

# Keysight 89600 Software

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## Notices

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A **WARNING** notice denotes a hazard. It calls attention to an operating procedure, practice, or the like that, if not correctly performed or adhered to, could result in personal injury or death. Do not proceed beyond a **WARNING** notice until the indicated conditions are fully understood and met.

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## In this book

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This guide documents how to install the Keysight 89600 software and a transportable license. It also documents how to view the software's online help and demo signal packages.

### Other documentation

In addition to the Quick Start Guide (this book), the following documentation is included with your software:

- The *89600 Software Installation Guide* (InstallationGuide.pdf) is available on the installation DVD in the `manuals` folder, during installation by clicking **More Installation Choices > View Installation Guide**, or after you install the software in `C:\Program Files\Agilent\89600 Software xx.y\89600 VSA Software\Help` (where `xx.y` is the VSA version number).
- The 89600 Online Help is available after you install the software on your computer. The help provides use and operation information.
- The complete documentation (PDF files) for the Keysight IO libraries is located in `C:\Program Files\Agilent\IO Libraries Suite\Manuals` (if you install the IO libraries).
- Technical Specifications are available from the 89600 web page: <http://www.keysight.com/find/89600>

#### NOTE

To read the PDF files, you must have Acrobat Reader installed on your computer. To install the latest Acrobat Reader, go to: <http://get.adobe.com/reader/>

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# 1 Overview

The Keysight 89600 Quick Start Guide provides all necessary instructions to install the Keysight 89600 software and a transportable license.

## 89600 Software

The Keysight 89600 software includes two applications: the Keysight 89600 VSA *Vector Signal Analysis* software and the Keysight 89600 WLA *Wireless Link Analysis* software. The software InstallShield Wizard guides you through the installation process for both applications.

## Licensing

There are four types of licenses:

- **Demo:** The Demo license is provided with the 89600 software installation and enables you to use the 89600 software with limited functionality.
- **Trial:** The Trial license lets you immediately start using a fully licensed 89600 software application for a temporary trial period. When the trial period expires, you will need to purchase a valid license for continued use.
- **Transportable:** The Transportable license is used to license the Keysight 89600 software plus options to only run on the host PC. However, you do have the capability to transport the license to a different PC, making it the new host PC.
- **Floating:** The Floating or Network license provides the ability for different PC's to use a license that is stored on a network PC (or server).

This Quick Start Guide documents how to install the transportable license. For information on how to install the demo, trial, or floating license types, see the Installation Guide (InstallationGuide.pdf) available on the installation DVD in the `manuals` folder, during installation by clicking **More Installation Choices > View Installation Guide**, or after you install the software in `C:\Program Files\Agilent\89600 Software xx.y\89600 VSA Software\Help` (where `xx.y` is the VSA version number).

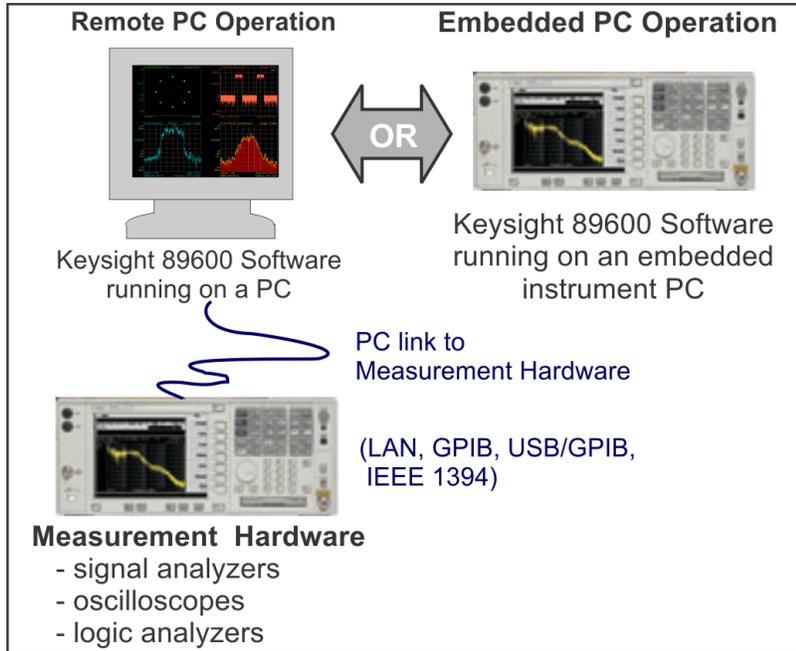
## Keysight 89600 Software Operating Configurations

The Host PC is the computer that will run the Keysight 89600 software. There are two 89600 software operating configurations: Remote PC Operation and Embedded PC Operation (also referred to

## 1 Overview

### Installation and Configuration Process

as Embedded Instrument Operation). In a Remote PC Operation, the software runs on a standalone host PC linked to the measurement hardware via the I/O interface, such as LAN, GPIB, USB, and IEEE 1394. In an Embedded PC Operation, the 89600 software runs on a PC embedded in the measurement hardware platform such as the Keysight X-Series Analyzer, Keysight Infiniium Scope, and Keysight Logic Analyzer.



