing.

5. Battery Installation

Both the transmitter and receiver units require a 9V battery for operation. To install or replace batteries:

1. Locate the battery compartment cover on the back of each unit.
2. Slide or unscrew the cover to open the compartment.
3. Connect a 9V battery to the battery clip, ensuring correct polarity.
4. Place the battery inside the compartment and close the cover securely.

A flashing battery indicator on the device signals low battery power, prompting replacement.

6. Operating Instructions

6.1 Cable Tracing (SCAN Mode)

Use SCAN mode to locate and identify specific cables within a bundle or wall.

1. Connect one end of the cable to be traced to the RJ45 or RJ11 port on the **transmitter**.
2. Turn on the transmitter and select SCAN mode using the FUNC button.
3. Turn on the **receiver** and use its inductive probe to scan along the suspected cable path.
4. The receiver will emit an audible tone and/or light up when it detects the signal from the traced cable. Adjust

the sensitivity knob on the receiver for precise localization.

The image demonstrates the TESMEN TLP-900AR in action, with the transmitter connected to a cable in a server rack and the receiver being used to trace the cable's path, indicating its digital signal transmission capability.

6.2 Continuity and Pairing Test (PAIR Mode)

This mode checks the sequence and continuity of cable wires, identifying open circuits, short circuits, or crossover connections.

1. Connect one end of the cable to the RJ45 or RJ11 port on the **transmitter**.
2. Connect the other end of the cable to the RJ45 port on the **receiver**.
3. Turn on both units. On the transmitter, select PAIR mode using the FUNC button.
4. Observe the LED indicators on both the transmitter and receiver. They will light up sequentially, indicating the status of each wire pair. Any discrepancies (e.g., missing lights, incorrect sequence) indicate a fault.

This image illustrates the dual mode functionality of the TESMEN TLP-900AR, showing the transmitter and receiver connected to test a cable. This mode allows for immediate verification of cable sequence, detection of interruptions, short circuits, or crossover wiring, improving work efficiency.

6.3 RJ45 Crimping Quality Check (QC Mode)

This function allows for a quick quality check of RJ45 crimps.

1. Connect the RJ45 connector to be tested into the dedicated QC Test Port on the **transmitter**.

2. Select QC mode using the FUNC button.
3. The LED indicators will provide immediate feedback. A steady green light typically indicates a good crimp, while other patterns or no light may indicate a defective crimp. Refer to the device's specific LED patterns for detailed interpretation.

The image demonstrates the QC (Quality Check) function of the TESMEN TLP-900AR transmitter. It shows an RJ45 connector inserted for crimp testing, with red and white indicators signifying an 'OK Cable' or a 'Defective Cable' respectively, providing quick feedback on crimping quality.

6.4 Non-Contact Voltage (NCV) Detection

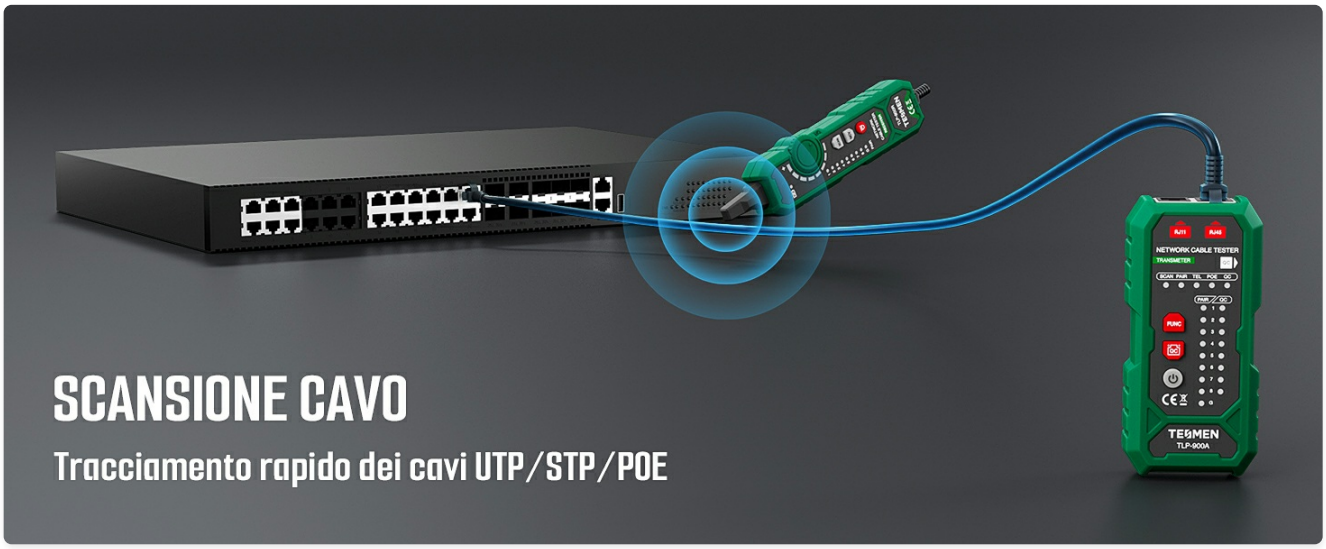
The NCV function allows for the detection of live AC voltage without direct contact, enhancing safety.

