Keysight Y1165A Kit
Removable SSD for the M9384B

Installation
Guide

KEYSIGHT
TECHNOLOGIES

Notices

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Safety Notices

CAUTION

A **CAUTION** 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 damage to the product or loss of important data. Do not proceed beyond a CAUTION notice until the indicated conditions are fully understood and met.

WARNING

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.

Where to Find the Latest Information

Documentation is updated periodically. For the latest information about this product, including instrument software upgrades, application information, and product information, browse to the following URL:

https://www.keysight.com/find/m9384b

To receive the latest updates by email, subscribe to Keysight Email Updates at the following URL:

http://www.keysight.com/find/MyKeysight

Information on preventing instrument damage can be found at:

http://keysight.com/find/PreventingInstrumentRepair

Is your product software up-to-date?

Periodically, Keysight releases software updates to fix known defects and incorporate product enhancements. To search for software updates for your product, go to the Keysight Technical Support website at:

http://www.keysight.com/find/techsupport

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1 Installing the Y1165A SSD

The following topics can be found in this section:

"Overview" on page 8

"SSD Interconnect Life Expectancy" on page 9

"SSD Removal and Installation" on page 10

"Firmware Updates" on page 12

"Instrument Security Information" on page 13

Overview

The Keysight Y1165A provides an additional removable Solid State Drive (SSD) for your M9384B VXG.

The SSD is mounted in a receptacle on the top of the M9384B chassis and can be easily inserted or removed. This is convenient when multiple people are using the same VXG and they do not want to interfere with the other person's project or for use in a controlled secure environment.

SSD Interconnect Life Expectancy

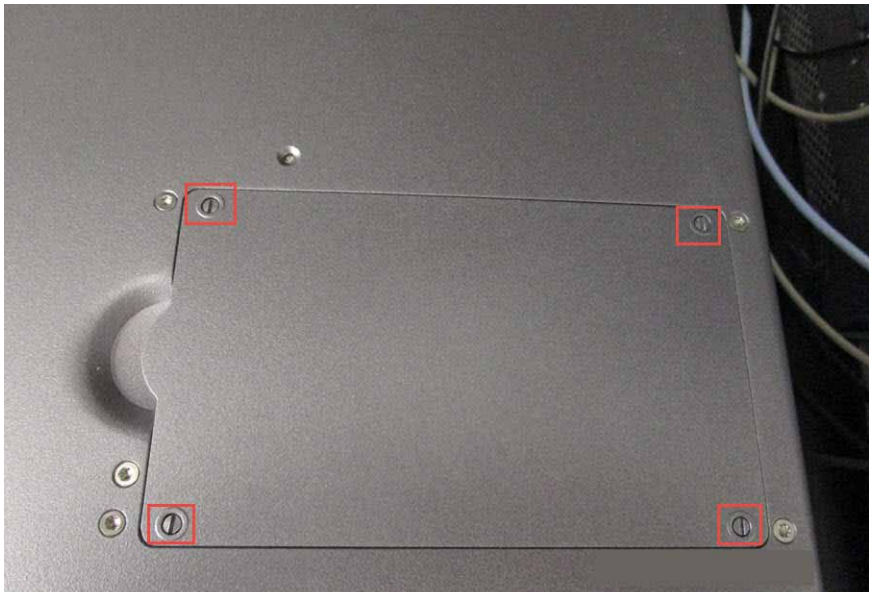
The life expectancy of both the connector on the removable SSD and the mating connector internal to the instrument is 1,500 cycles. If this is exceeded it is very likely that a failure will occur between these connections. Keysight highly recommends that this cycle limit not be exceeded to prevent an unwanted failure of the instrument.

SSD Removal and Installation

CAUTION

Electrostatic discharge (ESD) can damage or destroy electronic components. All work on electronic assemblies should be performed at a static-safe workstation. Refer to the documentation that pertains to your instrument for information about static-safe workstations and ordering static-safe accessories.

1. Turn the instrument off and remove the AC power cord.
2. Remove the SSD cover from the top of the M9384B chassis by loosening the 4 screws.