### Installation and Configuration Process

The Keysight 89600 software installation process includes the following primary steps:

1. **Set up and configure the remote PC.**

**NOTE**

Skip this step if you are installing the software in an embedded PC operation.

Go to Chapter 2 [See "Configuring Remote PC"](#) to setup and configure the remote PC hardware including:

2. **Install the 89600 software.**

Go to Chapter 3 [See "Installing 89600 Software"](#) and follow the instructions to install the Keysight 89600 software.

3. **License the Keysight 89600 software.**

Go to Chapter 4 [See "Installing Licenses"](#) and follow the instructions to license the Keysight 89600 software and option.

## 2 Configuring Remote PC

This chapter only applies to the remote PC operation configuration. This contains information to setup and configure the PC including system requirements, I/O interface requirements, and the PC interface installation and setup procedure.

**NOTE**

If you are going to install the software in an embedded PC operation, skip this chapter and go directly to [See "Installing 89600 Software"](#).

1. Verify your PC meets the system requirements listed in the following table.

Characteristic	Requirement
Operating system	Microsoft Windows 7 Professional, Enterprise, or Ultimate (32 bit or 64 bit) Microsoft Windows 8 Professional or Enterprise (32 bit or 64 bit)
CPU	1 GHz (>2 GHz recommended)
RAM	2 GB (4 GB recommended)
Video RAM	128 MB (512 MB recommended)
Hard disk	1 GB available
Additional drives	DVD to load the software; license transfer requires network access or a USB memory device
Interface support	LAN, GPIB, USB, or IEEE-1394 (VXI hardware only*)
Browser	Internet Explorer Version 9.0 or higher required for full context-sensitive help functionality.

\* For VXI hardware and 64 bit Windows 7 operating system configuration, you must use Keysight IO Libraries version 16.1 or later.

2. Verify that your PC's I/O interface meets the requirements listed in the following table.

**NOTE**

If you are only using simulated measurement hardware or signal simulation software, you do not need to install/configure an I/O

**NOTE**

interface. You can skip the remainder of this chapter and go directly to [See "Installing 89600 Software in a PC"](#).

Using the following table, determine what type of PC and I/O interface is required for your measurement hardware. Note that you may need to install and configure more than one interface.

- If the PC already supports the I/O interface, skip the remainder of this chapter and install the 89600 VSA software—go to [See "Installing 89600 Software in a PC"](#).
- If the PC supports the I/O interface but it is not currently installed, you will need to install and configure the I/O interface hardware on the PC—go to [See "Installing I/O Interface Hardware"](#).
- If the PC does not support the I/O interface, you can not use the 89600 VSA software with your measurement hardware.

Measurement Hardware	Computer Type	Interface
VXI (Keysight 89610, 89611, 89640, 89641)	Laptop or desktop PC	IEEE-1394 VXI to PC***
Keysight ESA	Laptop or desktop PC	GPIB, or USB/GPIB adapter
Keysight ESA-E Series Analyzer	Laptop or desktop PC	GPIB or USB/GPIB
Keysight InfiniiVision 6000/7000 Series Oscilloscope	Laptop or desktop PC	LAN, GPIB, or USB/GPIB
Keysight Infiniium Oscilloscope	Laptop or desktop PC or embedded Windows 7 scope	LAN, GPIB, USB/GPIB, or internal
Keysight Logic Analyzer	Laptop, desktop PC, or embedded PC	LAN, IEEE-1394 (only for 1690 Series), or internal
Keysight X-Series Signal Analyzer	Laptop, desktop PC, or embedded PC	LAN or internal**
Keysight N4010 Wireless Connectivity Test Set	Laptop or desktop PC	USB, LAN, GPIB, or USB/GPIB
Keysight PSA (used as ADC)*	Laptop or desktop PC	LAN, GPIB, USB, or USB/GPIB*
Keysight N7100 Series Multi-Channel Signal Analysis System (N7109A)	Laptop or desktop PC	LAN

\* To use GPIB with the PSA, your PSA firmware must be version A.4.0 or later. With earlier firmware versions, you must use the LAN connection.

\*\* The Keysight X-Series Signal Analyzer embedded PC operation only supports a LAN interface between the analyzer and an Keysight Source.

\*\*\* For VXI hardware and 64 bit Windows 7 operating system configuration, you must use Keysight IO Libraries version 16.1 or later.

### 3. Installing I/O Interface Hardware

#### a. Install I/O Interface Card(s) in the PC.

Install all necessary I/O interface card(s) in the PC per the instructions that came with the I/O interface card vendor documentation.

**National Instruments GPIB card:** For a National Instruments GPIB card, be sure to install the NI 488.2 software first, then reboot your PC and install the interface card.

