

DTX-1500 CableAnalyzer™

Getting Started Guide

The DTX-1500 CableAnalyzer™ is a rugged, hand-held instrument used to certify, troubleshoot, and document copper cabling installations.

Accessing the Product Manuals

This guide provides basic information to help you get started using the tester. For more detailed information, see the latest versions of the *DTX-1500 CableAnalyzer Users Manual* and the *DTX-1500 Technical Reference Handbook* provided on the Fluke Networks website. Go to www.flukenetworks.com, click **SUPPORT > Manuals**, then select **DTX CableAnalyzer Series**.

Safety Information

	Warning or Caution: Risk of damage or destruction to equipment or software. See explanations in the manuals.
	Warning: Risk of fire, electric shock, or personal injury.
	This key turns the Product on and off.

Warning

To prevent possible fire, electric shock, or personal injury:

- Read all safety information before you use the Product.
- Carefully read all instructions.
- Do not connect the tester to telephony inputs, systems, or equipment, including ISDN inputs. Doing so is a misapplication of this product, which could result in damage to the tester and create a potential shock hazard to the user.



- Do not open the case. You cannot repair or replace parts in the case.
- Do not modify the Product.
- Use only replacement parts that are approved by Fluke Networks.
- Do not touch voltages > 30 V AC rms, 42 V AC peak, or 60 V DC.
- Do not use the Product around explosive gas, vapor, or in damp or wet environments.
- Use this Product indoors only.
- Do not connect the Product to voltages that are higher than the maximum voltage rating for the Product.
- For Products that have multiple connectors for different types of tests on copper cabling, disconnect unused test leads from the connectors before you do a test.
- Use the Product only as specified, or the protection supplied by the Product can be compromised.
- Do not use and disable the Product if it is damaged.
- Do not use the Product if it operates incorrectly.
- Batteries contain hazardous chemicals that can cause burns or explode. If exposure to chemicals occurs, clean with water and get medical aid.
- Remove the batteries if the Product is not used for an extended period of time, or if stored in temperatures above 50 °C. If the batteries are not removed, battery leakage can damage the Product.
- The battery door must be closed and locked before you operate the Product.
- Repair the Product before use if the battery leaks.
- Recharge the batteries when the low battery indicator shows to prevent incorrect measurements.
- Turn off the Product and disconnect all test leads, patch cords, and cables before you replace the battery.
- Do not disassemble or crush battery cells and battery packs.
- Do not put battery cells and battery packs near heat or fire. Do not put in sunlight.
- Do not operate the Product with covers removed or the case open. Hazardous voltage exposure is possible.
- Remove the input signals before you clean the Product.
- Have an approved technician repair the Product.
- Do not put metal objects into connectors.

- For Products with rechargeable batteries, use only AC adapters approved by Fluke Networks for use with the Product to supply power to the Product and charge the battery.

Caution

To prevent damage to the Product or cables under test and to prevent data loss, read all safety information given in all documentation supplied with the Product.

Powering the Tester

- You may power the tester with the ac adapter included or with the removable lithium ion battery pack.
- You may charge the battery when it is attached or detached from the tester (Figure 1).
- The battery charges fully in about 4 hours with the tester off. A fully-charged battery lasts for at least 12 hours of typical use.

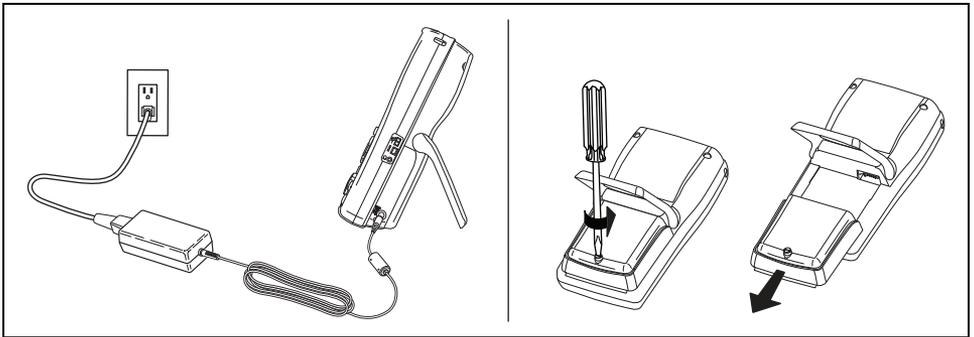


Figure 1. Charging the Battery (left) and Removing the Battery (right)

Setting the Reference

The reference procedure sets a baseline for insertion loss, ACR-F, and DC resistance measurements.

