

U8903A Audio Analyzer Firmware Upgrade Process

Version 3

Date: 16 March 2012



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A: Firmware Revision Verification

1. Press the System button from SYSTEM panel at the front panel.



Agilent Technologies		System
About		I/O
Description	: Audio Analyzer	Date/Time
Model Number	: U8903A	Brightness
Serial Number	: MY49190002	4
Firmware Revision	: 1.0.0.2	Service
System Version	: WinCE 5.0	Update
Details	:	More (1/2)
1. FFT: 0.4.15.14 Nov 11 2009		Return
2. HAL: 0.4.8.15 Dec 16 2008		
3. IAL: 0.4.15.10 Jun 03 2009		
4. Master: 0.4.15.14 Nov 11 2009		
5. Module 1: 0.4.15.14 Nov 11 2009		
The latest version of the software can be downloaded from www.agilent.com		
System Mode.		

B: Obtaining the firmware

1. Obtain the Audio Analyzer firmware from the URL below:
www.agilent.com/find/audioanalyzer_firmware
2. Save the file to your USB Flash memory device.



3. Insert the USB Flash memory device to the front panel USB port. Make sure the device is inserted all time during the upgrade process, unless is instructed otherwise.

Note:

For firmware revisions [2.2.8.0 and above](#), please proceed to [Section D.](#)

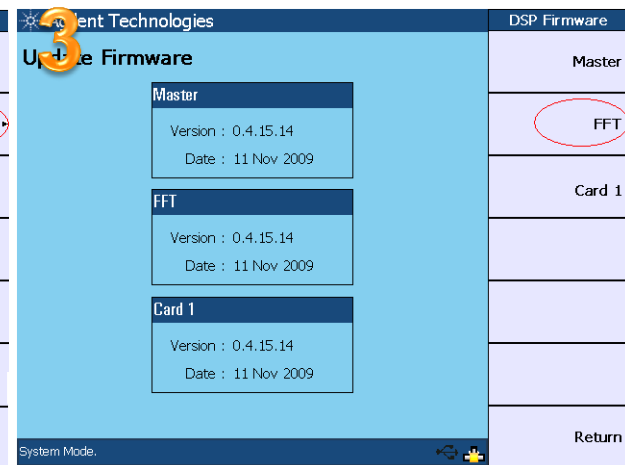
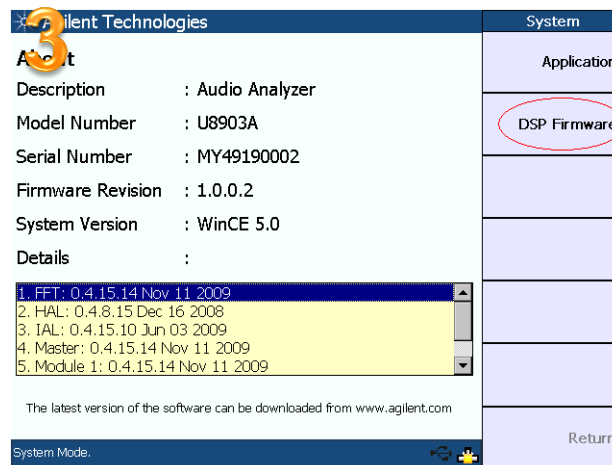
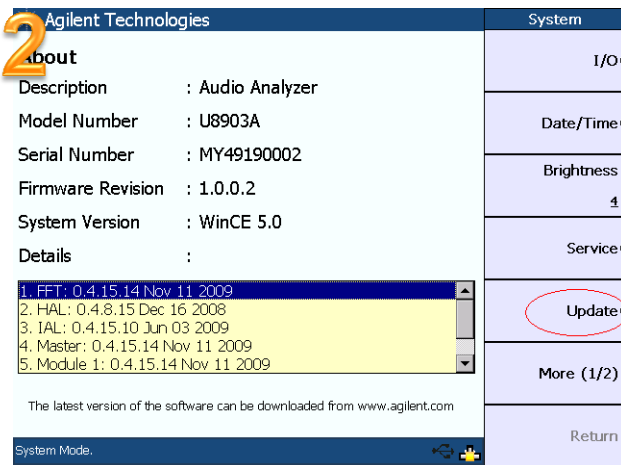
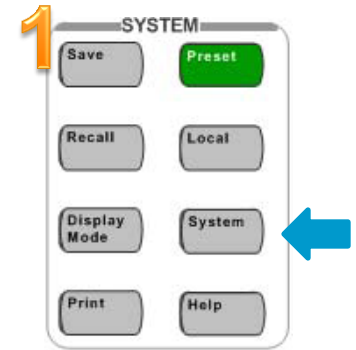
For other revisions, please start from [Section C.](#)

C: Firmware Update Procedure

(For Firmware Revision below 2.2.8.0)

