TESMEN TLP-900AR

TESMEN TLP-900AR Network Cable Tester User Manual

Model: TLP-900AR | Brand: TESMEN

1. Introduction

The TESMEN TLP-900AR is a multi-functional network cable tester designed for efficient wire maintenance and sorting. It combines cable tracing, line positioning, continuity testing, QC (Quality Control) for RJ45 crimping, and NCV (Non-Contact Voltage) detection. This device is suitable for various cable types including CAT5, CAT6, POE, shielded cables, and telephone lines, making it an essential tool for network engineers and technicians.

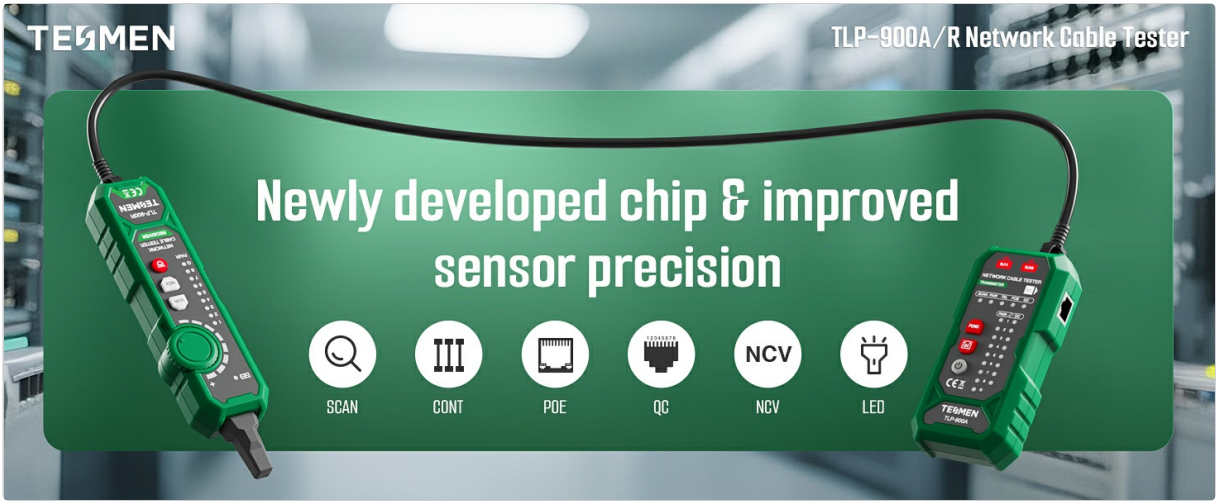

Image 1.1: Overview of the TESMEN TLP-900AR Network Cable Tester and its multiple measurement functions.

2. Safety Information

- Always read and understand this manual before operating the device.
- Do not use the device if it appears damaged or is not functioning correctly.
- Exercise caution when using the NCV function, as it detects live voltage. Always assume wires are live until verified otherwise.
- For cable testing, it is recommended to disconnect power to avoid signal interference and ensure

personal safety, especially when dealing with POE lines. The device is 60V resistant anti-burning, but caution is still advised.

- Ensure correct battery polarity when installing batteries. Use only specified 9V 6F22 batteries.
- Keep the device away from water and extreme temperatures.

Image 2.1: The TESMEN TLP-900AR features 60V resistant anti-burning protection for enhanced safety.

