LAN Cable Tester

User's Guide Part#: LANTESTPRO

StarTech.com

Specifications

1. LCD Display: 2 lines by 12 characters with LED back light
2. Connectors: (2) RJ-45 (8P8C) jack with shield
3. Controls keys (3): ***MODE/SEL, ESC,*** and ***ENTER*** buttons.
4. Power: (1) 9V dry cell battery.
5. Size: 15.0(H) x 6.5(W) x 3.5(D) cm.
6. Weight: 180g

Cable Types

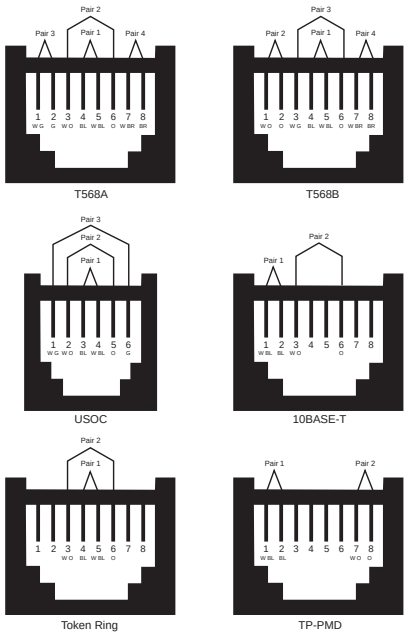
1. Unshielded Twisted Pair (UTP 100Ω, Cat 3, 4 & 5)
2. Foil screened Twisted Pair (FTP 100Ω and 120Ω, Cat 3, 4 & 5)
3. Shielded Twisted Pair (STP 150Ω IBM Type 1 & 6)
4. RG-58 Coaxial cable (LCT-400 ONLY)

Cable Locator

Cable location may be accomplished by using multiple LCT-T terminators. The LCT-T terminators incorporate factory set I.D. numbers and are available in IDs from 1 to 16.

Recognized Wiring Schemes

1. 10(100)Base-T
2. Token Ring
3. TP-PMD
4. AT&T 258A
5. EIA/TIA-568A/B
6. USOC
7. 10(100)Base/HUB
8. BNC/10Base-2
9. 4 User Defined



Features

1. Hand-held and easy to operate.
2. Easy to read LCD display, with back light.
3. Easy to diagnose RJ-45 cables (and BNC types with LCT-400) with preset wiring schemes.
4. Easy to read cable status, verify cable continuity: open, short, and mismatches.
5. Scan pin assignment.
6. Automatic cable identification. (Cable type search.)
7. Standard pin configurations and 4 user defined cable wirings memorized in CPU.
8. Can save user defined cable directly after testing.
9. Test for both shielded and unshielded cable types.
10. Review the captured pin assignment and failure status.
11. Maximum testing length is up to 3000 feet.
12 Identify and trace the other end's ID. (With up to 16 individual ID LCT-T)
13. BLow battery indicator.
14. Automatic power-off function.

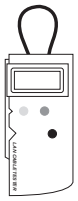
Automatic Power Saving Features

The LANTESTPRO has built in power management features intended to extend battery life. By far, the LCD back light is the most power-hungry component in the LANTESTPRO. Use of the LCD back light should therefore be limited to low ambient light applications. The back light may be toggled ON/OFF by simultaneously pressing the MODE/SEL and ESC function keys. If there is no further menu selection or function testing within 30 seconds, the back light will be automatically extinguished. Additional power management functions include both a "sleep" mode and an auto "power off" mode. If there is no key activity for 3 minutes, the unit will automatically enter "sleep" mode. All interface circuitry and the LCD display will be powered down. In this mode the unit draws very little power. Presing any key will cause the unit to "wake up" to a full functioning state. However, if there is no key activity for 10 minutes, the unit will automatically "power off". To recover from the "power off" mode, the unit must have its power switch cycled OFF and then ON. In the "power off" mode the power usage remains low. This feature is especially useful if the unit is inadvertently left powered on. The battery should be replaced when the battery low icon on the LCD display becomes visible during normal use of the LANTESTPRO. Additionally, if a low battery is swapped within 1 minute with a new one, the user defined memory contents will be retained. Just remember to turn the unit OFF before swapping the battery.

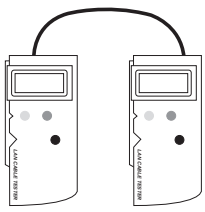
Operation

1. Connection: The LANTESTPRO is capable of testing cables in any one of four modes.

1. Local Test mode is accomplished by connecting both ends of the cable being tested to the LANTESTPRO's OUT and LOOPBACK IN ports. Local unit displays an ID equal to zero.

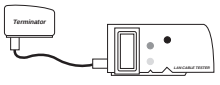


2. Remote Test mode uses 2 LANTESTPRO units, with the cable connected between on unit's OUT and the other unit's LOOPBACK IN ports. Remote unit displays an ID equal to zero.



3. Terminator Loopback mode uses the supplied terminator ID block connected at the remote end of the cable, while the other end of the cable is connected to the LANTESTPRO's OUT port.