#### NOTE

Exclude Multiple GPIB Devices: If this PC controls other GPIB measurement hardware or devices, you need to exclude those devices from the 89600 identification process.

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#### b. Configure the PC I/O Interface.

Configure the I/O interface card(s) in the PC per the instructions that came with the I/O interface card vendor documentation.

#### TIP

You can typically use the default I/O interface hardware settings.

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#### NOTE

GPIB: For GPIB interfaces, make sure that each measurement hardware has a unique GPIB address—multiple GPIB devices cannot use the same GPIB address.

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#### NOTE

If the PC and measurement hardware are connected to a local internal LAN, you may need to check with your network administrator to verify that the IP addresses for the PC and measurement hardware satisfy requirements.

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#### c. Cycle power OFF/ON on all system hardware.

After completing the hardware I/O connections, cycle the power OFF/ON on the PC and all connected measurement hardware.

#### d. Next install the 89600 VSA software. Go to [See "Installing 89600 Software in a PC"](#).

## 2 Configuring Remote PC

## 3 Installing 89600 Software

This procedure installs the 89600 VSA and WLA software.

There are different installation procedures for each operating configuration—Remote PC and Embedded PC configuration. Remote PC configuration requires installing the software in a PC. Embedded PC configuration requires installing the software in the measurement hardware; there are also different install procedures for different measurement hardware types.

Select and use the software installation procedure for your particular installation:

### Remote PC Configuration

- See "Installing 89600 Software in a PC"

### Embedded PC Configuration

- See "Installing 89600 Software in an Keysight X-Series Signal Analyzer"
- See "Installing 89600 Software in an Keysight Infiniium Scope"
- See "Installing 89600 Software in an Keysight Logic Analyzer"

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### Installing 89600 Software in a PC

To install the Keysight 89600 software in a remote PC configuration:

1. Close any applications you have open.

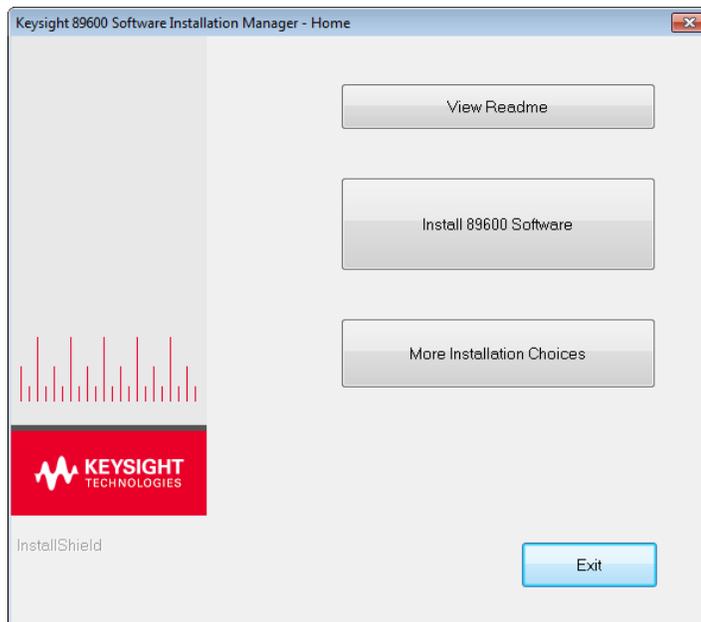
**NOTE**

To install the Keysight 89600 software, you must have administrator privileges.

2. Insert the Keysight 89600 software installation DVD.
3. If the installation utility does not start automatically, navigate to the DVD drive and double-click this file:  
`autoplay.exe`
4. When the Keysight 89600 Installation Manager window opens, click View Readme then review the following sections of the Readme file.
  - Required Minimum License Version
  - Installation Information

### 3 Installing 89600 Software

#### Installing 89600 Software in a PC



5. After reviewing the Readme file, start the software installation by clicking **Install 89600 Software**. Step through the InstallShield Wizard and stop at the *Select Products and Features* window.
6. Select the Products and Features you want to install, click **Next** then continue through the InstallShield Wizard to complete the installation.

**NOTE**

If you are installing Keysight 89600 WLA Software, click the Keysight 89600 WLA Software option. The Keysight 89600 WLA Software can only be installed with the Keysight 89600 VSA Software. However the WLA Software can be installed at a later time.

**IMPORTANT**

Windows 8: if you do not have .NET Framework 3.5 installed, a dialog will pop up during installation that will prompt you to install the .NET Framework. Please click **Download** and install this feature. If you do not have Internet access, you can follow the procedure [See "Installing .NET Framework 3.5 on Windows 8 PCs"](#) to install the .NET Framework from the Windows 8 Installation DVD.