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 Patch Cable
- 1 x RJ11 Alligator Clip Adapter Cable
- 1 x Storage Box
- 1 x User Manual
- 2 x 9V 6F22 Batteries

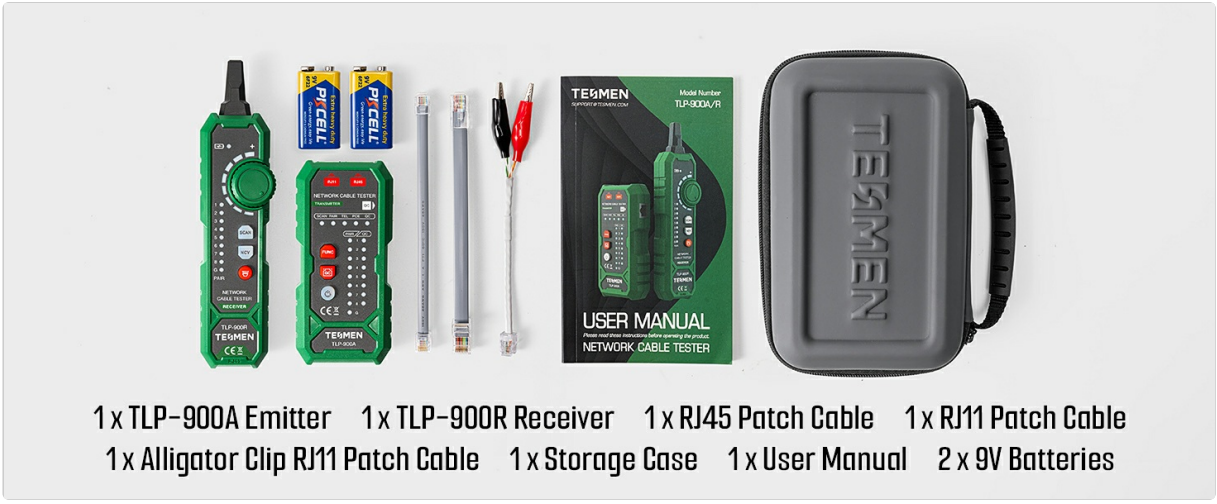

Image 3.1: All components included in the TESMEN TLP-900AR Network Cable Tester kit.

4. Product Overview

The TLP-900AR consists of two main units: the TLP-900A Transmitter and the TLP-900R Receiver. Familiarize yourself with the buttons, ports, and indicators on each unit.

4.1. TLP-900A Transmitter

- **RJ45 Port:** For connecting network cables.
- **RJ11 Port:** For connecting telephone lines.
- **QC Port:** For RJ45 crystal head crimping inspection.
- **Function Button (FUNC):** Toggles between scan, pair, and telephone line status modes.
- **Power Button:** Turns the transmitter on/off.
- **Indicators:** Cable Scan, Wire Mapping, Telephone Line Status, Crimping, Line Sequence, Shielded, POE, Power.

4.2. TLP-900R Receiver

- **Inductive Probe:** For tracing cables.
- **Sensitivity Adjustment Knob:** Adjusts the detection sensitivity.
- **Scan Button/Indicator:** Activates cable scan mode.
- **NCV Button:** Activates Non-Contact Voltage detection.
- **Lamp:** Built-in LED light for illuminating dark areas.
- **RJ11 Port:** For connecting telephone lines.
- **Indicators:** Sensitivity, Power, Pair.

Image 4.1: Product buttons and ports on the TESMEN TLP-900AR units.

5. Setup

5.1. Battery Installation

Both the TLP-900A Transmitter and TLP-900R Receiver require one 9V 6F22 battery each. Two batteries are included in the package.

1. Locate the battery compartment cover on the back of each unit.
2. Slide or unclip the cover to open the compartment.
3. Insert a 9V battery, ensuring the correct polarity (+ and - terminals match the markings inside the compartment).

4. Close the battery compartment cover securely.

Image 5.1: Proper installation of the 9V battery.

6. Operating Instructions

6.1. Cable Scan (Tracing)

This function helps locate specific cables within bundles, behind walls, or under carpets.