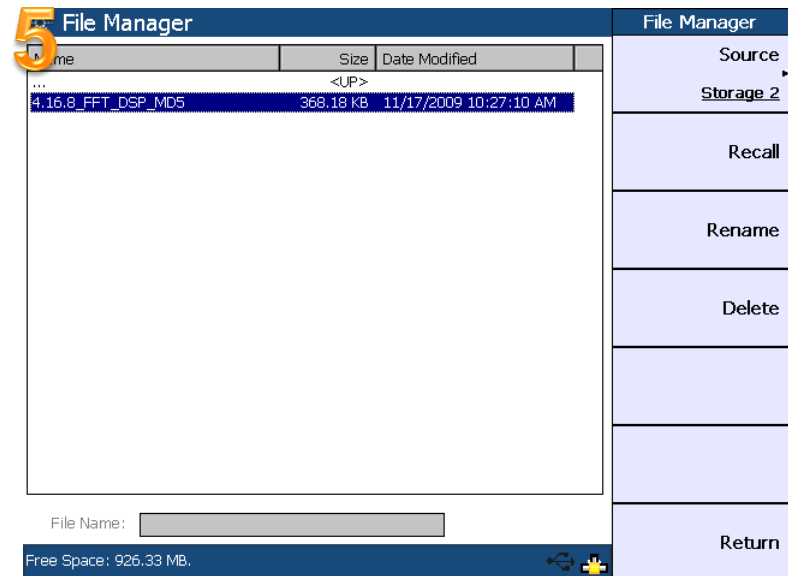
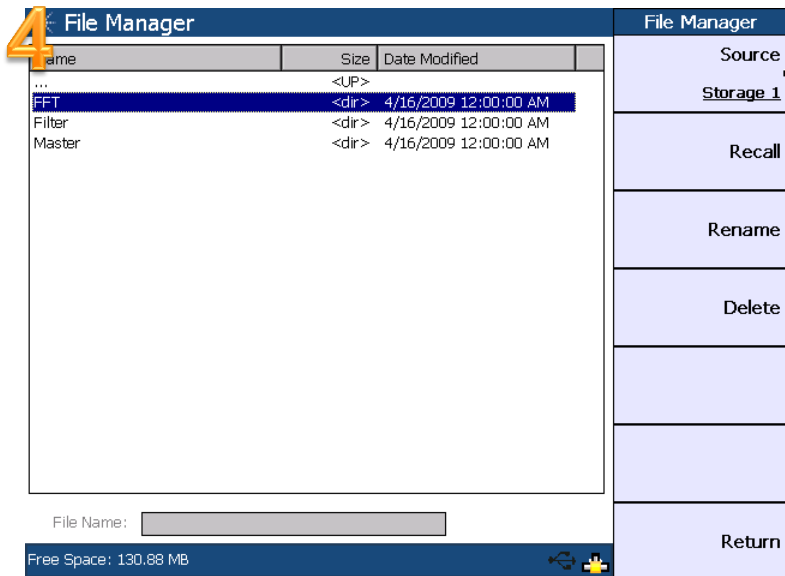
C-1: Firmware Update Procedure (DSP)

1. Press the System button from SYSTEM panel at the front panel.
2. At the System mode page, select "Update".
3. Select "DSP Firmware" then select "FFT".



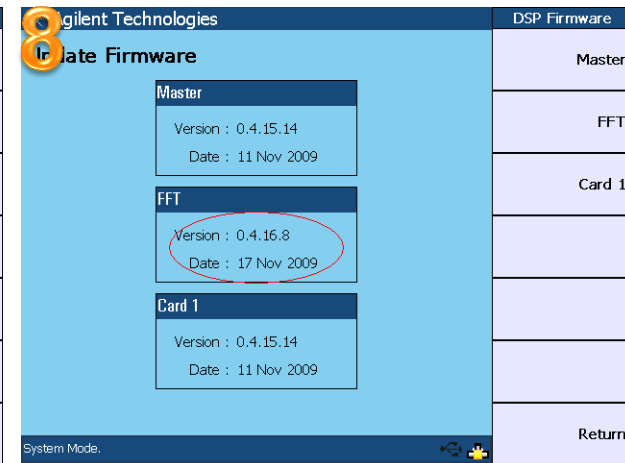
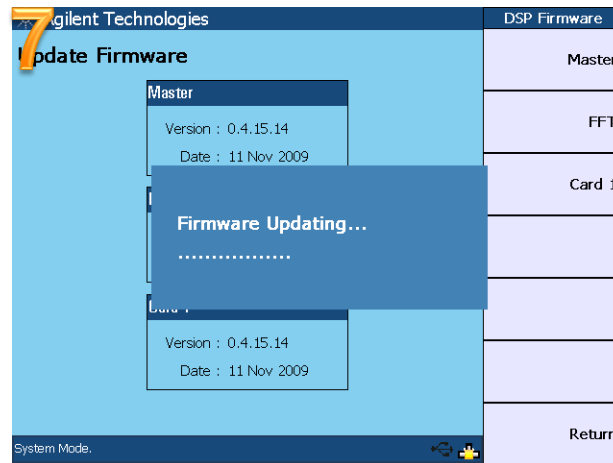
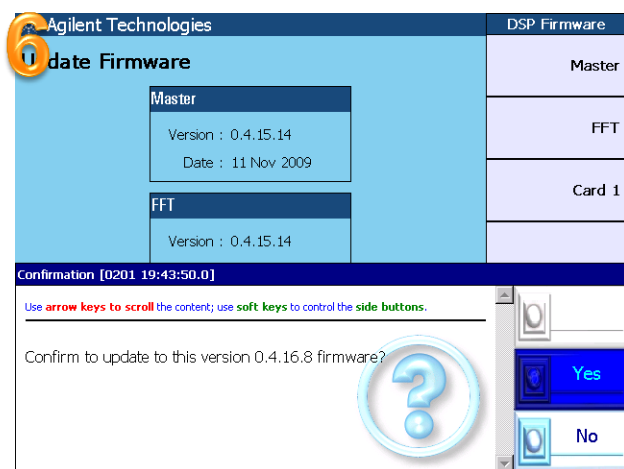
C-1: Firmware Update Procedure (DSP) cont.

