AMPROBE®

LAN-1
Lan Cable Tester

Users Manual

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English

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LAN1_Rev001

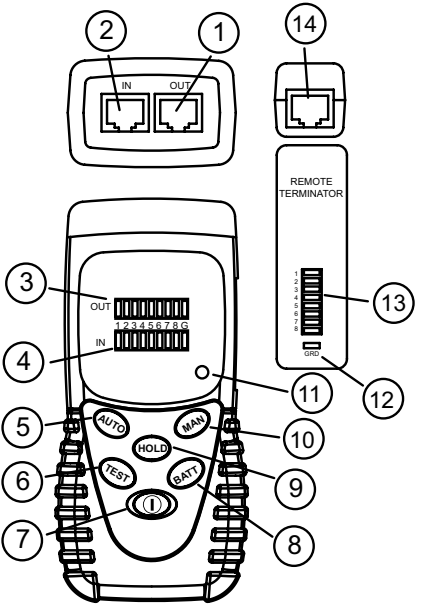
Limited Warranty and Limitation of Liability

Your Amprobe product will be free from defects in material and workmanship for 1 year from the date of purchase. This warranty does not cover fuses, disposable batteries or damage from accident, neglect, misuse, alteration, contamination, or abnormal conditions of operation or handling. Resellers are not authorized to extend any other warranty on Amprobe's behalf. To obtain service during the warranty period, return the product with proof of purchase to an authorized Amprobe Test Tools Service Center or to an Amprobe dealer or distributor. See Repair Section for details. THIS WARRANTY IS YOUR ONLY REMEDY. ALL OTHER WARRANTIES - WHETHER EXPRESS, IMPLIED OR STAUTORY - INCLUDING IMPLIED WARRANTIES OF FITNESS FOR A PARTICULAR PURPOSE OR MERCHANTABILITY, ARE HEREBY DISCLAIMED. MANUFACTURER SHALL NOT BE LIABLE FOR ANY SPECIAL, INDIRECT, INCIDENTAL OR CONSEQUENTIAL DAMAGES OR LOSSES, ARISING FROM ANY CAUSE OR THEORY. Since some states or countries do not allow the exclusion or limitation of an implied warranty or of incidental or consequential damages, this limitation of liability may not apply to you.

Repair
All test tools returned for warranty or non-warranty repair or for calibration should be accompanied by the following: your name, company's name, address, telephone number, and proof of purchase. Additionally, please include a brief description of the problem or the service requested and include the test leads with the meter. Non-warranty repair or replacement charges should be remitted in the form of a check, a money order, credit card with expiration date, or a purchase order made payable to Amprobe® Test Tools.

In-Warranty Repairs and Replacement – All Countries
Please read the warranty statement and check your battery before requesting repair. During the warranty period any defective test tool can be returned to your Amprobe® Test Tools distributor for an exchange for the same or like product.

Non-Warranty Repairs and Replacement – US and Canada
Non-warranty repairs in the United States and Canada should be sent to a Amprobe® Test Tools Service Center. Call Amprobe® Test Tools or inquire at your point of purchase for current repair and replacement rates.



1. RJ45 jack for sourcing end (OUT).
2. RJ45 jack for receiving end (IN).
3. LED indicators for sourcing end (OUT) Green.
4. LED indicators for receiving end (IN). Red.
5. AUTO scan button.
6. TEST button for MANUal test.
7. POWER ON/OFF button.
8. BATTery TEST button.
9. HOLD button.
10. MANUal scan button.
11. Low BATTery indicator.
12. Remote Terminator LED indicator for ground wire
13. Remote Terminator LED indicators for data lines
14. Remote Terminator RJ45 jack

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SYMBOLS

⚠	Refer to the manual		Do not dispose of this product as unsorted municipal waste.
	Conforms to relevant Australian standards.	CE	Complies with EU directives
	This equipment not for connection to public communications networks, such as active telephone systems.		

⚠ Warning and Precautions

- DO NOT use on live circuits. These voltage levels pose a potential shock hazard to the user.
- To avoid electrical shock hazard, observe the proper safety precautions when working with voltages above 60 VDC or 30 VAC rms.
- Never ground yourself when taking measurements.
- Do not operate the instrument in an explosive atmosphere.
- To reduce the risk of fire or electric shock, do not expose this product to rain or moisture.

UNPACKING AND INSPECTION

Your shipping carton should include:

1 LAN-1 Cable tester
1 Remote Terminator
1 9 volt battery
1 RJ45 to female BNC cable
1 RJ45 to male BNC cable
1 RJ45 to RJ45 cable
1 female BNC to female BNC connector
1 Users Manual

If any of the items are damaged or missing, return the complete package to the place of purchase for an exchange.

INTRODUCTION

The LAN-1 Cable Tester is designed for testing opens, shorts and miswired cable installations .

Testing capabilities are:

- Test pin configuration for 10/100 base -T cable, 10 base-2 cable, RJ45 modular cables, AT&T 258A cable, EIA / TIA 568A/568B cables and Token Ring Cable etc.
- Verify cable continuity, open, short or incorrectly wired.
- Test installed cable on wall plate or the patch panels by using the Remote Termination module.
- Buzzer sound warning for error condition.