7. After the 89600 software installation has finished, the *Select Hardware Support* dialog opens. Hardware support adds hardware connectivity to the 89600 software. You can select the **Hardware Support Menu** option (default selection) to add hardware support now or select **Do not install hardware support** to not install this functionality. If you select *Do not install hardware support*, you can install hardware support at a later time—see the *89600 Software Installation Guide* for instructions.
  - a. To add hardware support, select **Hardware Support Menu** then click **Next**.
  - b. On the *Hardware Support Menu* dialog, select the components to add then click **Install Hardware Support** and follow the prompts to complete the installation.
8. The installation process configures your system environment for the 89600 software applications. Some installations may required a system PC reboot. If this occurs, click **OK** to reboot.

**IMPORTANT** After rebooting you will need to be logged on with administrative privileges to complete the installation.

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**NOTE** When installing from a remotely mounted DVD drive, the remote drive must be configured to reconnect at logon so that the installation files can be located after the reboot.

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9. When the installation is complete, exit the Installation Manager.
10. Start the 89600 VSA. Click Start > (All) Programs > Keysight 89600 Software xx.y > Keysight 89600 VSA xx.y (where xx.y is the VSA version number).

Next the software and options need to be licensed. To learn how to obtain a license, see [See "Installing Licenses"](#).

**TIP** The first time you install the 89600 software on Windows 8, a tile for each 89600 software shortcut will be created on the Start screen. You can right-click these tiles and remove them from the Start screen by choosing Unpin from Start; or drag to rearrange them into a group, and name the group by zooming out (click "-" at bottom right of screen) and then right-clicking the group and choosing Name group.

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#### Installing .NET Framework 3.5 on Windows 8 PCs

Follow this procedure to install the .NET Framework 3.5 before installing the 89600 software on Windows 8 PCs *without Internet access*.

1. Check to see if .NET Framework 3.5 is already installed
  - a. Click Control Panel > Programs > Turn Windows features on or off
  - b. If the .NET Framework 3.5 (includes .NET 2.0 and 3.0) check box is completely empty, continue with the rest of this procedure. Otherwise, skip to step 2 in [See "Installing 89600 Software in a PC"](#)
2. Close the Windows Features dialog
3. If you have a *Windows 8 Installation DVD*, insert it into your computer or mount the ISO image. If you don't have a *Windows 8 Installation DVD*, use the files in the Keysight\_89600\_dvd installation folder.
4. Open an Administrator command prompt
  - a. Move the mouse to the lower left-hand corner of the screen.
  - b. Right-click and choose Command Prompt (Admin)
  - c. Click Yes at the User Account Control dialog if prompted
5. Type the following command (on a single line) and press Enter:  
`dism /online /enable-feature /featurename:NetFX3 /Source:<dot-net-location> /limitaccess`  
where <dot-net-location> is defined as:
  - <installed drive>:\Keysight\_89600\_dvd\ISSetupPrerequisites\{074EE22F-2485-4FED-83D1-AAC36C3D9ED0} or
  - d:\sources\sxs where d is the drive where the Windows 8 DVD is mounted.
6. Wait until the feature is installed (you will see the text: "The operation completed successfully.")

### 3 Installing 89600 Software

#### Installing 89600 Software in an Keysight X-Series Signal Analyzer

7. Restart the computer if prompted
8. Proceed with step 2 in [See "Installing 89600 Software in a PC"](#)

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#### Installing 89600 Software in an Keysight X-Series Signal Analyzer

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**NOTE** Verify that the Instrument software revision (System hardkey > Show softkey > System softkey) is A.13.XX or greater.

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Since the Keysight X-Series Signal Analyzers do not have internal DVD drives, you must first copy the contents of the Keysight 89600 software DVD onto a USB Drive. The Keysight 89600 software DVD is not protected or encrypted. The copy will be identical to the original DVD.

**NOTE** This procedure assumes that a USB Flash Drive is being used. Other USB storage devices, such as a USB hard drive or USB DVD drive, could also be used.

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To install the 89600 VSA software in an Keysight X-Series Signal Analyzer using a USB Flash drive:

1. Insert the Keysight 89600 software DVD into a PC's DVD drive. If the Keysight 89600 Installation Manager window opens, close the installer program (click Exit).
2. Insert a USB Flash Drive into a USB port on the same PC in which the Keysight 89600 software DVD is loaded.
3. Use Windows Explorer to copy the contents of the Keysight 89600 software DVD onto the USB Flash Drive.
4. Connect a USB keyboard and mouse to the analyzer.

**NOTE** To install the Keysight 89600 software on the analyzer, you need to have administrator privileges. Press Ctrl - Alt - Delete, then click Log Off.... Log back in as the Administrator. The default password is `agilent4u`.