4. The File Manager will pop up to allow the user to search for the update files. Locate FFT folder and press Enter.
5. Select the **X.XX.X_FFT_DSP_MD5** file and press Enter.



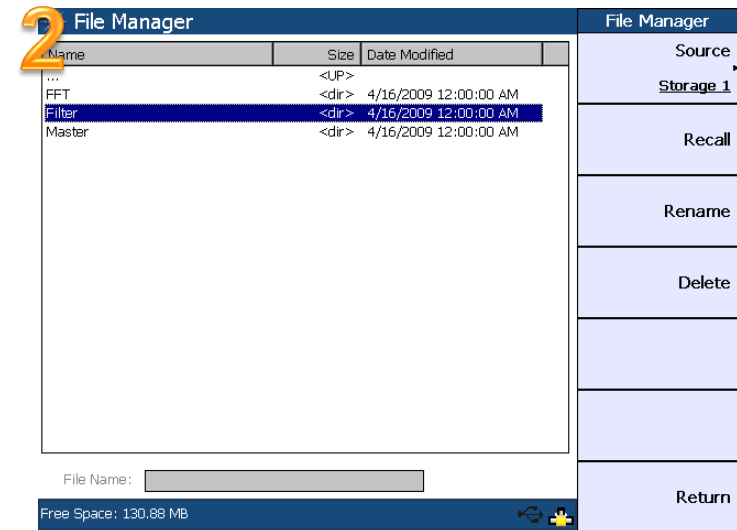
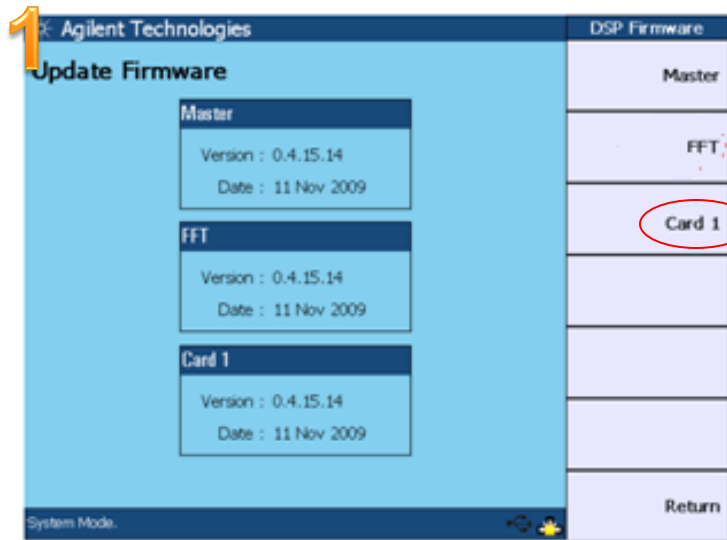
C-1: Firmware Update Procedure (DSP) cont.

6. A Confirmation box will pop out. Select Yes by pressing the Enter button to begin upgrade process.
7. Then the updating process will start.
8. Once completed, the FFT version will reflect the latest version number



C-2: Firmware Update Procedure (Filter)

1. From the System mode page, select “Update” to reach the DSP Firmware page, select “Card 1”.
2. The File Manager will pop up to allow the user to search for the update files. Locate Filter folder and press Enter.
3. Select the `X.XX.X_Filter_DSP_MD5` file and press Enter.

