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| <br>Kilgore, TX | TYPE:<br><b>Software Upgrade Procedure</b>        | NO:<br><b>FCT-1367-09</b> | REV:<br><b>C</b> |
|  | TITLE:<br><b>R8000 Upgrade 1.3.1.0 to 1.5.3.0</b> | PAGE:<br><b>1 OF 5</b>    |                  |

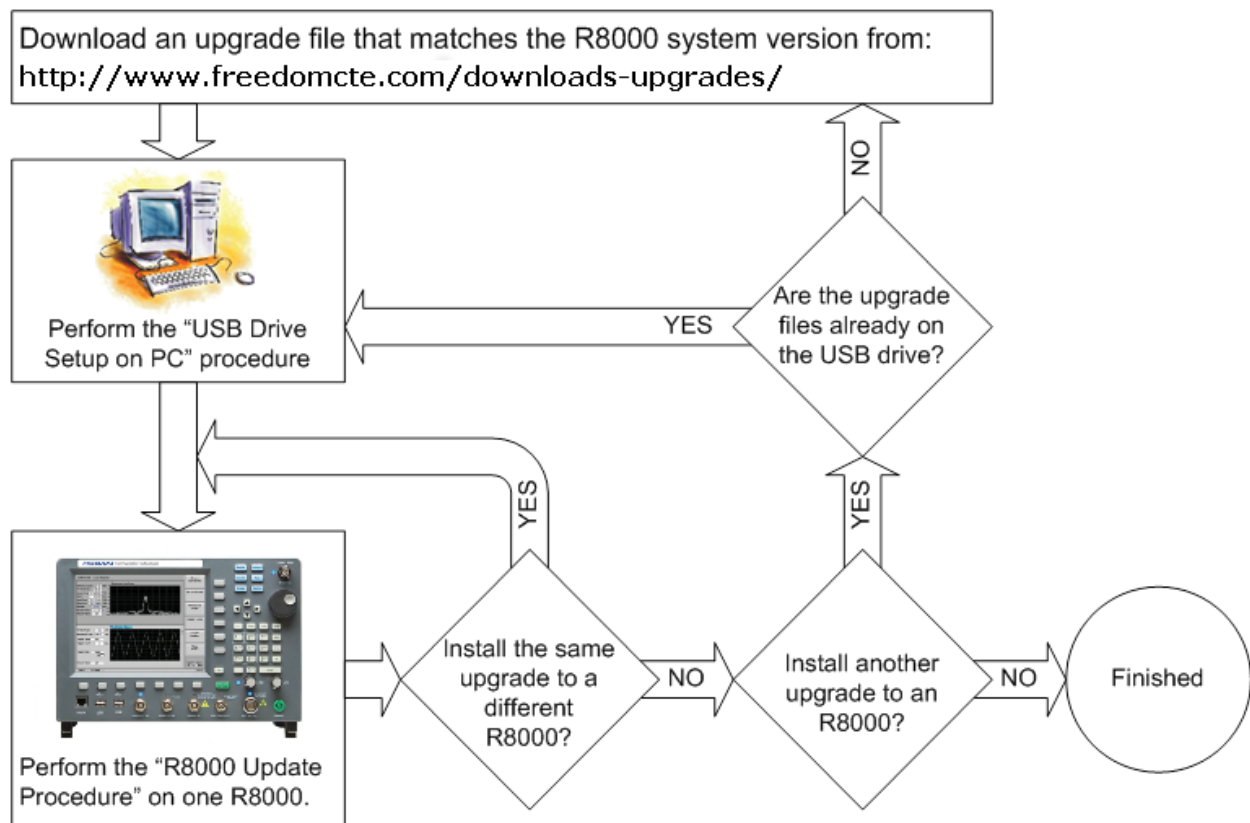
## Purpose

This procedure upgrades the communications system analyzer software to 1.5.3.0. The update may be applied only to systems with the following system version:

1.3.1.0


This procedure must be performed in its entirety for the update to apply correctly, and, a USB thumb drive with approximately 256MB of free space is required to perform the upgrade.

