# Labgear

76609PI

# Network Cable Tester

## 1. Introduction

This practical compact network cable tester is designed to test a range of RJ45/RJ11 modular cables and patch leads as well as cables used in 10Base-T/100Base-T networks and telephone systems. The BNC adaptors supplied also make it suitable for testing BNC and CCTV cables. As well as testing individual cables the Remote Terminator Unit can be used to test long runs of cable from patch panel to wall plate. It is easy to verify cable continuity, open, short and cross connections.

### Features:

- Test the correct pin configuration of 10Base-T/100Base-T, BNC c oaxial cables, RJ45/RJ11 modular cables, 258A, TIA-568A/568B and Token Ring cables.
- Easy to read cable status indication for the verification of cable continuity, open, short circuited and miswired connections.
- Remote terminator allows testing long cable runs and is ideal for identifying and troubleshooting patch panel to wall plate connections.
- Can test the grounding.
- Option of auto or manual test scanning.

## 2. Safety Rules and Warnings

Don't store or leave the unit in direct sunlight, especially under glass.

Don't store in damp or excessively dusty environments or temperatures over 40°C.

Use only 9V PP3 alkaline battery of good quality.

Remove the battery if the meter is not to be used for an extended period.

Do not disassemble, there are no user serviceable parts inside. Do not use on mains voltage cables this will damage the meter.

## 3. Box Contents

- 1x Master Test Unit
- 1x Remote Terminator Unit
- 2x RJ45 to BNC Adaptor Leads
- 1x BNC Coupler
- 1x User Guide

## 4. Display, Controls and Connections

1. RJ45 socket (source)
2. RJ45 socket (receiving)
3. LED display for source cable end (socket 1)
4. LED display for receiving cable end (socket 2)
5. Power switch
6. LED scanning mode switch
7. Test switch for manual scan
8. RJ45 socket (remote)
9. LED display for receiving end (same as socket 2)
10. Ground LED for receiving end



**Battery Compartment**
Insert 9V PP3

**Master Unit**

**Remote Unit**
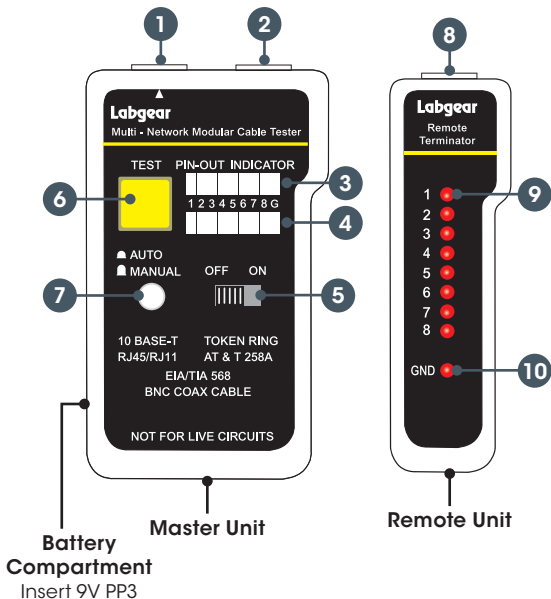
**Before starting any tests make sure the battery holds sufficient charge.
If battery power is insufficient, the LEDs will be dim, freeze or not light up.**

## 5. Before You Start

You will need a 9V PP3 battery to power the master unit. Remove the cover from the battery compartment (11) on the back of the unit. Clip the contact pad onto the battery terminals insert the battery and replace the cover making sure no wires are trapped.

## 6. Loopback Test – 10Base-T Cable Test

**6.1.** Plug one end of the cable into the Source RJ45 socket 1 (marked with ▲) and the other end into the receiving RJ45 socket 2.
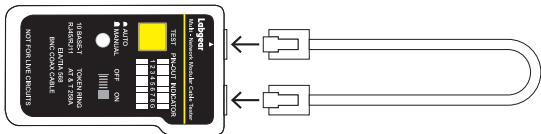


**6.2.** Slide the power switch ON, the upper and lower rows of LEDs will start to scan in sequence if the auto/manual switch is set to auto mode, or the LED will light on pin 1 if the auto/manual switch is set to manual mode.

**6.3.** To set the scanning mode press the auto/manual switch to the DOWN position for auto scan mode, all pins in sequence, or release the switch to the UP position for manual scan mode, one pin at a time. If the rate of auto scan is too quick choose manual mode, then press the test button to check the next pin in your own time.

## 7. Loopback Test – BNC and CCTV Coaxial Cable Test

**7.1.** Plug the two attached BNC adaptor cables on both RJ45 sockets, then connect the tested cable both ends on BNC adaptor cables.

**7.2.** As to the remaining procedures you may refer to 10Base-T cable test from step 3.2. to 3.3.
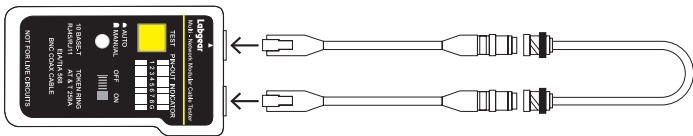


### Note:

- The centre pin of the BNC plug is read on LED 1 and the outer shielding ring is shown on LED 2.
- As CCTV cable has only two wires, we suggest you use manual scan mode to read the test.



1 2 3 4 5 6 7 8 G
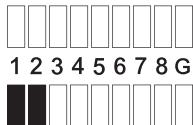
# 8. Remote Testing

This function is ideal for testing network cable runs. It is also useful for identifying which wall outlets are connected to each input on a patch panel.

**8.1.** Connect one end of the cable to be tested into the source RJ45 socket 1 (marked with ▲) on the master unit and the other end into the RJ45 socket of remote unit (8).

**8.2.** Now set the auto/manual button to auto mode if you are running the test by yourself.

**8.3.** Read the test result from the LED display on the remote unit.

### Note:

• If for instance you are testing the cable run from a patch panel socket to a wall outlet use an RJ45 patch lead to connect to the master unit at one end and a second RJ45 patch lead to connect to the wall plate to the remote unit.

• The LED display on the remote unit will scan in sequence: 1, 2, 3, 4, 5, 6, 7, 8, G the signals sent from the source end on the master unit. If the cable run is not correctly wired one or more lights will not light up or they will light up out of sequence.
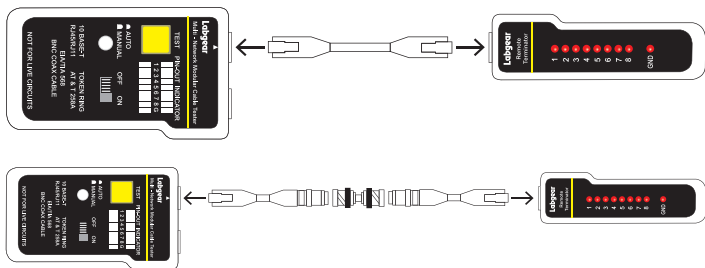
# 9. Test Results

## 9.1. Continuity

Pin 2 is connected both ends.

1 2 3 4 5 6 7 8 G

## 9.2. Open Circuit

Pin 2 is open.

1 2 3 4 5 6 7 8 G

## 9.3. Short Circuit

Pin 2 and Pin 3 are shorted.

1 2 3 4 5 6 7 8 G

## 9.4. Miswire

Pin 3 and Pin 6 are miswired.

1 2 3 4 5 6 7 8 G

Waste electrical and electronic products should not be disposed of with household waste. Please recycle where facilities exist. Check with your local authority for recycling advice.

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