Agilent N5181/82A MXG Signal Generators Firmware Upgrade Guide

Agilent Technologies

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Introduction

Product Affected:	N5181/82A
Serial Numbers:	All
Options:	All
To Be Performed By:	(X) Agilent Technologies Service Center (X) Personnel Qualified by Agilent Technologies (X) Customer
Estimated Installation Time:	USB: 3 minutes LAN: 3 minutes GPIB: 30 Minutes
Estimated Verification Time:	1 minute

The instructions in this firmware upgrade guide enable you to upgrade firmware on an Agilent MXG signal generator from either the Agilent Technologies website or a CD-ROM.

Before using this guide, you should be familiar with the basic operation of the signal generator. If you are not comfortable with using the signal generator's menus and with entering parameter values, refer to the instrument's User's Guide and familiarize yourself with the basic operation information.

Basic Upgrade Process

1. Confirm required equipment (page 4).
2. Run the signal generator's functionality check (page 5).
3. Connect the signal generator to a PC (page 6).
4. Download and install the firmware (page 7).
5. Rerun signal generator's functionality check (page 5).

Step 1. Confirm Required Equipment

PC Requirements	
486 MHz Pentium® III or higher	
Operating System, Windows XP, 2000, or Windows NT 4.0 (with Service Pack 5 or above)	
64 MB RAM	
20 MB free disk space	
Internet browser to download firmware files from the Internet, or to view firmware release information on your PC over the Internet. Either browser must be Java enabled with Java 1.02 or above.	
	Microsoft® Internet Explorer 4.01 or later Netscape Navigator 4.0 or later
If downloading from a CD, a CD-ROM drive	
If using GPIB, an installed and configured GPIB IO interface card and a GPIB cable	
If using LAN, an installed and configured LAN interface card and LAN cable: To connect directly to the PC, use a LAN crossover cable To connect to the PC through the LAN, use a 100Base-T LAN cable If you encounter problems, contact your network administrator	
If using USB, an unused USB port and a USB cable with mini-B connector	

Step 2. Run the Signal Generator's Functionality Check

Use the following procedure to confirm that the signal generator powers up and that the internal check identifies no errors. The internal check evaluates the operation of the signal generator and returns an error message if it detects a problem.

1. Turn on power to the signal generator and let it warm up for at least five minutes.
2. Check to see if the ERR annunciator is on.
   - If the ERR annunciator is *off*, the signal generator's functionality check passed.
   - If the ERR annunciator is *on*:
     a. View the error queue:

        Press **Error**.

        Error message in the error queue appear in the display text area. Refer to the signal generator error messages list on the documentation CD for information about each error message.

     b. Resolve all problems causing errors.

        If you are unable to resolve the errors, contact Agilent Technologies (see page 10).

     c. Clear the error queue: Press **Clear Error Queue(s)** and go to step 3.
3. Repeat the functionality check:

   Cycle the signal generator's power.
4. Repeat step 2.

Step 3. Connect the Signal Generator to the PC

Using LAN

1. Connect the signal generator to the PC:

   Either

   - use a crossover cable to connect the signal generator directly to the PC,
     or
   - connect the PC to the LAN and use a 100Base-T LAN cable to connect the signal generator to the LAN.

2. Set the hostname or IP Address:

   Press **Utility** > **I/O Config** > **LAN Setup** > **Hostname** > *desired name*

   or

   Press **Utility** > **I/O Config** > **LAN Setup** > **Config Type** > **DHCP**

NOTE If using a crossover cable, use the instrument's Hostname. Instrument names can be resolved when using a standard LAN connection, but not when using a cross-over LAN cable.

If you encounter problems, refer to the signal generator's Programming Guide for details on using the instrument over LAN.

Using GPIB

1. Connect a GPIB cable between the PC and the signal generator.
2. Set the GPIB address:

   Press **Utility** > **I/O Config** > **GPIB Setup** > **GPIB Address** > **19**

   The signal generator's GPIB address is set to 19 at the factory. The acceptable range of addresses is 0 through 30. Once initialized, the state of the GPIB address is not affected by a signal generator preset or by a power cycle. Other instruments on the GPIB cannot use the same address as the signal generator.

NOTE If there is more than one signal generator on the GPIB, turn off all other signal generators on the same bus whose GPIB address is 19.

Using USB

Connect a USB cable between the PC and the signal generator's rear panel USB connector.

Step 4. Download and Install the Firmware Files

From the Agilent Technologies website

1. In an Internet browser, enter *http://www.agilent.com/find/upgradeassistant*.
2. Download and run the latest Agilent MXG Firmware Package.

