

PerGar AUA 501A

PerGar AUA 501A OTDR Fiber Tester Instruction Manual

Model: AUA 501A

INTRODUCTION

This manual provides detailed instructions for the safe and effective operation, setup, and maintenance of the PerGar AUA 501A OTDR Fiber Tester. This device is a multi-functional optical time domain reflectometer designed for fiber optic network testing and analysis.

PRODUCT OVERVIEW

The PerGar AUA 501A is a 9-in-1 OTDR (Optical Time Domain Reflectometer) designed for comprehensive fiber optic testing. It integrates multiple functions including OTDR, event mapping, optical power measurement (OPM), visible fault locator (VFL), stable light source, optical loss test, LED illumination, RJ45 line measurement, and RJ45 line tracking.

Key Features

- **Precise Optical Power Loss Evaluation:** Facilitates FTTx and access network construction and maintenance by identifying fiber breaks, measuring lengths, and calculating relative optical power loss.
- **One-Key Test and Analysis:** Simplifies testing with an automatic test feature for quick data analysis.
- **Comprehensive Functionality:** Offers 9 functions for efficient fiber testing and analysis.
- **User-Friendly Design:** Features a 4.3-inch IPS capacitive touch screen for intuitive operation and easy access to information.
- **Wide Range Compatibility:** Suitable for various fiber optic networks, including long-haul and distributed sensing networks.

Device Components

Multifunctional Optical Time Domain Reflectometer

Maintain the line and handle it with one machine



Figure 1: Front view of the PerGar AUA 501A OTDR Fiber Tester, showing the 4.3-inch touch screen with various function icons.

High Transparency Visible Red Light Stable Light Source

Strong light source, strong penetration, convenient short distance testing, providing high stability output power



Figure 2: Top view of the device highlighting the VFL (Visible Red Light) port and fiber optic connectors (APC and UPC) for stable light source and OTDR functions.



Figure 3: Side view of the PerGar AUA 501A OTDR Fiber Tester, illustrating its compact dimensions (18.5cm length, 10.5cm height, 5cm width).

SETUP

1. **Unpacking:** Carefully remove all components from the packaging. Verify that all items listed in the "Package Contents" section are present.
2. **Battery Installation/Charging:** The device is powered by two 7.4V/2200mAh Li-ion batteries. Ensure they are fully charged before first use. Connect the provided power cord to the device and a suitable power outlet. The charging indicator will illuminate.
3. **RJ45 Receiver Battery:** The RJ45 receiver requires one 9V6F22 battery (not included). Install the battery into the RJ45 receiver unit.
4. **Adapter Installation:** The FC adapter is pre-installed. If using SC UPC or FC UPC connectors for OTDR/Stable light source, ensure the correct adapter is securely attached. The OPM and VFL interfaces are 2.5mm universal (SC, FC, ST compatible).
5. **Power On:** Press and hold the power button (usually red, located on the side or front panel) until the display illuminates.

OPERATING INSTRUCTIONS

The AUA 501A features a 4.3-inch IPS capacitive touch screen for navigation. Functions can be selected by tapping their respective icons.

1. OTDR Function

1. From the main menu, tap the "OTDR" icon.
2. Connect the fiber optic cable to be tested to the OTDR interface.
3. Select desired test parameters (e.g., wavelength, pulse width, range) from the settings menu.
4. Tap "Start Test" or "One-Key Test" to initiate the measurement.
5. The device will display the OTDR trace and event map. Analyze the results for fiber breaks, splices, and connectors.

Automatic Test Analysis

One key testing for automatic data analysis, no further action required



Figure 4: The automatic test analysis screen displaying an OTDR trace with event markers and measurement data.

2. VFL (Visible Fault Locator)

1. Tap the "VFL" icon from the main menu.
2. Connect the fiber to the VFL port.
3. Activate the VFL. A red laser light will be emitted. Observe the fiber for light leakage at fault points.

3. OPM (Optical Power Meter)

1. Tap the "OPM" icon.
2. Connect the fiber to the OPM interface.
3. Select the appropriate wavelength.
4. The optical power reading will be displayed on the screen.