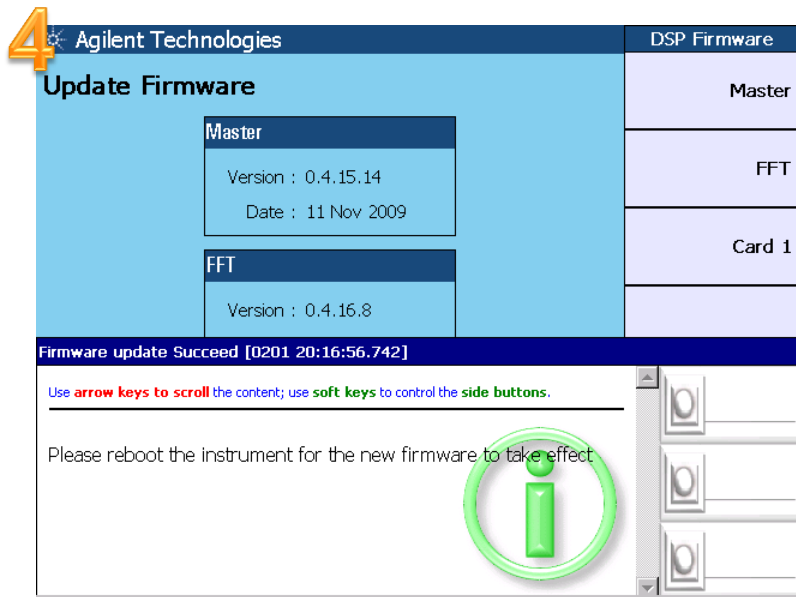


C-2: Firmware Update Procedure (Filter) cont.

- Once update is completed, the system will prompt you to reboot.

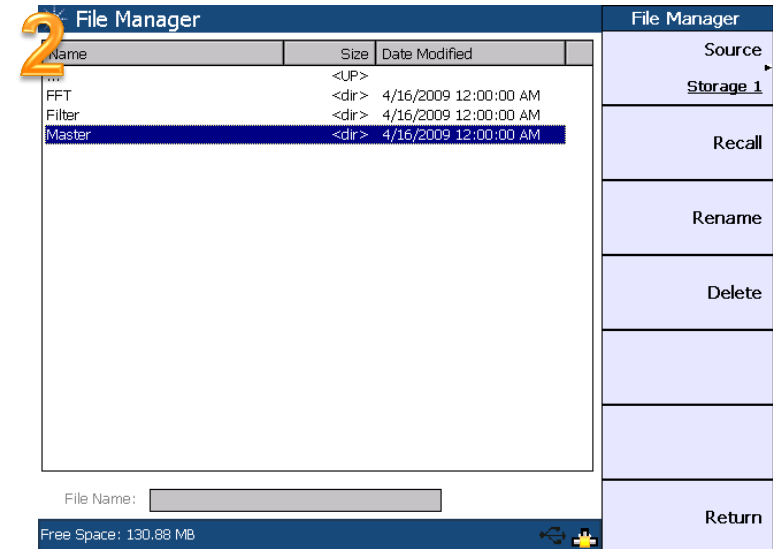
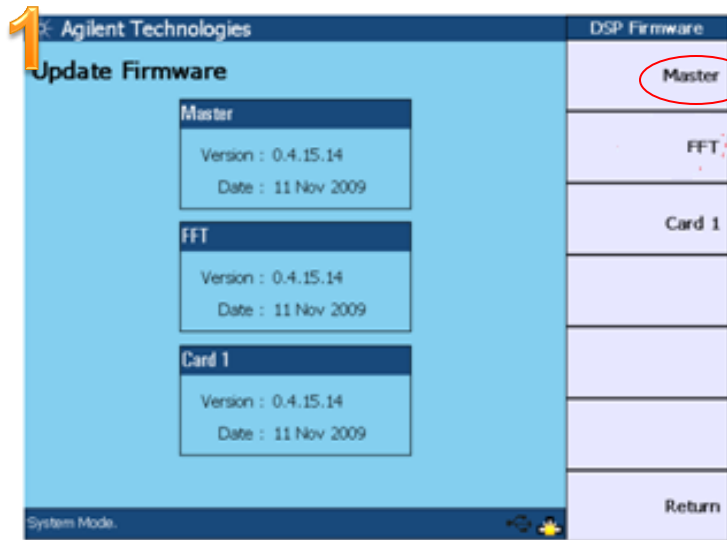
CAUTION

At this point, please remove the USB flash memory device before reboot.



C-3: Firmware Update Procedure (Master)

1. From the System mode page, select “Update” to reach the DSP Firmware page, select “Master”.
2. The File Manager will pop up to allow the user to search for the update files. Locate Master folder and press Enter.
3. Select the `Master_DSP_X.X.XX.X_MD5` file and press Enter.



C-3: Firmware Update Procedure (Master) cont.

- Once update is completed, the system will prompt you to reboot.

CAUTION

At this point, please remove the USB flash memory device before reboot.