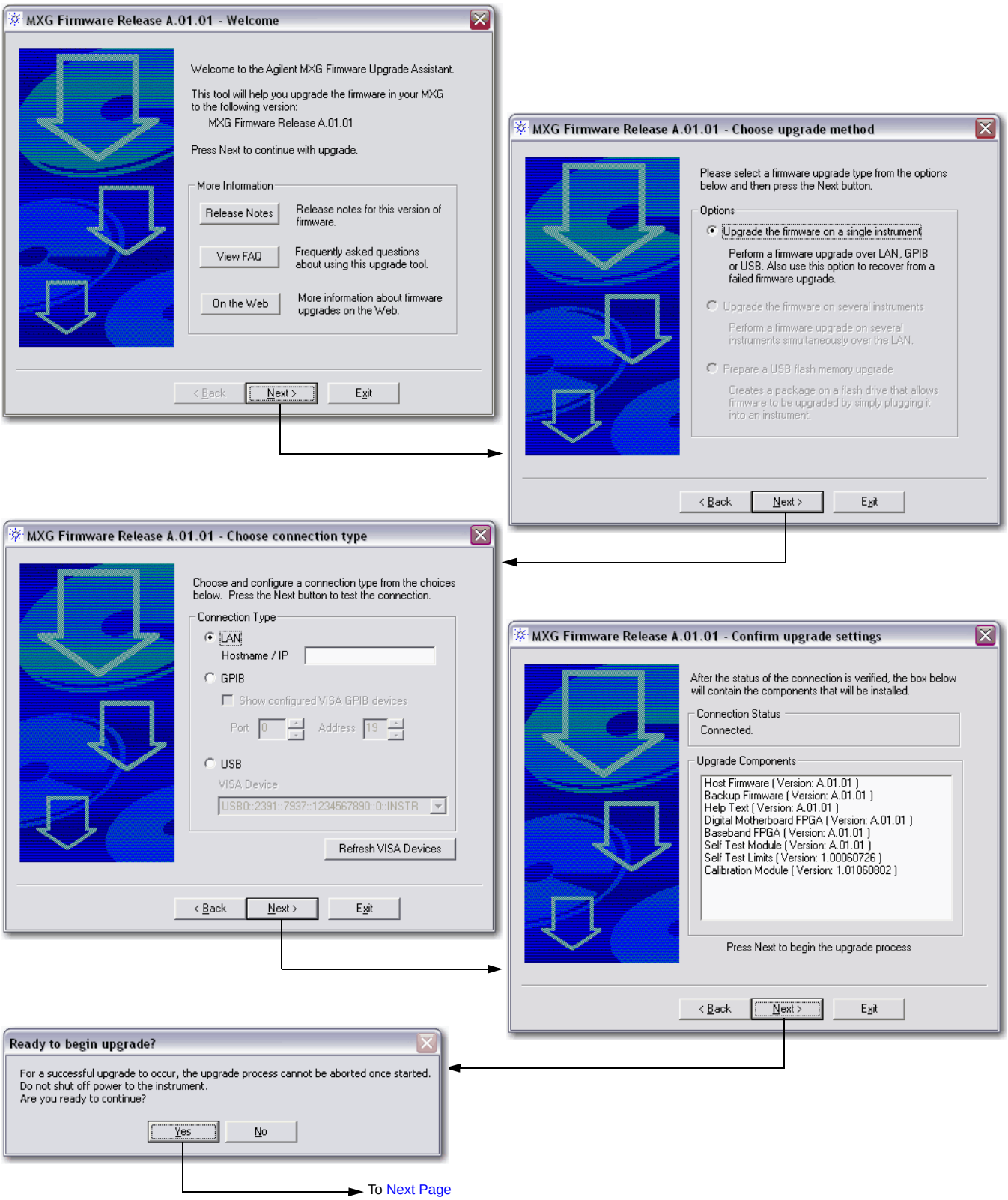
   An autostart file should run automatically. If it does not, double-click the file you downloaded.
3. Once the upgrade assistant starts, follow the program's prompts (see page 8).
4. After the upgrade completes, press the signal generator's **Local** hardkey to return front panel control.
5. Run the signal generator's functionality check (see page 5).

From CD–ROM

1. Insert the firmware upgrade CD–ROM into the computer's CD–ROM drive.
2. Browse the CD for the latest Agilent MXG Firmware Package.
3. Double-click the file.
4. Once the upgrade assistant starts, follow the program's prompts (see page 8).
5. After the upgrade completes, press the signal generator's **Local** hardkey to return front panel control.
6. Run the signal generator's functionality check (see page 5).

