

Installation Guide

Windows 10 Operating System Upgrade Kit

To Upgrade PNA-X N524xB, and N5264B, PNA N522xB, and
PNA-L N5231/2/4/5/9B

Upgrade Kit Model Number: N8985A

Notices

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CAUTION

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Windows 10 Operating System Upgrade Kit

Description of the Upgrade

This upgrade kit changes the PNA operating system from Windows 7 (32-bit) to Windows 10 (64-bit).

NOTE

This upgrade can only be installed on the PNA-X N524xB and N5264B, PNA N522xB, and PNA-L N5231/2/4/5/9B.

Getting Assistance from Keysight

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

Contacting Keysight

Assistance with test and measurements needs and information on finding a local Keysight office are available on the Web at:

<http://www.keysight.com/find/assist>

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

If You Have Problems With the Upgrade Kit Contents

Keysight stands behind the quality of the upgrade kit contents. If you have problems with any item in the kit, email Keysight Component Test Division (CTD) Support at csg.support@keysight.com. Please include details of the problem.

Getting Prepared

CAUTION

The PNA contains extremely sensitive components that can be ruined if mishandled. Please follow instructions carefully.

The person performing the work accepts responsibility for the full cost of the repair or replacement of damaged components.

To successfully install this upgrade kit, you will need the following:

- An ESD-safe work area - refer to [“Protecting Your Workspace from Electrostatic Discharge”](#) below.
- Enough time - refer to [“About Installing the Upgrade”](#) on page 3.

If you must replace the CPU board assembly, (refer to [Table 1 on page 4](#) and to [“Contacting Keysight”](#) on page 1), and, you will also need the following:

- A PDF copy or a paper copy of the PNA Service Guide - refer to [“Downloading the Online PNA Service Guide”](#) below.
- Correct tools - refer to [“Tools Required for the Installation”](#) on page 3.

Downloading the Online PNA Service Guide

To view the online Service Guide for your PNA model number, use the following steps:

1. Go to www.keysight.com.
2. In the Search box, enter the model number of the analyzer (Ex: N5232B) and click **Search**.
3. Click Technical Support > Document Library > Manuals.
4. Under the heading “By Type of Content,” click Service Manual.
5. Click the hyperlink of the service guide title to download the PDF file.
6. When the PDF of the Service Guide is displayed, scroll through the Contents section bookmarks to locate the information needed.

Protecting Your Workspace from Electrostatic Discharge

For information, click on the Chapter 1 bookmark, “Electrostatic Discharge Protection” in the PDF Service Guide¹.

ESD Equipment Required for the Installation

Description	Keysight Part Number
ESD grounding wrist strap	9300-1367
5-ft grounding cord for wrist strap	9300-0980
2 x 4 ft conductive table mat and 15-ft grounding wire	9300-0797
ESD heel strap (for use with conductive floors)	9300-1308

Tools Required for the Installation

A T-10 TORX driver may be required to loosen the knurled nut on the hard drive. There is no torque requirement for this driver.

About Installing the Upgrade

Products affected.....	N522xB, N5231/2/4/5/9B, N524xB, and N5264B
Installation to be performed by Keysight Service Center or qualified personnel in ESD safe environment.....	Solid State Drive (SSD) replacement
Converting and Saving User Calibration Files and Data Files.....	Allow up to 30 minutes
Estimated installation time.....	Solid State Drive replacement only: 5 minutes
Estimated post-installation procedures time.....	5 minutes

1. See [“Downloading the Online PNA Service Guide” on page 2](#).

Items Included in the Upgrade Kit

Items Included in the Upgrade Kit

Check the contents of your kit against the following list. If any part is missing or damaged, contact Keysight Technologies. Refer to [“Getting Assistance from Keysight” on page 1](#).

Table 1 Contents of Upgrade Kit N8985A

Description	Qty	Part Number
Installation note (this document)	1	N8985-90001
Solid state drive (SSD) for 2.2 GHz CPU	1	N5242-60135
Windows 10 Certificate of Authenticity label (installed on SSD chassis next to thumbscrew)	1	9010-0335

Before You Install This Upgrade Kit

Copy Any Existing Files You Want to Keep

Upgrading to Windows 10 will not affect the PNA calibration or any installed options. You want to copy some existing files from your Windows 7 drive to some other media before you install the Windows 10 drive. The following table lists the locations where these files can be found on the Windows 7 drive and where they should be located on the Windows 10 drive.

NOTE

User CalSets and Cal Registers cannot be copied to the new drive. Any User CalSets and Cal Registers you want to keep must be converted to “.cal” or “.csa” files. To do this, each one must be recalled using File > Recall and stored as a “.cal” or “.csa” file using File > Save As. For more information, read “Save and Recall a File” in PNA Help.

