

... faster, easier, servicing with the ...

PRECISION ELECTRONICS SIGNAL TRACERS

"LISTEN TO IT" and "SEE IT"

DELUXE SIGNAL TRACER

No coils to tune . . . no range switches to change a four stage Electronic V.T.V.M.—High Gain—Probe and V.T.V.M. Meter, Illuminated.

FEATURES:

- The ONLY SIGNAL TRACER to meet all requirements for performance and quality of parts.
- Electronic Vacuum Tube Volt Meter (4 stage).
- No coils to tune, no range switches to change.
- Highest gain unit on the market (gain 12000).
- Lowest input capacity 3mmf (no detuning effects).
- Small, easy to handle Probe, 7" x 7/8" dia.
- AC operated 105-120 V. 50-60 cycle (no batteries).
- Probe tip made of Polystyrene, with aluminum barrel.
- Audio input—quality amplifier—check pickups, microphones, etc.
- Frequency range from 20 cycle to 300 M.C.
- For intermittents and faders, gives complete over-all picture.
- Only real means of checking noise in vacuum tube, in the set.
- Checks local oscillator output under all conditions.
- Locates motor-boating and squeals.
- Adaptable for rack mounting or portable use.
- Isolated from AC line, may be used on AC or DC sets.



MODEL 250

SIZE 6 1/4" X 12 1/4" X 9"

Tubes used: 1-6AT6, 1-6SJ7, 1-6SL7,
1-6K6, 1-5Y3

Model 250 **\$44⁹⁵** NET

220 Pri.—25 cyc.—small extra charge
Shipping Weight 14 lbs.

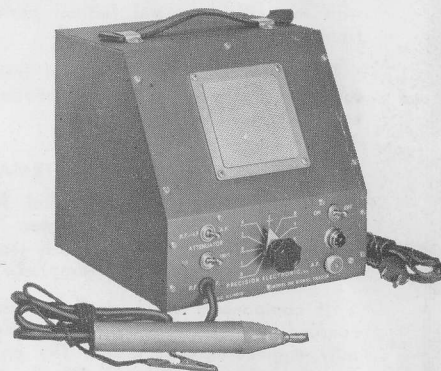
STANDARD SIGNAL TRACER

Real versatility! The "number one" instrument in any Service Man's equipment. Probe with Polystyrene tip (operates on frequencies up to 300MC), top quality parts throughout and exclusive engineering features. OUTSTANDING "ON THE JOB" SUPERIORITY!

Checks signals stage by stage in RF, IF and Audio sections. Speeds location of intermittents, opens, shorts, hums and noisy circuits with set in operation—coils, condensers, transformers, resistors, speakers, tubes! Has same quality characteristics as instrument above with exception of V.T.V.M.

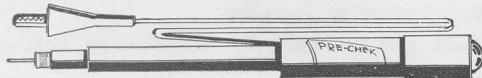
Model 200 **\$29⁹⁵** NET

220 Pri.—25 cyc.—small extra charge
SIZE 8" x 8" x 8" Shipping Weight 10 lbs.



"PRE-CHEK" The Fast Trouble Shooter

IN FOUNTAIN PEN SIZE! QUICK DIAGNOSIS OF RADIO
AND ELECTRICAL TROUBLE!



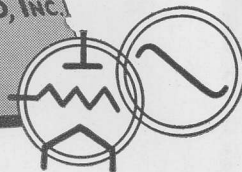
Test open and shorted condensers while in operation. Tests up to 2,000 volts. Distinguishes between AC and DC. Tests for static alignment output, open and shorted transformers, dielectric. PRE-CHEK

\$2.50 NET

See other side for
further details.

DISTRIBUTED BY

PRECISION ELECTRONICS, Inc.
641-643 MILWAUKEE AVENUE
CHICAGO 22, ILLINOIS



Made in U.S.A.

Precision Electronics Model 250 • 200 Signal Tracers

The Model 200 and 250 Signal Tracers combine all features of other Signal Tracers with many new additions. They are highly rated instruments by all who have used them in the fields of radio, electronics, television and public address.

Built of the finest materials and components, they will give long and dependable service because they are completely A.C. operated, it is never "out-of-service" because of discharged batteries. To the best of our knowledge, they offer the EASIEST AND FASTEST method of trouble shooting ever devised!

