S   E   R   V   I   C   E   N   O   T   E

SUPERSEDES: 8751A-05

HP 8751A Network Analyzer

Serial Numbers: 0000J0000 / 9999J9999

Duplicate Service Notes: None

Additional Adjustments For A9/A10/A11 in the HP 8751A

Situation:

There are three identical receiver assemblies in the HP 8751A (A9, A10, and A11, part number 08751-66509). HP 8751As serial numbered 3026J00333 and above have two adjustable components added to each receiver assembly for second IF filter tracking adjustment. So, when you adjust one of the above mentioned serial numbered receivers, second IF tracking adjustment according to the procedure given in this service note is required.The receiver assembly is covered by the assembly exchange program (PN 08751- 69509), so, in the near future when an HP 8751A is repaired, two different receiver assemblies can be installed in the same instrument (receiver assemblies with the added second IF tracking adjustment components and receiver assemblies without the added second IF tracking adjustment components).

Continued

DATE: 10 July 1991

ADMINISTRATIVE INFORMATION

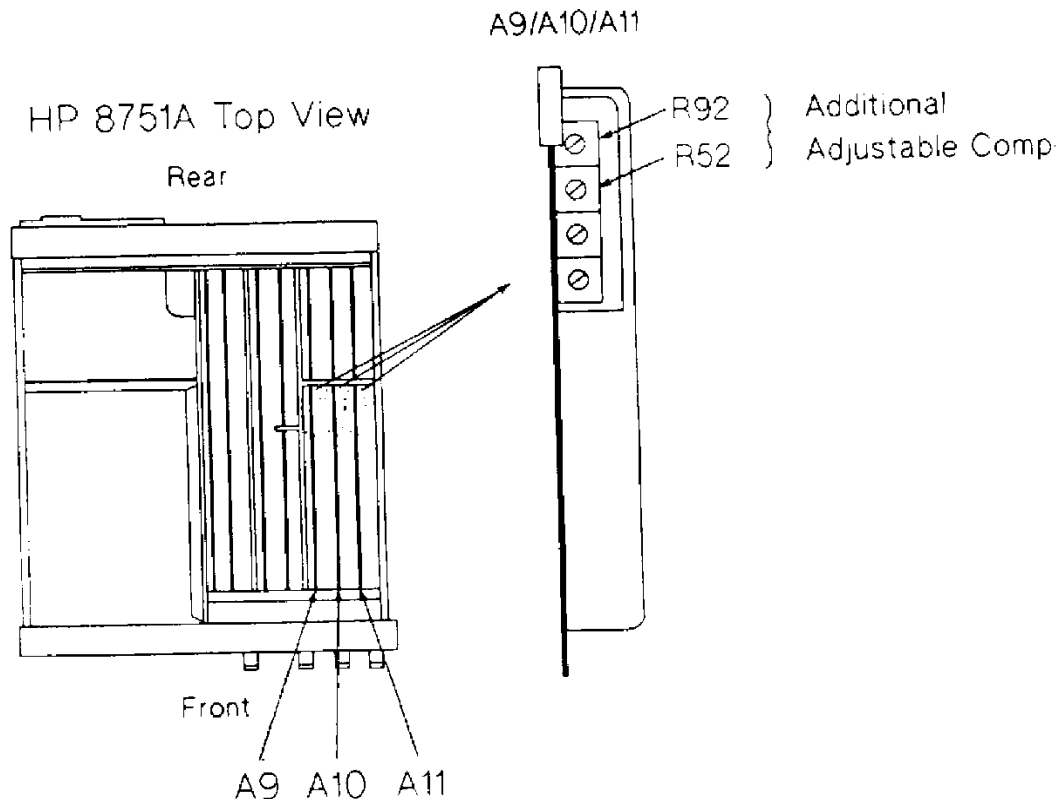SERVICE NOTE CLASSIFICATION:

INFORMATION ONLY

AUTHOR:	ENTITY:	ADDITIONAL INFORMATION:
TM	3301	This version corrects Figure 2-1.

HEWLETT PACKARD

Solution/Action:

Before adjusting an HP 8751A, determine if the second IF tracking adjustment components (R52 and R92) are included. Any receiver assembly containing these components must be adjusted according to the following steps just before performing the Absolute Magnitude Correction Constants sequence.

Figure A

1. INPUT-R 2nd IF FILTER TRACKING ADJUSTMENT (for A9)

The purpose of this procedure is to adjust the input-R second IF filter tracking.

