Owner's Manual

Multi-Function Cable Tester with Wire Tracker (RJ45, RJ11, BNC, USB)

Model: T010-001-K

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Package Includes

- Main Tester Unit
- Remote Tester Unit
- Remote Probe Unit
- RJ11 Jumper Cable – 6 in.
- RJ45 Jumper Cable – 6 in.
- RJ11 to Alligator Clips Adapter
- Headphones for Cable Tracing
- Owner's Manual

Product Features

- All-in-one, multi-function kit for testing cable wiring, length, fault, and location of cables
- Easy-to-use LCD interface
- Test cable wiring for open, short, cross, reverse and pairing connection
- Determine location of open circuit position
- Determine the length of a cable, whether in a wall or on a spool— up to 4,920 ft. (1,500 m)
- Perform cable tracing to find a cable within a bundle of cables
- Allows for testing of RJ45 (STP/UTP), RJ11, USB and BNC cabling and common metal wires (using alligator clips adapter)
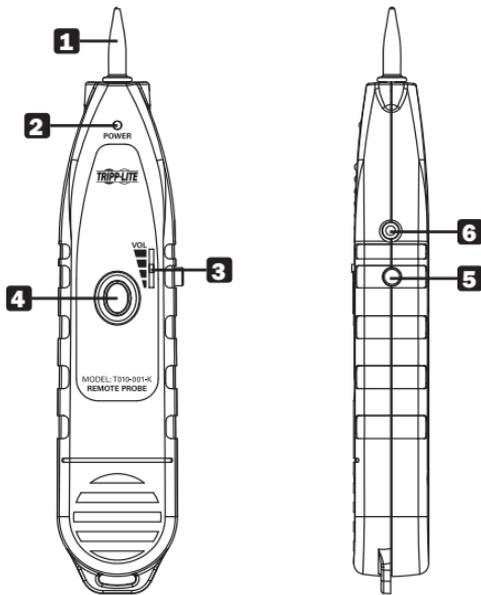
Main Tester Unit

1 **RJ11 Port**

2 **USB-B Port**

3 **BNC Port**

4 **RJ45 SCAN Port** – Used for cable tracing test.

5 **RJ45 MAIN Port** – Used in cable wiring, length and fault test.

6 **UP Button** – Press to move up through the menu in the LCD interface.

7 **DOWN Button** – Press to move down through the menu in the LCD interface.

8 **ON/OFF Button** – Press to turn the Main Tester on and off.

9 **ENTER Button** – Press to select an option in the LCD interface menu.

TRIPP-LITE MODEL:T010-001-K MAIN TESTER
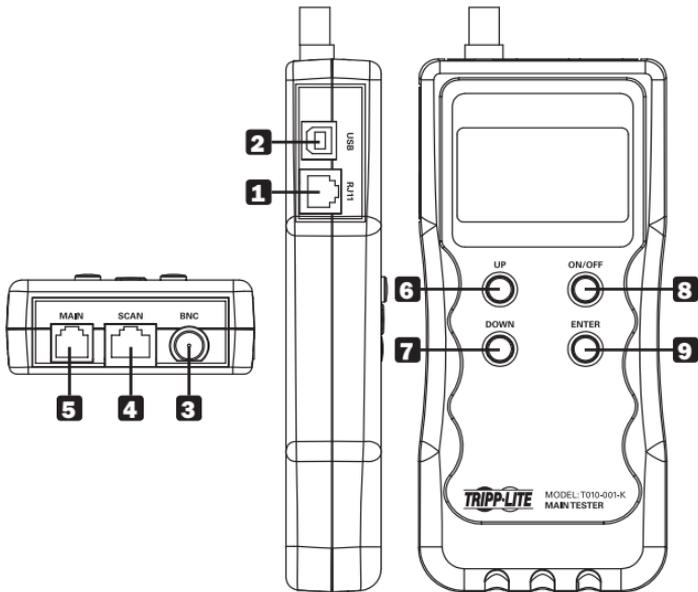
Remote Probe Unit

