QUINTEST
Structured Cable Tester

User Guide

Innovation through Technology

BI COMMUNICATIONS

Safety Warnings

This Instrument meets the safety requirements of IEC 61010-1:1993. It is for use on de-energised circuits only, however the Instrument is protected against telephone network voltages (EN60950: 1999 Scn2.3). Connection to mains supply voltages will result in damage to the Instrument and/or a hazard to the operator. Hence the user must assume responsibility for ensuring his or her own safety.

Symbols used on Instrument

! Caution: Refer to accompanying notes.

CE Equipment complies with current EU directives

Standards

Safety: IEC610101-1:1993 EMC: BS/EN 61326-1:1997

EMC Standard		Category of Pass
ESD	IEC 1000-4-2	B
EM	IEC 1000-4-3	A
Burst	IEC 1000-4-4	A
Surge	IEC 1000-4-5	A
Conducted RF	1EC 1000-4-6	A

Warning - Contains Magnetic Source

This Structured Cable tester contains magnets which are used to secure the main and remote units together when not in use.

Don not place the product near to items susceptible to magnetic damage.

Warning - Use only on isolated circuits

The Structured Cable tester must not be connected either directly or indirectly to mains electricity supply or to the public telephone betwork.

Contents

1. The Structured Cable Tester

The Structured Cable Tester is simple to use with continually sequencing LED displays. It tests and indicates wiring errors in both Unscreened Twisted Pair (UTP) and Screened Twisted Pair (STP) patch cables and installed networks.

The Structured Cable Tester indicates short circuits, open circuits, pair reversals, and other miswires for 2, 3, and 4 pair voice and data channels.

Two screened RJ45 sockets are provided, one for TIA568A and TIA568B and the other for USOC.

The Structured Cable Tester is powered by a 9v zinc chloride battery located in the main unit. An alkaline battery may be used giving increased battery life. It features a low battery indicator that alerts the user to the battery condition, thus avoiding erroneous results. To prevent battery drain and automatic switch disconnects the battery when the two units are in the closed/storage position.

The main and remote units lock together magnetically to form an integral unit for ease of carriage, providing protection to all components, yet are simple to separate for end to end testing of installed cables and patch leads.

2. Operating Instructions

To check a system it is recommended that all ports should be tested in turn pack to the relevant Patch Panel, checking for cross connections and miswires, and then confirming that all patch leads are satisfactory.

To test an installed system use the following procedure:

1. Attach the Remote Unit to the port under test at the far end of the network using the appropriate test socket and a patch lead.

2. Attach the Main Unit to the port under test on the relevant Patch Panel using the appropriate test socket and patch lead.

3. For a good cable the LED's on both main and remote units will illuminate green and in sequence. For STP cables the screen LED will also illuminate. This sequence will sequence continuously. Should the LED's indicate anything differently then the port is faulty and this should be noted accordingly. Fault diagnosis can be made using the following flow diagram.

4. Repeat this process on all ports to be tested noting any faults.

5. Repair all faults and retest.

3. Fault Flow Diagram

LEDs flash Green sequentially on Main & Remote Units

No — Yes: Wiring Correct

Corresponding LEDs off on Main & Remote Units

No — Yes: Open Circuit Pair

LED off on Remote Unit

No — Yes: Short Within Pair

LED flashed red on Remote Unit

No — Yes: Reversed Pair

LEDs green but out of sequence on Main or Remote

No — Yes: Transposed Pair

LED flashes green or 2 LEDs flash together

No — Yes: Short Between Pairs

Other displays indicate Multiple Faults

4. Pair / Wiring Configuration

	TIA 568A	TIA 568B	USOC 8 wire	USOC 6 wire
Pair 1	5 & 4	5 & 4	5 & 4	4 & 3
Pair 2	3 & 6	1 & 2	3 & 6	2 & 5
Pair 3	1 & 2	3 & 6	2 & 7	1 & 6
Pair 4	7 & 8	7 & 8	8 & 1	

N.B. When testing USOC 6 wire systems only LED's 1 to 3 will illuminate

5. Battery Replacement

The Structured Cable Tester includes a low battery voltage indicator on the main unit which illuminates when the battery needs replacing.

To avoid drain on the battery when the tester is not in use, an automatic power off switch operates when the units are magnetically locked together in their closed/storage position.

To change the battery undo the two screws on the main unit and remove the back cover. Replace the battery and refit the back cover, taking care not to over tighten the screws.

Failure to change the battery when the battery indicator illuminates could lead to erroneous readings.

6. Other Products from BI Communications

BI Communications manufactures test instruments for the diagnosis of faults on communication network wiring and the location of faults on telecommunication and datacommunication cables.

Other product in the range include:-

CT100 Coax Cable Tester

CT45 Structured Cable Tester & Trouble Shooter

LANcaster Professional Structured Cable Tester

CLT2 Cable Length Meter / TDR Fault Locator

TX2000 TDR Cable Fault Locator

TX2001 Professional TDR Cable Fault Locator & Toner

Since the range of products available is continually expanding please contact us for the latest information

7. Repair and Warranty

The Instrument contains static sensitive devices and is not user serviceable. If an Instrument fails, or its protection has been impaired, it should not be used and sent for repair by suitably trained and qualified personnel.

New Instruments are Guaranteed for 1 Year from the date of purchase by the user.

NOTE: Any unauthorised prior repair or adjustment will automatically invalidate the Warranty

INSTRUMENT REPAIR

For service requirements contact either:

The Distributor from whom the Instrument was originally purchased — or

Customer Service Dept
BI Communications plc
Unit 7, Buckwins Square
Burnt Mills Industrial Est.
Basildon, Essex. SS13 1BJ
Tel: +44(0)1268 729393
Fax: +44(0)1268 727987

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This Instrument is manufactured in the United Kingdom.
The Company reserves the right to change the specification or design without prior notice.

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