## Upgrade Procedure Overview



## Conventions Used

Soft Key – Vertical and horizontal buttons along the edge of the communications system analyzer LCD screen.

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### WARNING

**PERFORM THESE STEPS WITH THE COMMUNICATION SYSTEM ANALYZER POWERED BY AN UNINTERRUPTABLE POWER SUPPLY (UPS). IF POWER IS LOST DURING AN UPDATE, IT IS POSSIBLE TO DAMAGE THE ANALYZER IN A MANNER THAT REQUIRES FACTORY REPAIR.**

### WARNING

**THIS PROCEDURE REQUIRES A USB THUMB DRIVE WITH CERTAIN SECURITY FEATURES DISABLED (FOR EXAMPLE, PASSWORD PROTECTION). THE COMMUNICATION SYSTEM ANALYZER IS NOT CONFIGURED TO SUPPORT SUCH SECURITY FEATURES.**

### NOTE


**THESE INSTRUCTIONS CONCERN UNPACKING A .ZIP FILE USING WINDOWS XP BUILT IN ZIP FILE EXTRACTION. IF OTHER TOOLS ARE USED TO UNPACK .ZIP FILES, CERTAIN PORTIONS OF THE PROCEDURE MAY NEED TO BE ALTERED.**

### NOTE

**WHILE IT IS ACCEPTABLE TO UNPACK MORE THAN ONE .ZIP UPDATE FILE TO A SINGLE USB DRIVE, AS THE UPDATE FLOW CHART ILLUSTRATES, IF MULTIPLE UPDATES ARE APPLIED IN SEQUENCE, IT IS CRITICAL THAT BOTH SECTIONS BELOW BE EXECUTED FOR EACH UPDATE.**

## USB Drive Setup on PC

1. Extract the USB Files
  - a. Move the "R8000A\_Update\_01030100\_to\_01050300.zip" zip file to the top level directory of the USB drive. Do not place the file in a sub-folder.
  - b. Double-click the "R8000A\_Update\_01030100\_to\_01050300.zip" file.
  - c. Under "Folder Tasks" in the explorer window, click "Extract all files".

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NOTE: If the Folder Tasks option is not visible, an acceptable alternative is to select File | Extract All... in the command menu.

- d. The Compressed Folders Extraction Wizard is shown.
- e. Select "Next"
- f. In the window called "Extraction Wizard", click the "Browse" button and select the USB drive as the destination.

Note: To see the USB drive, it may be necessary to click the "+" beside "My Computer" in the popup window called "Select a destination".

- g. Press the "OK" button.
- h. Press "Next" (to extract the files to the USB drive).
- i. Ensure that the "Show extracted files" checkbox is checked.
- j. Press the "Finish" button.

Note that a "R8000A\_Update\_01030100\_to\_01050300.cmd" file and a "GDSATCOM" folder are both present on the root of the USB drive.

- 2. Double click the "R8000A\_Update\_01030100\_to\_01050300.cmd" file to activate the update on the USB drive. Normally a window pops up and automatically disappears when the operation completes successfully, but if an error occurs, the window does not close, and an error message is displayed. Do not continue the upgrade procedure until this operation completes successfully.

If an error occurs, usually the drive either does not have enough free space or is write-protected. After correcting the problem, retry this operation again.

- 3. Use the "Safely Remove Hardware" icon in the system tray area (bottom right corner of the screen on most Windows installations) of the task bar.


**WARNING** – The update may fail to apply, or the analyzer may sustain damage if the "Safely Remove Hardware" operation is not performed.



Windows XP

Windows Vista / 7

- a. Double click the "Safely Remove Hardware" icon (shown above). A window appears.
- b. Select the appropriate USB device and click the "Stop" button. Another window is shown.

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- c. Accept the default options by clicking "OK". A "Safe to Remove Hardware" bubble appears that indicates the operation is complete.
4. Remove the USB drive from the PC.
5. USB drive preparation is complete.