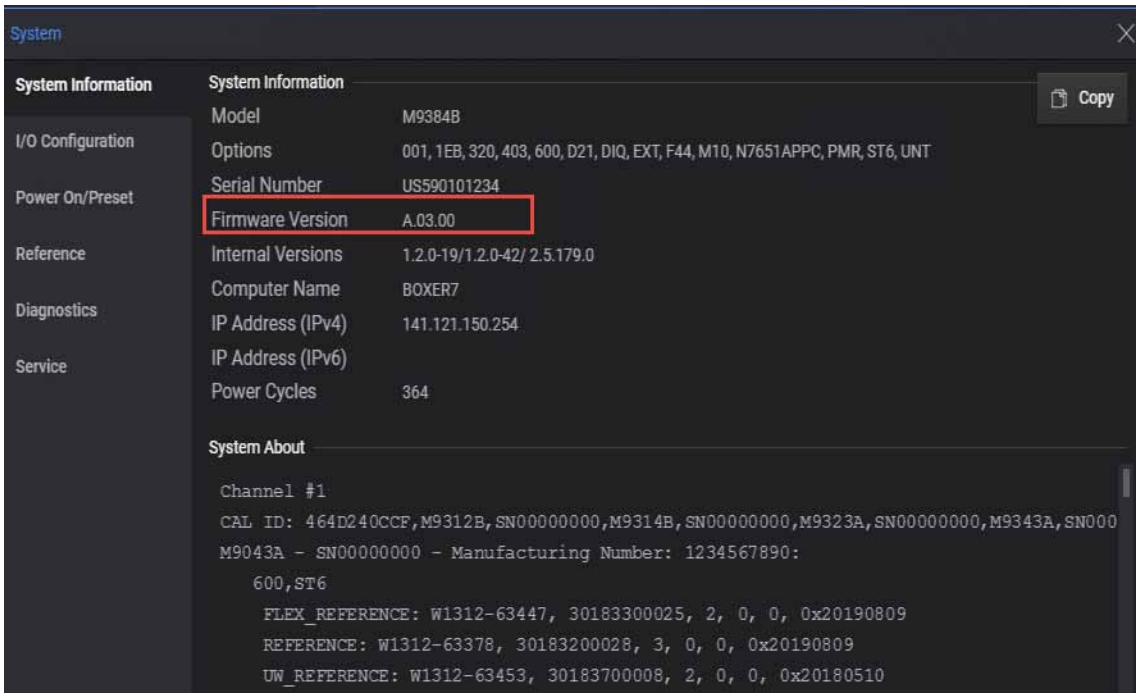
3. Loosen the two thumb screws securing the SSD to the tray.

4. Gently pull the SSD connector away from the mating connector on the M9384B top cover.
5. Install the new SSD by sliding the SSD connector into the mating connector on the M9384B.

6. Tighten the two thumb screws to secure the SSD in the tray.
7. Tighten the four screws to attach the cover to the top of the M9384B. Do not torque the screws to more than 6 in-lbs.

Firmware Updates

To determine the currently installed instrument firmware version on the VXG, select the **Gear** icon > **System** > **Firmware Version**.



If an instrument firmware update is required, the latest revision of the firmware can be found by going to the product page:

https://www.keysight.com/find/m9384b

and selecting the **Drivers, Firmware, and Software** tab.

Instrument Security Information

Information on instrument security features and the instrument volatility can be found at:

http://www.keysight.com/find/security

2 Initializing the Y1165A SSD Accessory for Use in the M9384B

The Keysight Y1165A provides an additional removable Solid State Drive (SSD) for your M9384B VXG.

The following procedures will accomplish the initialization process:

"Setting the Instrument's Serial Number" on page 17

"Establishing the Instrument's Hardware Configuration File" on page 19

"Setting the Instrument's Computer Name" on page 21

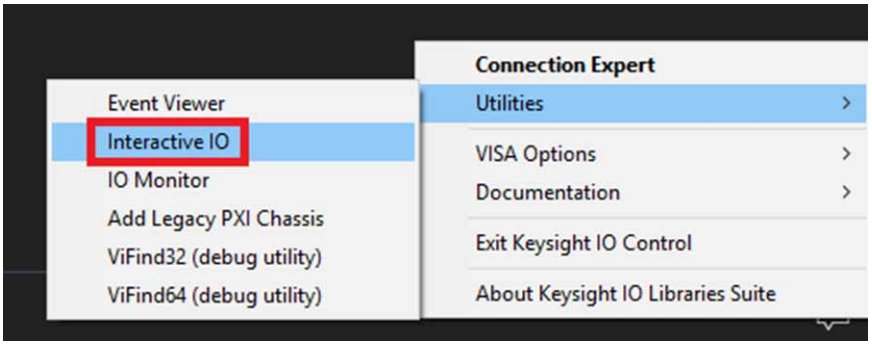
"Verify Configuration" on page 24

Requirements

- PathWave signal generator version A.3.02, or higher, running on the SSD
- Mouse and keyboard connected to the instrument

