

## UTP and FTP Test Instructions

### Patch Cord Test:

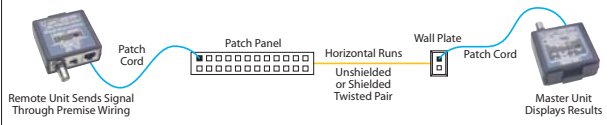
- 1) Slide selector switch to "RJ45 Test" position.
- 2) Insert each end of the cord in to the master and remote jacks.
- 3) All four indicators should illuminate green in a left to right sequence, (five LEDs in left to right sequence for FTP cables).
- 4) If testing patch cords utilizing only two pair (ex.10Base-T), only two LEDs will light representing those pairs.

### Premise Wiring Test:

**Note:** Before testing, disconnect all cabling to be tested from MAUs, hubs, network interface cards, and other active network equipment. Testing cabling connectors to these devices will yield erroneous readings.

- 1) Obtain two four pair patch cords and verify that they are good by following the above procedure (use four pair cords with shields for testing FTP premise runs).
- 2) Detach master and remote units from each other. Turn remote unit switch to the twisted pair position and plug the end of one patch cord into the modular jack.
- 3) Go to the wiring closet or central wiring point and insert the other end of the patch cord into the patch panel jack of the run to be verified.
- 4) Take the master unit to the opposite end of the run to be verified (ex. modular wall plate at an office drop). Plug one end of the patch cord into the master unit and the other into the wall plate.
- 5) Observe the lights on the master unit. LEDs on the master unit should light green, sequencing in a left to right sequence.

### Premise Wiring Test:



## Token Ring Instructions

To test Token Ring cabling utilizing IBM style data connectors, the user must purchase the Token Ring accessory kit (L-com Part # DXB66-TRK). This set of adapters will allow testing of Token Ring adapter cables (IBM data connector - DB9), Token Ring patch cables (IBM data connector - IBM data connector), and UTP/FTP adapter cables (RJ45 - IBM data connector).

### Patch Cord Test:

- 1) Slide selector switch to "RJ45 Test" position.
- 2) Select appropriate adapters to match the patch cord style under test.
- 3) Attach each adapter to master and remote units (use FTP patch cords supplied with the DXB66 to connect to the adapters).
- 4) Insert each adapter into the respective cable connectors.
- 5) Observe LEDs. The 4,5 and 3,6 LEDs should light green signifying good wiring. The shield LED should also light if STP (shielded twisted pair) or FTP (foil twisted pair) cabling was utilized.

### Premise Wire Test:

**Note:** Before testing disconnect all cabling to be tested from MAUs, hubs, network interface cards, and other active network equipment. Testing cabling connectors to these devices will yield erroneous readings.

- 1) Obtain two data connector adapters and attach to master and remote units per above instructions.
- 2) Turn remote switch to the twisted pair test position and proceed to one end of the run to be verified.
- 3) Attach remote unit to first end of the premise run.
- 4) Proceed to the other end of the premise run and attach the master unit.
- 5) Observe LEDs. The 4,5 and 3,6 LEDs should light green signifying good wiring. The shield LED should also light if STP (shielded twisted pair) or FTP (foil twisted pair) cabling was utilized.

**Battery Installation Troubleshooting:** If the remote LED does not blink when the switch is pushed the battery is most likely in need of replacement. Remove the two screws on the bottom of the remote unit. Remove top cover from the tester, trying to keep the slide lock, circuit board, and metal plate intact with the case bottom. Remove the 9V battery and replace (alkaline batteries are recommended for best performance). Reinstall case top and screws.

**Warranty:** L-com reserves the right to repair or remove defective units as they see fit. Faulty units due to abuse or excessive jack wear are not covered under warranty.

L-com's DXB66 Remote Cable Tester provides accurate testing of premise cabling and patch cords used in local area networks. The unit verifies pairing following the EIA/TIA568 standard. It also tests shield continuity which is required in European building installations and areas where noise is prevalent. BNC equipped, coaxial cabling commonly used in broadband networks such as Ethernet 10BASE-2 can also be tested.

- ✓ Sequencing LEDs verify continuity of 4 pair UTP/FTP cabling following EIA/TIA568 A or B pair designations (Ethernet 10BASE-T, Token Ring, and TP-PMD are all accounted for within the EIA568 code)
- ✓ Tests for presence of shield in Foil Twisted Pair (FTP) or Token Ring - Shielded Twisted Pair (STP) cabling
- ✓ Internal circuitry is fully protected against live cable damage
- ✓ BNC coax test checks Ethernet 10BASE-2 busses and patch cords (adaptors are available for testing other coaxial terminations)
- ✓ Dual colored LEDs identify shorted, open, or reversed pairs
- ✓ Remote and master units separate for premise wire tests and reattach for patch cord checking
- ✓ Convenient size with exclusive slide lock mechanism allows effortless patch cord and premise cable testing
- ✓ Easy to operate with all instructions listed right on the faceplate
- ✓ Adaptors available for testing Token Ring cabling utilizing type A or B, DB9, or RJ45 connectors
- ✓ Runs on one 9V alkaline battery (included)
- ✓ Includes belt mountable soft leatherette case, 2 screened patch cords, and informative instruction booklet
- ✓ Made in the U.S.A.