1 Probe – Part of the unit that is pointed towards the cable when performing cable tracing.

2 Power LED – Illuminates red when the test button is pressed during cable tracing.

3 Volume Slider – Move it up and down to adjust the volume of the tone generated during cable tracing.

4 Test Button – Press to send the tone through the cable when performing cable tracing.

5 Flashlight Button – Press to turn on the flashlight at the front of the probe.

6 Audio Jack – Plug in the included headphones here.

Remote Tester Unit

1 RJ45 Port
2 USB-A Port
3 RJ11 Port
4 BNC Port
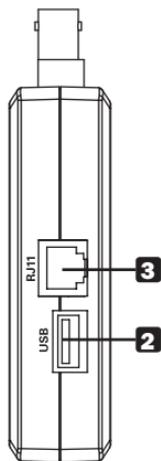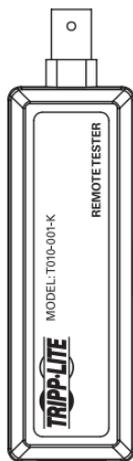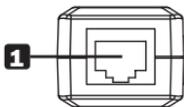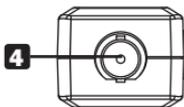
LCD Interface Menu

The following options are available in the LCD Interface Menu.

- **Language** – Select the language in which to display the LCD Interface Menu.
- **Type** – Choose the type of cable you are connecting to.
- **Wire Mapping** – Used to perform Wire Map testing.
- **Cable Length** – Used to perform a Cable Length test.
- **Scan Cable** – Used when performing the Wire Tracking function.
- **Unit** – Determine the unit of measurement in which to display length information.
- **Calibration** – Used to calibrate the tester prior to performing a Cable Length test.
- **Load Data** – Used to load saved calibration data.
- **Auto off-time** – Used to determine the length of inactivity before the unit shuts off.

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Wire Mapping Test

Note: The Remote Tester unit beeps on and off when a "correct connection" is detected in Wire Mapping. A long beep occurs when an "open circuit on near end" is detected in Wire Mapping.

1. To perform a Wire Mapping test, connect a patch cable (Cat5, Cat6, RJ11, USB, BNC) from the appropriate connector on the Main Tester unit to the Remote Tester unit. You can also connect an installed cable from a faceplate, switch or other device to the Main Tester.

   Note: When testing Cat5 / Cat6 cable, use the RJ45 port on the Main Tester marked Main.

2. Press the On / Off button on the Main Tester unit to turn it on.

3. In the menu, use the Up / Down buttons to navigate to the *Type* option. Press the *Enter* button to toggle between the cable type options until you get to the type of cable you are testing.

4. After selecting the cable type, navigate to the *Wire Mapping* option in the menu and press the *Enter* button to initiate the test. A screen will appear indicating that the tester is identifying the wire mapping of the connected cable, followed by the results of the test. Listed below are the possible test results.

   Note: Test results are shown for Cat5 / Cat6 cable testing. The number of pins shown in the test results will differ based on the type of cable being tested.

   a. Correct Connection – When a cable with a correct connection is tested, results like those to the right will appear to indicate that all of the proper pins are connected and there are no faults.

   ```
   Wire Map: Remote
   M: 1 2 3 4 5 6 7 8 G
      | | | | | | | | |
   R: 1 2 3 4 5 6 7 8 G
   ```

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Wire Mapping Test

b. Cable Open / Too Short – When the results to the right appear, it means that either the cable under test does not have any pins directly connected from one end to the other, you do not have a cable connected at all (or one end is not connected), you do not have the appropriate cable type selected in the LCD Interface, or the cable is too short to be tested.

```
⚠  Cable open or
   too Short!
```

c. Open Circuit on Near End – If there are open pins found on the near end of the cable, results like those to the right will appear, indicating the open pins with an X.

```
Wire Map: Local
M: 1 2 X 4 5 X 7 8
   | | | | | | | |
S: 1 2 3 4 5 6 7 8
```

d. Open Circuit on Far End – If there are open pins found on the far end of the cable, results like those to the right will appear, indicating the open pins with an X.

```
Wire Map: Remote
M: 1 2 3 4 5 6 7 8
   | | | | | | | |
R: 1 2 3 X X 6 7 8
```

e. Open Circuit In-Between Near and Far Ends – If there is an open circuit in-between the near and far ends, results like those to the right will appear, indicating the open pins with an X on both sides. When there is an open circuit in-between the near and far ends of the cable, you can locate the position of the fault by performing a Cable Length test.

```
Wire Map: Local
M: 1 2 X 4 5 6 7 8
   | | | | | | | |
S: 1 2 X 4 5 6 7 8
```

f. Short Circuit – If there is a short circuit, results like those to the right will appear to indicate the affected pins.

```
Short mapping:
1 2 3 4 5 6 7 8
     |___|
```