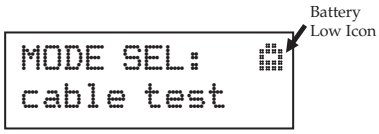
4. 10BASE-2 Test uses the supplied RJ-45 to BNC. The adapters may both be placed in the LANTESTPRO's RJ-45 jacks for local test or on may be placed at the LANTESTPRO's OUT port while the other is placed on the terminator for Terminator Loopback testing.



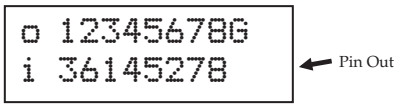
2. Turn power switch on: Following the initial powering on of the LANTESTPRO, the unit will display the startup logo with back light for 3 seconds, then will display the top menu for "cable test".

3. LANTESTPRO startup menu

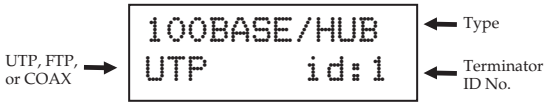
4. LANTESTPRO test menu



5. Press "ENTER" to test the cable.



6. Resuls Displayed



7. Use MODE/SEL to toggle between cable pin out screen and result display, press ESC back test menu.

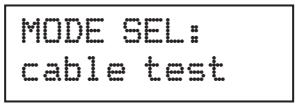
Cable Testing

During any mode of cable testing, the first screen display will show the top line out and bottom line in of connections 1 through 8 plus G (shield) as they are scanned. Following this screen page will be the cable indentification. If at least one wire pair is not connected, the display will read "NO CONNECT". A shorted cable will read "SHORT". A question mark in the pin out display indicates a short. An unknown is not the standard known pin outs or in the User Defined memory.

User Defined Cable

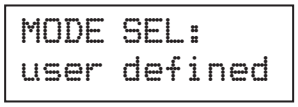
The User Define function allows you to describe your own custom cable pin out which will be entered into the cable indentification database and saved in the CPU memory. This custom pin out will remain available as long as a fresh battery is in the unit. Two methods are available for defining a cable. The first method is manual entry, while the second uses an "UNKNOWN" cable as the pin out source. First the manual method. From the very top of the LANTESTPRO menu (just after power on is completed) select the USER DEF menu by pressing the MODE/SEL button (step 1 to 2). The MODE/SEL button will now move the cursor to select one of four user memory locations (setp 3). Press ENTER to select the memory location that the cursor is on. The define display will show (step 4).

1. LANTESTPRO test menu



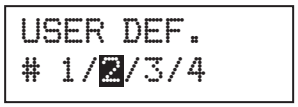
MODE/SEL

2. LANTESTPRO User Defined menu



ENTER

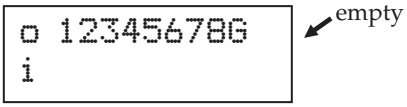
3. LANTESTPRO User Defined display (4 locations)



MODE/SEL

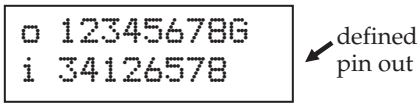
to location 1~4
the ENTER

4. LANTESTPRO Define cable display



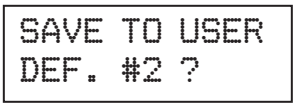
Use the ENTER key to set digits 1 to 8, G or blank (not connected), then press MODE/SEL to move to the next space. When completed press ESC. (step no. 5 to 6)

5. LANTESTPRO defined pin out

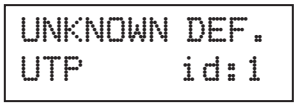


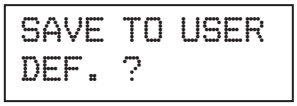
ESC

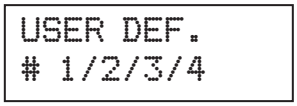
6. LANTESTPRO Save to User Defined Confirmation display



To save your definition, press ENTER. To exit without saving, press ESC. The alternate method is to save the "Unknown" type.

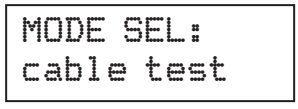




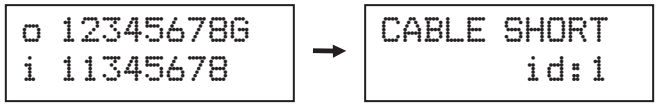


Select the Location with MODE/SEL and then press ENTER to save. Press ESC at anytime to exit.

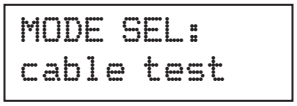
Cable Fault Identification Examples:



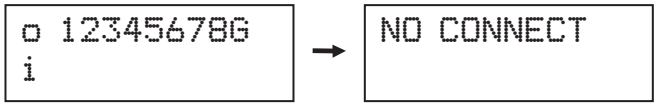
ENTER



In the above example, Pin 1 and Pin 2 were found to be shorted.



ENTER



In the second example, if a least one pair of the wires is not connected, the test result will show as "NO CONNECT".