4 Agilent Technologies DSP Firmware

Update Firmware	Master
Version : 0.4.15.14 Date : 11 Nov 2009	FFT
FFT	Card 1
Version : 0.4.16.8	

Firmware update Succeed [0201 20:16:56.742]

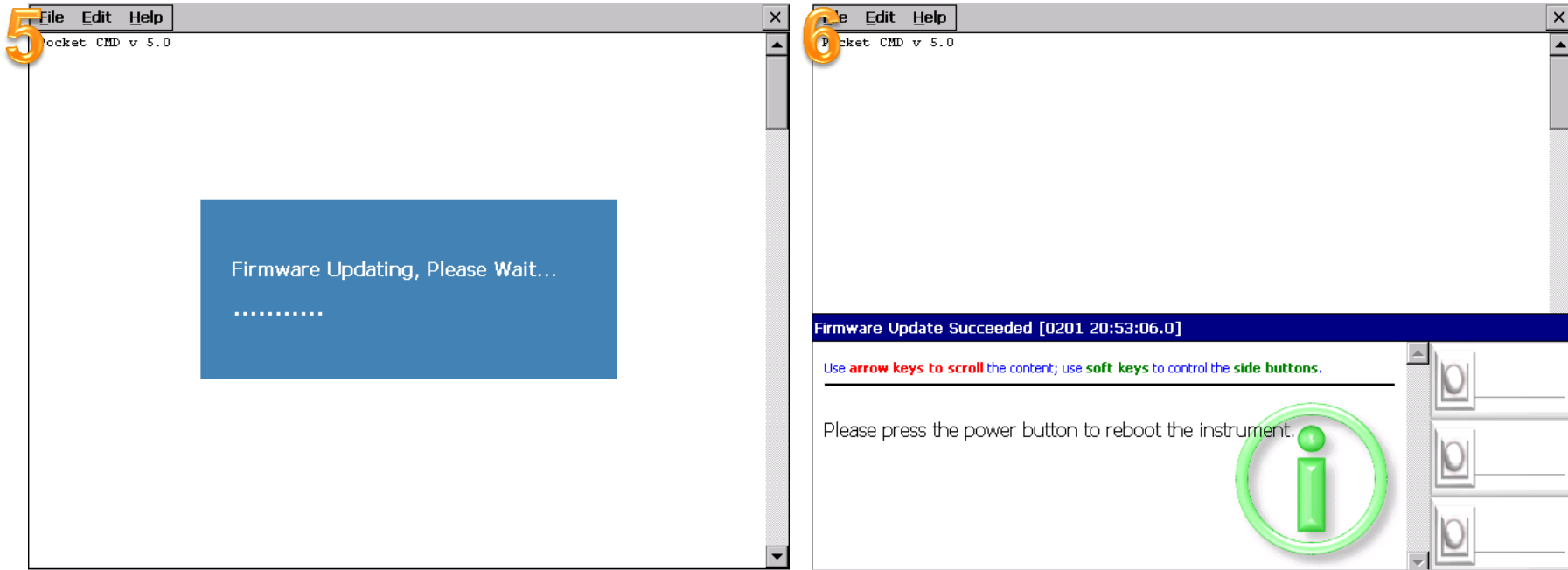
Use **arrow keys** to scroll the content; use **soft keys** to control the side buttons.

Please reboot the instrument for the new firmware to take effect.



C-3: Firmware Update Procedure (Master) cont.

5. Once the equipment is switch ON, the equipment will continue to update the Firmware.
6. Once finished, a message box will pops up to request for reboot for second time.



C-4: Firmware Update Procedure (GUI)

1. Press the System button from SYSTEM panel at the front panel.
2. At the System mode page, select “Update”.
3. Select “Application”.

1



2

Agilent Technologies

System

About

Description : Audio Analyzer

Model Number : U8903A

Serial Number : MY49190002

Firmware Revision : 1.0.0.2

System Version : WinCE 5.0

Details :

1. FFT: 0.4.15.14 Nov 11 2009

2. HAL: 0.4.8.15 Dec 16 2008

3. IAL: 0.4.15.10 Jun 03 2009

4. Master: 0.4.15.14 Nov 11 2009

5. Module 1: 0.4.15.14 Nov 11 2009

The latest version of the software can be downloaded from www.agilent.com

System Mode.

I/O+

Date/Time+

Brightness 4

Service+

Update+

More (1/2)

Return

3

Agilent Technologies

System

About

Description : Audio Analyzer

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4. Master: 0.4.15.14 Nov 11 2009

5. Module 1: 0.4.15.14 Nov 11 2009

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System Mode.

