

INFORMATION ONLY – DOES NOT COMMUNICATE  
A MODIFICATION OR SAFETY CONDITION

**E8247C-08**

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

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Supersedes:  
None

**E8247C PSG Analog Signal Generator**

**Serial Numbers:** [0000A00000 / 9999Z99999]

**Procedure for replacing the E8251-60006 CPU board.**

**Parts Required:**

<b>P/N</b>	<b>Description</b>	<b>Qty.</b>
None		

**ADMINISTRATIVE INFORMATION**

SERVICE NOTE CLASSIFICATION:

**INFORMATION ONLY**

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ADDITIONAL INFORMATION:

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**Situation:**

When a replacement CPU is ordered, the CPU is shipped with the version of firmware that may not be the right firmware for your instrument. This means the correct firmware will need to be loaded at the service technician. The following is a procedure to change load new firmware in the replacement board.

**Solution/Action:**

If the current CPU works

1. Press Utility, Instrument Adjustments, Instrument Options, and Software Options.
2. For each option that has a check mark after the license key, write down the option number and the license key. This step is very important, so make sure each license key is recorded correctly.
3. Backup the calibration data from the old CPU board to the mother board using the command :DIAG:FILE:BACK
4. Following the instructions in the Service Guide Assembly Replace section replace the CPU.

If the current CPU does not work

5. Following the instructions in the Service Guide Assembly Replace section replace the CPU.
6. Power the instrument back on. If the firmware loaded on the CPU matches the instrument model, go to step 14. If the firmware does not match the instrument model, the instrument should turn-on, firmware will need to be changed.

Setting the IDN and LAN address

7. Once the instrument has completed its turn-on, the IP address needs to be entered. Press Utility, GPIB/RS-232 LAN, and enter the IP address.
8. Press Return, then Remote Language, and set remote language to SCPI.
9. Change the IDN by sending :SYSTem:IDN "Agilent Technologies, <Model Number>, <Serial Number>, <Replacement board firmware revision>".
10. Send an \*IDN? Command to see that the IDN is correct.

Loading new firmware from the web

11. The firmware and the firmware upgrade assistant are located on Agilent's website. Go to [www.agilent.com](http://www.agilent.com). Search on the model number (i.e. E8241A, E8257C, or E8257D)
12. In the search results under Software and Firmware Downloads locate and click on PSG/ESG Upgrade Assistant. This will take you to the Upgrade Assistant Home page.
13. The PSG/ESG Upgrade Assistant Software and the Latest PSG/ESG Firmware need to be downloaded to the PC. Click on each program and save to disk. Save both programs to a file that is easy to find.
14. Once both programs are downloaded, go to the folder where the files are located and click on each program. The programs will open the files and save the routines to a folder. When asked, create a short cut on your desk top.

Loading new firmware into the instrument

15. Open the PSG-ESG Upgrade Assistant.
16. Enter the following information:
  - a. Connection Type
  - b. LAN Setup (IP or GPIB address)
  - c. Firmware Release – Use the browser to locate and select the firmware revision to install. It will be an .esg file.
  - d. If you have tried to download the firmware and failed, click in the Recover Failed Upgrade.
  - e. In some situations it is necessary to check the Add Hardware box.
  - f. Select Next
17. Select Allow Old Firmware Revision

18. Select Yes when the “Warning Allow Old Firmware Revision” message appears and follow the instructions displayed on the PC.

Once new firmware is downloaded

19. Back up calibration data needs to be loaded into the CPU from the mother board using the :DIAG:FILE:REST command.
20. Reset the IDN to the default IDN by sending :SYST:IDN “ “. Then check to see if the IDN has changed by sending \*IDN?

Entering License Keys

21. Press “Utility”, “Instrument Adjustments”, “Instrument Options”, and “Software Options”.
22. Highlight the option using the RPG that a license key will be entered for
23. Select Modify License Key, enter the license key using the numeric keypad and the softkeys then press Enter. If the license key entry was successful, a check mark will be displayed after the license key.
24. Press Proceed With Reconfiguration after all license keys have been entered.
25. If the license key does not turn the option(s) on or you could not get the license key(s) from the old CPU, you can check the GSDC website to see if the license key(s) is available from their data base. The link is to this website is (<http://pamirs.cos.agilent.com/license/>). This website provides a guest log-in for searching the data base.
26. If you can not find the license key information for your specific instrument on this website, send a message to the PSG, Sources email node requesting license keys with the following information:
  - a. Instrument Model #
  - b. Serial number
  - c. Host ID
  - d. The needed options license keys.

The request will be researched and if the databases indicate these options were installed in the instrument, license keys will be send. If records do not show an option was installed, the license key for that option will not be sent. License keys will only be provided if an the option information can be verified.