

TIS 880 Network Cable Tester Users Manual

Read this manual thoroughly before use

INTRODUCTION

The TIS 880 tester is small hand-held cable tester, which enable network professionals to quickly and easily verify the integrity of straight-through, twisted pair cables and coaxial cables. In addition, TIS 880 can test the ID number of the ID test terminal connected to the remote end of the cable under test so that this cable can be verified.

Features

1. Tests UTP (Unshielded Twisted Pair), STP (Shielded Twisted Pair) cable and coaxial cable.
2. Checks continuity and configuration of wiring with RJ45 plugs.

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3. Tests for open circuits, shorts, miswires, reversals, and split pairs.

4. Shield detection tests a cable's shield integrity.

5. Debug mode quickly identifies which cable pairs have a specific wiring fault.

6. Main unit and Remote unit allow one person to test T568A, T568B, 10Base-T, and Token Ring cables.

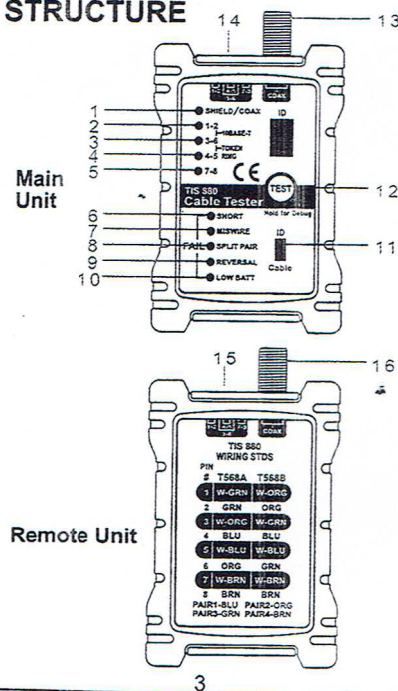
7. Main unit is powered by two 1.5V batteries and remote unit does not need battery.

8. Low battery indication

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STRUCTURE



Pair and SHIELD LEDs:

1. SHIELD/COAX LED
2. Pair 1-2 LED
3. Pair 3-6 LED
4. Pair 4-5 LED
5. Pair 7-8 LED

Fault Indicator LEDs:

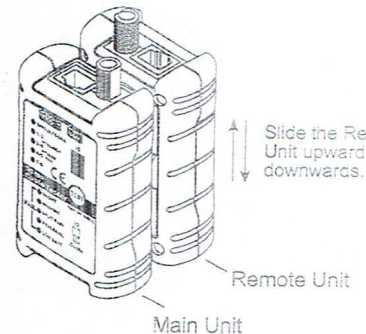
6. " SHORT " LED
7. " MISWIRE " LED
8. " SPLIT PAIR " LED
9. " REVERSAL " LED

Others:

10. " LOW BATT " LED
11. Mode Selector Switch
12. TEST Key
13. BNC Socket of Main Unit
14. RJ45 Socket of Main Unit
15. RJ45 Socket of Remote Unit
16. BNC Socket of Remote Unit

Removing the Remote Unit:

Before remote test, you must remove Remote Unit from the Main Unit. To do this, hold the Main Unit with a hand, use another hand to hold the Remote Unit and slide it upwards or downwards.



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TYPICAL FAULTS

For straight-through cable or cross-over cable tests, the tester has two operating modes: Test mode and Debug mode.

In Test mode, a flashing pair LED indicates that this wire pair has a fault, meanwhile a fault indicator LED lights up to indicate which fault was detected. Multiple flashing pair LEDs indicate multiple pairs and/or multiple faults. In this situation, you should use Debug mode to diagnose the faults in more detail. Correct the faults until the cable is verified to be correct by using the tester.

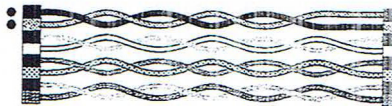
Fault Details

Short



A short circuit condition exists.

Reversal



The pin for one wire in a pair is connected to the opposite pin for this pair in the remote jack.

Miswire



Improper assignment of individual wire pairs to pins for the wiring schemes tested.

Split Pairs



Split pairs occur when the tip (positive

conductor) and ring (negative conductor) of two twisted pairs are interchanged.

Note:

For some types of cables, so called " OPEN " is not an abnormal condition. Therefore the tester does not have an " OPEN " indicator LED. Open is displayed as an unlit pair or shield LED when the tester shows the test result. The user should determine if a wire is present and continuous or OPEN by comparing the illuminated pair and/or shield LEDs with the expected number of wires (of the cable) that should be good.

During test, if the " LOW BATT " LED lights up, the batteries in the Main Unit are low. To avoid possible wrong test result, replace the batteries immediately.