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5. Insert the USB Flash Drive into an available USB port on the analyzer.
6. Open Windows Explorer and navigate to the USB drive.
7. Double-click `autoplay.EXE`.
8. When the Keysight 89600 Installation Manager window opens, please read the Readme information.
9. After you read the Readme file, close it, then click Install 89600 Software. Continue through the InstallShield Wizard until you reach the *Select Products and Features* window.
10. Select the features you want to install, then continue through the InstallShield Wizard to complete the installation.
11. When the installation is complete, exit the Installation Manager.
12. Start the X-Series analyzer application: Double-click the LaunchXSA icon on the Windows desktop.
13. After the X-Series analyzer finishes booting up, start the Keysight 89600 software (press the Mode hardkey then press the More softkey until the 89601 VSA softkey appears. Press the 89601 VSA softkey followed by the Start 89601B softkey to launch the VSA software).

Next the software and options need to be licensed. To learn how to obtain a license, see [See "Installing Licenses"](#).

## Installing 89600 Software in an Keysight Infiniium Scope

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**IMPORTANT** Embedded operation with the 89600 is not recommended for the Infiniium 8000 and 80000 Series scopes.

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Many Infiniium oscilloscopes provide an open Microsoft Windows 7 operating system that enables you to install other applications. You can install and operate the 89600 Vector Signal Analysis software on these scopes.

Some Keysight Infiniium scopes have no DVD drive, so for these scopes you must use a USB drive. If you are installing from a USB drive, you must copy the contents of the Keysight 89600 software DVD onto the USB Drive. The Keysight 89600 software DVD is not protected or encrypted. The copy will be identical to the original DVD.

To install the 89600 VSA and 89600 WLA software in a Windows 7 scope:

1. Increase the scope's virtual memory to at least 1 GB as follows:
  - a. Minimize the scope application.
  - b. Navigate to: Control Panel > Administrative Tools (double-click) > Computer Management (double-click) > Computer Management (Local) (right-click) > Properties > Advanced (tab) > Performance Settings (button) > Virtual Memory - Change (button) to display the Virtual Memory dialog screen.
  - c. Set Initial Size (MB) and Maximum Size (MB) to 1000 MB (or more if you have sufficient Space Available), then click Set > OK > OK (reboot message) > OK > OK.
  - d. When the *System Settings Change* dialog appears, click Yes to restart the computer.
2. Insert the Keysight 89600 software installation DVD into the scope's DVD drive. If your scope does not have a DVD drive, use the following procedure:

**NOTE** This procedure assumes that a USB Flash Drive is being used. Other USB storage devices, such as a USB hard drive or USB DVD drive, could also be used.

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- a. Insert the Keysight 89600 software DVD into a PC's DVD drive. If the Keysight 89600 Installation Manager window opens, close the installer program (click Exit).
- b. Insert a USB Flash Drive into a USB port on the same PC that the Keysight 89600 software DVD is in.
- c. Copy the contents of the Keysight 89600 software DVD onto the USB Flash Drive.
- d. Connect a USB keyboard and mouse to the scope.

**NOTE** To install the Keysight 89600 software on the scope, you need to have administrator privileges. Press Ctrl - Alt - Delete, then click Log Off.... Log back in as the Administrator.

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- e. Insert the USB Flash Drive into an available USB port.
  - f. Open Windows Explorer and navigate to the USB drive.
  - g. Double-click `autoplay.EXE` to bring up the Keysight 89600 Installation Manager.
3. When the Keysight 89600 Installation Manager window opens, please read the Readme information.

### 3 Installing 89600 Software

#### Installing 89600 Software in an Keysight Logic Analyzer

4. After you read the Readme file, close it then click Install 89600 Software. Continue through the InstallShield Wizard until you reach the *Select Products and Features* window.
5. Select the features you want to install, then continue through the InstallShield Wizard to complete the installation.
6. When the installation is complete, exit the Installation Manager.
7. Start the 89600 VSA. Click Start > Programs > Keysight 89600 Software xx.y > Keysight 89600 VSA xx.y (where xx.y is the VSA version number).

Next the software and options need to be licensed. To learn how to obtain a license, see [See "Installing Licenses"](#).

#### Installing 89600 Software in an Keysight Logic Analyzer

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Some Keysight Logic Analyzers have no DVD drive, so for these analyzers you must use a USB drive. If you are installing from a USB drive, you must copy the contents of the Keysight 89600 software DVD onto the USB Drive. The Keysight 89600 software DVD is not protected or encrypted. The copy will be identical to the original DVD.

To install the 89600 VSA and 89600 WLA software in a logic analyzer:

1. Insert the Keysight 89600 software DVD into the logic analyzer's DVD drive. If your logic analyzer does not have a DVD drive, use the following procedure:

**NOTE**

This procedure assumes that a USB Flash Drive is being used. Other USB storage devices, such as a USB hard drive or USB DVD drive, could also be used.

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- a. Insert the Keysight 89600 software DVD into a PC's DVD drive. If the Keysight 89600 Installation Manager window opens, close the installer program (click Exit).
- b. Insert a USB Flash Drive into a USB port on the same PC that the Keysight 89600 software DVD is in.
- c. Copy the contents of the Keysight 89600 software DVD onto the USB Flash Drive.
- d. Connect a USB keyboard and mouse to the analyzer.