1. Connect one end of the cable to be traced to the RJ45 or RJ11 port on the TLP-900A Transmitter.
2. Turn on the Transmitter by pressing its Power Button. Press the FUNC button until the 'SCAN' indicator is lit.
3. Turn on the TLP-900R Receiver.
4. Adjust the Sensitivity Adjustment Knob on the Receiver to an appropriate level. Higher sensitivity allows for faster detection over longer distances, while lower sensitivity provides more precise pinpointing.
5. Move the Receiver's inductive probe along the suspected path of the cable. The Receiver will emit an audible tone and its Sensitivity Indicator will light up when it detects the signal from the Transmitter. The frequency of the tone increases as you get closer to the cable.

Image 6.1: Cable scan in progress, tracing UTP/STP/POE cables.

The TLP-900AR features digital signal transmission for strong, anti-jamming performance, ensuring more accurate line finding. It can scan cables even when connected to PoE switches, routers, PCs, and other powered-on devices (up to DC 60V withstand voltage).

Image 6.2: Scanning cables connected to a PoE switch.

6.2. Cable Fault Testing (Continuity & Pairing)

This function identifies common cable faults such as short circuits, open circuits, and crossovers.

1. Connect one end of the network cable to the RJ45 port on the TLP-900A Transmitter.
2. Connect the other end of the cable to the RJ45 port on the TLP-900R Receiver (or the remote unit if using a remote identifier, though not explicitly included in this model's description, the pairing function implies a remote end).
3. Turn on the Transmitter and press the FUNC button until the 'PAIR' indicator is lit.
4. Observe the LED indicators on both the Transmitter and Receiver. The sequence of lit LEDs will indicate the cable's wiring status.
5. **Short Circuit:** If two or more LEDs light up simultaneously, it indicates a short circuit between those wires.
6. **Open Circuit:** If an LED fails to light up in sequence, it indicates an open circuit (break) in that wire.
7. **Crossover:** If the LED sequence on the Receiver does not match the Transmitter, it indicates a crossover fault.

Image 6.3: Visual representation of cable fault detection.

6.3. QC RJ45 Crimp Inspection

The TLP-900A Transmitter can quickly inspect the quality of RJ45 crystal head crimping.

1. Insert a crimped RJ45 crystal head into the 'QC' port on the TLP-900A Transmitter.
2. The QC indicator will provide immediate feedback. A green light typically indicates a good crimp,

while a red light or no light indicates an abnormal or faulty crimp.

Image 6.4: Performing a QC test on an RJ45 connector.

6.4. NCV (Non-Contact Voltage) Function

The TLP-900R Receiver includes an NCV function to detect live AC voltage without direct contact, enhancing safety.

1. Turn on the TLP-900R Receiver.
2. Press the 'NCV' button to activate the function.
3. Move the tip of the Receiver near electrical outlets, wires, or other potential AC voltage sources.
4. The NCV indicator and an audible alert will activate when live voltage is detected.

Image 6.5: Using the NCV function to detect live voltage.

6.5. Telephone Line Polarity Detection

The TLP-900R Receiver can identify the state of a telephone line.

1. Connect the telephone line to the RJ11 port on the TLP-900R Receiver.
2. The Receiver will indicate the polarity and state of the line (e.g., standby, off-hook, ringing).

Image 6.6: The TLP-900AR can detect telephone line status.

6.6. Adjustable Sensitivity

The TLP-900R Receiver features an adjustable sensitivity knob to optimize cable tracing.

- **Clockwise Rotation:** Increases sensitivity for faster cable locating, especially over longer distances or through obstacles.
- **Counter-clockwise Rotation:** Decreases sensitivity for more precise pinpointing of a specific cable in a dense bundle.

Image 6.7: Adjusting the sensitivity of the received signal.

6.7. Built-in LED Light

The TLP-900R Receiver is equipped with a built-in LED light to illuminate dark working environments, such as server racks or behind furniture.

