Installation Note

**Agilent Technologies 86226B Firmware Upgrade Kit
Revision B.03.50 and Above
Kit Number 08712-60013**

Notice.

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PRODUCTS AFFECTED:	Agilent 8711B/12B/13B/14B
	RF Network Analyzers
SERIAL NUMBERS:	All
TO BE PERFORMED BY:	[X] Agilent Service Center
	[X] Customer or Personnel Qualified by Agilent
	[X] Agilent Personnel On-site
ESTIMATED INSTALLATION TIME:	10 minutes

Description

This kit contains the firmware disk required to upgrade an Agilent 8711B, 8712B, 8713B or 8714B to the latest firmware revision. (See firmware disk label for current revision.)

The most significant changes in version B.03.50 and above over the previous version (B.03.02) are:

- Availability of Option 100 (fault location and structural return loss measurements).
- Marker math functions that compute statistical data on defined marker segments for mean magnitude, peak-to-peak, flatness, and RF filter statistics.
- Marker limit testing for new marker math functions is available.
- New marker search functions: multi-peak search and multi-notch search.
- Fast recall of instrument states available.
- Impedance magnitude format available on Agilent 8712B and 8714B.
- Because of added and/or improved features, some keystroke sequences are different.

The changes in this firmware revision over version B.03.01 include all of the above as well as improved measurement stability with a resultant slight increase in minimum sweep times.

The changes in this firmware revision over version B.03.00 include all of the above as well as:

- Minor changes to service adjustment routines #104 and #108.

- A SCPI command for Type-F calibration kit was added.

- The GPIB code was modified for subsequent GPIB hardware interface change.

| **Note** | For detailed information on new features acquired as a result of upgrading your firmware, you may want to order a new *User's Guide* for your analyzer. Contact your nearest Agilent sales or service office for assistance. |

Tools Required

None.

Equipment Required

One blank 3.5" floppy disk (720 KB or 1.44 MB).

Installation Kit Parts List

Agilent 86226B Firmware Upgrade Kit 08712-60013

Quantity	Description
1	Firmware Disk

Installation Procedure

Caution   Installation of new firmware will erase any internally saved instrument states and user calibrations; save these to a floppy disk first if they will be needed later. Carefully follow the instructions below.

1. Make sure the analyzer's built-in disk drive is empty, and turn on the analyzer.

2. Label a blank 3.5" disk with "CC DATA," and the model number and serial number of the analyzer.

3. Ensure that the disk is *not* write-protected and insert it into the analyzer's built-in disk drive. If the disk is already formatted, proceed with step 4; otherwise format the disk by pressing:

   SAVE RECALL

   File Utilities

   Format Disk Menu

   Format 3.5" Disk

   YES

   Formatting the disk takes about 2.5 minutes.

4. Press

   ⌊SYSTEM OPTIONS⌋

   Service

   Update Corr Const

   Store CC to Disk

   When done, remove the "CC DATA" disk and set it aside. This is a copy of the current correction constants of the analyzer.

5. Insert the firmware disk into the analyzer's built-in 3.5" disk drive and cycle the power to the analyzer.

6. When the analyzer powers up, you will see a message on the screen indicating that a firmware disk has been found. Press ⌊BEGIN⌋ to initiate the loading of the new firmware. The firmware loading takes about five minutes. When done, remove the firmware disk and cycle the power again.

7. When the analyzer powers up again, you will briefly see a warning message indicating that correction constants are not installed, after which you will see the "Update-Corr-Const" help message.

8. Insert the "CC DATA" disk that you created earlier in this procedure, and press Install Corr Const . This loads the correction constants from the disk into the analyzer's RAM and into the EPROM for permanent storage.

9. After the correction constants have been installed, cycle the power to the analyzer again. The firmware upgrade is now complete.

10. Store the "CC DATA" disk and the firmware disk in a safe place.

Commonly Asked Questions About Firmware Upgrades

Does changing the firmware require a recalibration of the analyzer?
No. By following the procedure in this document, upgrading firmware will not affect calibration of the analyzer. However, all contents of the non-volatile RAM, such as instrument states and user-calibrations will be erased.

Can I store correction constants to the "CC DATA" disk that was shipped with my instrument?
Yes, but you will overwrite the original data that was on the disk.

Can I store CC data on the same disk as the firmware, and eliminate one of the disks?
Possibly; some firmware revisions have sufficient room to hold the CC data file, *however this is not recommended*. Doing this could create confusion as to which instrument the CC data file is from.

Can I store the CC data from several instruments on one disk?
NO! The file name is always "CC_DATAx" regardless of the analyzer's serial number. ("x" = the last digit of the model number.) Attempting to store more than one file per disk of the same model number will destroy the previous files.

Instead of storing the analyzer's current CC data to disk, can I use the CC data disk that was shipped with the analyzer?
Yes, but only if no changes have been made to the analyzer, such as a significant repair, replacement of an assembly, or a subsequent recalibration.

If I format a disk, which format must it be: DOS or LIF?
The analyzer's built-in disk drive will read and write in either format, so it doesn't matter.

For Additional Information

For more information, contact your nearest Agilent sales and service office.

By internet, phone, or fax, get assistance with all your test & measurement needs.

Table 1-1. Contacting Agilent

Online Assistance: www.agilent.com/find/assist

United States	**Japan**	**New Zealand**
(tel) 1 800 452 4844	(tel) (81) 426 56 7832	(tel) 0 800 738 378
	(fax) (81) 426 56 7840	(fax) 64 4 495 8950
Canada	**Latin America**	**Asia Pacific**
(tel) 1 877 894 4414	(tel) (305) 269 7500	(tel) (852) 3197 7777
(fax) (905) 206 4120	(fax) (305) 269 7599	(fax) (852) 2506 9284
Europe	**Australia**	
(tel) (31 20) 547 2323	(tel) 1 800 629 485	
(fax) (31 20) 547 2390	(fax) (61 3) 9210 5947	