**NOTE**

To install the Keysight 89600 software on the logic analyzer, you need to log on with administrator privileges.

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- e. Insert the USB Flash Drive into an available USB port on the analyzer.
  - f. Open Windows Explorer and navigate to the USB drive.
  - g. Double-click `autoplay.EXE` to bring up the Keysight 89600 Installation Manager.
2. When the Keysight 89600 Installation Manager window opens, please read the Readme information.
  3. After you read the Readme file, close it then click Install 89600 Software. Continue through the InstallShield Wizard until you reach the *Select Products and Features* window.
  4. Select the features you want to install, then continue through the InstallShield Wizard to complete the installation.
  5. When the installation is complete, exit the Installation Manager.

**NOTE**

When installing the 89600 VSA in a logic analyzer mainframe, Hardware support is disabled. This prevents using disk space for unnecessary components that are not needed when the 89600 VSA software is installed in a logic analyzer.

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6. Start the 89600 VSA. Click Start > (All) Programs > Keysight 89600 Software xx.y > Keysight 89600 VSA xx.y (where xx.y is the VSA version number).

Next the software and its options must be licensed. To learn how to obtain a license, see [See "Installing Licenses"](#).

### 3 Installing 89600 Software

#### Installing 89600 Software in an Keysight Logic Analyzer

## 4 Installing Licenses

The 89600 software and options must be licensed to operate in a useful manner. The 89600 software has four types of licenses: Demo, Trial, Transportable, and Floating. The Demo license is installed with the 89600 software.

This chapter describes how to install a Transportable license. For instructions on installing the other types of licenses, see the Installation Guide (InstallationGuide.pdf), which is available on the installation DVD in the `manuals` folder, during installation by clicking **More Installation Choices > View Installation Guide**, or after you install the software in `C:\Program Files\Agilent\89600 Software xx.y\89600 VSA Software\Help` (where `xx.y` is the VSA version number).

### Transportable License

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This section describes the steps to obtain and install a Transportable license. The Transportable license enables the 89600 software and options that you purchased. The license must be installed on the same computer that runs the 89600 software. However, the license can be transferred from one computer to another computer.

Licensing the 89600 Software is a two step process:

1. Redeem the License.  
Go to [See "Redeeming a transportable license "](#).
2. Install the License file.  
Go to [See "Installing a transportable license "](#).

#### NOTE

The term PC refers to any computer or instrument (such as analyzers and oscilloscopes) running the 89600 software.

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### Redeeming a transportable license

To redeem a Transportable license, follow these steps:

1. Collect the Software License Entitlement Certificates for all 89600 software options that you purchased. The Software License Entitlement Certificates are included with the *89600 VSA Software Installation Materials* envelope (printed on gray parchment).

#### NOTE

The Software License Entitlement Certificate also includes instructions to redeem your licenses.

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## 4 Installing Licenses

### Transportable License

2. Obtain the Host identification information (Host ID) for the PC on which you are installing the 89600 software license. Use the Keysight License Service utility or Keysight License Manager to obtain the *Host ID*.
  - a. Open the About Keysight License Service utility, right click the "Keysight License Service icon"  in the Windows desktop notification area (lower right side of the Windows Task bar) and select About Keysight License Service.
  - b. Click the Copy button to the right of the Host ID box. The Host ID information is copied into the Windows clipboard.

3. Redeem your licenses and obtain the license files.

Follow the instructions included on the *Software License Entitlement Certificate* to redeem your licenses and obtain the license files. Go to the *Keysight Software Manager* website:

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

- First time access will require you to register.

#### **IMPORTANT**

Remember your user password. The password is required for future access to manage your licenses.

- You will need the *Keysight Order Number* and *Keysight Certificate Number* located on the top of your *Software License Entitlement Certificate*.

4. Install License File(s): Check your email for the license file(s) and then install the license file(s) on the PC—go to [See "Installing a transportable license"](#).

#### Installing a transportable license

Installing the license file is necessary to license the 89600 software. After completing [See "Redeeming a transportable license"](#), you will receive an Keysight email containing your license file for the redeemed Entitlement Certificates. Follow these steps to install the license files on the PC:

1. Copy the email attachment with the *.lic* file extension to a folder on your PC, connected hard drive, or USB storage device.
2. Start the Keysight License Manager: click Utilities > Licenses > Status > Keysight License Manager or double click the Keysight License Service icon .
3. In the Keysight License Manager, click File > Install, browse to the location where you saved the *.lic* license file, select the license file and click the Open button. Or, you can drag-and-drop the license file onto the Keysight License Manager *Licensed Products and Features* window. The Keysight License Manager installs the license and lists it in the Keysight License Manager window, *localhost* node.

#### **NOTE**

The install operation can take up to 40 seconds to complete.

After installing the license file, verify that the Options are licensed for use by the Keysight 89600 software.

