

# 8920A-02A

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

SUPERSEDES 8920A-02

### HP 8920A RF Communications Test Set

Serial Numbers: 3010A00100/3123A00568

#### Early Instruments Require Firmware Upgrade

##### Parts Required:

Refer to serial number prefixes in text below for specific parts required.

##### Situation

The firmware shipped in instruments within this serial number prefix range is missing some features. HP has told customers that we will provide a free upgrade. Thus, every effort should be made to insure that these instruments are upgraded. Look for the firmware version on the top line of the display when the instrument is powered up or anytime on the CONFIG screen. If the version is below A.05.01, the firmware must be upgraded. Be sure to check the firmware revision BEFORE implementing an upgrade.

*Continued*

DATE: 26 May 1992

### ADMINISTRATIVE INFORMATION

SERVICE NOTE CLASSIFICATION:					
<b>MODIFICATION RECOMMENDED</b>					
ACTION CATEGORY:	<input type="checkbox"/> IMMEDIATELY <input type="checkbox"/> ON SPECIFIED FAILURE <input checked="" 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	USED PARTS:	<input type="checkbox"/> RETURN <input checked="" type="checkbox"/> SCRAP <input type="checkbox"/> SEE TEXT
AVAILABILITY:	PRODUCT'S SUPPORT LIFE		HP RESPONSIBLE UNTIL: 1 March 1995		
AUTHOR: L.H.L.	ENTITY: 1000	ADDITIONAL INFORMATION: Most of the text in this service note has been changed from the original.			

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Most of the firmware changes add operational features, but there are some features that improve the serviceability of the product:

- Diagnostics are now located in the instrument ROM (versus the memory card included with the service manual).
- Overpower detectors on the front panel RF IN/OUT, DUPLEX OUT and ANT IN connectors are now active.

**Solution/Action:**

NOTE: Ongoing enhancements and recent bug fixes in the 8920A firmware make it necessary to bundle the Operating System ROMs and the Signaling ROM together. The 8920A Firmware Upgrade Kit, HP P/N 08920-61058, includes both the Operating System ROMs (A8U18-U23) and the Signaling ROM (A6U401). If the 8920A being modified by this Service Note does not have Option 004 (Tone/Digital Signaling) then discard the Signaling ROM.

In some instruments more than just the firmware ROMs must be replaced. Follow the instructions below based on the serial prefix of the instrument.

**Note**

Any instrument with serial prefix 3141A and above has the new firmware and DOES NOT require any of the modifications in this Service Note.

**SERIAL PREFIX 3010A, 3105A or 3110A.**

1. Remove the instrument outer cover and inner covers as explained in Chapter 10 of the 8920A Assembly Level Repair Manual.
2. Replace the A8 Memory assembly. New firmware is included on this assembly. Option 005 is an additional 256K RAM on the A8 Memory assembly.

<b>Option 005?</b>	<b>Order Part Number</b>
NO	08920-60165
YES	08920-60166

3. Replace the Signaling ROM (U401) on the A6 Signal/Source Analyzer assembly. Option 004 adds Tone/Digital Signaling capability.

<b>Option 004?</b>	<b>Order Part Number</b>
NO	No Change
YES	08920-61052

**Note**

The 8920A Option 004 Retrofit Kit, HP P/N 08920-61052, includes both the Op/Sys and Signaling ROMs. Install the Op/Sys ROMs (included in this kit) on the A8 Memory assembly if they are a later revision than the ROMs currently installed.

4. Modify the A7 Processor assembly as explained in the A7 PROCESSOR MODIFICATION below.
5. Modify the wiring harness as explained in the WIRING HARNESS MODIFICATION below.

**SERIAL PREFIX 3119A.**

1. Remove the instrument outer cover and inner covers as explained in Chapter 10 of the 8920A Assembly Level Repair Manual.
2. Replace the A8 Memory assembly. New firmware is included on this assembly. Option 005 is an additional 256K RAM on the A8 Memory assembly.

<b>Option 005?</b>	<b>Order Part Number</b>
NO	08920-60165
YES	08920-60166

3. Replace the Signaling ROM (U401) on the A6 Signal/Source Analyzer assembly. Option 004 adds Tone/Digital Signaling capability.

<b>Option 004?</b>	<b>Order Part Number</b>
NO	No Change
YES	08920-61052

**Note**

The 8920A Option 004 Retrofit Kit, HP P/N 08920-61052, includes both the Op/Sys and Signaling ROMs. Install the Op/Sys ROMs (included in this kit) on the A8 Memory assembly if they are a later revision than the ROMs currently installed.

4. Modify the wiring harness as explained in the WIRING HARNESS MODIFICATION below.

**SERIAL PREFIX 3123A.**

1. Remove the instrument outer cover and inner covers as explained in Chapter 10 of the 8920A Assembly Level Repair Manual.

2. Replace the ROMs (U18 - U23) on the A8 Memory assembly.

**Order Part Number**

08920-61058 (Includes Op/Sys and Opt004 ROMs, see note under Solution/Action)

3. Replace the Signaling ROM (U401) on the A6 Signal/Source Analyzer assembly. Option 004 adds Tone/Digital Signaling capability.