DXB66-INST  
REV. 1-08/01

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Made in U.S.A.

45 Beechwood Drive • N. Andover, MA 01845  
Web: [www.L-com.com](http://www.L-com.com) • E-mail: [sales@L-com.com](mailto:sales@L-com.com)  
Tel: (800) 343-1455 • Fax: (978) 689-9484 or (978) 685-6467

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45 Beechwood Drive, N. Andover, MA 01845  
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## MODEL# DXB66

# UTP, FTP, & Coaxial PROFESSIONAL TEST SET for LAN cabling & premise wiring

- ✓ Ethernet
- ✓ Token Ring
- ✓ TP-PMD
- ✓ EIA/TIA568



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## General Instructions

The DXB66 has two fundamental modes of operation: RJ45 (UTP/FTP) and BNC coaxial. The slider switch on the remote unit determines which mode is selected. Note: In order to preserve battery life, leaving the selector switch on BNC Test with no cables connected shuts power off. There are seven total LED indicators on the DXB66. The two LEDs on the remote unit indicate which test mode is in operation. A clear understanding of the master units five indicators is important in order to correctly interpret test results.

**Master Unit Indicators:** The first four LEDs on the master unit are bicolored (green and yellow) with each LED corresponding to a specific pair (tip and ring pins: 1&2, 4&5, 3&6 and 7&8). The fifth, Shield/BNC indicator is a single colored LED (green) corresponding to the shield used in FTP applications or coaxial continuity when in BNC Test mode.

**Note:** Under each LED indicator the pin numbers are marked for easy identification. Also marked above and below the row of LEDs are horizontal bars indicating which pairs must be present in order to comply with the respective wiring standard (ex. EIA568, 10Base-T, Token Ring, TP-PMD). During operation the master unit uses a left to right sequence to isolate each pair (and the shield if present) and pauses momentarily at each position to display the results. Indicator definitions are as follows:

### Master LED illuminates green:

Good continuity and correct polarity (ex. pin 1 connected to pin 1 and 2 to 2).

### Master LED illuminates yellow:

Reversed polarity within a pair (ex. pin 1 connected to 2 and 2 to 1) This is one of the most common faults found. Remember: Green = Good, Yellow = Bad.

### Master LED doesn't illuminate:

Bad continuity, one of the conductors is open (or not used in a two pair wiring standard for example). A short within a pair can also cause this condition.

### Master LEDs illuminating simultaneously:

This condition indicates shorting between pairs, typically caused by improper trimming or frayed wires in the punch down process.

### Master LEDs illuminating out of sequence:

Reversals between pairs. The most common example being a mix of EIA568A and EIA568B components would cause an LED sequence of 1-3-2-4.

### Shield/BNC LED illuminates:

This indicates good end to end shield continuity in FTP wiring or good coaxial wiring in BNC test mode.

### Shield/BNC LED unlit:

Open shield continuity in FTP. Open or shorted coaxial cabling.

## Coaxial Test Instructions

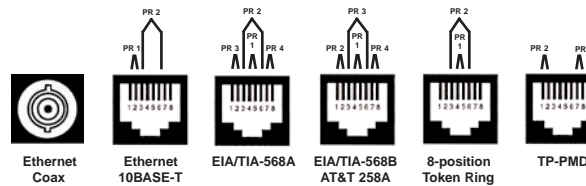
### Patch Cord Test:

- Slide the power switch on the remote unit to the right position marked BNC Test.
- Plug one end of the coaxial patch cord into the master BNC jack. Plug the other end of the coaxial patch cord into the BNC jack on the remote unit.
- The green LED on the master unit and the yellow LED on the remote unit should both light signifying a good patch cord. If the remote LED lights and the master LED remains unlit the patch cord is shorted. If both LEDs remain unlit the patch cord is open.

### Coaxial Bus Test:

**Note:** Before testing, disconnect all cabling to be tested from MAUs, hubs, network interface cards, and other active network equipment. Testing cabling connectors to these devices will yield erroneous readings.

- Disconnect all "T" adaptors from networks interface cards, leaving the coaxial bus intact but disconnected from active components.
- Go to the first end of the bus and remove the terminator. Connect the remote unit to this end of the bus and slide power switch to the BNC Test position.
- Proceed to the other end of the bus and remove the terminator. Connect the master unit and observe the LED marked Shield/BNC.
- If this LED lights green, the bus has no opens or shorts. If this LED does not light, plug the master unit into each "T" adaptor, gradually getting closer to the remote unit. By doing this the user can determine which part of the bus is faulty. Note that a failed bus could be due to defective "T" adaptors, cabling, or BNC connectors.