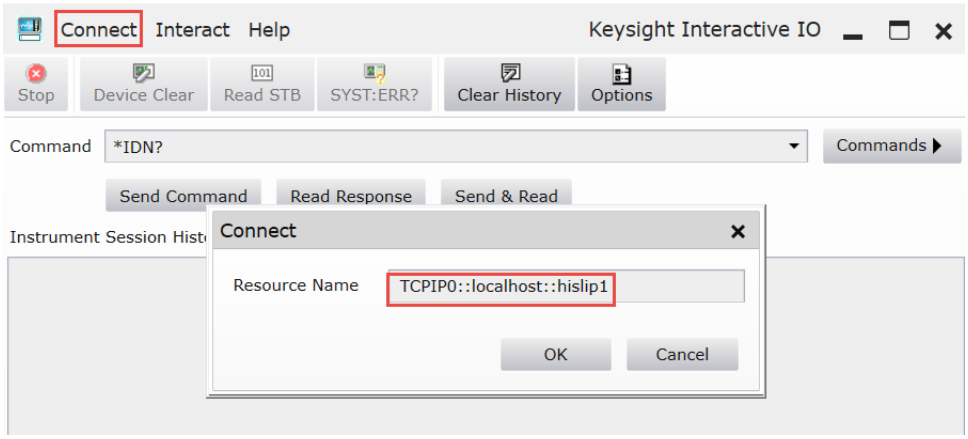
Setting the Instrument's Serial Number

1. From the Windows **Start** menu, select > **Utilities** > **Interactive IO**.

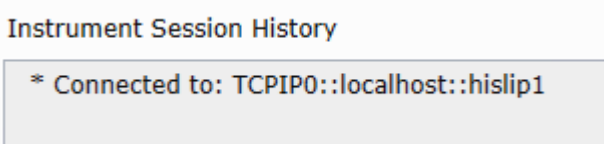


2. From the **Connect** menu, select **Connect**.

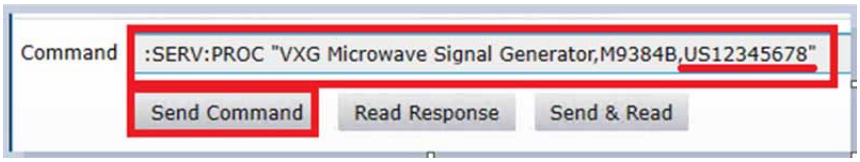
3. In the Resource Name text box, type `TCPIP0::localhost::hislip1`, then select **OK**.



The Instrument Session History area will indicate a successful connection as shown below.

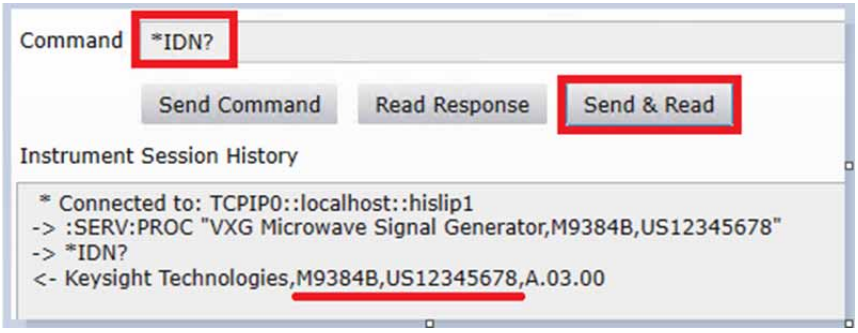


4. In the **Command** field type `:SERV:PROC "VXG Microwave Signal Generator,M9384B,US12345678"`, where US12345678 is the serial number of your instrument. Select **Send Command**.