## Communications System Analyzer Update Procedure

The approximate completion time for this procedure is 15 minutes.

1. Power up the analyzer using the green power button.
2. Wait approximately one minute for the analyzer boot sequence to complete.
3. Insert a USB drive prepared using the "USB Drive Setup on PC" procedure into an available USB port located on the front or side of the analyzer.
4. Wait about 30 seconds to allow the analyzer to identify the USB drive.


If the USB drive has a light on it, several seconds after insertion, the light blinks rapidly for a short period of time. Depending on the USB drive type, the system indicates that identification is complete by either extinguishing the light or by transitioning it from a rapid blink to a slow, periodic blink pattern.

5. Press the <SETTINGS> button located on the analyzer front panel.
6. Press the "About..." soft key.
7. Verify that the current "System version" is 1.3.1.0.
8. Press the "Search for Updates" soft key.
  - a. An "IMMEDIATE ACTION REQUIRED" message panel is shown.

If the message panel is not shown, either the analyzer does not recognize that the USB drive is installed, or the USB drive preparation described in the "USB Drive Setup on PC" section was not successful. In some cases use of a different brand or model of USB drive may be helpful.
  - b. Press the <ENTER> button to proceed with the update process.
  - c. A second "IMMEDIATE ACTION REQUIRED" message panel is shown after the update files have transferred from the USB drive to the analyzer. For USB 2.0 compatible drives, the transfer requires about one minute to complete. Allow additional time if a slower device is used.

**IMPORTANT:** USB drive light activity ceases prior to completion of the transfer. Do not assume that the transfer has failed if the second panel does not appear immediately after the drive appears to be inactive.

If the panel fails to appear, either a file on the USB drive is corrupt, or it could not be processed. To confirm that an error occurred, press the <ESC> key and then select the "Messages..." soft key. Pertinent log entries appear with a red background and appear in the following format:

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<Date> <Time> |SYSTEM: (7004) Error - Update Transfer Failed code <x>

The update procedure must be restarted if the transfer fails. It may be sufficient to re-run to the "USB Drive Setup on PC" procedure using files previously obtained from the web site, but it may be necessary to download the files again if they are corrupted. In some cases, use of a different brand or model of USB drive may be helpful.

- d. Disconnect the USB drive from the analyzer.
  - e. Press the <ENTER> button to apply the update.
9. The analyzer automatically shuts down.
  10. Press the green power button to resume the update.  
The unit reboots and displays an "Upgrade in progress..." message while performing a firmware upgrade operation.
  11. The unit reboots again and performs another firmware upgrade operation.  
During this phase, all indicators on the system light up and status messages appear on the display. The process takes approximately eight minutes to complete.
  12. When instructed to do so, power down the analyzer with the green power button. Press and hold the button until the unit shuts off.
  13. Press the green power button briefly to restart the analyzer.
  14. Wait for the system software upgrade to complete.  
The unit reboots several times during this process. When it is complete, the analyzer automatically displays the user interface and resumes normal operation.
  15. Press the <SETTINGS> button.
  16. Press the "About..." soft key.
  17. Verify that the system version has changed to 1.5.3.0.  
NOTE: If any version number appears in the form "0.0.0.0", an additional reboot may be required to return the unit to normal operation.
  18. The upgrade is complete.

**IMPORTANT:** OEM analyzers must be restarted in order to activate the OEM customizations.

|                          |             |          |             |          |       |
|--------------------------|-------------|----------|-------------|----------|-------|
| Freedom Update – Rev C   | K. Bulgrien | 11/09/15 | C. Cox      | 4/27/15  | F0008 |
| Note Added – Rev B       | B. Tanner   | 12/16/09 | K. Bulgrien | 12/16/09 | 9365  |
| Original Release – Rev A | B. Tanner   | 11/5/09  | K. Bulgrien | 11/5/09  | 9353  |
| Rev. No/change           | Revised By  | Date     | Approved By | Date     | ECO#  |