Run the tester's reference procedure at the following times:

- When you want to use the tester with a different smart remote. You can reference the tester to two different smart remotes.
- Every 30 days. Doing so ensures maximum accuracy of test results.

You do not need to set the reference after changing link interface adapters.

To set the reference, do the following:

Note

Turn on the tester and smart remote and let them sit for 1 minute before setting the reference. Set the reference only after the testers have reached an ambient temperature between 10 °C and 40 °C (50 °F and 104 °F).

- 1 Connect the main and remote testers together as shown in Figure 2.
- 2 Turn the rotary switch to **SPECIAL FUNCTIONS**.
- 3 Highlight **Set Reference**; then press **ENTER**.
- 4 Press **TEST**.

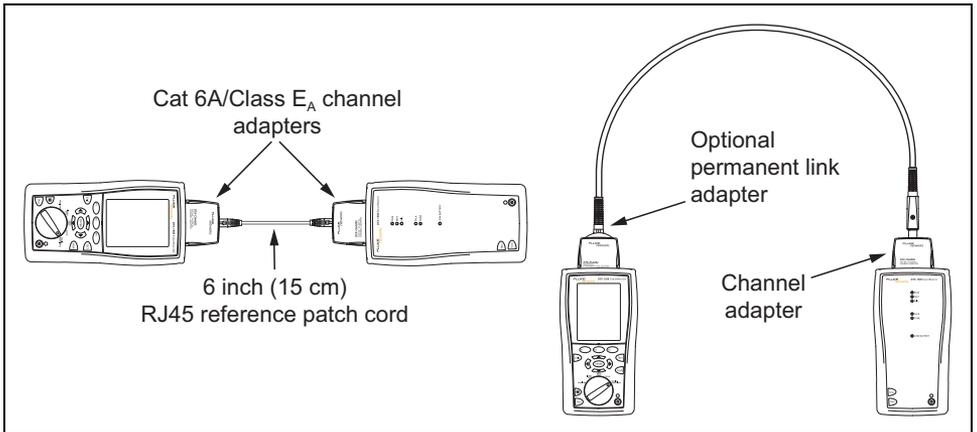


Figure 2. Twisted Pair Reference Connections

Preparing to Save Tests

- **Check the memory space available:**

Turn the rotary switch to **SPECIAL FUNCTIONS**; then select **Memory Status**.

- **Select a cable ID source:**

You can select IDs from a pre-generated list or create an ID after each test. Turn the rotary switch to **SETUP**, select **Instrument Settings**, select **Cable ID Source**; then select a source.

- **Set up a job folder:**

On the **Instrument Settings** menu select **Current Folder**. Select an existing folder or press **F1** **Create Folder** to create a new folder.

- **Enter job information:**

On the **Instrument Settings** menu press **▶** to show the tab with the **Operator**, **Site**, and **Company** names. To enter a new name, select a setting, press **F1** **Create** if necessary; then use the softkeys, **◀** **▶** **▲** **▼**, and **ENTER** for editing. Press **SAVE** when you are finished.