4. RJ45 Line Measurement and Tracking

1. Connect one end of the RJ45 cable to the main unit's RJ45 port and the other end to the RJ45 remote adapter.
2. Select the "RJ45 Line Measurement" or "RJ45 Line Tracking" function.
3. Follow on-screen prompts to perform tests for continuity, open circuits, short circuits, and cross-overs (T568A/T568B).

MAINTENANCE

- **Cleaning:** Regularly clean the device's screen and exterior with a soft, dry cloth. Use the provided cleaning swabs for optical interfaces to ensure accurate measurements. Avoid abrasive cleaners or solvents.
- **Battery Care:** Recharge the device when the battery indicator is low. For long-term storage, charge the battery to approximately 50% and store in a cool, dry place. Avoid fully discharging the battery for extended periods.
- **Storage:** Store the OTDR Fiber Tester in its carrying bag when not in use to protect it from dust, moisture, and physical damage.
- **Adapter Care:** Keep optical adapters clean and free from dust. Replace worn or damaged adapters to maintain measurement accuracy.

TROUBLESHOOTING

Problem	Possible Cause	Solution
Device does not power on.	Low or depleted battery.	Charge the device using the provided power cord. Ensure the power button is pressed and held sufficiently.
Inaccurate OTDR measurements.	Dirty optical connectors; incorrect test parameters; damaged fiber.	Clean all optical connectors. Verify test parameters (wavelength, range). Inspect the fiber for damage.
VFL red light is dim or absent.	Dirty VFL port; VFL function not activated; internal fault.	Clean the VFL port. Ensure the VFL function is selected and activated on the device. If problem persists, contact support.
RJ45 test fails or shows errors.	RJ45 receiver battery low; faulty RJ45 cable; incorrect connection.	Replace the 9V battery in the RJ45 receiver. Test with a known good RJ45 cable. Ensure both ends are securely connected.

SPECIFICATIONS

Model	AUA 501A
Item Type	OTDR Fiber Optic Tester
Material	ABS

Single Wavelength	1550nm (Can be tested with light)
Test Range	80km
Display	4.3-inch IPS Capacitive Touch Screen
Languages	Chinese, English, Portuguese, Spanish
Test Data Storage	>100,000 sets (32GB memory card included)
Main Unit Power Supply	2 x 7.4V/2200mAh Li battery (included)
RJ45 Receiver Power Supply	1 x 9V6F22 battery (not included)
VFL Interface	2.5mm universal (SC, FC, ST compatible)
OTDR/Stable Light Source Interface	SC UPC, FC UPC (changeable)
OPM Interface	2.5mm universal (SC, FC, ST compatible)
Optical Loss Test Range	0-30dB (FC SC interface)
Line Tracking Function	Measures through line T568B, cross line T568A
Item Weight	81 Grams

PACKAGE CONTENTS

Verify that all the following items are included in your package:

- 1 x OTDR Fiber Optic Tester (AUA 501A)
- 1 x Instruction Manual
- 1 x USB Cable
- 1 x Crocodile Clip Cable
- 1 x Power Cord (US Plug)
- 1 x FC Adapter (pre-installed on the machine)
- 1 x SC Adapter
- 1 x RJ45 Acceptor
- 1 x RJ45 Remote Adapter
- 1 x Storage Bag
- 1 x Carrying Strap
- 1 Pack x Cleaning Swab
- 1 x Earphone
- 1 x RJ45 Test Cable

WARRANTY AND SUPPORT

For warranty information or technical support, please refer to the contact details provided with your purchase documentation or

visit the official PerGar website. Keep your purchase receipt as proof of purchase for warranty claims.

ASK A QUESTION ABOUT THIS MANUAL

Ask about setup, troubleshooting, compatibility, parts, safety, or missing instructions. Manuals+ will review the question and use this page's manual context to help answer it.

Name

Anonymous

Email

you@example.com

After a successful submission, we securely hash the supplied account or form email before sending it to Microsoft Advertising for conversion attribution. [Privacy details](#).

Question

Example: How do I reset this device or fix this error?

Details

Model number, symptoms, what you tried, or the section of the manual you are using.

Submit question