5. Verify the setting by typing `*IDN?` into the Command area then select **Send & Read**.

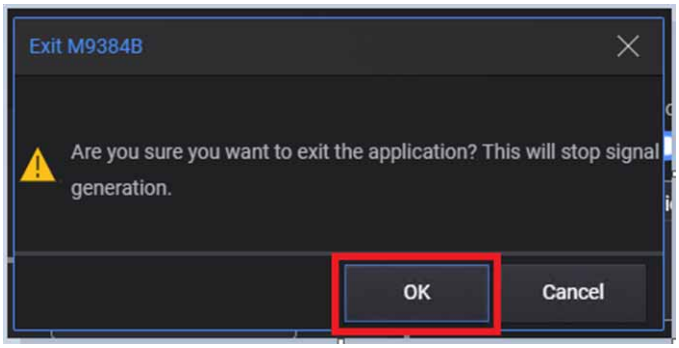
   The Instrument Session History area will show the result. The model and serial number should match that of your instrument.



6. Select **Connect** > **Exit** to close the Keysight Interactive IO application.

Establishing the Instrument's Hardware Configuration File

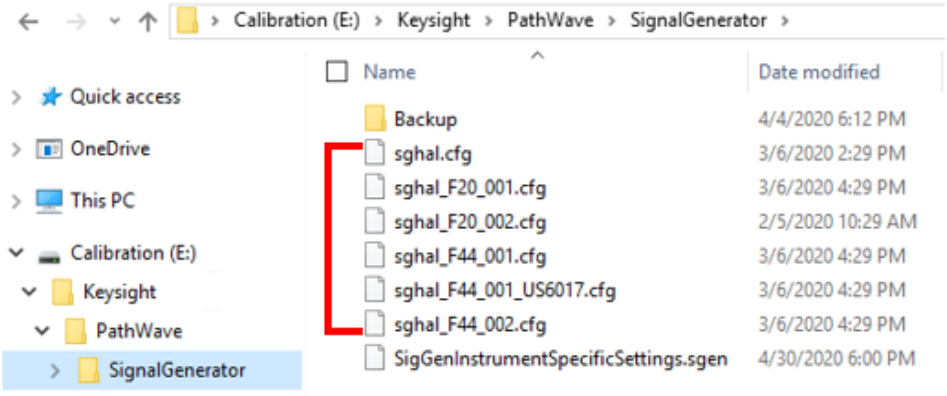
1. Select the **System** Menu , > **Exit** then select **OK** to exit the M9384B application.



2. From the Windows Start menu, select **File Explorer** and navigate to

   `E:\Keysight\PathWave\SignalGenerator`

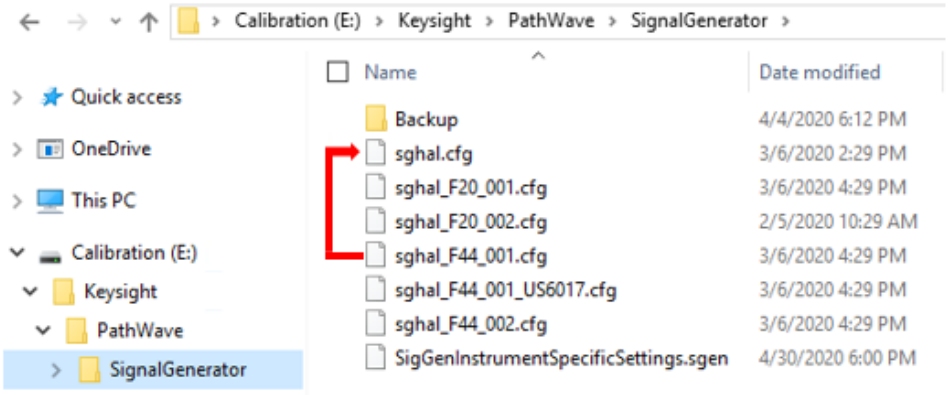
   You will find at least five file names `sghal<_Fxx_xxx>.cfg`. The names correspond to possible choices of Frequency Options and Number of Channels of the M9384B.



NOTE Option F14 and F20 share the same configuration so use the .cfg file for F20. Option F32 and F44 also share the same configuration file so use the .cfg file for F44.

NOTE If your instrument is a single channel 32 GHz or 44 GHz (Option 001 with Option F32 or F44) and has serial number prefix US6017xxxx or later, use file sghal_F44_001_Quiet.cfg.

3. Identify the file that matches your instrument's configuration, then copy the file to sghal.cfg. For example if you instrument is a signal channel 44 GHz configuration, copy sghal_F44_001.cfg to sghal.cfg.