Table 2 Files to Copy Before Installing the Windows 10 Drive

File Type	Location on Both Windows 7 and Windows 10 Drives	Notes
State Files (.csa, .cst, .sta, .cal)	D:\Network Analyzer	Copy from Windows 7 Windows 7 location to Windows 10 location
Result Files (.snp, .csv, .cti)	D:\Network Analyzer	Copy from Windows 7 location to Windows 10 location
Mixer Files (.mxr, mxrx)	D:\Mixer	Copy from Windows 7 location to Windows 10 location
Device Driver Files for DC or Generic Sources	D:\Drivers	Copy from Windows 7 location to Windows 10 location
Disk Based ECal User Characterization Files (.euc)	D:\ECal User Characterizations	Copy from Windows 7 location to Windows 10 location
Noise ENR Files (.enr)	D:\Noise	Copy from Windows 7 location to Windows 10 location
User Cal Kits (.wks)	Hidden Folder	In the Windows 10 PNA, use the “Open...” button at the top of the Edit Cal Kits dialog to browse to the “.wks” file you copied from your Windows 7 drive. Select the “*.wks” file type filter in the drop-down menu. Select your “.wks” file to load all your cal kits.
Color Scheme	D:\Colors	Copy from Windows 7 location to Windows 10 location

Upgrade Procedure

WARNING

The opening of covers or removal of parts may expose dangerous voltages. Disconnect the instrument from all voltage sources while it is being opened.

CAUTION

Power off your PNA, and unplug the AC, before replacing any assemblies.

NOTE

The network analyzer must be in proper working condition prior to installing this option. Any necessary repairs must be made before proceeding with this installation.

1. Replace the Windows 7 drive with the new Windows 10 drive included in this upgrade kit using the following instructions. If you have not done this before, or you want to see a graphic, refer to “Removing and Replacing the Hard Disk Drive (HDD),” located in chapter 7 of the Service Guide.
 - a. Power off the PNA.
 - b. Remove all USB devices except the mouse and keyboard from the PNA.
 - c. Remove the power cord from the PNA.
 - d. Loosen the thumbscrew on the installed SSD and remove the SSD from the drive bay of the CPU board assembly.
 - e. Insert the new, supplied SSD into the drive bay of the CPU board assembly and hand tighten the thumbscrew on the SSD.
 - f. Reinsert the power cord to the PNA.
 - g. Verify that there are no USB devices connected to the PNA except a mouse and keyboard.
 - h. Power on the PNA.
2. The PNA will go through its initialization process. This will take about 10 minutes and may involve as many as five reboots. Do not proceed until all activity has stopped.
3. The touchscreen will likely be uncalibrated and reversed left-to-right – this is normal. Calibrate the touchscreen by pressing System > Touchscreen > Calibrate Touchscreen. Follow the instructions displayed.
4. If desired, copy any files you saved earlier to their new locations on the Windows 10 drive - see [Table 2 on page 5](#).

5. Set aside the old Windows 7 drive (and CPU board assembly, if replaced) in case you later discover you need a file from the old drive.

NOTE

If, after you install the Windows 10 drive, you need to access some files on the old Windows 7 drive, use a USB 2.5-inch hard drive enclosure. These are inexpensive and are very simple to use. Just make sure you get an enclosure that matches your SATA hard drive interface.

6. The PNA does not come with any antivirus software installed. You may want to install an antivirus program before connecting the PNA to the Internet. You may also want to download and install any recent Windows Updates.
7. This upgrade kit contains PNA firmware revision A.13.30.xx. You may want to verify that this is the most recent firmware revision available for Windows 10 at: <http://na.support.keysight.com/pna/firmware>.
8. The upgrade is now completed, and the PNA is ready for use.

NOTE

You may notice that the Windows User Access Control (UAC) will prompt you for permission to install programs or make other critical changes. While this feature can be turned off, this is not recommended due to security concerns.

NOTE

Firmware for Windows 10 will always be A.13.30.xx or higher. Firmware for Windows 7 will be updated to be compatible with some updated versions of PNA firmware in parallel with the compatible Windows 10 firmware versions. You cannot run firmware below A.13.30.xx on a Windows 10 PNA. At some point in the future, Windows 7 will not be compatible with PNA firmware versions. To check for Windows 7 compatible firmware, refer to <http://na.support.keysight.com/pna/firmware>.

NOTE

The user name is “instrument” and the password is “measure4u”.

Upgrade Procedure



This information is subject to change without notice.

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