Wire Mapping Test

g. Crosstalk – If crosstalk is found, results like those to the right will appear. The pins where crosstalk is detected will be flashing.

```
Wire Map: Remote
M: 1 2 3 4 5 6 7 8
   | | | | | | | |
R: 1 2 3 4 5 6 7 8
        └───┘
```
**Crosstalk line pair flashes**

h. Correct Connection (Installed Cable) – When testing installed cable that connects from the Main Tester unit to a wallplate, switch or other device, a correctly connected cable is indicated by results like those to the right.

```
Short mapping:
1 2 3 4 5 6 7 8
└─┴─┴─┴─┴─┴─┴─┘
```
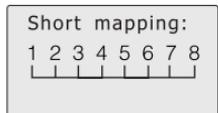
i. Open Circuit (Installed Cable) – When testing installed cable that connects from the Main Tester unit to a wallplate, switch or other device, open circuits are indicated by results like those to the right. They indicate pins 1 and 2 are open.

```
Short mapping:
1 2 3 4 5 6 7 8
    └─┴─┴─┴─┴─┘
```
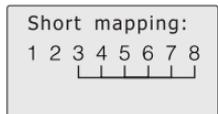
j. Short Circuit (Installed Cable) – When testing installed cable that connects from the Main Tester unit to a wallplate, switch or other device, a short circuit is indicated by results like those to the right. They indicate a short circuit involving pins 2 and 3.

```
Short mapping:
1 2 3 4 5 6 7 8
  └─┘
```

9
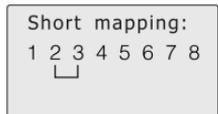
Cable Length Test

If performing a Cable Length test for the first time, it is recommended you perform Calibration for the most accurate results. To perform Calibration, follow the steps below.

Calibration

1. Connect a cable to the appropriate port on the Main Tester unit, using the RJ45 port marked *Main* for Cat5 / Cat6 cables. You do not need to connect the other end to the Remote Tester unit.
2. Navigate to the *Type* option in the LCD Interface Menu and select the type of cable you have connected by pressing the *Enter* button to toggle through the options.
3. Once you've selected the appropriate cable, navigate to the *Unit* option and select the unit of measurement you want to display results in by pressing the *Enter* button to toggle through the options.
4. Once you've selected the unit of measurement, navigate to the *Calibration* option and press the *Enter* button to initiate calibration.
5. A screen will appear asking if you want to proceed. Choose *Yes* and press the *Enter* button to proceed with calibration.
6. The tester will measure the cable, providing the results as a *Base Adjust* measurement. Use the *Up* and *Down* buttons to bring the length to the exact measurement of the cable you have connected and press the *Enter* button.
7. Upon pressing *Enter*, a screen will appear that lists *Calibration 1* through *Calibration 7*. You can save up to seven sets of calibration data to use with various cables. Select the desired option and press the *Enter* button to store your calibration data to that option.
8. To use the stored data, navigate to the *Load Data* option in the LCD Interface Menu and press *Enter*. The same list of calibration options appear, listing *Calibration 1* through *Calibration 7*. Select the desired option and press *Enter* to load the calibration data into the tester. You are now ready to to perform *Cable Length* testing.

Cable Length Test

Performing a Cable Length Test

1. Connect a cable to the appropriate port on the Main Tester unit, using the RJ45 port marked *Main* for Cat5 / Cat6 cables. You can choose to connect the other end to the Remote Tester unit or not.

2. Navigate to the *Type* option in the LCD Interface Menu and select the type of cable you have connected by pressing the *Enter* button to toggle through the options.