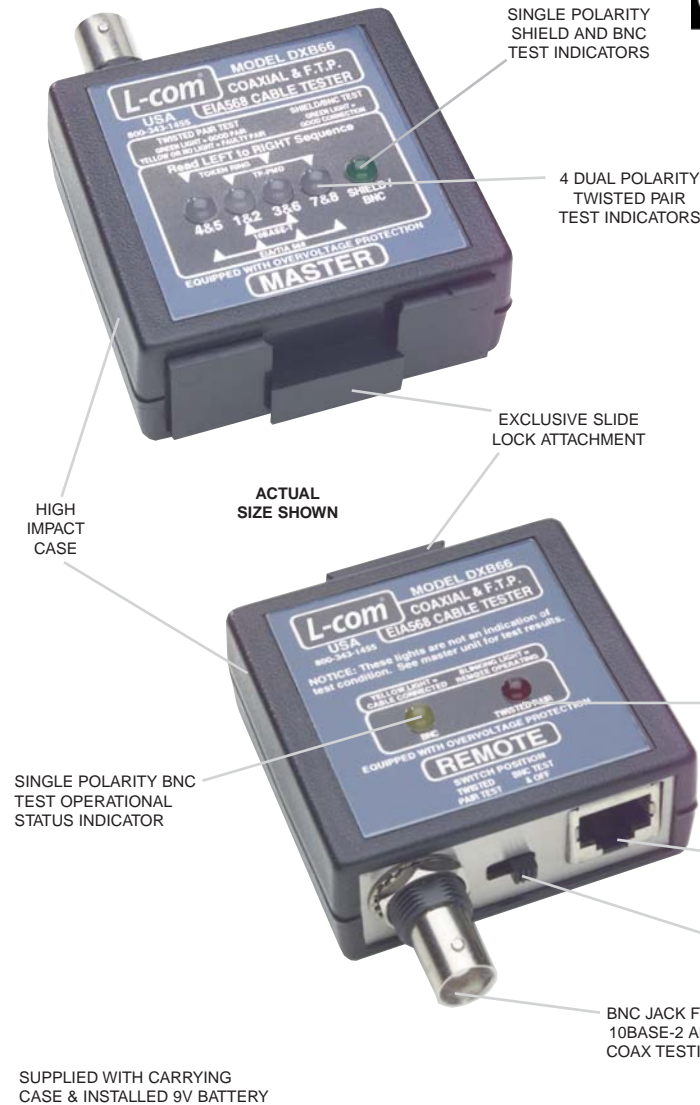


## MASTER UNIT PASSING TEST INDICATOR

4,5 1,2 3,6 7,8 SHIELD /BNC

①	②	③	④	⑤	EIA/TIA568A or B PLUS SHIELD
○	①	②	○	③	10BASE-T PLUS SHIELD
①	○	②	○	③	TOKEN RING (RJ45) PLUS SHIELD
○	①	○	②	③	TP-PMD PLUS SHIELD
①	②	③	④	○	EIA/TIA568A or B
○	①	②	○	○	10BASE-T
①	○	②	○	○	TOKEN RING
○	①	○	②	○	TP-PMD
○	○	○	○	*	COAX

Good wiring indicated by green LEDs sequencing from left to right. Faulty wiring indicated by yellow LEDs, unlit LEDs, or non left to right sequence. Passing coax test indicated by continuous green LED indicator.



SINGLE POLARITY SHIELD AND BNC TEST INDICATORS

4 DUAL POLARITY TWISTED PAIR TEST INDICATORS

EXCLUSIVE SLIDE LOCK ATTACHMENT

HIGH IMPACT CASE

ACTUAL SIZE SHOWN

SINGLE POLARITY BNC TEST OPERATIONAL STATUS INDICATOR

BLINKING TWISTED PAIR OPERATIONAL STATUS INDICATOR

SHIELDED RJ45 JACK

TWISTED PAIR / BNC POWER SWITCH

BNC JACK FOR 10BASE-2 AND COAX TESTING

SUPPLIED WITH CARRYING CASE & INSTALLED 9V BATTERY

## Specifications

Display	5 LEDs Master
	2 LEDs Remote
Power	9V Alkaline battery
Current drain (on)	25 mA
Average power consumption	225 mW
Peak power consumption	630 mW
Minimum battery operation voltage	6.0Vdc
Maximum cable length (4pr.)	tested to 1000ft (300 meters)

Over voltage protection level (max)	30 V dc
Allowable maximum current @ inputs	0.3 A dc
Continuous withstand overvoltage rating	20.0 V dc @ 0.1 A for 5 seconds
Master and Remote dimensions connected	6.0 in. x 2.3 in. x 1.0 in.
Master and Remote weight	6.0 oz.