1-1. **Test Equipment**

Description	Qty.	Model No.
N(m)-N(m) Cable	1	HP 11500B

1-2. Procedure

1. Press the following keys ([Front Panel Key], 'Softkey') to set up the HP 8751A:

[PRESET]
[CENTER], [5], [0], [M/u]
[SPAN], [0], [x1]
[MENU], 'POWER', [-], [1], [0], [x1], 'CLEAR POWER TRIP'
[AVG], 'IF BW', [1], [k/m]
[MEAS], 'R', [FORMAT], 'PHASE'
[SCALE REF], [0], [.], [5], [x1]
[SCALE REF], 'ELEC DELAY MENU', 'PHASE OFFSET', [1],
[4], [9], [.], [5], [x1]

2. Connect the N(m)-N(m) Cable as shown in Figure 1-1.
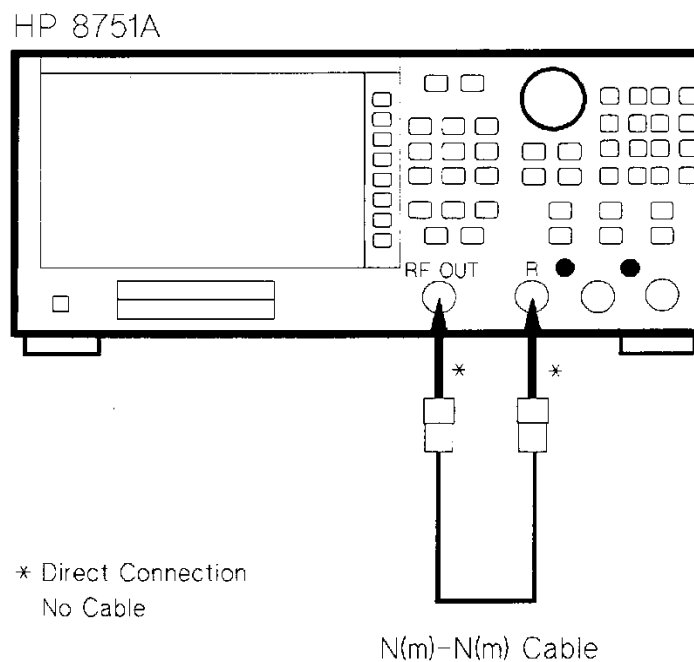

Figure 1-1 Input-R 2nd IF Mixer Tracking Adjustment Setup

3. Press [CAL], 'CALIBRATE MENU', 'RESPONSE', and 'THRU'. Wait until the single sweep is completed. Then press 'DONE: RESPONSE'.

4. Press [AVG], 'IF BW', [2], [0], [0], and [x1].

5. Adjust A9R52 until the trace is 0 +/- 0.5 deg (The current scale must be 0.5 deg/div.). A9R52's location is shown in Figure 1-2.

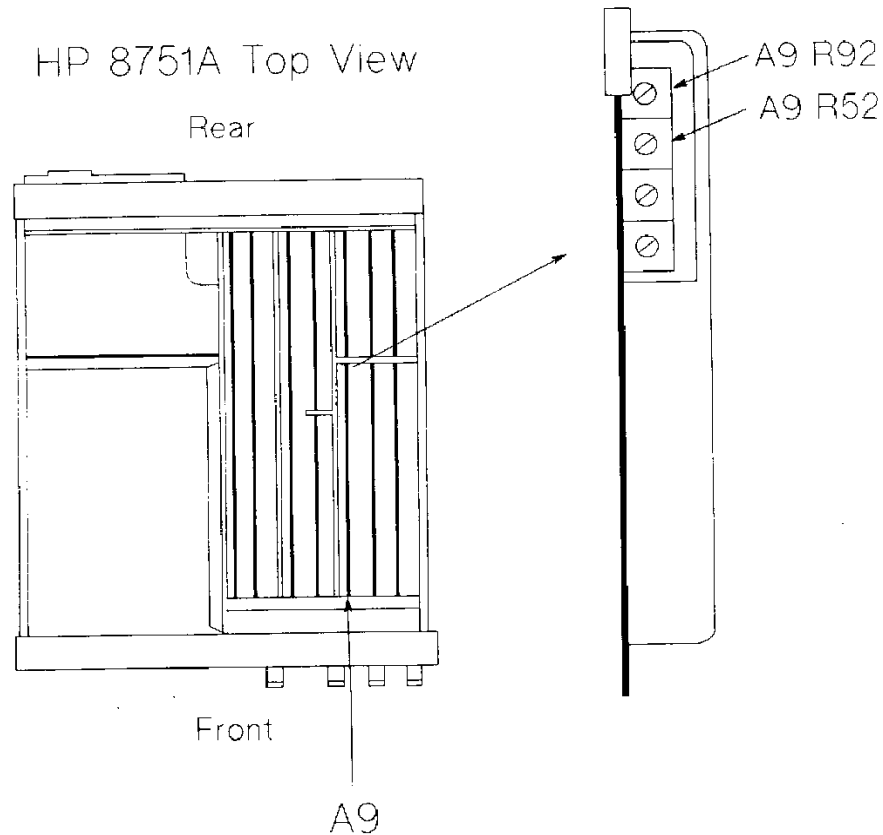6. Press [FORMAT], 'LOG MAG', [SCALE REF], [0], [.], [1], and [x1].