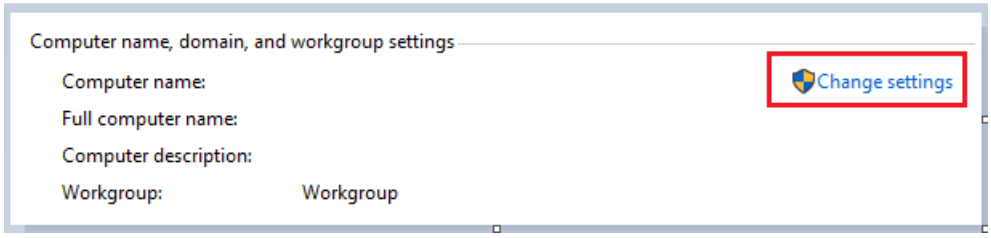
NOTE

If there was already a sghal.cfg file in the folder, overwrite it with the one that matches your instrument. Do not rename the original file as you may need it if you reuse this SSD in another M9384B.

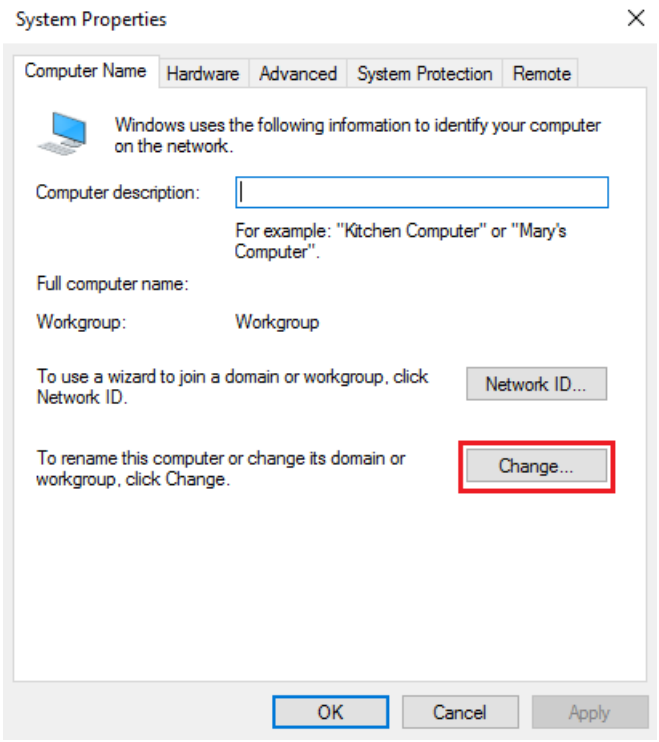
Setting the Instrument's Computer Name

1. This procedure must be performed in the Administrator account. To sign out of the default user (Instrument) account, go to the Windows Start menu and select the **Change Account** settings icon and sign out.
2. At the Login prompt enter the user name and password. The factory default settings are:
   - User name: **administrator**
   - Password: **Keysight4u!**

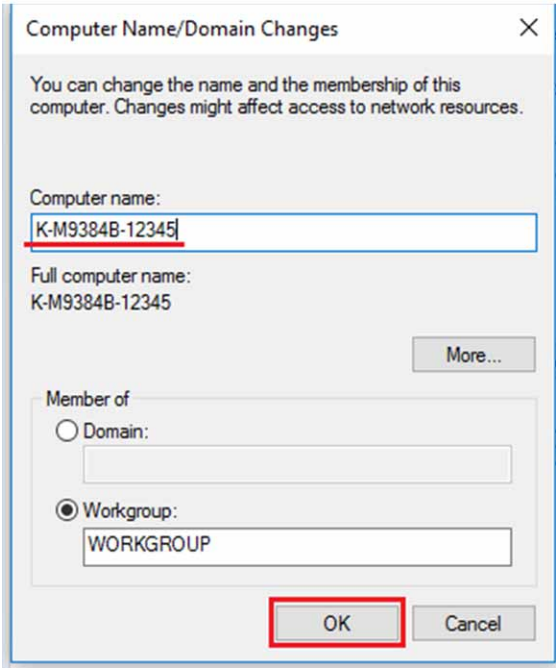
   If you have changed these settings, then use your new user name and password.
3. Select the **Next** arrow to log in.
4. Once the log in has completed, open the **Control Panel** and navigate to **System and Security** > **System**.
5. In the grouping for Computer name, domain, and work settings, select **Change Settings**.