OPERATION

1. Press ⏻ button for power ON. If no cable is attached or cable is defective, the buzzer will sound.
2. Press BATT to verify proper operating voltage. The BATT LED will not light and LAN-1 will not operate correctly if battery is below 7 volts.
3. Green LEDs are the source indicators. Red LED's are the test indicators. Red LED's ON indicate cable line continuity. Red LED's OFF indicate open cable lines.

Loopback Test (cable with both ends in one location)

1. Connect cable with RJ-45 terminations on both ends to IN and OUT test sockets.
2. Press ⏻ button for power ON. Press AUTO (default) or MAN button to start scanning.
3. AUTO scanning will step through lines 1 to 8 and ground (if connected) and repeats until stopped.
4. MAN scanning will go into manual mode and TEST will step through the different lines.

Remote Test (cable with both ends at different locations)

1. Connect one cable end to OUT connector.
2. Connect REMOTE TERMINATOR to the other end of cable under test.
3. Press ⏻ button for power ON. Press AUTO (default) or MAN button to start scanning.
4. AUTO scanning will step through lines 1 to 8 and ground (if connected) and repeat until stopped.
5. MAN scanning go into manual mode and TEST will step through the different lines.
6. Line test results (Red LED's) are shown on the Remote Terminator.

Hold

The HOLD button saves the displayed error condition and stops testing. Press the HOLD button to return to normal operation.

TEST EXAMPLES

Continuity	Green	↕	↔	↕	↕	↕	↕	↕	↕	↕
Pin 2 has continuity		1	2	3	4	5	6	7	8	G
	Red	↕	↔	↕	↕	↕	↕	↕	↕	↕
Open	Green	↕	↔	↕	↕	↕	↕	↕	↕	↕
Pin 2 is open		1	2	3	4	5	6	7	8	G
	Red	↕	↕	↕	↕	↕	↕	↕	↕	↕
Short	Green	↕	↔	↔	↕	↕	↕	↕	↕	↕
Pins 2 and 3 are shorted		1	2	3	4	5	6	7	8	G
	Red	↕	↔	↔	↕	↕	↕	↕	↕	↕
Miswire	Green	↕	↔	↕	↕	↕	↕	↕	↕	↕
Pins 2 and 6 are miswired		1	2	3	4	5	6	7	8	G
	Red	↕	↕	↕	↕	↕	↔	↕	↕	↕

SPECIFICATIONS

General

Display:	Red and Green LED's
Battery:	9V, 006P or IEC 6F22 or NEDA 1604.
Low Battery Indicator:	The LED indicator will not turn ON when BATT button pushed
Battery Life:	Approx 20 hours. (Alkaline battery)
Environment:	Indoor operation, maximum altitude - 2000 m (6561 ft.)
Temperature / Humidity:	
Operation:	0 to 40°C (32 to 104°F), 10 to 70% RH.
Storage:	-10 to 60°C (14 to 140°F), 10 to 90% RH.
Dimension:	130 x 64 x 38mm (5.1 x 2.2 x 1.5 in)
Weight:	1.26 kg (0.6 lb)

CE-EMC: EN61326-1 This product complies with requirements of the following European Community Directives: 89/336/EEC (Electromagnetic Compatibility) and 73/23/EEC (Low Voltage) as amended by 93/68/EEC (CE Marking). However, electrical noise or intense electromagnetic fields in the vicinity of the equipment may disturb the measurement circuit. Measuring

instruments will also respond to unwanted signals that may be present within the measurement circuit. Users should exercise care and take appropriate precautions to avoid misleading results when making measurements in the presence of electronic interference.

Electrical

Maximum line length: ~300 meters

Connector types: RJ45, BNC

⚠DO NOT use on live circuits.

MAINTENANCE AND REPAIR

If there appears to be a malfunction during the operation of the tester, the following steps should be performed in order to isolate the cause of the problem.

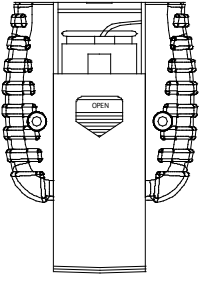
1. Press the BATTery button to check the battery. Replace the battery immediately if the LED indicator will not turn ON.
2. Review the operating instructions for possible mistakes in operating procedure.

Except for the replacement of the battery, repair of the meter should be performed only by a Factory Authorized Service Center or by other qualified instrument service personnel. The front panel and case can be cleaned with a mild solution of detergent and water. Apply sparingly with a soft cloth and allow to dry completely before using. Do not use aromatic hydrocarbons or chlorinated solvents for cleaning.

BATTERY REPLACEMENT

1. Turn off the meter and slide out the battery cover. Replace the battery with a NEDA type 1604 or equivalent 9V alkaline battery. Replace the cover.

2. Remove battery when the LAN-1 is not used for extended period.



Battery Replacement