3. Once you've selected the appropriate cable, navigate to the *Unit* option and select the unit of measurement you want to display results in by pressing the *Enter* button to toggle through the options.

4. Once you've selected the unit of measurement, navigate to the *Cable Length* option and press the *Enter* button to initiate the test.

5. A screen will appear indicating the tester is identifying the length of the connected cable, followed by the results of the test. The possible test results are listed below.

   a. Normal Pairing and Length – When there are no faults in the cable pairing, results like those to the right will be shown. If you have the other end of the cable connected to the Remote Tester unit, the middle column of

1	Open	105.0m
2	Open	105.0m
3	Open	105.0m
4	Open	105.0m

   text will show M-R. If you do not have the remote end of the cable connected, the middle column of text will show OPEN. The Pins will be displayed in the left column of text, and the calculated length in the right column. Press the *Up* and *Down* buttons to toggle to pins that are not displayed on the screen.

   b. Abnormal Pairing and Length – When there are faults found in the cable pairing, test results similar to the *Normal Pairing and Length* results will be shown, except for any pins with faults, the length shown in the right column will be shorter than that of the rest of the cables. This will indicate the location of the fault along the wire.

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Wire Tracker Test

Notes:

- *The included headphones can be used when in a noisy environment to ensure you are hearing the tone from the Remote Probe Unit.*
- *Press the flashlight button on the side of the Remote Probe Unit to turn on the light for use in dark areas.*

1. Connect a cable to the appropriate port on the Main Tester unit, using the RJ45 port marked *Scan* for Cat5 / Cat6 cables.

2. Navigate to the *Type* option in the LCD Interface Menu and select the type of cable you have connected by pressing the *Enter* button to toggle through the options.

3. Once you have selected the cable type, navigate to the *Scan Cable* option and press the *Enter* button to initiate the test. A screen will appear to indicate that a scan is taking place.

4. Using the Remote Probe Unit on the other end of the cable, press and hold down the *Test* button while running the probe across the various cables. When the probe comes into contact with the cable connected to the main tester, the probe tone will sound to indicate that you have found it.

Recalibration

Note: Prior to performing recalibration:

• *The unit needs to be turned OFF.*

• *An RJ45 cable must connected to the Main Tester unit and the Remote Tester Unit. Not doing so will prompt the error message "Invalid remote".*

1. Press down on the UP, DOWN and ON/OFF buttons simultaneously.

2. Release the ON/OFF button and continue holding down the UP and DOWN buttons until a menu appears on the screen.

3. Scroll down until "con1-8:thro" appears on the screen, then press the ENTER button. A similar screen will appear:
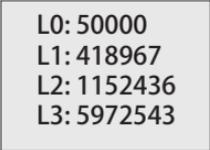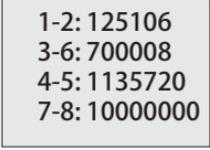
```
L0: 50000
L1: 418967
L2: 1152436
L3: 5972543
```

4. Press the ENTER button.

5. A progress bar with the word "Identify" will appear on the screen:

```
-----Identify------

■■■■■■
```

6. Press the ENTER button again. A similar screen will appear:

```
1-2: 125106
3-6: 700008
4-5: 1135720
7-8: 10000000
```

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Recalibration

7. The progress bar with the word "Identify" will appear again.

8. Press the DOWN button twice to exit recalibration settings.

9. Scroll down and press the ENTER button once "Save-Off" appears on the screen. When completed, "Sys Adj End!" will appear on the screen:

Sys Adj End!

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Warranty and Product Registration

1-YEAR LIMITED WARRANTY

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* No purchase necessary. Void where prohibited. Some restrictions apply. See website for details.

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• Send old equipment for recycling on a one-for-one, like-for-like basis (this varies depending on the country)
• Send the new equipment back for recycling when this ultimately becomes waste

Use of this equipment in life support applications where failure of this equipment can reasonably be expected to cause the failure of the life support equipment or to significantly affect its safety or effectiveness is not recommended. Do not use this equipment in the presence of a flammable anesthetic mixture with air, oxygen or nitrous oxide.

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