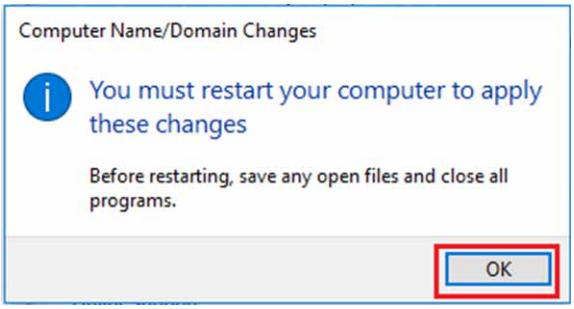
6. In the System Properties dialog, select **Change**.



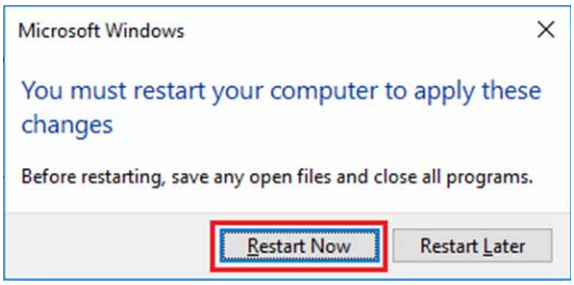
7. In the Computer Name/Domain Changes dialog, enter your desired Computer Name. (The default factory Computer name is K-M9384B-12345, where 12345 is the last 5 digits of the instrument's serial number.) Note that the Computer Name cannot conflict with the name of another device on your network.



8. Select **OK**. You will now be prompted to restart the instrument. Make sure to save any open files and close all programs, then select **OK** to continue.

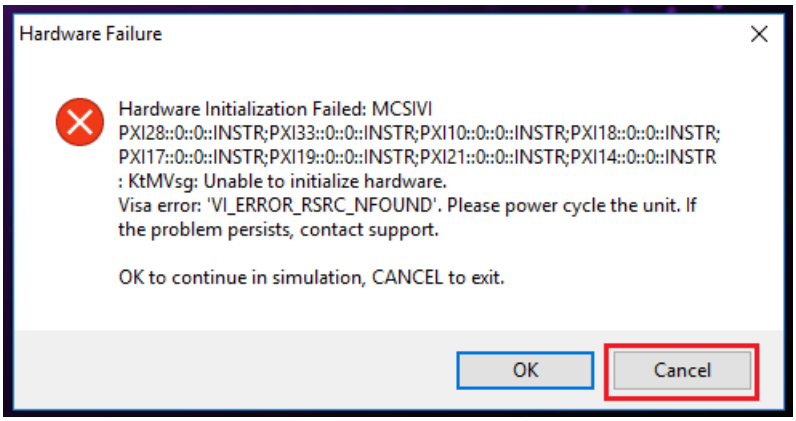


9. Close the System Properties dialog and select **Restart Now**, when prompted.



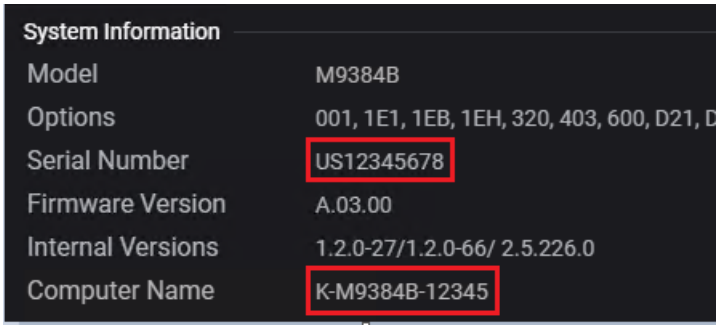
Verify Configuration

1. If upon restart the bootup screen shows a Hardware Failure message similar to the one below, the incorrect sghal.cfg file was copied during “Establishing the Instrument’s Hardware Configuration File. Go back and repeat the procedure.

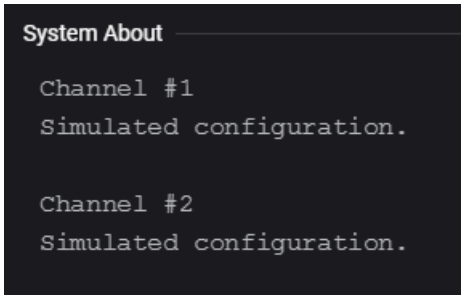


2. After the instrument application has finished booting, select the **Gear** icon (on the top bar of the graphical user interface), then select **System**.