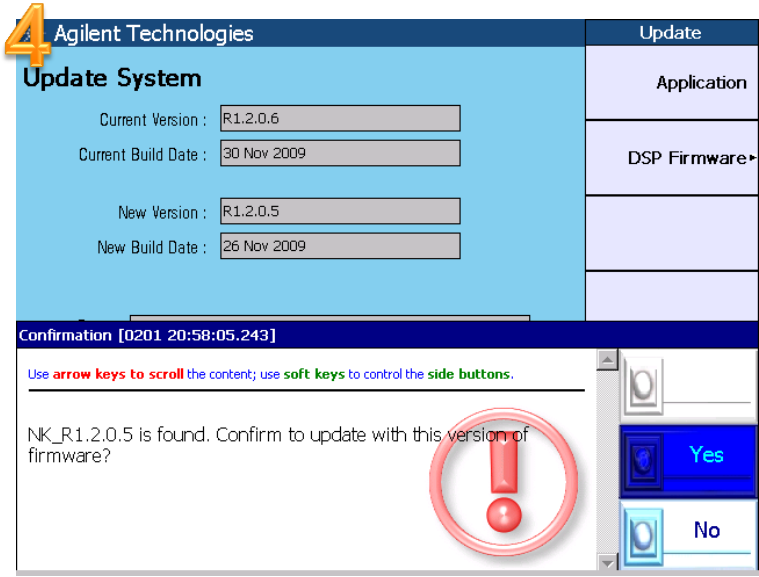
Application

DSP Firmware+

Return

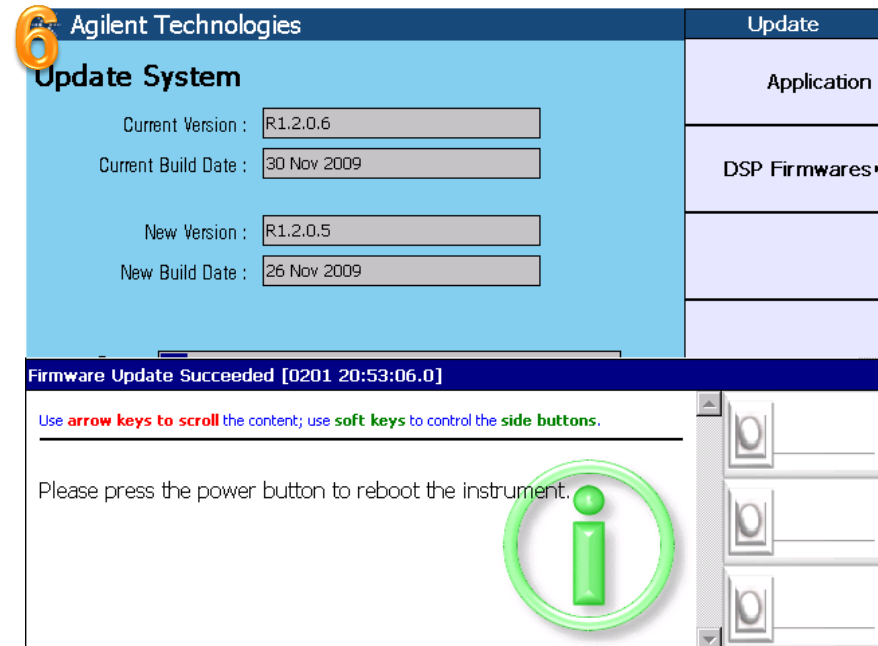
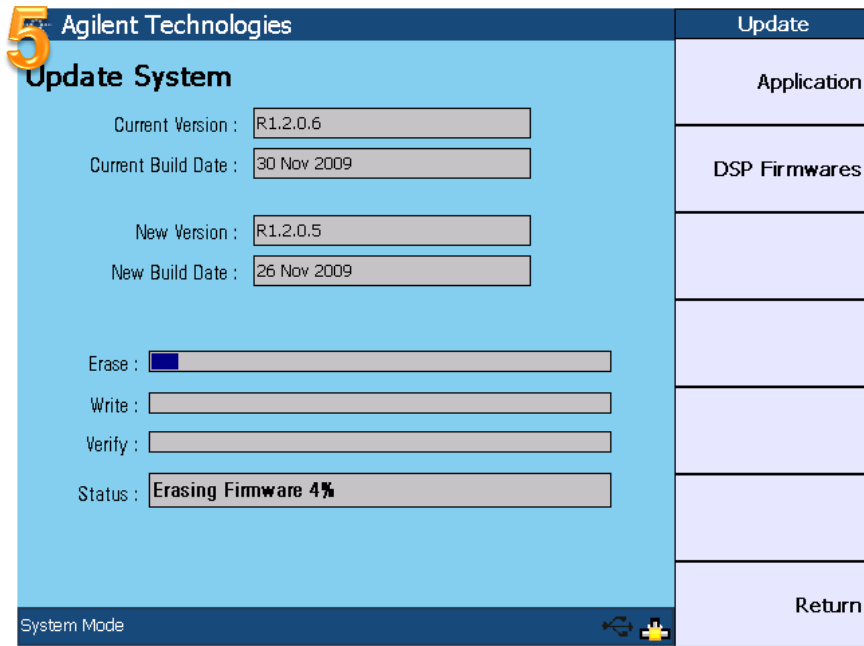
C-4: Firmware Update Procedure (GUI) cont.

4. A confirmation message pops up. Select “Yes”. Then press Enter button.



C-4: Firmware Update Procedure (GUI) cont.

5. After select “Yes”, the equipment will begin updating the GUI.
6. Once completed, a message will pop up and request for reboot.