1. Turn on the **receiver**.
2. Press the NCV button to activate NCV mode.
3. Move the receiver's probe near electrical outlets, wires, or cables. The device will beep and/or flash an LED indicator when live voltage is detected.

6.5 Power over Ethernet (POE) Detection

The TLP-900AR can detect the presence of Power over Ethernet (PoE) on network cables.

1. Connect the network cable to the RJ45 port on the**transmitter**.
2. Select POE mode using the FUNC button.
3. The POE indicator LED on the transmitter will light up if PoE is detected on the cable.



This image shows the TESMEN TLP-900AR receiver scanning cables connected to a Power over Ethernet (PoE) switch, highlighting its function to test cables even when connected to active network devices like switches, routers, or PoE-enabled PCs.

6.6 Telephone Line Status Test (TEL Mode)

This mode allows you to check the polarity and status of telephone lines (standby, off-hook, ringing).

1. Connect the telephone line to the RJ11 port on the**transmitter**.
2. Select TEL mode using the FUNC button.
3. The LED indicators will display the line status. Refer to the manual's specific LED patterns for detailed interpretation of standby, off-hook, or ringing states.

6.7 Integrated LED Light

The receiver unit features an integrated LED light to assist in working in dimly lit environments.

- To activate the LED light, press the dedicated LED button on the receiver.
- Press again to turn it off.

This image shows the TESMEN TLP-900AR receiver's integrated LED light actively illuminating a dark working environment, such as a server rack, to assist users in low-light conditions.

6.8 Adjusting Sensitivity

The receiver's sensitivity knob allows you to fine-tune the detection range for cable tracing.

- Turn the knob clockwise for higher sensitivity, useful for quickly locating cables over a wider area.
- Turn the knob counter-clockwise for lower sensitivity, ideal for precise identification of a single cable in a dense bundle.

7. Maintenance

- **Cleaning:** Wipe the device with a soft, dry cloth. Do not use abrasive cleaners or solvents.
- **Storage:** Store the device in its protective case in a cool, dry place when not in use. Remove batteries if storing for extended periods to prevent leakage.
- **Battery Replacement:** Replace batteries promptly when the low battery indicator flashes to ensure accurate operation.

8. Troubleshooting

Problem	Possible Cause	Solution
No power/Device not turning on	Dead or incorrectly installed batteries.	Replace batteries with new 9V batteries, ensuring correct polarity.
Inaccurate cable tracing/Weak signal	Low battery, high interference, or incorrect sensitivity setting.	Replace batteries. Reduce interference by disconnecting power if safe. Adjust receiver sensitivity knob.
Continuity/Pairing test fails	Cable fault (short, open, crossover) or poor connection.	Inspect cable for visible damage. Re-crimp connectors if necessary. Ensure cables are fully inserted into ports. Refer to LED indicators for specific fault type.
NCV not detecting voltage	No live voltage present, or device too far from source.	Ensure the NCV function is active. Move the probe closer to the suspected live source.

The image illustrates different types of cable faults that the TESMEN TLP-900AR can detect, including short circuits, open circuits (interruptions), and crossover wiring. It explains that the corresponding LED indicator signals the specific fault when the line is not properly connected.

9. Specifications

Feature	Specification
Brand	TESMEN
Model	TLP-900AR
Power Source	Battery Powered (2 x 9V batteries included)
Compatible Devices	CAT5, CAT6, POE, Shielded Cables, RJ45, RJ11
Measurement Types	Continuity, Pairing, QC, NCV, POE, Telephone Line Status
Minimum Operating Voltage	9 Volts
Safety Standards	CE, RoHS Compliant
Country of Origin	China