Autotest on Twisted Pair Cabling

- 1 Attach adapters appropriate for the job to the tester and the smart remote.
- 2 Turn the rotary switch to **SETUP**, then select **Twisted Pair**. Set the following on the **Twisted Pair** tab:
 - **Cable Type**: Select a list of cable types; then select the cable type to be tested.
 - **Test Limit**: Select the test limit required for the job. The screen shows the last nine limits used. Press **F1** **More** to see other lists of limits.
- 3 Turn the rotary switch to **AUTOTEST** and turn on the smart remote. Connect to the cabling as shown in Figure 3 or 4.
- 4 Press **TEST** on the tester or smart remote. To stop the test at any time, press **EXIT**.
- 5 The tester shows the Autotest **Summary** screen when the test is complete (Figure 5). To view results for a specific parameter, use **▲** **▼** to highlight the parameter; then press **ENTER**.
- 6 If the Autotest failed, press **F1** **Fault Info** for possible causes of the failure.
- 7 To save the results, press **SAVE**. Select or create a cable ID; then press **SAVE** again.

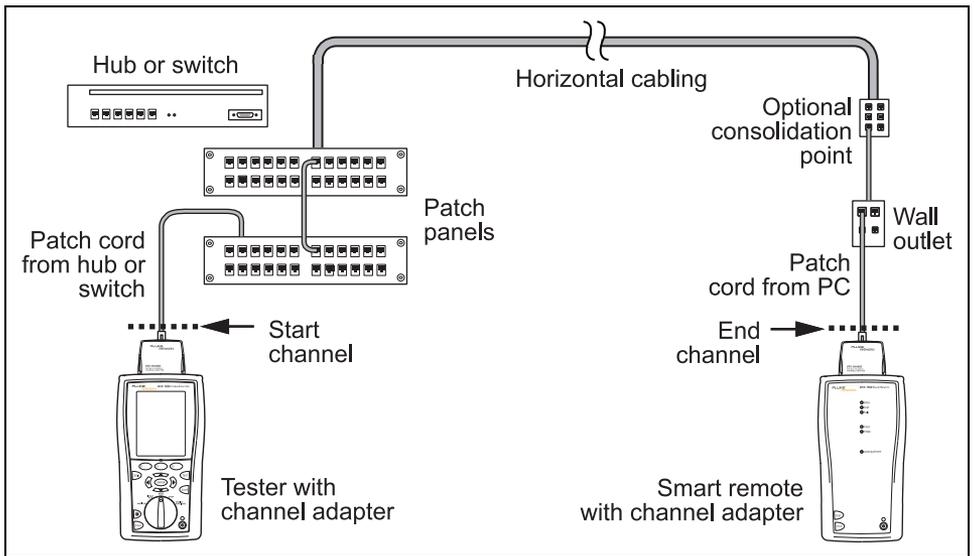


Figure 3. Channel Test Connections

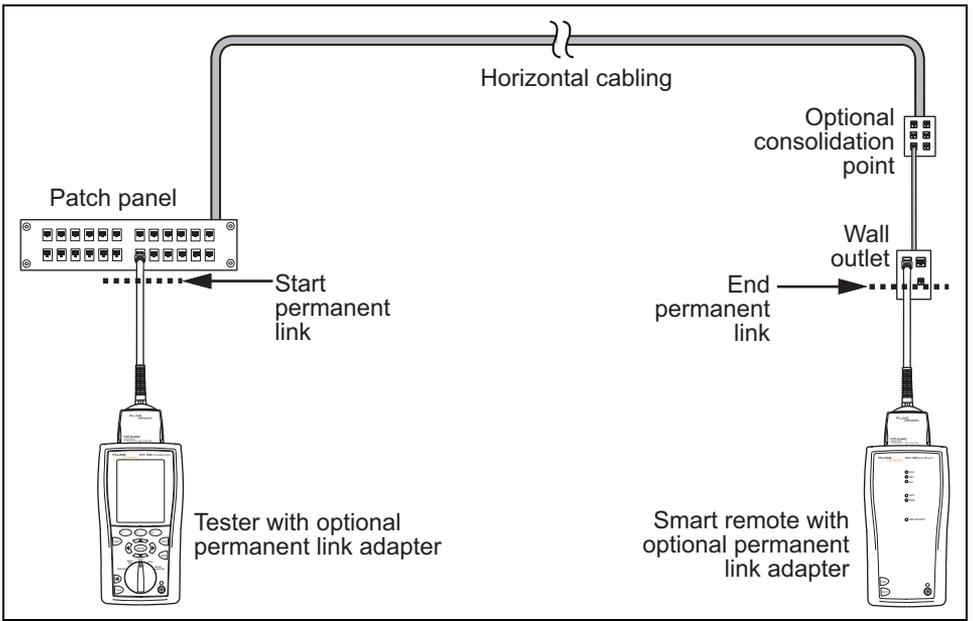


Figure 4. Permanent Link Test Connections

Autotest Summary Results

- ① **PASS:** All parameters are within limits.

FAIL: One or more parameters exceed the limit.

PASS*/FAIL*: One or more parameters are within the tester's accuracy uncertainty range, and the "*" notation is required by the selected test standard.

- ② Press (F2) or (F3) to scroll the screen.

- ③ If the test failed, press (F1) for diagnostic information.

- ④ Action prompt for the screen. Use to highlight a parameter; then press (ENTER).

- ⑤ : The test passed.

: The parameter was measured, but has no PASS/FAIL limit in the selected test limit.

X: The test failed.

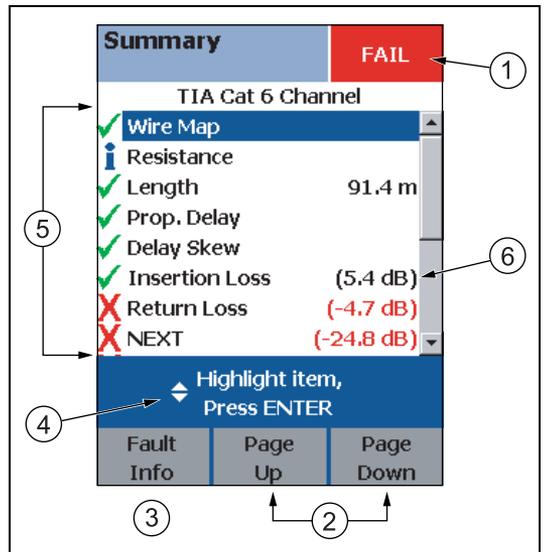


Figure 5. Autotest Summary for Twisted Pair Cabling

: See ① PASS/FAIL*.