The Model 200—250 Signal Tracer is a tool for the rapid solution of difficult service problems. It is a device to permit the rapid location of faults in defective radio receivers or sound equipment without measurements or tedious tracing of circuit wiring. The fundamental principle of the Model 200—250 Signal Tracer is that it permits the serviceman to listen to the signal as he traces it through each of the signal components in a radio receiver, regardless of the level of the signal, and in spite of the fact that the signal may be an inaudible I.F. or R.F. frequency. It is thus possible to tell exactly where the signal is absent or becomes distorted, quickly localizing the fault in the receiver.

The R.F.-I.F. Channel consists of a three-stage high gain detector-amplifier with an input capacity (in the Probe) 3 mmf. This almost unbelievably small series capacity is used to eliminate the de-tuning effect of the R.F., or Oscillator, or I.F., circuits to which the Probe is connected.

This exclusive Precision Electronics Probe is designed so that it can be applied to all types of circuits or voltages with top efficiency and faithful performance, and with extreme sensitivity.

The Model 200 and 250 Signal Tracers are powerful tools for rapid and efficient trouble shooting in all types of radio and amplifier circuits.

GENERAL INFORMATION

The Precision Electronics Signal Tracers are instruments that enable the operator to "listen in" and also see it on any part of a circuit and instantly locate the point at which a signal is distorted or interrupted.

Its components are basically an ultra high gain amplifier coupled to a 5-inch permanent magnet speaker and a carefully engineered test probe. The probe is of special construction with a series capacity of only 3 mmf. so designed that it can safely be placed across a source of high potential, such as the plate terminal of a stage under test, without impairing the efficiency of the probe vacuum tube. The useful range of this instrument is from 30 cycles to 300 megacycles.

DESCRIPTION

AMPLIFIER: Ultra high gain; actual linear frequency response characteristic includes entire audible range from 30 to 15000 cps.

TUBES: Model 200. One 5Y3 rectifier, pentode amplifier 6SJ7, power output stage 6K6, and high gain triode 6AT6 in probe. 6SL7 V.T.V.M. Tube and Rectifier added for Model 250.

PROBE: Specially designed, fully shielded, polystyrene insulated. Incorporates 6AT6 high gain triode tube as a biased detector. So sensitive that regular broadcast stations are recommended as a source of test signals. This eliminates need for other devices in order to make an audible analysis of the signal as it is followed through the equipment being tested. It further enables the operator to check for distortion, and noise as well as signal presence all in one operation.

USES

The versatility of the Precision Electronics Signal Tracers is such that its uses are only limited by the ability and imagination of the operator. Almost every day we receive word from some part of the country, that new applications have been found saving time and money for the owners. It is interesting to note that these reports come not only from radio repair men, but also from some of the most important scientific research laboratories in America.

In order to enable the new operator to quickly become familiar with the instrument the following list shows some of the everyday "tough-jobs" being made easy.

1. Locating of "dead" stages in receivers and amplifiers.
2. Locating of noise, hum, crackling, distortion.
3. Finding location of minimum hum pickup when mounting transformers, "dressing" leads, and placing component parts.
4. Finding trouble source in "intermittents", "faders", and weak or distorted signals.
5. Determining local oscillator frequency shift "dead" output of osc.
6. Finding weak microphonic, noisy, or shorted tubes.
7. Locating defective RF and IF transformers.
8. Locating defective speakers.
9. Testing phono pickups and microphones.
10. Use as a low power hi-fidelity amplifier (for record demonstrations, etc.).
11. Locating noisy or intermittent volume controls.
12. Locating defective gang condensers (noisy—crackling—microphonic, etc.).
13. Locating noisy resistors.
14. Checking power line noise or noise that may be picked up by the receiver antenna.
15. Use as a "stage by stage output meter" for alignment operations.
16. Motorboating or Squealing.
17. Check gain per stage by V.T.V.M. right from ant.

OPERATING VOLTAGE.

The Model 200—250 Signal Tracer operates on standard lighting and power voltages, 50-60 cycles, 110-120 volts. Do not connect the power plug to a DC (direct current) outlet. The power consumption is approximately 35 watts.—Model 250 Signal Tracer 50 watts.