3. In the System Information window, verify the Serial Number and Computer Name are as you expect.



   - If either of these are incorrect, repeat "Establishing the Instrument's Hardware Configuration File".
   - If the System About indicates Simulated configuration, the sghal.cfg file is missing or incorrectly named. Repeat "Establishing the Instrument's Hardware Configuration File".



3 Safety and Maintenance Information

The following topics can be found in this section:

"Safety Information" on page 28

"Warnings, Cautions, and Notes" on page 29

"Instrument Markings" on page 32

"Instrument Maintenance" on page 33

"Returning an Instrument for Service" on page 34

Safety Information

IMPORTANT The safety of any system incorporating the equipment is the responsibility of the assembler of the system.

IMPORTANT Proper Ergonomics should be considered when using accessories such as a keyboard or a mouse.

IMPORTANT When installing the instrument(s) into a cabinet, consideration shall be given to the convection flow into and out of the cabinet. Consideration shall also be given to the individual instruments to avoid having the heated discharge of one instrument, now becoming the cooling intake air for another instrument. Another area of concern is verification that the maximum ambient operating temperature of the instrument(s) is not exceeded by cabinet installation. Keysight recommends forced air convection whenever an instrument(s) are installed in a cabinet and further recommends that the maximum operating temperature of the cabinet be reduced 10°C from the lowest, of the maximum operating temperature of a single instrument. If there are any concerns or special requirements a Keysight Field Engineer should be consulted to assure instrument(s) temperature compliance and performance.

Warnings, Cautions, and Notes

The documentation for this product uses the following safety notations. Familiarize yourself with each notation and its meaning before operating the signal generator.

WARNING

Warning denotes a hazard. It calls attention to a condition or situation that could result in personal injury or loss of life. Do not proceed beyond a warning until you fully understand the indicated conditions or situations.

CAUTION

Caution calls attention to a condition or situation that could result in damage to or destruction of the signal generator, or in the loss of a user's settings or data. Do not proceed beyond a caution until you fully understand the indicated conditions.

NOTE

Note calls the user's attention to an important point or special information in the text.

General Safety Considerations for the M9384B

WARNING If this product is not used as specified, the protection provided by the equipment could be impaired. This product must be used in a normal condition (in which all means for protection are intact) only.

WARNING The M9384B VXG is heavy and requires two people to lift and carry it. Do not attempt to lift or carry it on your own.

Before Applying Power

WARNING Use a Keysight supplied power cord that has the same or better electrical rating.

WARNING Capable of rendering an electrical shock or burn.

WARNING Install the instrument so that the detachable power cord is readily identifiable and is easily reached by the operator. The detachable power cord is the instrument disconnecting device. It disconnects the mains circuits from the mains supply before other parts of the instrument. The front panel switch is only a standby switch and is not a LINE switch. Alternatively, an externally installed switch or circuit breaker (which is readily identifiable and is easily reached by the operator) may be used as a disconnecting device.

WARNING This is a Safety Protection Class I Product (provided with a protective earthing ground incorporated in the power cord). The mains plug shall only be inserted in a socket outlet provided with a protective earth contact. Any interruption of the protective conductor inside or outside of the product is likely to make the product dangerous. Intentional interruption is prohibited.

WARNING Cleaning connectors with alcohol shall only be done with the instruments power cord removed, and in a well-ventilated area. Allow all residual alcohol moisture to evaporate and the fumes to dissipate prior to energizing the instrument.

CAUTION The instrument has an auto–ranging line voltage input – be sure the supply voltage is within the specified range and the voltage fluctuations do not exceed 10 percent of the nominal supply voltage.

CAUTION The measuring terminals on this instrument are designed to be used with external signals described in Measurement Category I, but NOT with external signals described in Categories II, III, and IV. The input of this instrument cannot be connected to the mains.

CAUTION The Mains wiring and connectors shall be compatible with the connector used in the premise electrical system. Failure to ensure adequate earth grounding by not using the correct components may cause product damage, and serious injury.

NOTE The main power cord can be used as the system disconnecting device. It disconnects the mains circuits from the mains supply.

Servicing

WARNING These servicing instructions are for use by qualified personnel only. To avoid electrical shock, do not perform any servicing unless you are qualified to do so.

Operating Conditions

CAUTION This product is designed for use in Installation Category II and Pollution Degree 2 environment.