1. Press the 'Lamp' button on the Receiver to turn the LED light on or off.

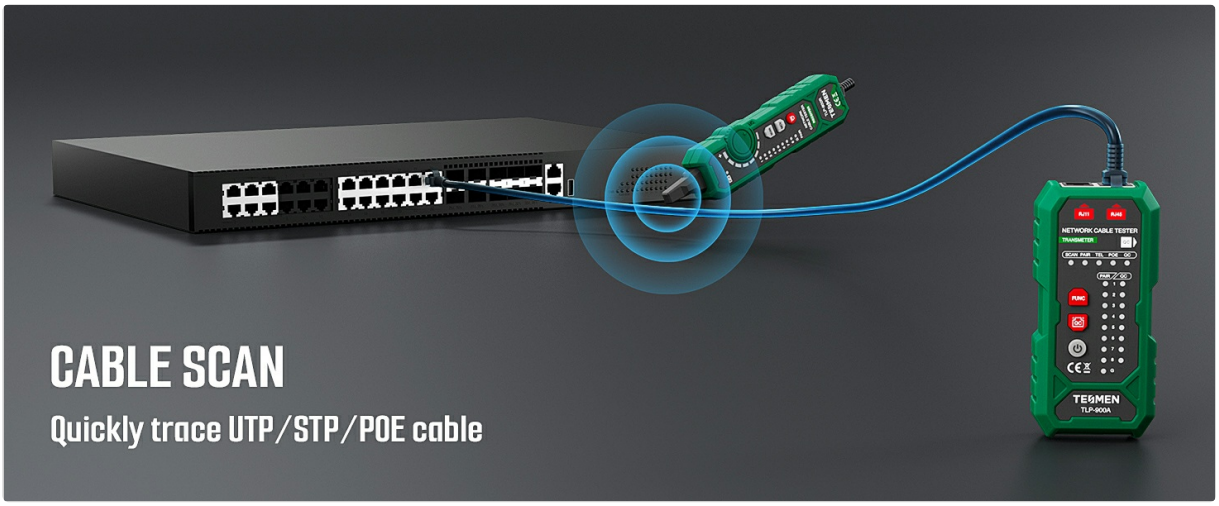

Image 6.8: Using the built-in LED light in a dark workspace.

7. Maintenance

- **Automatic Shut-off:** The device will automatically shut down after more than 30 minutes of inactivity to conserve battery life.
- **Low Battery Indicator:** The power indicator will flash when the battery level is too low for normal operation. Replace batteries promptly.

- **Cleaning:** Wipe the device with a dry, soft cloth. Do not use abrasive cleaners or solvents.
- **Storage:** Store the device in its provided storage box in a cool, dry place when not in use. Remove batteries if storing for extended periods to prevent leakage.

8. Troubleshooting

- **No signal during cable scan:**
  - Ensure both Transmitter and Receiver are powered on.
  - Check battery levels in both units.
  - Verify the cable is properly connected to the Transmitter.
  - Adjust the Receiver's sensitivity.
- **Incorrect fault detection during continuity test:**
  - Ensure the cable is fully inserted into both the Transmitter and Receiver.
  - Confirm the cable type matches the test being performed.
  - Inspect the RJ45/RJ11 connectors for damage.
- **Low battery indicator flashing:**
  - Replace the 9V batteries in the affected unit(s).

9. Specifications

Model Number	TLP-900AR
Brand	TESMEN
Power Source	Battery Powered
Battery Type	2 x 9V 6F22 batteries (included)
Measurement Accuracy	Crimp response time <1 second
Supported Cable Types	RJ11, RJ45, CAT5, CAT6, POE, STP
Functions	Cable Tracking, Line Positioning, Pairing, Continuity, QC, NCV
Withstand Voltage (POE)	DC 60V
Automatic Shut-off	After 30 minutes of inactivity
Certifications	CE, RoHS
Item Weight	540 g
Parcel Dimensions	23.6 x 15.7 x 6.4 cm

10. Warranty and Support

TESMEN products are manufactured to high-quality standards. For warranty information, technical support, or service inquiries, please contact TESMEN customer support.

Manufacturer Email: support@tesmen.com