

8131A-02

S E R V I C E N O T E

SUPERSEDES: None

HP 8131A Programmable Pulse Generator

Serial Numbers: 2839G00100 / 9999G99999

Reference Designator	Part Number	Assembly Name
A26	08131-69526	BD AY OUTPUT, Std. (Exchange Board)
A27	08131-69527	BD AY OUTPUT, Opt. 020, CH1 (Exchange Board)
A28	08131-69528	BD AY OUTPUT, Opt. 020, CH2 (Exchange Board)

Recommended test/adjustment after replacement of the output board

To Be Performed By: HP-Qualified Personnel

Situation:

Due to a changed firmware the adjustments of the output board changed also.

OLD Firmware REV 1.3

A3 U204 08131-13703
A3 U205 08131-13704

NEW Firmware REV 1.5

08131-13707
08131-13708

To make sure NEW adjusted boards work well in OLDER instruments and OLD adjusted boards work well in NEWER instruments the following shown tests and adjustments have to be carried out. Violation causes a negative offset of about 100 mV at an amplitude set between 620 mV and 630 mV.

Continued

DATE: 15 September 1991

ADMINISTRATIVE INFORMATION

SERVICE NOTE CLASSIFICATION:

INFORMATION ONLY

AUTHOR:	ENTITY:	ADDITIONAL INFORMATION:
MI	B100	

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Solution/Action:

Additional to the adjustments shown in the Service Manual, 3 Adjustments (page 3-3 to 3-5), follow the instructions shown below.

1. If channel 2 is fitted, start adjustment with the board for that channel.
2. Place the board to the service connector.
3. Switch the instrument ON.
4. Set the HP 8131A:

MODE	E.WIDTH		
	pos. trigger edge		
	THRE	-5.0 V	
OUTPUT	HIL	0.0 V	COMPLEMENT
	LOL	-5.0 V	

5. Connect accurate 50 Ohm feedthrough terminations (0.1%) to the output connectors. Switch the outputs to ENABLE.
6. With a DVM, set to Vdc, internal trigger, measure the voltage at A6 U401 pin 19/L403/W404 for 0.00 V +/- 10 mV. If necessary adjust A6RV123.
7. Switch to NORMAl and check for

-5.005 V +/- 5 mV	REV 1.5 installed!
-5.05 V +/- 5 mV	REV 1.3 installed!

If necessary adjust A6RV404.

8. Set the HP 8131A:

MODE	THRE	+5.0 V	
OUTPUT	HIL	5.0 V	NORMAl
	LOL	0.0 V	

9. With the DVM measure:

+5.005 V +/- 10 mV	REV 1.5 installed!
+5.05 V +/- 10 mV	REV 1.3 installed!

If necessary adjust A6RV455.

10. Set the outputs to COMPLEMENT and check for 0.00 V +/- 15 mV.

11. Set the HP 8131A:

MODE	THRE	-5.0 v	
OUTPUT	HIL	0.0 V	NORMAL
	LOL	-620 mV	

12. Notice the value measured with the DVM (typ. -625 mV).

13. Change the LOL to -630 mV. If necessary adjust A6RV103 to the above value + 10 mV (typ. -635 mV +/- 5 mV).

14. Set the outputs to COMPLEMENT and check for 0.00 V +/- 15 mV.

- FOLLOW THE PROCEDURE IN THE SERVICE MANUAL, page 3-3 - 3-5, step 1 - 24!
 - Do step 25, 26, and 27 of the Service Manual, Adjustments 3-5!
15. Repeat step 1 to 14 of this procedure for Chan 1 OUT if necessary. (Refer to the Note on page 3-5.)
- Do step 28, 29, and 30 of the Service Manual, Adjustments 3-5!