You have successfully upgrade the new firmware!

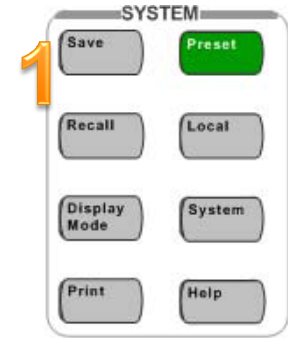
D: Firmware Update Procedure

(For Firmware Revision 2.2.8.0 and above)

D: Firmware Update Procedure Cont.

Firmware Revision 2.2.8.0 and above

1. Press the System button from SYSTEM panel at the front panel.



2. At the System mode page, select “Update”.

3. Select “All”.

4. Select “Load File”.

2

3

4

The screenshots show the following steps in the firmware update procedure:

- Step 2:** The 'System' menu is shown with the 'Update' option circled in red.
- Step 3:** The 'Update' menu is shown with the 'All' option circled in red.
- Step 4:** The 'All' menu is shown with the 'Load File' option circled in red.

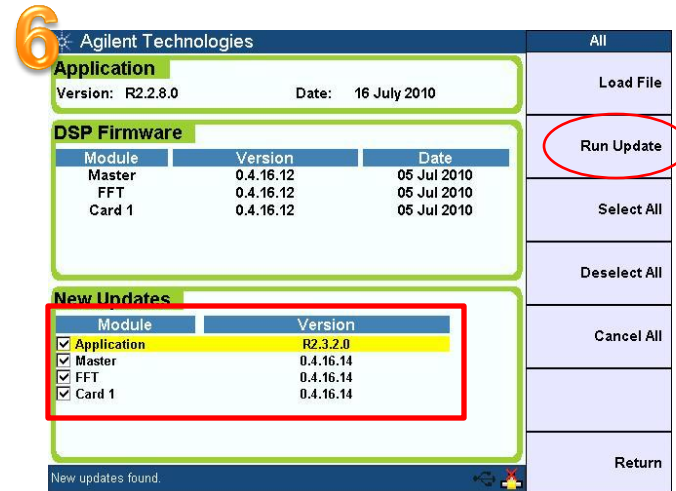
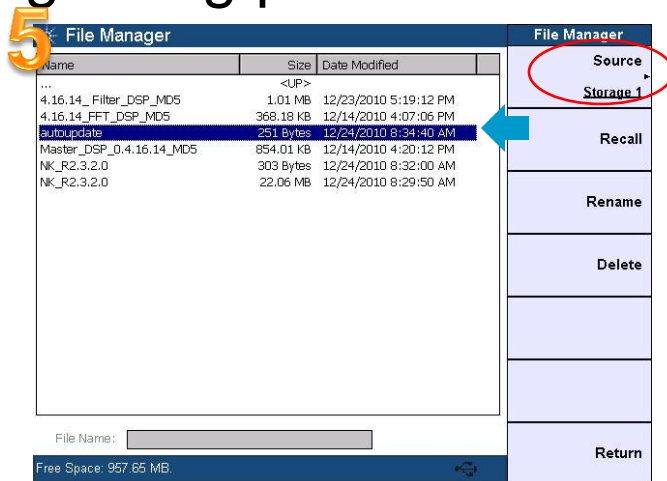
Module	Version	Date
Master	0.4.16.12	05 Jul 2010
FFT	0.4.16.12	05 Jul 2010
Card 1	0.4.16.12	05 Jul 2010

Module	Version

D: Firmware Update Procedure Cont.

Firmware Revision 2.2.8.0 and above

- The File Manager will pop up to allow the user to search for the update files. Locate the *autoupdate* file and press Enter. Make sure that the “Source” is indicating the correct path to the USB Flash memory device.
- All the new update files will be listed under the “New Updates” section. Select “Run Update” to start the upgrading process.



D: Firmware Update Procedure Cont.

Firmware Revision 2.2.8.0 and above

7. A confirmation message pops up. Select “Yes”. Then press Enter button.
8. After select “Yes”, the equipment will begin updating the firmware.
9. Once completed, a message will pops up and request for reboot and the unit will continue to update the master DSP firmware. Reboot the unit again once prompted.

You have successfully upgraded to the new firmware!

D: Firmware Update Procedure Cont.

Firmware Revision 2.10.1.0 ONLY

1. The *autoupdate* file is not available under firmware revision 2.10.1.0.
2. The following files need to be individually installed in order to complete the firmware upgrade.

a) FFT_DSP_NOVDK_MD5_4_16_15.ldr

b) Filter_DSP_NOVDK_MD5_4_16_15.ldr

c) Master_DSP_MD5_4_16_15.ldr

d) NK_R2.10.1.0.jel

e) DAnalyzer1.3.3.2_MD5.ldr

f) DController1.3.3.1.bin

g) DGenerator1.3.3.0.bin

D: Firmware Update Procedure Cont.

