

S E R V I C E N O T E

SUPERSEDES: None

HP 8340B Synthesized Sweeper

Serial Numbers: 0000A00000 / 9999A99999

Rear Panel to Front Panel Retrofit Instructions

Duplicate Service Notes:

- 8340A-22
- 8341A-11
- 8341B-04

Situation:

This service note contains the parts and process required to retrofit an 8340A/B and 8341A/B option 004 (rear panel output with attenuator) to a standard unit (front panel output with attenuator), and from an option 005 (rear panel without attenuator) to an option 001 (front panel output without attenuator).

This retrofitting can be done to any unit and any serial number.

Solution/Action:

Order parts and follow process.

DATE: 06 January 1993

ADMINISTRATIVE INFORMATION

SERVICE NOTE CLASSIFICATION:		
MODIFICATION AVAILABLE		
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 type="checkbox"/> HP LOCATION	AVAILABLE UNTIL: January 1994
AUTHOR: DM	ENTITY: 5300	ADDITIONAL INFORMATION:

Parts:**Option 004 to Standard Retrofit**

Item	Part Number
RF Connector Bracket	08340-20076
Cable Attenuator to Front Panel	08340-20117
Screw (1)	2360-0333
Screw (1)	2360-0122
Resistor 2.37K 1% .125W	0698-3150
Resistor 2.61K 1% .125W	0698-0085

Option 005 to Option 001 Retrofit

Item	Part Number
RF connector Bracket	08340-20076
Cable Attenuator to Front Panel	08340-20121
Screw (1)	2360-0333
Screw (1)	2360-0122
Resistor 2.37K 1% .125W	0698-3150
Resistor 2.61K 1% .125W	0698-0085

Procedure:

This process applies to the HP 8340A/B and the HP 8341A/B. The steps are identical for each of the 4 products.

1. Switch the instrument to STANDBY. Remove the power cord. Remove the top cover.
2. Completely remove the front panel (you must disconnect A62J9, J15, J16, J26, A61W1P1, W1P2, and the ground wire connected to A6P2).
3. Disconnect the A62J10 SMB cable (front of instrument).
4. Disconnect the sense resistor assembly cable (A47W1) from connector A62J29.
Unscrew the ground lug next to A62J29.

- Remove the semi-rigid cable W3 (connects YO loop output to the A16 modulator/splitter).

CAUTION

The A63RF attenuator and the A10 directional coupler connectors are 3.5 mm, and the RF output cable connector is SMA. Take extreme care when disconnecting or connecting an SMA cable and a mating 3.5 mm connect. The SMA cable center conductor must align with the 3.5 mm connector center conductor. If there is any axial force on the cable when disconnecting the SMA fitting, the 3.5 mm connector center conductor can be damaged.

- Disconnect the RF output cable from the attenuator (standard instrument) or the directional coupler (option 005).
- Remove the RF output cable and connector. Remove the cable from the connector. Attach the connector to the bracket and connect the new cable (08340-20117 on standard unit and 08340-20121 on option 001).
- Remove the front panel plug button labeled RF OUTPUT.
- Remove the pem (pressed in nut) from front panel next to the RF connector (see figure 1). This nut is a pressed in part. To remove the pem drive it out by putting a screw into the pem from the bottom side and a socket on the other side for support while driving it out. Take care in removing the pem, if the frame is broken a new front frame will need to be installed.

**Front Frame
(Rear View)**

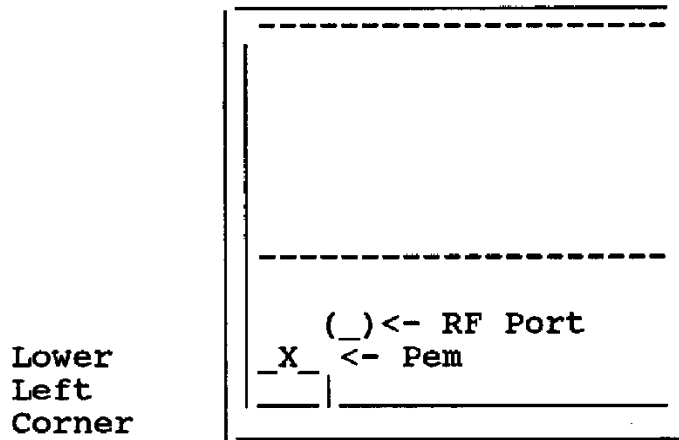


Figure 1

- Connect the RF output cable to the attenuator (standard instrument) or to the directional coupler (option 001).

11. Secure the RF output connector's mounting bracket on the front frame using 1 (2360-0333) screw in the second hole from the end.

For proper alignment of the RF output connector and cable W19 or W20, you may need to install both screws that mount the RF output connector bracket. If this is the case, the mounting bracket screw closest to the instrument's side panel must be removed before installing the front panel.

12. On standard instruments tighten the connectors on the directional coupler to attenuator cable, and the connectors on the attenuator to the RF output cable. On Option 004 instruments tighten the connectors on the directional coupler to RF output connector cable.
13. Reinstall the front panel and reconnect the cables removed in steps 2 through 5.
14. Install the plug in the hole for the rear panel RF output.
15. Remove the A27 level control assembly.

Replace A27R70 jumper wire with a 2.37K ohm resistor (0698-3150) and add A27R71 a 2.61K ohm resistor (0698-0085).

16. To access and change the calibration constants to reflect the retrofit to front RF output, press:

[SHIFT] [GHz] [5] [9] [Hz]
 [SHIFT] [MHz] [1] [2] [Hz]
 [SHIFT] [KHz] [2] [2] [Hz]

Cal Constant 59 - For instruments retrofitted to a standard configuration (front RF output with attenuator), add 200 to the value of calibration constant 59 (shown in the entry display). With the keyboard, enter this new number, and press [Hz]. This turns off the attenuator switching at an ALC level of -12dBm.

Cal Constant 60 - For both retrofits (from rear to standard and option 004) cal constant 60 needs to be reset. To access cal constant 60, press the up arrow step key. Subtract 4 from the cal constant value. Enter the new number and press [Hz]. This removes the rear panel calibration constant configuration.

To store the working calibration data (and the new values for cal constants 59 and 60) in the protected area, press:

[SHIFT] [MHz] [1] [4] [Hz]
 [SHIFT] [KHz] [5] [3] [4] [9] [Hz]

Enter the new values for the cal constants 59 and 60 on the calibration data hard copy, located under the instrument top cover.

17. Perform steps 1 through 31 of the flatness verification and adjustment procedure in paragraph 5-38 of the HP 8340 Operating and Service Manual.
18. Because the values for the cal constants 13 through 16 were changed in step 18, store the new values in protected data by pressing:

[SHIFT] [MHz] [1] [4] [Hz]
 [SHIFT] [KHz] [5] [3] [4] [9] [Hz]

19. To access cal constant 13, press:

[SHIFT] [GHz] [1] [3] [Hz]
[SHIFT] [MHz] [1] [2] [Hz]
[SHIFT] [KHz] [2] [2] [Hz]

Note the value of cal constant 13 in the ENTRY DISPLAY, and update the cal constants hard copy to reflect the new value.

20. To access cal constants 14 through 16, press the up arrow step key.

Update the cal constants hard copy to reflect the new values.

21. Verify the instruments' operation by performing the frequency range and CW mode accuracy test in paragraph 4-10, and the maximum leveled output power and power accuracy test in paragraph 4-14 of the Operation and Service Manual.