NOTICE PRIOR TO USE

1. Before using the tester, disconnect t

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- cable to be tested from any device; otherwise the device may be damaged.
- After test, the tester will turn off automatically.

HOW TO TEST A STRAIGHT-THROUGH CABLE

TEST Mode

- Connect the Main Unit to one end of the cable to be tested and the Remote Unit to the other end of this cable.
- Set the Mode Selector Switch to the "Cable" position.
- Press the **TEST** key and then release it. The tester starts testing the cable. The five green LEDs flash one time sequentially from top to bottom, then the

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- If a pair has fault(s), its pair LED will give a short flash, then this pair LED, other pair LEDs related to this pair's fault(s), and the fault indicator LED(s) will give a long flash simultaneously.
 - If a pair LED gives only a short flash without a succeeding long flash, this pair has a OPEN fault.
- After the DEBUG function cycles 4 times through the pairs, the tester will turn off automatically. At any time, you can stop the test manually by pressing the **TEST** key again, the tester will turn off.

Example for DEBUG mode:

The cable fault is a **SHORT** on Pair 1-2 and Pair 3-6.

The DEBUG mode LED series will be as follows:

- Pair 1-2 LED gives a short flash, then pair 1-2 LED, pair 3-6 LED and the

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BATTERY REPLACEMENT

When the "LOW BATT" LED lights continuously, the batteries are low and should be replaced immediately.

- Remove the screws on the back cover of the Main Unit and remove the back cover.
- Replace the exhausted batteries with new batteries the same type (1.5V, AAA or equivalent).
- Reinstall the back cover and the screws.

SPECIFICATIONS

Cable Length: Minimum: 1m
Maximum: 300m

Battery: 1.5V, AAA or equivalent, two pieces

Size: 98×64×58 mm (in storage state)

Weight: about 165g (including batteries)

tester shows the test result – flashing pair LED indicates this pair has fault, meanwhile fault indicator LED lights up to indicate the fault.

- The test will last about 12 secs, then the tester will turn off automatically. At any time, you can stop the test manually by pressing the **TEST** key again, the tester will turn off.

Example for TEST mode:

The cable fault is a **SHORT** on pair 1-2 and pair 3-6.

After the five green LEDs flash one time sequentially from top to bottom, the tester shows the following test results simultaneously:

Pair 1-2 LED and pair 3-6 LED flash green, meanwhile the "SHORT" LED lights red.

Pair 4-5 LED lights green indicating a good pair.

Pair 7-8 LED lights green indicating a good pair.

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"SHORT" red LED give a long flash simultaneously.

- Pair 3-6 LED gives a short flash, then pair 3-6 LED, pair 1-2 LED and the "SHORT" red LED give a long flash simultaneously.

- Pair 4-5 LED flashes two times in series, meanwhile no fault indicator LED lights. This indicates that this pair is wired correctly.

- Pair 7-8 LED flashes two times in series, meanwhile no fault indicator LED lights. This indicates that this pair is wired correctly.

- After the DEBUG function cycles through the pairs 4 times, the tester will turn off automatically.

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NOTE

- This manual is subject to change without notice.
- Our company will not take the other responsibilities for any loss.
- The contents of this manual can not be used as the reason to use the tester for any special application.

DEBUG Mode

The DEBUG mode identifies which cable pairs have wiring fault. It cycles through pairs displaying a test result for one pair at a time. The fault is indicated by simultaneously lighting pair LED(s) and fault indicator LED(s). A short flash on pair LED indicates that the pair is under test, a long flash on pair LED is the destination of test.

- Set the Mode Selector Switch to the "Cable" position. Then press and hold the **TEST** key until all LEDs light, then release the key.
- The pair LEDs and the fault indicator LEDs work together to identify which pair is incorrect.
 - If a pair LED flashes two times in series (one short and one long), meanwhile no fault indicator LED lights, the pair is wired correctly.

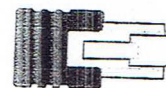
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Note:

For coaxial cable tests, the Mode Selector Switch can be in any function position.

HOW TO VERIFY A CABLE

- Connect the Main Unit to one end of the cable to be verified and ID test terminals (optional) to other possible ends of this cable.
- Set the Mode Selector Switch of the Main Unit to the "ID" position.
- Press "TEST" key and then release it, the "ID" LED display of the Main Unit will show the ID number (1 - 8) of the ID test terminal connected to the cable under test so that this cable can be verified.



ID test terminal

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DISPOSAL OF THIS ARTICLE

Dear Customer,
If you at some point intend to dispose of this article, then please keep in mind that many of its components consist of valuable materials, which can be recycled. Please do not discharge it in the garbage bin, but check with your local council for recycling facilities in your area.

