

## 8644A-04

# S E R V I C E N O T E

SUPERSEDES: 8644A-01  
w/Pub. Date 02 March 1993

### HP 8644A Synthesized Signal Generator

**Serial Numbers:** 0000A00000 / 3203A01502

### RPP Module Modification Reduces Noise Floor of RF Output

**Duplicate Service Notes:**

8643A-01A  
8644B-01A  
8645A-02A  
70320A-01A

**Parts Required:** None

**Situation:**

The RPP (Reverse Power Protection) module protects the RF output circuitry from damage. Instruments with serial numbers noted above have +15 Vdc and -15 Vdc bias voltage connected to the RPP module. It has been noted that the noise floor of the instrument is higher when the RPP module is connected to these bias voltages. Removing the bias voltages from the RPP module reduces the noise floor and does not affect the instrument's ability to protect the RF output circuitry. The typical reduction of the noise floor (for output levels less than -120 dBm) is 3 dB.

*Continued*

DATE: 23 July 1993

### ADMINISTRATIVE INFORMATION

SERVICE NOTE CLASSIFICATION:		
<b>MODIFICATION AVAILABLE</b>		
ACTION CATEGORY:	AGREEABLE TIME	<input checked="" type="checkbox"/> PERFORMANCE ENHANCEMENT <input type="checkbox"/> SERVICE/RELIABILITY ENHANCEMENT
LOCATION CATEGORY:	<input checked="" type="checkbox"/> CUSTOMER INSTALLABLE <input type="checkbox"/> ON-SITE <input checked="" type="checkbox"/> HP LOCATION	AVAILABLE UNTIL:
AUTHOR: LHL	ENTITY: 1000	ADDITIONAL INFORMATION: Modification purchased by customer This note reissued 7/93 to correct S/N number.

NOTE: All instruments, with or without the bias voltages applied to the RPP module, will meet or exceed published phase noise specifications. Other specifications such as RPP trip level, maximum power, SWR, harmonics and residual FM are not affected by removing the bias voltage. The main application affected by reducing the noise floor is when the instrument is used to measure SINAD of an FM receiver.

**Solution/Action:**

Clip out or de-solder two jumper wires which connect +15 Vdc and -15 Vdc to the RPP Module. Refer to Figure 1 for module/component location. Re-calibration is not required.

