

S E R V I C E N O T E

SUPERSEDES: None

8970B Noise Figure Meter

Serial Numbers: 3247A02500 / 3446U04076

Problem with Ferrite Beads loaded on to transistor leads.**To Be Performed By:** Agilent-Qualified Personnel**Parts Required:**

Part No.	Description
9170-0847	CORE SHLD BC 3

The following parts may be required depending on the number of ferrite beads that are defective:

P/N	Description
1854-0345	XSTR NPN 2N5179
1854-0597	XSTR NPN 2N5943
1854-0686	XSTR NPN SI
1854-0719	XSTR NPN SI

Continued

DATE: January 1996

ADMINISTRATIVE INFORMATION

SERVICE NOTE CLASSIFICATION:			
MODIFICATION RECOMMENDED			
ACTION CATEGORY:	☐ IMMEDIATELY ☒ ON SPECIFIED FAILURE ☐ AGREEABLE TIME	STANDARDS: Labor 2.0 Hours	
LOCATION CATEGORY:	☐ CUSTOMER INSTALLABLE ☐ ON-SITE ☒ SERVICE CENTER	SERVICE INVENTORY: ☐ RETURN ☐ SCRAP ☒ SEE TEXT	USED PARTS: ☐ RETURN ☒ SCRAP ☐ SEE TEXT
AVAILABILITY:	PRODUCT'S SUPPORT LIFE		AGILENT RESPONSIBLE UNTIL: January 1998
AUTHOR: PN	ENTITY: E600	ADDITIONAL INFORMATION:	



Situation:

Some of the ferrite beads mounted on transistor leads do not have an insulating coating on them and are providing a resistive path between transistor leads or between transistor leads and the case.

It has been found that if the unit is stood on one of its sides or it has been vibrated, then the ferrite beads can move and make a resistive path between the leads or between the leads and the case.

When this resistive path is made, this will show up with errors in the Noise Figure and Gain measurements. The nature of this situation is that any problems seen will be intermittent.

Solution/Action:

Because the problem is intermittent any performance tests may be inconclusive and the safest way to determine if there is a problem is to measure the resistance of the ferrite beads.

The resistance measurement should be an open circuit. Failing parts measure about 40,000 Ohms.

The parts that have ferrite beads on the leads are:

On the 08970-60002 board. Q2 (1854-0345).

On the 08970-60003 board. Q1 (1854-0345) and Q21 (1854-0686).

On the 08970-60004 board. Q1 (1854-0597) and Q2 (1854-0719).

On the 08970-60050 board. Q1 (1854-0597) and Q2 (1854-0719). 8970B #20 Only

If the ferrite bead does not measure open circuit then replace the ferrite bead and the transistor.