

# P-03

## LINE DRIVER PROBE INSTRUCTION MANUAL

### ABOUT THE P-03

Power: Supplied by TD-53, 9 volts.

Current: Limited to 8 mA maximum

Input impedance: 8K Ohms

#### Indicators:

Red LED – Lights when more than 1.4 volts AC or DC is present on the wire pair under test.

Green LED – When the *Line Driver* switch is operated, this LED glows if 400 uA or more is being drawn by the wire pair under test. The more current that is drawn, the brighter the LED will glow.

#### Controls:

LINE DRIVER/OFF- This switch applies a voltage to the wire pair under test to turn on voltage activated microphones.

**\*\*\*CAUTION\*\*\***

**Never turn this switch on if the RED LED indicates a voltage present on the wire pair. If you do, the TD-53 and/or the P-03 may be damaged.**

A/B – This switch reverses the polarity of the line connections for detecting DC voltages and for reversing the polarity of the line driver voltage to aid in detecting polarity sensitive devices.

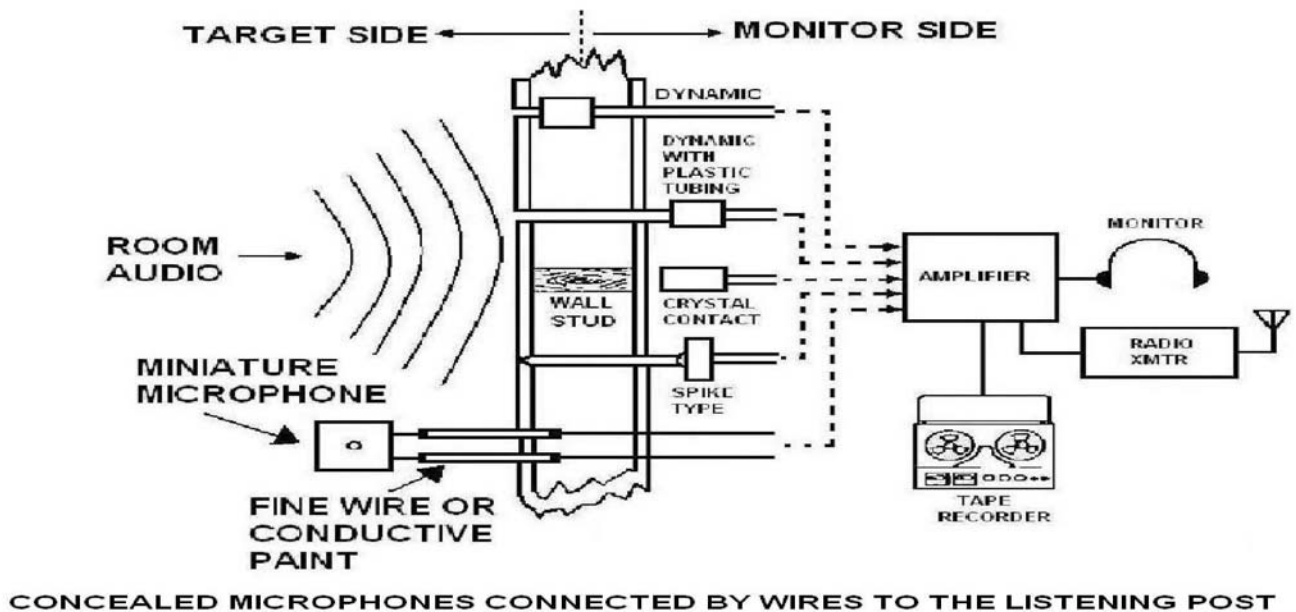
### THEORY

A common eavesdropping attack is the concealed microphone. This is simply a microphone, hidden in the target area, which is connected by wire to a nearby listening post (L.P.) or radio transmitter which relays the conversation to an L.P.

To find a concealed microphone during a counter-measures sweep, either the microphone itself or the wires leading to it must be found. This requires that all suspect wires running through or adjacent to the target area be electronically inspected for the presence of room audio.

**\*\*\*CAUTION\*\*\***

**Never perform tests on electrical wiring with power applied**



### GETTING STARTED

On the P-03, set the *LINE DRIVER/OFF* switch to *OFF*. The *A/B* switch can be in either position. Plug the P-03 into the probe jack on the top end of the TD-53. Plug the headphones into the headphone jack on the side of the TD-53.

### FINDING MICROPHONES WITH THE P-03/TD-53

Detection of a concealed microphone and the L.P. to which it is connected can be a tedious procedure, but is not technically difficult. Once audio is recovered on a wire pair, the wire must be physically traced until both ends are found. Keep in mind that wires leading to any loudspeaker in the target area (i.e. part of an intercom or music system) can be exploited by an eavesdropper. The reason is that loudspeakers can act just like microphones. Use the procedures on the following pages to search for hidden microphones:

1. Turn on a sound source in the target room such as a radio. Next, turn on the TD-53 and set the *MODE* switch to "*VERIFY*". Ignore any indications on the LED meter. Make sure the *DRIVER* switch on the P-03 is "*OFF*".
2. Connect the P-03 alligator clips to the wires to be tested. If necessary, scrape just enough insulation off the wires to expose them for the alligator clips. After the tests are completed, cover the scraped areas with electrical tape.

**\*\*\*CAUTION\*\*\***

**DO NOT perform any tests with this equipment on the AC power wiring**

3. Operate the A/B switch to both positions. If the red LED on the P-03 comes on in either position, a DC voltage is present. If the LED is on in both positions, an AC voltage is present. If a voltage is indicated, use standard safety procedures when working with the wire pair.

**\*\*\*CAUTION\*\*\***

**If either an AC or DC voltage is indicated, DO NOT operate the DRIVER switch to the "LINE DRIVER" position.**

4. Turn up the TD-53 Volume control to comfortable level and listen for room audio. If the line was "dry" (no voltage present), turn on the *LINE DRIVER* switch to apply voltage to the wire pair. Also operate the A/B switch to both positions and listen for room audio.

Shield the green LED from room light and observe it for any glow of light. If you see any light from this LED, that means that current is flowing in the wire pair and a listening device could be connected to the wires.

5. Perform the above checks on the any other suspicious wire pairs in the target area.

6. **FEEDBACK MODE** for locating hidden microphones: Set up the test as above, but don't use the headphones. Turn up the *Volume* on the TD-53 to about the 3 o'clock position. If a hidden microphone is nearby, a feedback squeal will be set up in the TD-53 speaker.

Once feedback is encountered, the hidden microphone can be located by reducing the volume and pointing the speaker at different locations in the room.

7. A complete check of the target room would also include listening for room audio on any telephone wires present. The reason for this is that a telephone can be modified through a technique known as "hook switch bypass". When so modified, the telephone acts as a microphone and intercepts all room conversations and passes them down the phone line while the phone is hung up.

If a room audio is heard on the phone line, the telephone should be checked for hookswitch bypass attack.