4. Start the Keysight 89600 software, open the *Licenses Options* dialog (click Utilities > Licenses > Options) and verify the options are correctly licensed (Yes in the On column).

"On" Column	License Status
Yes	Option is licensed for use.
--	Dash indicates that the license option has not been selected for use by the VSA. To include an option, open the <i>Select License Options</i> system utility and select (check) the options that you want to include in the VSA measurement capability (click <b>Start &gt; (All) Programs/All apps &gt; Keysight 89600 Software xx.y &gt; System Utility &gt; Select License Options</b> , where <i>xx.y</i> is the VSA version number). The VSA must be closed and restarted to incorporate the changes.
No	Option is not licensed for use.

**See Also**

For details on installing other license types, see *Installing Licenses* in the Keysight License Manager Help (click **Help > Keysight License Manager Help** from within the Keysight License Manager utility or click **Start > (All) Programs/All apps > Keysight License Manager > Keysight License Manager Help**).

## 4 Installing Licenses

### Transportable License

## 5 Using the VSA Online Help and Demos

Now that you have installed and licensed your Keysight 89600 software, it is time to start using it. The best way to learn how to use the VSA software is to view the online help and demo signal packages.

### Accessing Online Help

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There are multiple ways to access the 89600 VSA help, as listed in the following sections.

#### Start menu

After installing the 89600 VSA software, you can click the Windows Start button > (All) Programs > Keysight 89600 Software 15.00 > Help > Help to open the 89600 VSA help system.

#### Help menu

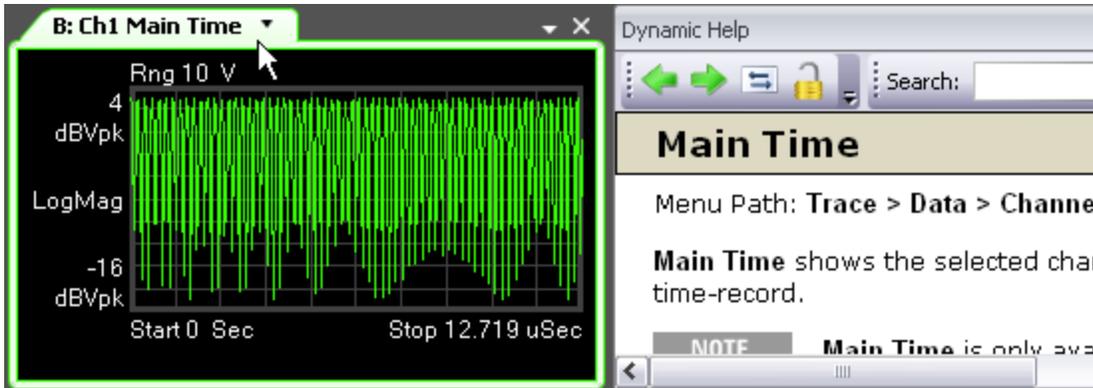
While the VSA software is running, click Help from the main menu then select one of the following menu items:

<b>This menu item...</b>	<b>Does this...</b>
Show Help	Opens the 89600 VSA help system in an external window.
Search Help	Opens the 89600 VSA help system to the search tab.
Dynamic Help	Opens the dynamic help panel. By default, dynamic help is shown in a tool window that is docked to the right-hand side of the VSA main window.
Getting Started	Opens a topic with links to information about getting started with the 89600 VSA.
Demos	Opens a list of demo signals that are provided with the VSA.
.NET API Reference	Opens the 89600 VSA .NET API reference in a separate help window.
SCPI Reference	Opens the 89600 VSA SCPI reference in a separate help window.
Keysight 89600 VSA web site	Opens the 89600 VSA website in the default web browser.
Keysight VSA forums	Opens the Keysight VSA forums.
Technical Support	Opens the 89600 VSA Technical Support website.

<b>This menu item...</b>	<b>Does this...</b>
About...	Shows information about the VSA software, including what software version is installed on your computer.

#### Dynamic help

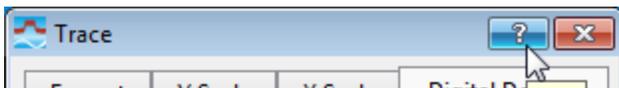
Dynamic help is the quickest and easiest method to find help. To open the dynamic help window, select Help > Dynamic Help. The current topic follows the user interface item that currently has focus.



#### Help button on dialogs

You can access help for any dialog box by clicking the ? button in title bar of the dialog box.

In the following illustration, clicking the Help button opens the VSA help for the Format tab of the Digital Demod Properties dialog box.



