TO:
FROM: Microwave Division
INSTRUMENT: Model 8690B Sweep Oscillator, serials between 959-01651 and 959-01901.
SUBJECT: POSSIBLE SAFETY HAZARD.

All 8690B Sweep Oscillators, serials between 959-01651 and 959-01901, should be checked to determine that the primary power wiring on the rear panel is wired correctly.
(1) The line fuse and the line switch should always be wired on the "hot" side of the 115 V ac line.
(2) With an enclosed fuse holder, the "hot" power lead should be connected to the center terminal at the rear of the fuse holder.

The 'hot power line on these 8690B's can be identified from the figures below.


NOTE
It is a good practice to check all of the instruments you service to make certain they meet these two safety requirements.

TO:

FROM: Microwave Division
INSTRUMENT: Model 8690B Sweep Oscillator
Serials 921-01050 through 959-02071
SUBJECT: RECOMMENDED REPLACEMENT FOR $500 \mathrm{~K} \Omega$ RESISTORS

## ACTION REQUIRED:

The four $500 \mathrm{~K} \Omega$ summing resistors in 8690 B Sweep Oscillators, serials $921-01050$ through 959-02071, should be replaced with a more reliable resistor, HP Part Number 0811-2993. These summing resistors are A3R55 and A3R56 in the Reciprocal Amplifier, and A4R3 and A4R4 in the Helix Amplifier. The four resistors are wirewound, non-inductive, $500 \mathrm{~K}, \pm 1 \%, 1 / 4$ watt.

## HOW TO DETECT THE PROBLEM:

The failure mode of these resistors is usually an open, a partial open, or a change in the inductive characteristics. Open and partial opens will show up as an out of tolerance $3.00 \mathrm{~V}-73.00 \mathrm{~V}$ tuning ramp. A change in inductive characteristics will show up as poor sweep stability with SWEEP TIME change. Observe a wave meter marker pip in a sweep of the top $2 \%$ of the frequency band. Switch the SWEEP TIME from 10 msec sweep to 100 msec sweep. The shift in the marker should be less than $\pm 0.1 \%$ of the full frequency band. If the shift is greater than this, replace the 500 K resistors.

## WARRANTY REPAIRS:

Replace these $500 \mathrm{~K} \Omega$ resistors in all 8690B Sweep Oscillators, serials 921-01050 through 959-02071, being serviced under warranty.