Firmware Revision 2.10.1.0 ONLY

3. Select the required firmware file individually and then click “Run Update” to start the upgrading process.

The screenshot displays two windows from the Agilent Technologies software. The left window, titled 'Recall File', shows a list of files with columns for Name, Size, and Date Modified. The file 'DGenerator1.3.3.0' is selected and highlighted in blue. A red arrow points from this file to the 'Run Update' button in the right window. The right window, titled 'Agilent Technologies', shows the application details for 'Application' (Version: R2.10.3.0, Date: 10 Feb 2012) and a table of modules. The 'Run Update' button is circled in red.

Name	Size	Date Modified
...<UP>		
DAnalyzer1.3.3.2_MD5	804.94 KB	8/15/2011 6:16:14 PM
DController1.3.3.1	1.78 MB	8/16/2011 8:32:28 PM
DGenerator1.3.3.0	32.69 KB	8/11/2011 8:57:54 PM
FFI_DSP_NOVDK_MD5_4_16_15	368.32 KB	2/11/2011 11:23:22 AM
Filter_DSP_NOVDK_MD5_4_16_15	1.01 MB	2/11/2011 11:24:36 AM
Master_DSP_MD5_4_16_15	856.44 KB	2/11/2011 11:24:00 AM
NK_R2.10.1.0	306 Bytes	8/22/2011 4:42:32 PM
NK_R2.10.1.0	25.06 MB	8/22/2011 4:39:48 PM

Module	Version	Date
Analog Controller	0.4.16.15	Feb 11 2011
Analog DSP	0.4.16.15	Feb 11 2011
Analog Meas. Card 1	0.4.16.21	Jan 19 2012

Module	Version
<input checked="" type="checkbox"/> Analog DSP	0.4.16.15

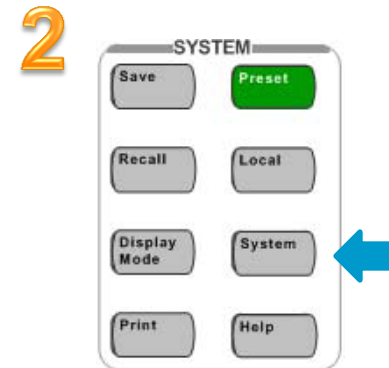
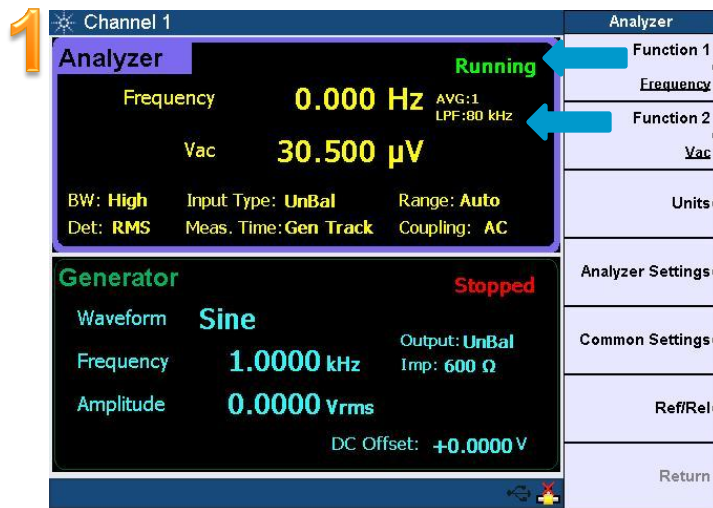
4. Repeat step 3. until all the files listed in step 2. fully updated.

You have successfully upgraded to the new firmware!

E: HP 8903B Emulator Mode Verification

The latest firmware 2.3.2.0 has the HP 8903B code emulator pre-installed and turned on. To verify this, follow the below steps:

1. When the HP 8903B emulator is turned on, the Analyzer is in running mode by default with the Low Pass Filter of 80 KHz selected.
2. To further verify this, press the System button from SYSTEM panel at the front panel.



E: HP 8903B Emulator Mode Verification cont.

3. At the System mode page, select “More (1/2)”.
4. Select “HP8903B Config”.
5. Make sure that the screen is showing “On” under “Mode”

The image displays three sequential screenshots of the HP 8903B emulator interface, illustrating the steps to reach the configuration screen.

Screenshot 3: Shows the 'System' menu with 'More (1/2)' highlighted. The 'About' section displays: Description: Audio Analyzer, Model Number: U8903A, Serial Number: MY50120002, Firmware Revision: 2.3.2.0, System Version: WinCE 6.0. A list of software components is shown at the bottom.

Screenshot 4: Shows the 'HP8903B Config' option selected in the 'System' menu. The 'About' section displays the same information as in screenshot 3.

Screenshot 5: Shows the 'HP8903B Config' screen with the 'Mode' option selected. The 'Mode' dropdown is set to 'On'. Other options include Channel, Left Filter, Right Filter, and CCI.