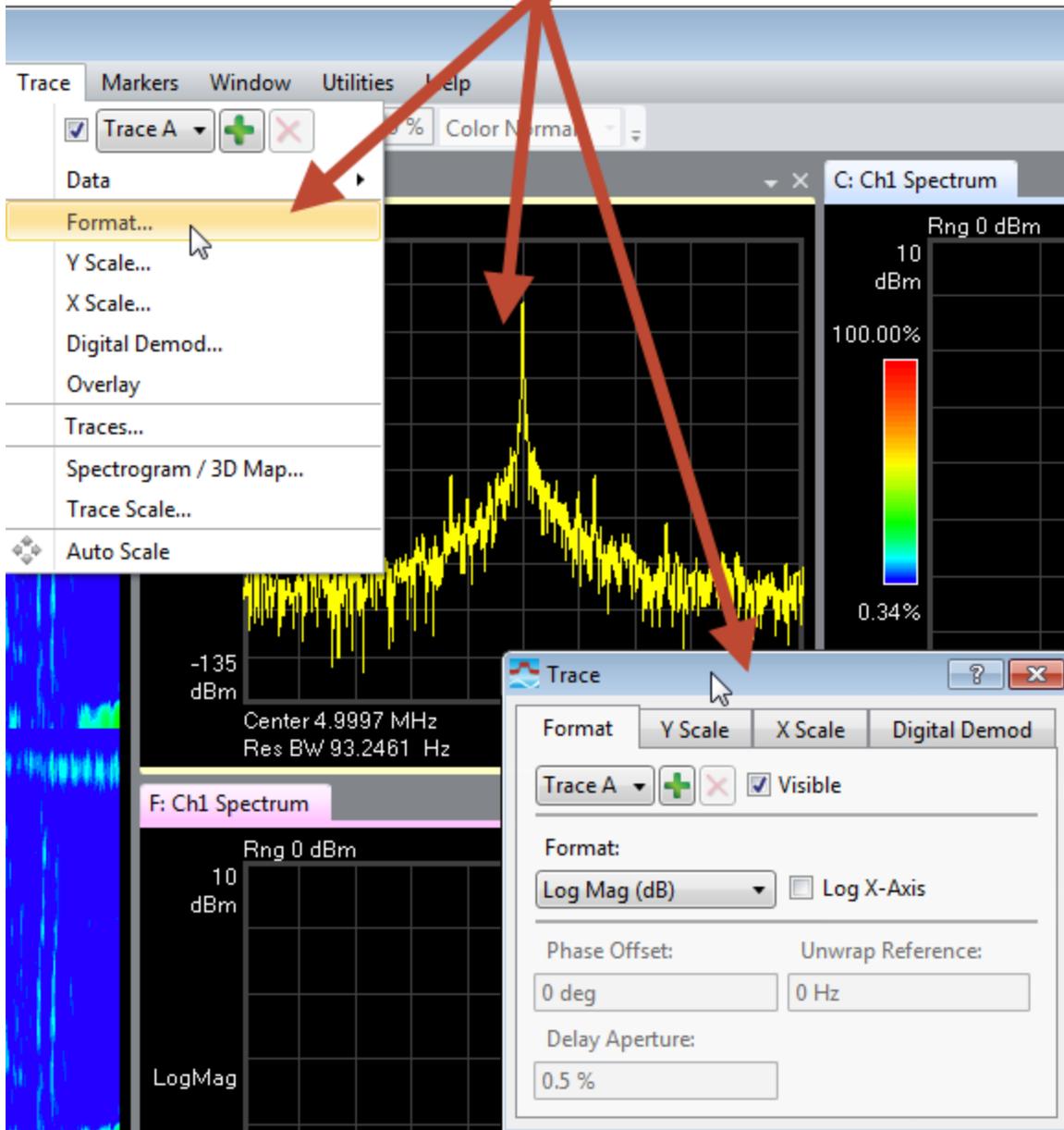
#### F1 on the keyboard

You can access context-sensitive help by pressing the F1 key.

When you are viewing a dialog box, pressing F1 shows the same information as clicking the ? button. The F1 help also works on menus and traces.

Pressing F1 while a menu item is highlighted opens context-sensitive help for that menu item.

## F1 Help



### Recalling a Demo Signal Package

Recalling a demo signal package is a good way to learn about the measurement capabilities and features of the 89600 VSA. The 89600 VSA provides various demo signal packages that include recorded signals, signal setup files, or Signal Studio setup files, and a demo help topic.

To view the available demo signals, open the *Demo and Recorded Signals* help topic (click Help > Demos).

## 5 Using the VSA Online Help and Demos

### Recalling a Demo Signal Package

To recall a demo:

1. Click **File > Recall > Recall Demo**.
2. In the *Recall Demo* dialog, browse to `C:\Program Files\Agilent\89600 Software xx.y\89600 VSA Software\Help\Signals` where *xx.y* is the version number of the software.
3. Select a Demo file of interest. For example, browse to `AM FM PM`, then select *XMITTER.htm*.
4. Click **Open**. The VSA recalls the instrument setup (measurement state), loads the recorded signal, and opens the corresponding help file in a separate window.
5. Read the Demo help file to learn about the recorded signal and the VSA setup information.
6. To start the measurement, click the Restart button (  ) in the tool bar or click **Control > Restart**.