

With compliments

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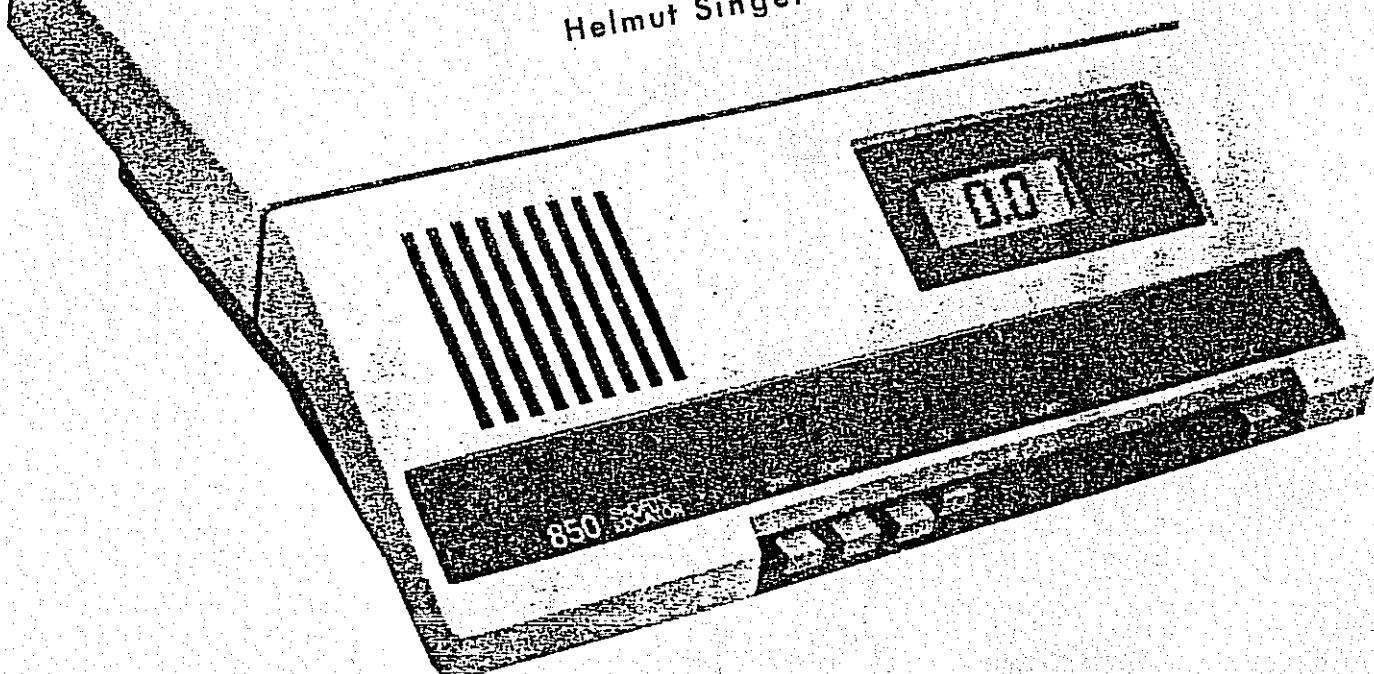
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Original

Darf nicht verliehen werden.

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Helmut Singer Elektronik



Shorts Locator



Polar

Polar Instruments Ltd.

P.O.Box 97

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Telephone (0481) 53081

850
OPERATOR
MANUAL

SECTION 1

INTRODUCTION

The 850 Shorts Locator is a troubleshooting aid to help locate the following faults:

- Short circuits
- Multilayer shorts
- Bus faults (stuck nodes)
- Excessive Vcc loads
- Faulty decoupling capacitors

There are three main troubleshooting modes: current tracing, resistance measurement and voltage measurement.

Specific features of the 850 have been included to make it a powerful aid in physically locating faults that occur on printed circuit boards (PCBs):

- Low resistance measurement.
- Low probe tip voltage.
- Microvolt measurement.
- Tone readout.
- Current trace facility.

APPENDIX 1**850 SPECIFICATIONS****RESISTANCE RANGES**

Ω , 200m Ω , 2 Ω , 200 Ω , 20k Ω .

ACCURACY

200m Ω , 2 Ω , 200 Ω $\pm 4\%$

20k Ω $\pm 5\%$

[Ω] uncalibrated, high sensitivity.

Approximately 40m Ω full scale.

PROBE VOLTAGE

60mV maximum.

READOUT

Tone and meter in all ranges.

PROBE PROTECTION

Momentary contact up to 250V

VOLTAGE RANGES

2mV, 20mV, 2V, 20V.

ACCURACY

$\pm 4\%$, ± 15 microvolts

INPUT RESISTANCE

2mV, 20mV 120 Ω

2V, 20V 1M Ω

READOUT

Tone and meter in 2mV and 20mV.

Meter in 2V and 20V.

PROBE PROTECTION

20V, 2V Momentary contact up to 250V.

20mV, 2mV Momentary contact up to 30V.

TRACE**READOUT**

Tone and uncalibrated meter proportional to detected magnetic field strength.

SENSITIVITY

Current flow detected with 200 Ω across DRIVE SOURCE.

DRIVE SOURCE**OUTPUT VOLTAGE**

0 to 550mV adjustable.

TRACE ac, all other ranges dc.

Protected to $\pm 30V$.

CONNECTORS**PROBES**

One for needle probes, one for Current Trace probe.

DRIVE SOURCE

One for DRIVE SOURCE leads.

EARPIECE

3.5mm jack socket.

POWER INLET

IEC three pin connector.

ACCESSORIES

Supplied with each unit:

- Detachable needle probes.
- Detachable Current Trace probe.
- Detachable DRIVE SOURCE leads.
- Operator manual.

All probes stored under hinged cover.

POWER

Applied via detachable cord.
100-130V or 200-250V, 50/60Hz.
(Selected by internal links)

Internal fuse:

200-250V	100mA
100-130V	250mA

PHYSICAL

Overall dimensions:

260mm X 240mm X 75mm

Enclosure to UL94 V-0

1. Einsatzgebiet des Gerätes

Fehlerlokalisierung (-ortung) auf bestückten und unbestückten Leiterplatten, ein- und mehrlagig, lackiert und nicht lackiert.

Fehlerarten:

- Kurzschlüsse
- Teilkurzschlüsse (im Bereich zwischen 0 und etwa 330 Ohm), bedingt durch fehlerhafte aktive und passive (Leck-Kondensatoren) Bauelemente
- Unterbrechungen

Die Ortungsgenauigkeit der Kurzschlüsse auf Leiterplatten beträgt 1 - 2 mm.