

S E R V I C E N O T E

SUPERSEDES: None

**HP 8902A Measuring Receiver**

**Serial Numbers:** 3122A02709/3122A02984

**Problem with TRFL Measurements using Track-Mode Tuning**

**Parts Required:**

0160-4807 Capacitor, Ceramic 33pF 100V

**Situation:**

A problem has been noted with certain 8902As (serial numbers noted above) while performing Tuned RF Level (TRFL) measurements using track-mode tuning. Track-mode tuning is used with TRFL to make low-level measurements of drifting signals. The failure can only be observed by enabling Special Function 32.9. Failure symptoms appear as an inability to properly track drifting low-level signals or loss of phase-lock onto the RF input signal while this mode of operation is enabled.

The problem is caused by a transistor (A4Q9) in the precision limiter circuitry of the FM Demodulator which breaks into oscillation. This oscillation causes errors in the output voltage of the FM discriminator which is used to re-tune the LO when Track-mode tuning is enabled. Installing an AC ground at the collector of this transistor eliminates the oscillation.

*Continued*

DATE: 04 August 1992

ADMINISTRATIVE INFORMATION

SERVICE NOTE CLASSIFICATION:		
<b>MODIFICATION RECOMMENDED</b>		
ACTION CATEGORY:	<input type="checkbox"/> IMMEDIATELY <input checked="" type="checkbox"/> ON SPECIFIED FAILURE <input type="checkbox"/> AGREEABLE TIME	STANDARDS: LABOR: 2.0 Hours
LOCATION CATEGORY:	<input type="checkbox"/> CUSTOMER INSTALLABLE <input type="checkbox"/> ON-SITE <input checked="" type="checkbox"/> HP LOCATION	SERVICE INVENTORY: <input type="checkbox"/> RETURN <input checked="" type="checkbox"/> SCRAP <input type="checkbox"/> SEE TEXT
AVAILABILITY:	PRODUCT'S SUPPORT LIFE	RESPONSIBLE UNTIL : 01 September 1997
AUTHOR: LHL	ENTITY: 1000	ADDITIONAL INFORMATION:

**Solution/Action:**

Install a 33 pF capacitor on the backside of the A4 assembly from the collector of Q9 to the positive (+) end of C36. Insure that the lead length is kept as short as possible. Refer to the component locator diagram for the A4 assembly which is located on the back of Service Sheet 10 in the 8902A Service Manual, Volume 3. Re-adjustment of the track-tune mode offset (Adjustment 7, 8902A Operation/Calibration manual) is required. Re-calibration is not required.