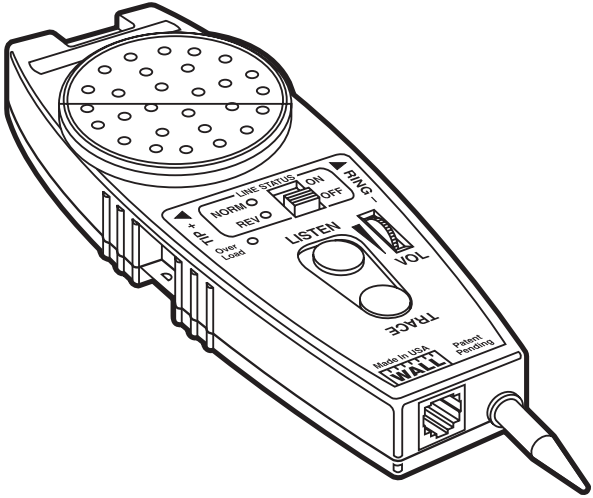
BLACK BOX
NETWORK SERVICES

TS142A

# Phone Line Tester




## CUSTOMER SUPPORT INFORMATION

Order **toll-free** in the U.S.: Call **877-877-BBOX** (outside U.S. call **724-746-5500**)
FREE technical support 24 hours a day, 7 days a week: Call **724-746-5500** or fax **724-746-0746**
Mailing address: **Black Box Corporation**, 1000 Park Drive, Lawrence, PA 15055-1018
Web site: **www.blackbox.com** • E-mail: **info@blackbox.com**

**TRADEMARKS**

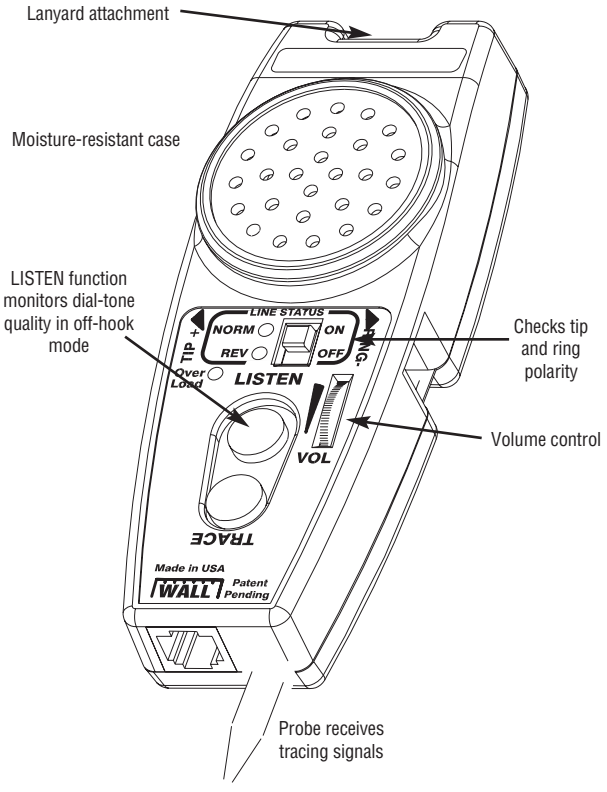
*Any trademarks mentioned in this manual are acknowledged to be the property of the trademark owners.*

# 1. Introduction

## 1.1 Description

The Phone Line Tester is a pocket-sized tester used for basic troubleshooting of analog voice-system installations. It monitors phone lines for dial-tone quality and presence of power, tests for correct jack polarity (detects reversed tip and ring), and indicates call addressing for correct telephone extensions.

The Phone Line Tester comes with (1) RJ-11 to RJ-11 crossover cable and (1) RJ-11 to alligator clips cable.


Lanyard attachment
Moisture-resistant case
LISTEN function monitors dial-tone quality in off-hook mode
Checks tip and ring polarity
Volume control
Probe receives tracing signals
LINE STATUS
NORM
REV
ON
OFF
TIP
+
RING
Over Load
LISTEN
VOL
TRACE
Made in USA
WALL
Patent Pending

## 1.2 Additional Features

- Receives and reproduces telephone system dial tone to determine the quality of the tone (LISTEN function or OFF hook).
- Equipped for jack and cross-connect system access.
- Receives tracing signals for identifying specific conductors in a cable run. (TRACE function requires a separate tone generator, such as part number 822088191025.)
- Volume control to adjust test tones.
- Clip lead access for two center pins of RJ-11 jack.
- 60-cycle noise rejection for clear tone detection.
- Lanyard attachment point for hands-free operation.
- Durable, moisture-resistant case and speaker for long-life durability.
- Replaceable line-cord assembly.
- 9-volt battery included.