**Option 004?**

**Installation Notes**

NO  
YES

Discard Signaling ROM included in 08920-61058 kit  
Install Signaling ROM included in 08920-61058 kit

4. Modify the wiring harness as explained in the WIRING HARNESS MODIFICATION below.

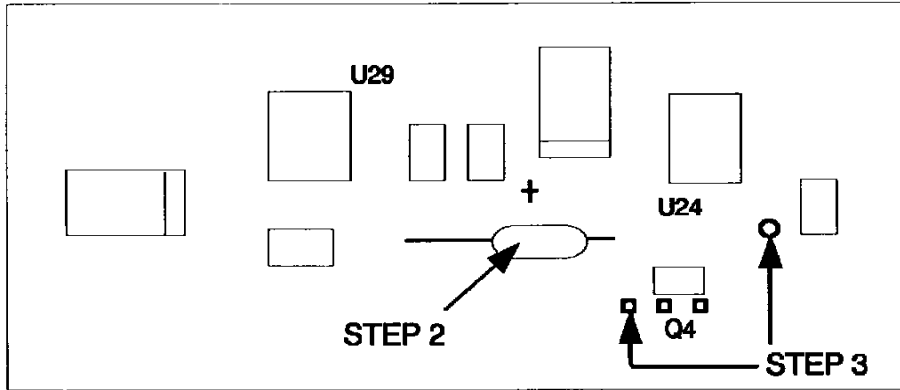


Figure - 1

**A7 PROCESSOR MODIFICATION**

**INSTRUMENT SERIAL PREFIX 3010A, 3105A or 3110A ONLY.**

Instruments with these serial prefixes have an A7 Controller assembly that is incompatible with the new A8 Memory assembly which is required to upgrade the firmware.

**Parts Needed**

Qty	HP Part Number	Description
1	0698-7247	2.87 Kohm Resistor
1	0698-7236	1.00 Kohm Resistor

**A7 Controller Modification Instructions.**

1. Remove the A7 Controller (DCU) assembly from the instrument. Locate the area of the board shown in Figure 1.
2. Remove the diode in this location and install a 2.87 Kohm resistor.
3. Install a 1 Kohm resistor on the backside (circuit) of the board between these 2 feedthrough holes. Scrape the solder resist off the pads on both sides of the board on the feedthrough hole to the left of the surface mount resistor. Clear the solder out of the feedthrough hole to the left of Q4. It's a tight fit, but the leads will go through the holes.

This completes the modification.

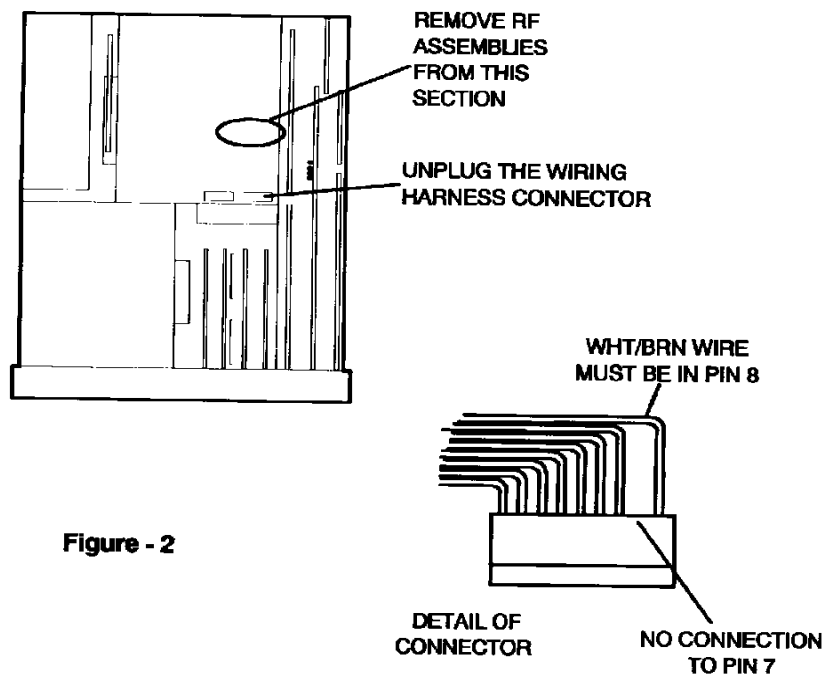


Figure - 2

## WIRING HARNESS MODIFICATION

### INSTRUMENT SERIAL PREFIX 3123A and Below

Instruments in this serial prefix range have an error in the main Power Supply wiring harness. This error prevents the processor from identifying whether the power supply is powered in AC or DC mode which prevents detection of a low battery condition.

#### Wiring Harness Modification Instructions.

1. Remove all the RF assemblies from the instrument.
2. Unplug the wiring harness connector shown in Figure 2.
3. The WHT/BRN wire should connect to pin 8 of this connector. See Figure 2. If the WHT/BRN wire is connected to pin 7, it must be moved to pin 8. There should be no wire connected to pin 7.
4. To move the wire insert a small sharp pointed tool into the cutout on the side of the connector body next to the pin to be moved. This should allow the wire to be removed from the connector body. Then insert the wire into the pin 8 position of the connector body.

This completes the modification.