Instrument Markings

The signal generator has the following markings. Familiarize yourself with each marking and its meaning before operating the signal generator.

Marking	Description
CE	The CE mark is a registered trademark of the European Community. This CE mark shows that the product complies with all the relevant European Legal Directives.
	The RCM mark is a registered trademark of the Australian Communications and Media Authority.
ICES / NMB-001	This is a marking to indicate product compliance with the Industry Canada Interference-Causing Equipment Standard (ICES-001)
ISM GRP. 1 CLASS A	This is a symbol of an Industrial Scientific and Medical Group 1 Class A product. (CISPR 11, Clause 5)
	Korean Certification (KC) mark; includes the markings identifier code which follows the format: R-R-Kst-ZZZZZZZ"
	This WEEE symbol indicates separate collection for electrical and electronic equipment, mandated under EU law as of August 13, 2005. All electric and electronic equipment are required to be separated from normal waste for disposal.
	China Restricted Substance Product Label. The EPUP (environmental protection use period) number in the center indicates the time period during which no hazardous or toxic substances or elements are expected to leak or deteriorate during normal use and generally reflects the expected useful life of the product.
	Universal recycling symbol. This symbol indicates compliance with the China standard GB 18455-2001 as required by the China RoHS regulations for paper/fiberboard packaging.
ccr.keysight@keysight.com	The Keysight email address is required by EU directives applicable to our product.

Instrument Maintenance

Cleaning the instrument

To remove dirt or dust from the external case of the M9384B VXG, clean the case using a dry or slightly-dampened cloth only.

Cleaning Connectors

Cleaning connectors with alcohol shall only be done with the instrument power cord removed, and in a well-ventilated area. Allow all residual alcohol moisture to evaporate, and the fumes to dissipate prior to energizing the instrument.

WARNING

Keep isopropyl alcohol away from heat, sparks, and flame. Store in a tightly closed container. It is extremely flammable. In case of fire, use alcohol foam, dry chemical, or carbon dioxide; water may be ineffective.

Use isopropyl alcohol with adequate ventilation and avoid contact with eyes, skin, and clothing. It causes skin irritation, may cause eye damage, and is harmful if swallowed or inhaled. It may be harmful if absorbed through the skin. Wash thoroughly after handling.

In case of spill, soak up with sand or earth. Flush spill area with water.

Dispose of isopropyl alcohol in accordance with all applicable federal, state, and local environmental regulations.

Returning an Instrument for Service

Calling Keysight Technologies

Keysight Technologies has offices around the world to provide you with complete support for your instrument. To obtain servicing information or to order replacement parts, contact the nearest Keysight Technologies office listed below. In any correspondence or telephone conversations, refer to your instrument by its product number, full serial number, and software revision.

Locations for Keysight Technologies

Online assistance: http://www.keysight.com/find/assist

Americas

Canada 1 877 894 4414	Latin America (305) 269 7500	United States 1 800 829 4444

Asia Pacific

Australia 1 800 629 485	China 800 810 0189	Hong Kong 800 938 693
India 1 800 112 929	Japan 0 120 (421) 345	Korea 080 769 0800
Malaysia 1 800 888 848	Singapore 1 800 375 8100	Taiwan 0800 047 866
Thailand 1 800226 008		

Europe & Middle East

Austria 43 (0) 1 360 277 1571	Belgium 32 (0) 2 404 93 40	Denmark 45 70 13 15 15
Finland 358 (0) 10 855 2100	France 0825 010 700* *0.125 Euros/minute	Germany 49 (0) 7031 464 6333
Ireland 1890 924 204	Israel 972-3-9288-504/544	Italy 39 02 92 60 8484
Netherlands 31 (0) 20 547 2111	Spain 34 (91) 631 3300	Sweden 0200-88 22 55
Switzerland 0800 80 53 53	United Kingdom 44 (0) 118 9276201	

Other European Countries: http://www.keysight.com/find/contactus

Service Options

Keysight Technologies offers several optional maintenance plans to service your instrument after the warranty has expired. Call your Keysight Technologies office for full details.

If you want to service the instrument yourself after the warranty expires, you can download the service documentation that provides all necessary troubleshooting and maintenance information from the Keysight web page.

Packaging the Instrument

Use original packaging or comparable. It is best to pack the unit in the original factory packaging materials if they are available.

This information is subject to change without notice.
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www.keysight.com