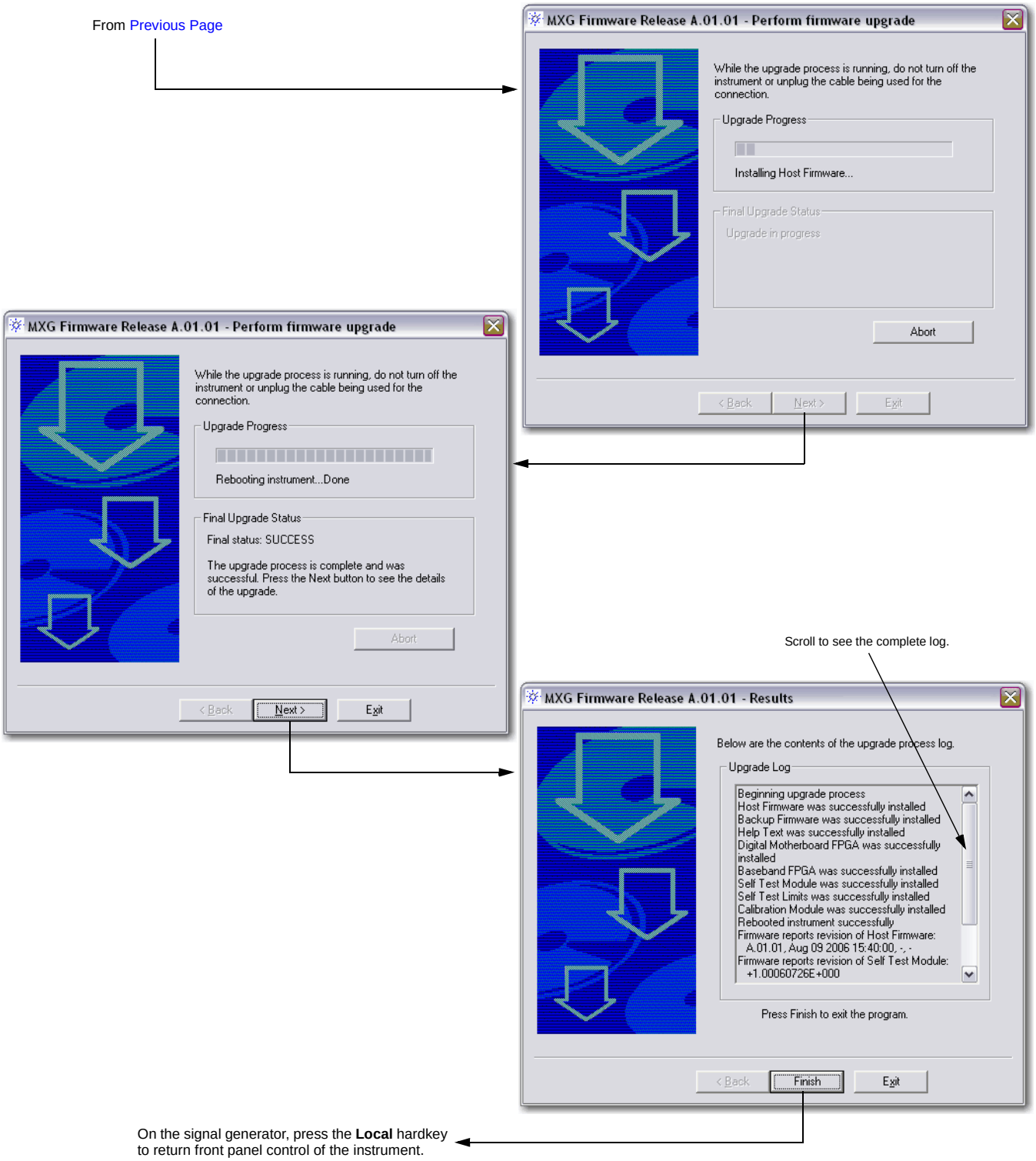
NOTE If the upgrade is interrupted, the instrument tries to load a recovery image; if errors appear, they can be safely ignored. Run the Upgrade Assistant again to install the proper firmware; additional errors may appear, but these can also be ignored unless pressing **Error** > **Clear Error Queue** does not clear them. If you cannot clear the errors, contact Agilent Technologies (see page 10).

Running the Upgrade Assistant



To Next Page

From Previous Page



On the signal generator, press the **Local** hardkey to return front panel control of the instrument.

Contacting Agilent Technologies

- assistance with test and measurements needs, and information on finding a local Agilent office: *http://www.agilent.com/find/assist*
- accessories or documentation: *http://www.agilent.com/find/mxg*
- new firmware releases: *http://www.agilent.com/find/upgradeassistant*.

If you do not have access to the Internet, please contact your field engineer.

NOTE In any correspondence or telephone conversation, refer to the signal generator by its model number and full serial number. With this information, the Agilent representative can determine whether your unit is still within its warranty period.

Returning a Signal Generator to Agilent

Use the following steps to return a signal generator to Agilent Technologies for servicing:

1. Gather as much information as possible regarding the signal generator's problem.
2. Call the phone number listed on the Internet (*http://www.agilent.com/find/assist*) that is specific to your geographic location. If you do not have access to the Internet, contact your Agilent field engineer.

   After sharing information regarding the signal generator and its condition, you will receive information regarding where to ship your signal generator for repair.
3. Ship the signal generator in the original factory packaging materials, if available, or use similar packaging to properly protect the signal generator.