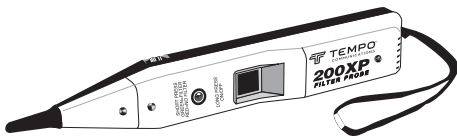


INSTRUCTION MANUAL

200XP and 200XP/50 FILTERED TONE PROBES




WARNING

Read and understand this material before operating or servicing this equipment. Failure to understand how to safely operate this tool can result in an accident causing serious injury or death.



SAFETY ALERT SYMBOL

This symbol is used to call your attention to hazards or unsafe practices which could result in an injury or property damage. The signal word, defined below, indicates the severity of the hazard. The message after the signal word provides information for preventing or avoiding the hazard.



DANGER

Immediate hazards which, if not avoided, WILL result in severe injury or death.



WARNING

Hazards which, if not avoided, COULD result in severe injury or death.



CAUTION

Hazards which, if not avoided, MAY result in injury.




WARNING ELECTRIC SHOCK HAZARD

- Do not expose this unit to rain or moisture. Contact with live circuits can result in severe injury or death.
- Use this unit for the manufacturer's intended purpose only, as described in this manual. Any other use can impair the protection provided by the unit.
- Use accessories that are appropriate for the application. See the category and voltage rating of the accessory.

Failure to observe these warnings can result in severe injury or death.



CAUTION

- Do not attempt to repair this unit. It contains no user-serviceable parts.
- Do not expose the unit to extreme temperatures or high humidity. See Specifications.

Failure to observe these precautions can result in injury and can damage the instrument.

Introduction

This manual is intended to familiarize personnel with the safe operation and maintenance procedures for the Tempo 200XP Multi-filter Tone Probe. Please read this entire manual before operating the tool, and keep this manual available to all personnel. Replacement manuals are available upon request at no extra charge.

Safety

Safety is essential in the use and maintenance of Tempo tools and equipment. This instruction manual and any markings on the tool provide information for avoiding hazards and unsafe practices related to the use of this tool. Observe all of the safety information provided.

Description

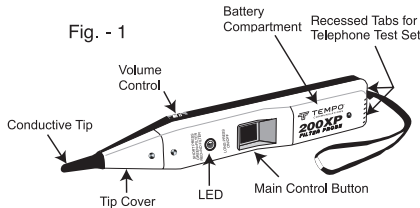
The 200XP Multi-filter Tone Probe is designed to identify and trace wires or cables within a group without need of removing insulation. In addition, the 200XP has been specifically designed to filter out either "Power Line Hum" (Filter 1) or all signals except for a specific tracing tone (Filter 2). The unit is constructed of durable ABS plastic, and an optional leather carrying case, 200C, is available. When the 200XP is ON but not detecting a signal, the signal LED will flash momentarily (every 4 seconds) as a visible ON indicator and reminder. When a tracing tone signal is detected by the probe, the signal LED will serve as a signal strength indicator. The brighter the LED, the stronger the tone signal detected.

Controls

(See Figure 1)

A long press of the main control button turns the unit OFF or ON, and the unit beeps to indicate the change. A lower pitch beep indicates that the unit is going OFF. An Auto-Off feature has been incorporated to turn the 200XP OFF after 5 minutes to help preserve battery life. When Auto-Off activates, a bee-bee-bee-beep sounds from the speaker to alert the user that the 200XP is now OFF. When the battery voltage is low, the unit sounds three descending tones when it is turned ON.

Short presses of the main control button engage and disengage the two signal filter modes (Filter 1 and Filter 2) of the 200XP. The unit beeps to indicate the change – a single beep means it is entering the normal unfiltered



mode, while a double beep means the power hum filter (Filter 1) is engaged, and a triple beep indicates that the trace tone discriminator (Filter 2) is engaged. In the normal mode the LED indicator operates in red color, in Filter 1 mode the LED appears green, and in Filter 2 mode the indicator is yellow.

A volume control knob located on the right side of the 200XP allows the user to control the sensitivity and loudness of the probe output.

Operation

Identification of wires and cables is accomplished by first connecting a tracing tone generator like the Tempo77HP, 77GX or AT8 to the wires being traced.

In working cables that are terminated, connect one lead of the tone generator to a wire and the other test lead to earth or equipment ground. This allows localization of the cable and identification of the connected wire.

