Aexit WH806C

Aexit WH806C Wire Tracker and Cable Tester User Manual

1. Product Overview

The Aexit WH806C is a versatile instrument designed for identifying and tracing wires or cables without damaging their insulation. It is also capable of checking for short circuits, locating open circuits, and identifying the status of telephone lines. This kit includes a Sender (Emitter) and a Receiver, making it an essential tool for network and telephone line engineering, as well as other metal conductor line projects.

Key Features

- **Wire Tracing:** Accurately trace cables and wires, and diagnose break points.
- **Continuity Testing:** Judge the continuity of cables or wires.
- **Telephone Line Status:** Identify the state of a working telephone line (clear, ringing, busy).
- **Tone Generation:** Send a single solid tone or dual alternating tone to the target cables or wires.
- **User-Friendly Design:** Features an easy-to-operate interface, flexible connections, and a portable design.
- **Visual and Audible Indicators:** Equipped with indicator lights and sound reminders for clear feedback.

Figure 1.1: The Aexit WH806C Wire Tracker and Cable Tester kit, showing the emitter, receiver, and various connection cables.

2. Package Contents

Please verify that all items listed below are included in your package:

- 1 x Emitter (Sender) Unit
- 1 x Receiver Unit
- 2 x 9V Battery

- 1 x Earphone
- 1 x User Manual (this document)
- 1 x Easy Carry Nylon Case

Figure 2.1: The Aexit WH806C kit, including the carrying case and original packaging.

3. Specifications

Specification	Value
Power Supply	DC 9V Battery (included)
Max. Operating Current (Emitter)	Less than 9mA
Max. Operating Current (Receiver)	Less than 28mA
Signal Transmission Format	Multi-frequency pulse
Signal Output Level	8Vp-p
Signal Transmission Distance	Less Than 3km
Send Tone Frequency	1.5kHz
Emitter Size (L x W x H)	125mm x 49mm x 29mm (4.92in x 1.93in x 1.14in)
Receiver Size (L x W x H)	173mm x 38mm x 24mm (6.81in x 1.5in x 0.94in)
Item Weight	Approximately 15.2 ounces (430g)

4. Component Identification

Familiarize yourself with the main components of the Aexit WH806C kit:

Figure 4.1: Emitter and Receiver units with battery compartments open, showing 9V batteries.

Figure 4.2: Close-up of the Emitter unit, highlighting the RJ45 and RJ11 ports, and the function switch (CONT, OFF, SCAN, TONE).

Figure 4.3: Close-up of the Receiver unit, showing the 'PUSH TO TEST' button, the probe tip, and the speaker grille.

5. Setup

5.1 Battery Installation

1. Locate the battery compartments on the back of both the Emitter and Receiver units.
2. Slide open the battery covers.
3. Insert one 9V battery into each compartment, ensuring correct polarity (+/-).
4. Close the battery covers securely.

Note: Always use fresh 9V batteries for optimal performance. Remove batteries if the device will not be used for an extended period.

5.2 Connecting Cables

The Emitter unit features RJ45 and RJ11 ports, as well as alligator clips for various connection types. Select the appropriate connector for your testing needs.

- **RJ45:** For Ethernet/LAN cables.
- **RJ11:** For telephone lines.
- **Alligator Clips:** For bare wires or other metal conductors.

6. Operating Instructions

6.1 Wire Tracing Function

This function allows you to locate a specific wire or cable within a bundle.

1. Connect the Emitter to the cable you wish to trace using the appropriate connector (RJ45, RJ11, or alligator clips).
2. Set the Emitter's function switch to the **"SCAN"** position. The Emitter will begin sending a tone signal.
3. Turn on the Receiver unit.
4. Move the Receiver's probe tip along the suspected path of the cable.
5. Listen for the audible tone from the Receiver. The tone will be loudest when the Receiver is closest to the target cable.
6. Use the earphone for clearer detection in noisy environments.

6.2 Continuity Test

To check if a cable or wire has a continuous electrical path.

1. Connect the Emitter to the cable using the alligator clips or RJ connectors.
2. Set the Emitter's function switch to the **"CONT"** position.
3. If the cable is continuous, the Emitter's indicator light will illuminate, and a tone may be heard.
4. If there is a break in the cable (open circuit), the indicator will not light up.

6.3 Telephone Line Status Identification

Determine the current state of a telephone line.

1. Connect the Emitter to the telephone line using the RJ11 connector.
2. Set the Emitter's function switch to the **"TONE"** position.
3. Observe the indicator lights on the Emitter:
    - **Green Light:** Indicates a clear line.
    - **Red Light:** Indicates a busy line.
    - **Flashing Red Light:** Indicates a ringing line.

6.4 Short Circuit and Open Circuit Location

The continuity test (Section 6.2) can help identify short and open circuits. For precise location of an open circuit, use the wire tracing function:

1. Perform a continuity test to confirm an open circuit.
2. Connect the Emitter to one end of the cable.
3. Set the Emitter to **"SCAN"** mode.
4. Trace the cable with the Receiver. The tone will stop or significantly weaken at the point of the open circuit.

7. Maintenance

7.1 Battery Replacement

When the indicator lights dim or the tone weakens, it's time to replace the 9V batteries in both units. Follow the battery installation steps in Section 5.1.

7.2 Cleaning

Wipe the units with a soft, dry cloth. Do not use abrasive cleaners or solvents, as they may damage the casing.

7.3 Storage

Store the Aexit WH806C kit in its provided nylon case in a cool, dry place away from direct sunlight and extreme temperatures. Remove batteries if storing for extended periods to prevent leakage.

8. Troubleshooting

- **No Power / Unit Not Turning On:**
  Check if the 9V batteries are correctly installed and have sufficient charge. Replace batteries if necessary.
- **No Tone from Receiver during Tracing:**
  Ensure the Emitter is set to "SCAN" mode and properly connected to the cable. Verify the Receiver is turned on and its battery is charged. The cable might be too deep or shielded, or there might be an open circuit.
- **Inaccurate Continuity Test Results:**
  Ensure all connections are secure and clean. Check for corrosion on connectors or alligator clips.
- **Weak or Intermittent Tone:**
  This often indicates low battery power in either the Emitter or Receiver. Replace batteries. Also, ensure the cable is not excessively long or heavily shielded.
- **Telephone Line Status Not Detected:**
  Ensure the RJ11 connector is firmly plugged into an active telephone line. Verify the Emitter is set to "TONE" mode.