- ⑥ The worst margin found for the test.

Registration

Registering your product with Fluke Networks gives you access to valuable information on product updates, troubleshooting tips, and other support services.

To register, fill out the online registration form on the Fluke Networks website at www.flukenetworks.com/registration.

Contacting Fluke Networks



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Fluke Networks operates in more than 50 countries worldwide. For more contact information, go to our website.

General Specifications

Battery Type	Lithium-ion
Temperature	Operating: 0 °C to +45 °C; Storage: -20 °C to +60 °C
Altitude	Operating: 4,000 m (3,048 m with AC adapter) Storage: 12,000 m

Certifications and Compliance



Conformite Europeene. Conforms to the requirements of the European Union and the European Free Trade Association (EFTA).



Listed by the Canadian Standards Association.



Conforms to relevant Australian standards.



CFR Title 47, Part 15, Subpart B

LIMITED WARRANTY AND LIMITATION OF LIABILITY

Fluke Networks mainframe products will be free from defects in material and workmanship for one year from the date of purchase, unless stated otherwise herein. Parts, accessories, product repairs and services are warranted for 90 days, unless otherwise stated. Ni-Cad, Ni-MH and Li-Ion batteries, cables or other peripherals are all considered parts or accessories. This warranty does not cover damage from accident, neglect, misuse, alteration, contamination, or abnormal conditions of operation or handling. Resellers are not authorized to extend any other warranty on Fluke Networks' behalf. To obtain service during the warranty period, contact your nearest Fluke Networks authorized service center to obtain return authorization information, then send your defective product to that Service Center with a description of the problem.

For a list of authorized resellers, visit www.flukenetworks.com/wheretobuy.

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