Figure 1-2 Input-R 2nd IF Mixer Tracking Adjustable Component

7. Adjust A9R92 until the trace is 0 +/- 0.1 dB. (The current scale must be 0.1 dB/div). A9R92's location is shown in Figure 1-2.

8. Repeat the steps 1 through 7, and confirm that each trace is within limits.

2. INPUT-A 2nd IF FILTER TRACKING ADJUSTMENT (for A10)

The purpose of this procedure is to adjust the input-A second IF filter tracking.

2-1. Test Equipment

Description	Qty.	Model No.
N(m)-N(m) Cable	1	HP 11500B

2-2. Procedure

1. Press the following keys to set up the HP 8751A:

[PRESET]
[CENTER], [5], [0], [M/u]
[SPAN], [0], [x1]
[MENU], 'POWER', [-], [1], [0], [x1], 'CLEAR POWER TRIP'
[AVG], 'IF BW', [1], [k/m]
[MEAS], 'A', [FORMAT], 'PHASE'
[SCALE REF], [0], [.], [5], [x1]
[SCALE REF], 'ELEC DELAY MENU', 'PHASE OFFSET', [1],
[4], [9], [.], [5], [x1]

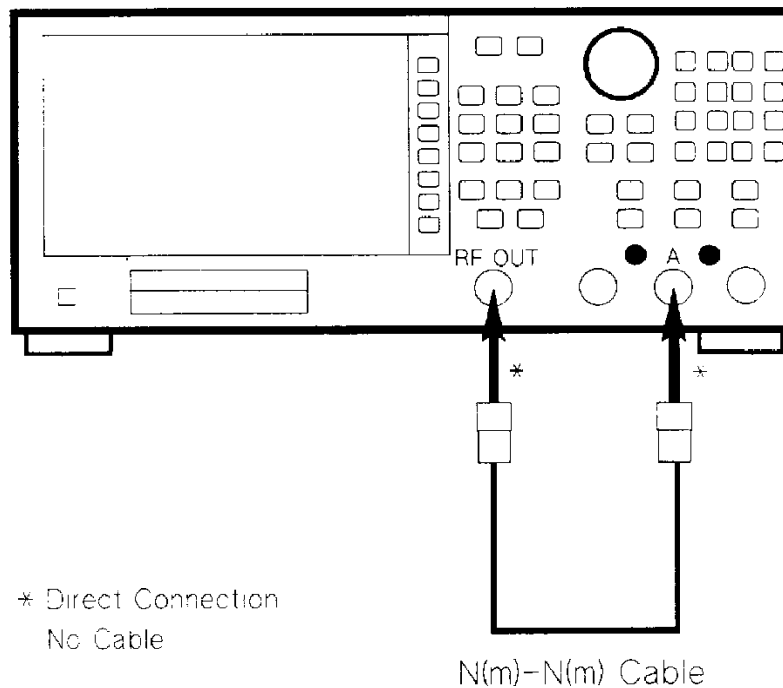2. Connect the N(m)-N(m) Cable as shown in Figure 2-1.

Figure 2-1 Input-A 2nd IF Mixer Tracking Adjustment Setup

3. Press [CAL], 'CALIBRATE MENU', 'RESPONSE', and 'THRU'. Wait until the single sweep is completed. Then press 'DONE: RESPONSE'.

