

# TEMPO 701K CLASSIC TONE TRACER



## OPERATION

### TELEPHONE LINE TEST / POLARITY TEST

Use the 77HP in the OFF position to perform basic telephone line diagnostics.

- Connect the red lead to the “ring” side of the circuit and the black lead to the “tip” side. (Use the Modular Plug to test polarity of lines 1 and 2 of a standard USOC jack. This is the ONLY function of the “line 2” LED.)
- A bright green lamp indicates a working line not in use with correct polarity battery.
- A bright red lamp indicates a working line not in use with reverse polarity battery.
- A dim green or red lamp indicates a working line in use (with correct or reverse polarity respectively).
- A bright green/ red flashing lamp (appears yellow) indicates a ringing line.
- No lamp indicates an open pair (no telephone service supplied).

### CONTINUITY TEST

In the CONT position, a bright green lamp (LED) indicates continuity on any tested circuit. This test can be performed using the red/ black leads or the modular plug (line 1 USOC only). Note: Always check continuity of a two wire circuit before attempting to apply a tone signal. Tone signal will not travel down a shorted circuit.

### TALK BATTERY

In the CONT position, the 77HP will provide talk battery power for communication over an inactive wire pair. Connect the 77HP in series with one lead from the telephone test set or handset across the line. Additional 77HP's may be used (added in series) to further increase talk battery power as required.

### WIRE IDENTIFICATION

With the 77HP in the TONE position, connect the modular plug or the red/ black leads to the subject wire(s). With multiple signal connection methods, experiment to find the methods that work best with your applications. Optional connections include:

- Connect the modular plug to a 6 position jack to apply signal to the center two pins. (USOC pair 1 only)
- Connect the red and black leads to the tip and ring conductors of a twisted pair circuit. For high twist wires (i.e. category 5) connect the leads to conductors of two different pairs. Example: red to tip of pair 1, black to tip of pair 2.
- Connect the red lead to the subject wire and the black lead to an independent earth ground.
- Connect the red lead to the shield and the black lead to ground of a shielded or coaxial cable.
- Connect the red lead to the shield and black lead to center conductor of a coaxial cable.

**Caution:** The 77HP Tone Generator is not designed for use on energized AC circuits. Connecting to any voltage source above 52VDC may damage unit and void warranty.

- Depress and hold the button on the 200EP Inductive Amplifier and probe near the 77HP to confirm signal application. Adjust the volume control (thumb wheel) to a comfortable level.
- The tone signal may now be located at any point along the cable run, at a cross connect, or at the remote end. Use the 200EP to probe near the conductors listening for the loudest signal. Tone signal will intensify as you approach the conductor and be loudest on the subject wire(s). To confirm wire identification, touch the tip of the 200EP to the metallic conductor. Signal will be notably stronger.
- The 200EP is supplied with interchangeable metal and carbon-plastic tips. While the metal tip will normally provide higher performance, using the carbon-plastic tips will reduce the risk of shorting terminals when probing near terminals or exposed circuitry.
- Connecting a butt-in test set or handset to the recessed tabs near the speaker will activate the 200EP, bypass the probe's speaker, and be amplified by the test set's earpiece. This method is especially useful in high noise areas.

## MAINTENANCE

The only required maintenance is the periodic replacement of one (1) 9 Volt battery in each unit. To install/ replace battery, remove screw and expose battery compartment. Install new battery and re-assemble. Do not over-tighten screws.