# 2. Operation

**IMPORTANT**

**If the OVERLOAD LED (red) is lit and a warning tone sounds, the telephone line being tested is a digital line. Toggle off the LISTEN button or remove the tester from the line within 30 seconds to avoid damage to the tester.**

## 2.1 To Monitor for Dial-Tone Quality at a Modular Jack

1. Plug the tester into a phone system jack using the crossover cable (supplied with the tester).

2. Put the Line Status switch in the ON position.

3. The Line Status LEDs will show if the line under test has DC power and if it is wired correctly with a green NORM LED.

4. Push the LISTEN button. This takes the line “off hook” and produces a dial tone.

5. Listen for a good dial tone.

6. Push LISTEN again to end the test.

**NOTE**

**The LISTEN feature can be toggled on and left on without draining the battery. Some digital systems can be listened to depending on the digital system being tested.**

## 2.2 To Monitor a Dial Tone at a Cross Connect

1. Plug the RJ-11 connector of the RJ-11 to alligator clips cable (supplied with the tester) into the Phone Line Tester jack.

2. Use the cable's clips to connect to the appropriate contacts on cross-connect terminals.

3. Push the LISTEN button. This takes the line "off hook" and produces a dial tone.

4. Listen for a good dial tone.

5. Push LISTEN again to end the test.

**NOTE**

**The LISTEN feature can be toggled on and left on without draining the battery. Some digital systems can be listened to depending on the digital system being tested.**

## 2.3 Test for Line Status

Plug the Phone Line Tester into a wall phone outlet or jack using the RJ-11 to RJ-11 crossover cable (supplied with the tester).

Test results:

- Green NORM lights when the communication line under test is powered up, the TIP pin/wire is positive with respect to the RING pin/wire, and the phone is "on-hook."
- Red REV LED will light if TIP and RING polarity are reversed.
- Both NORM and REV LEDs will light if an AC voltage is present.
- Both NORM and REV LEDs will flash if the line is ringing (for phone-number verification).

## 2.4 Clip Lead Access

1. Using the RJ-11 to alligator clips cable, attach the alligator clips to the perforated test pads on the sides of the unit (or any test equipment with test pads). Then connect the RJ-11 connector of the same cable to the RJ-11 wall jack. This connection enables secure clip lead access to the two center pins of the jack.

2. The Line Status switch can be in either the ON or the OFF position when using test pads.

**NOTE**

**In the OFF position, a 10K load is removed from the test terminal to the RJ-11 interface circuit.**

## 2.5 To Detect Tracing Tone Signal

1. Push the TRACE button, and the probe end becomes active.

2. Hold the TRACE button to trace a line within a bundle of cables or to “tone out” a line on a punchdown block.

### 2.6 To Detect a Tracing Tone Signal at a Wall Outlet

1. Plug the Phone Line Tester into a wall phone outlet using the RJ-11 to RJ-11 crossover cable (supplied with the tester).

2. Push the TRACE button to hear a tone if the line to that wall outlet has been activated with a tone from another source, such as the Tone Generator and Probe (822088191025).

### 2.7 Battery Replacement

1. Remove screws from the back of the case using a #1 Phillips screwdriver. Carefully open the Phone Line Tester.

2. Remove the old battery.

3. Install a new 9-volt battery.

4. Close the tester and replace the screws. Do not overtighten the screws.

# 3. Calling Black Box

If you determine that your Phone Line Tester is malfunctioning, do not attempt to alter or repair it. Contact Black Box at 724-746-5500. The problem might be solvable over the phone.

Before you do, make a record of the history of the problem. We will be able to provide more efficient and accurate assistance if you have a complete description, including:

- The nature and duration of the problem.
- When the problem occurs.
- The components involved in the problem.
- Any particular application that, when used, appears to create the problem or make it worse.

If you cannot solve the problem over the phone, return the Phone Line Tester to the place of purchase.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*1000 Park Drive • Lawrence, PA 15055-1018 • 724-746-5500 • Fax 724-746-0746*