4. Press [AVG], 'IF BW', [2], [0], [0], and [x1].

5. Adjust the A10R52 until the trace is 0 +/- 0.5 deg (The current scale must be 0.5 deg/div.). A10R52's location is shown in Figure 2-2.
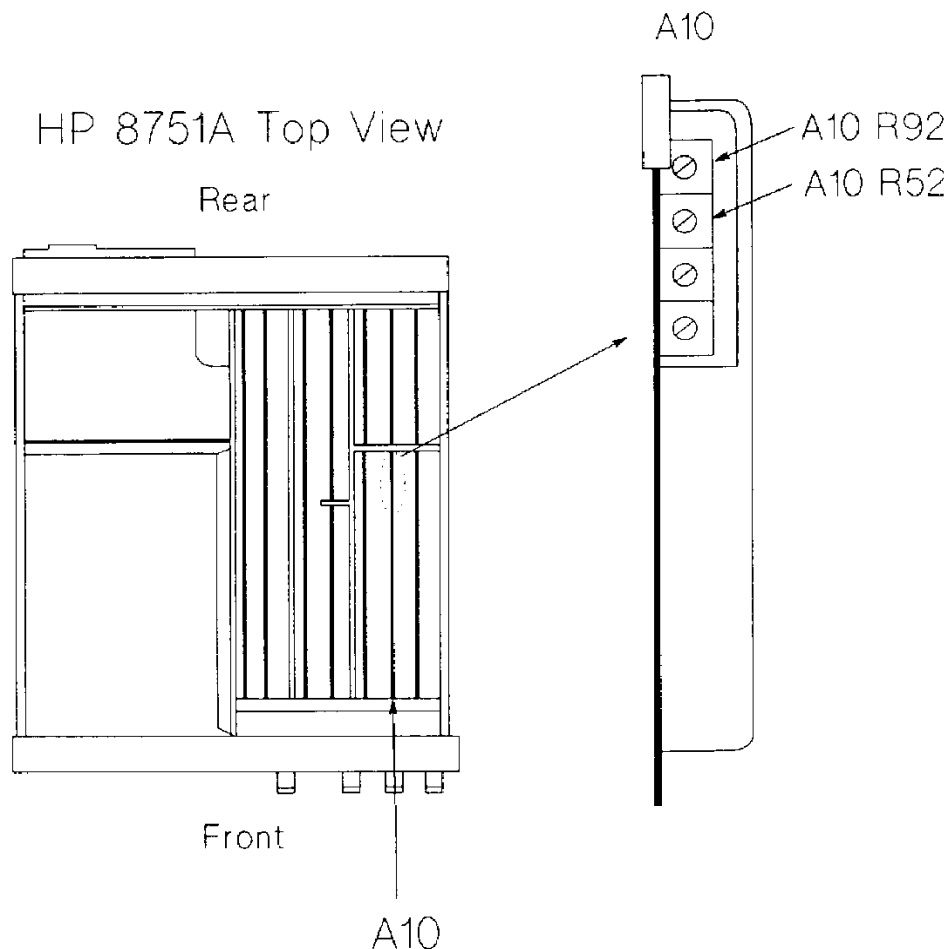

Figure 2-2 Input-A 2nd IF Mixer Tracking Adjustable Component

6. Press [FORMAT], 'LOG MAG', [SCALE REF], [0], [.], [1], and [x1].

7. Adjust A10R92 until the trace is 0 +/- 0.1 dB. (The current scale must be 0.1 dB/div). A10R92's location is shown in Figure 2-2.

8. Repeat the steps 1 through 7, and confirm that each trace is within limits.

3 INPUT-B 2nd IF FILTER TRACKING ADJUSTMENT (for A11)

The purpose of this procedure is to adjust the input-B second IF filter tracking.