(See Figure 2)

In non-working or un-terminated cables, connect one test lead of a tone generator to a wire and the other test lead to another wire (i.e., tip and ring, or a and b of an open pair). This can make cable localization a little more difficult, but allows positive identification of both wires in a traced pair.

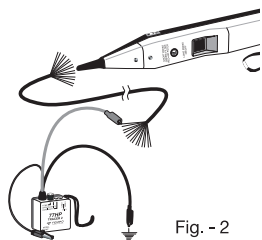


Fig. - 2

1. To activate the 200XP, use a long press of the square main control button.
2. Prior to locating the tone at the far end of the cable or wire, confirm proper operation of the 200XP at the tone source. With the probe ON and in each of the filter modes (a short press of the control button, beeps and an LED blink), listen for a solid single tone, pulsing tone, or a complete warble tone at the tone generator. If no tone is detected, use the 200XP in the "Normal" unfiltered setting or replace the battery in the tone generator.

Filter Mode 1 Note: The frequency of tones produced by some analog tone generators can vary. Under certain conditions, a tone generator may produce frequencies that are similar to power line hum and cause them to be blocked by the 200XP's Filter 1 mode.

Filter Mode 2 Note: In Mode 2 the probe is only sensitive to a precise tone frequency. Some common tone generators can't be used in this mode.

3. Once the probe is activated, the volume control can be adjusted to suit the environment. Loudness of the probe tone output can be increased to overcome noise (i.e., vehicular traffic, airplanes or machinery) or decreased to reduce interference or when working in noise sensitive areas.
4. The 200XP is equipped with recessed ports for connecting a lineman's butt set. Attaching the butt set automatically activates the probe when Talk mode is selected on the set.
5. To activate the 200XP without depressing the main control button and with the speaker silenced, using only the LED, attach a jumper between the two recessed tabs. This simulates connection of a butt set.
6. Touch the tip of the 200XP to the insulation of each potential target conductor.
7. Reception of tone will be loudest on the subject wire. (Reception of the tone may be improved by separating the wires from the group.)

Specifications

Electrical

Nominal Gain	35 dB
Nominal Input Impedance	100 MΩ
Probe Tip Resistance (minimum)	300 Ω
Filter Mode 1 Noise Rejection	
All harmonics of 60 Hz (200XP)	
All harmonics of 50 Hz (200XP/50)	
Filter Mode 2 Noise Rejection	
All signals excepting 577 Hz (200XP)	
All signals excepting 984 Hz (200XP/50)	
Battery	One 9V alkaline
Nominal Battery Life	50 hours
Overvoltage Protection	Cat I, 150V to Gnd

Physical

Length	250 mm (9.85")
Width	32 mm (1.27")
Depth	35 mm (1.38")
Weight	142 g (5 oz)

Operating/Storage Conditions

Temperature	0°C to 50°C (32°F to 122°F)
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Maintenance

Battery Replacement

1. Turn the unit off.
2. Remove the screw, then the battery door.
3. Replace the battery (observe polarity).
4. Replace the back and the screws. **Do not overtighten the screw.**

Tip Replacement

1. Turn the unit off.
2. Remove the slotted screw and remove tip cover.
3. Replace the tip.
4. Replace tip cover and screw. **Do not overtighten the screw.**

Cleaning

Periodically wipe with a damp cloth and mild detergent; do not use abrasives or solvents.

One-Year Limited Warranty

Tempo Communications Inc. warrants to the original purchaser of these goods for use that these products will be free from defects in workmanship and material for one year, excepting normal wear and abuse.

For all Test Instrument repairs, you must first request a Return Authorization Number by contacting our Customer Service department at:

toll free in the US and Canada 800 642-2155
Telephone +1 760 510-0558.
Facsimile +1 760 598-5634.

This number must be clearly marked on the shipping label. Ship units Freight Prepaid to: Tempo Repair Center, 1390 Aspen Way, Vista, CA 92081 USA.

Mark all packages: Attention: TEST INSTRUMENT REPAIR.

For items not covered under warranty (such as dropped, abused, etc.) repair cost quote available upon request.

Note: Prior to returning any test instrument, please check to make sure batteries are fully charged.

www.TempoCom.com

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