3-1. Test Equipment

Description	Qty.	Model No.
N(m)-N(m) Cable	1	HP 11500B

3-2. Procedure

1. Press the following keys to set up the HP 8751A:

[PRESET]
[CENTER], [5], [0], [M/u]
[SPAN], [0], [x1]
[MENU], 'POWER', [-], [1], [0], [x1], 'CLEAR POWER TRIP'
[AVG], 'IF BW', [1], [k/m]
[MEAS], 'B', [FORMAT], 'PHASE'
[SCALE REF], [0], [.], [5], [x1]
[SCALE REF], 'ELEC DELAY MENU', 'PHASE OFFSET', [1], [4], [9], [.], [5], [x1]
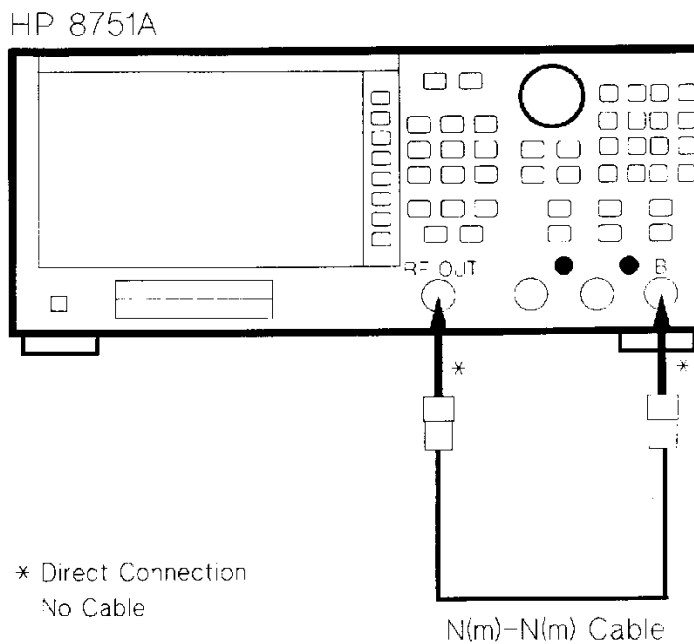

Figure 3-1 Input-B 2nd IF Mixer Tracking Adjustment Setup

2. Connect the N(m)-N(m) Cable as shown in Figure 3-1.

3. Press [CAL], 'CALIBRATE MENU', 'RESPONSE', and 'THRU'. Wait until the single sweep is completed. Then press 'DONE: RESPONSE'.

4. Press [AVG], 'IF BW', [2], [0], [0], and [x1].

5. Adjust the A11R52 until the trace is 0 +/- 0.5 deg (The current scale must be 0.5 deg/div.). A11R52's location is shown in Figure 3-2.
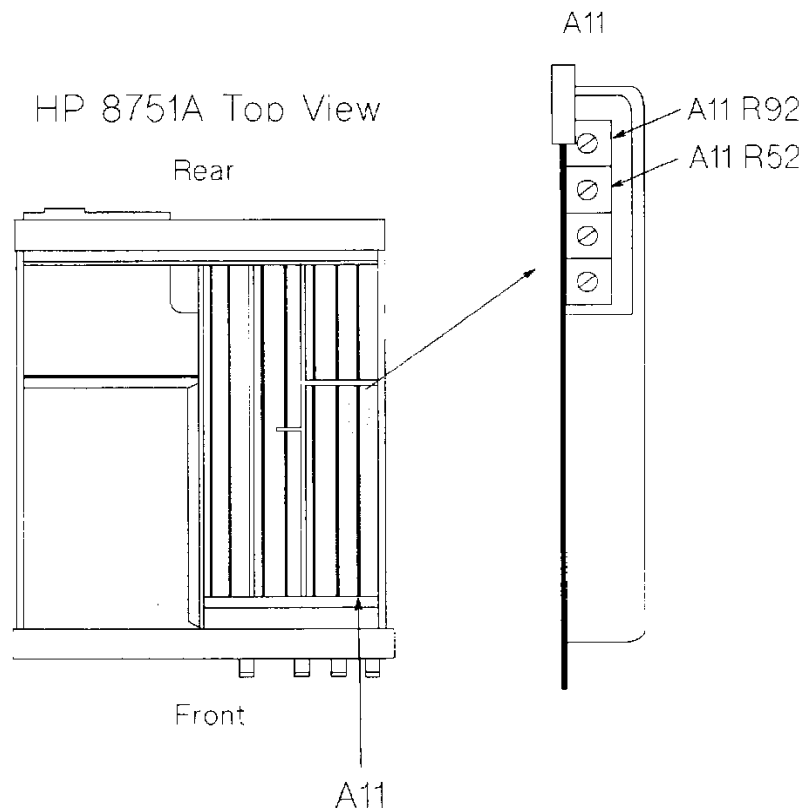

Figure 3-2 Input-B 2nd IF Mixer Tracking Adjustable Component

6. Press [FORMAT], 'LOG MAG', [SCALE REF], [0], [.], [1], and [x1].

7. Adjust A11R92 until the trace is 0 +/- 0.1 dB. (The current scale must be 0.1 dB/div). A11R92's location is shown in Figure 3-2.

8. Repeat the steps 1 through 7, and confirm that each trace is within limits.