Keysight 82357B USB/GPIB Interface

Quick Start Guide

KEYSIGHT TECHNOLOGIES

Contacting Keysight

www.keysight.com/find/assist
(worldwide contact information for repair and service)

Safety and EMC Information

The 82357B complies with safety and EMC requirements.

Refer to Declaration of Conformity at http://www.keysight.com/go/conformity for the latest revision.

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.

Safety symbols



Caution, risk of danger (refer to this manual for specific Warning or Caution information)

For further safety information details, refer to the *Keysight 82357B USB/GPIB Interface User's Guide*.

Regulatory Markings

	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.
ICES/NMB-001	ICES/NMB-001 indicates that that this ISM device complies with the Canadian ICES-001. Cet appareil ISM est conforme a la norme NMB-001 du Canada.
	The CSA mark is a registered trademark of the Canadian Standards Association.
	The RCM mark is a registered trademark of the Australian Communications and Media Authority.
	This instrument complies with the WEEE Directive (2002/96/EC) marking requirement. This affixed product label indicates that you must not discard this electrical or electronic product in domestic household waste.

Additional Safety Information

The following general safety precautions must be observed during all phases of operation of this instrument.

CAUTION

- Use the device with the cables provided.
- Repair or service that is not covered in this manual should only be performed by qualified personnels.

WARNING

- Do not use the device if it appears damaged or defective.
- Observe all markings on the device before connecting any wiring to the device.
- Do no operate the device in the presence of flammable gases or fumes.
- Do no install substitute parts or perform any unauthorized modification to the device.

Failure to comply with these precautions or with specific warnings elsewhere in this manual violates safety standards of design, manufacture, and intended use of the instrument. Keysight Technologies assumes no liability for the customer's failure to comply with these requirements.

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Introduction

This quick start guide shows a suggested six-step process to install the 82357B and the Keysight IO Libraries Suite, to connect the 82357B to your PC, to configure the 82357B, and to program GPIB instruments via the 82357B. It also includes the product technical specifications information.



1 Before You Install the 82357B

Check your shipment items

Verify that you received the following items in your shipment of the 82357B USB/GPIB Interface:

– Keysight 82357B USB/GPIB Interface

If any item is missing or damaged, keep the shipping materials and contact Keysight Technologies. See "Other References" on page 19 later in this guide for our contact information.

Check your PC operating system

To install the 82357B USB/GPIB Interface, your PC operating system must be one of the followings:

Windows PC software: Operating System

- Windows 10 (32-bit and 64-bit), Home, Pro, Enterprise
- Windows 8 and 8.1 (32-bit and 64-bit), Pro, Enterprise
- Windows 7 SP1 (32-bit and 64-bit), Starter, Home Basic, Home Premium, Professional, Ultimate, Enterprise
- Windows Server 2008 R1 SP1 (64-bit), Standard and Enterprise
- Windows Server 2012 (64-bit), Standard

Linux PC software: Operating System

- 64-bit Red Hat Enterprise Linux Desktop Workstation 7.1 to 7.5
- 64-bit CentOS Desktop Workstation 7.1 to 7.5

NOTE If you have the Keysight IO Libraries v14.2 installed and would like to use 82357B USB/GPIB Interface, you will need to install the 82357B driver. You can download the driver from the Technical Support section on the following site: http://www.keysight.com/find/82357B

2 Installing Keysight IO Libraries Suite

Download the IO Libraries Suite

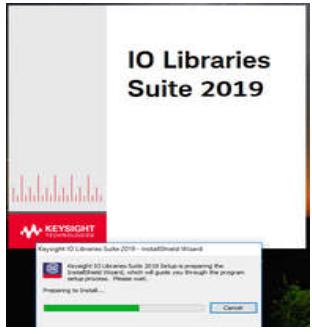
Download the latest version of IO Libraries Suite from the following site: http://www.keysight.com/find/iosuite

Install the IO Libraries Suite

NOTE

- See the *82357B User's Guide* for the full IO Libraries Suite installation procedures.
- You are recommended to install the latest version of IO Libraries Suite.

When the Keysight IO Libraries Suite window appears, follow the on-screen instructions to install the IO Libraries Suite.



NOTE

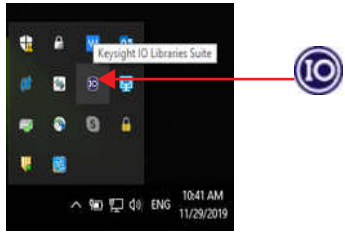
Upgrading your IO Libraries version

If you are upgrading to the latest version of the IO Libraries Suite from a previous version of the IO Libraries, you must remove the following instruments and interfaces listed below before you upgrade your software. This step is necessary in order for these devices to obtain the correct drivers to work with Keysight IO Libraries.

- Disconnect any USB instruments from your PC.
- Disconnect any Keysight 82357B USB/GPIB Interface converters from your PC.
- Disconnect any Keysight E8491 IEEE 1394 PC Link to VXI interfaces from your PC.

Look for IO icon

After the libraries are installed, an IO icon is displayed on the Windows taskbar notification area. You can click the icon to manually run the IO configuration utilities and to display the online documentation. It is not necessary to use the icon at this time.



3 Connecting the 82357B

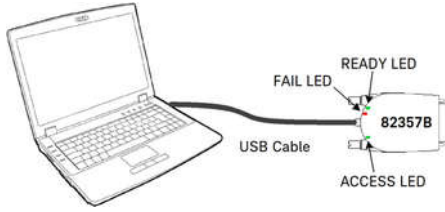
Plug the 82357B into a USB Port

Plug the 82357B USB cable into an available USB port on your PC or on a supported USB hub. To connect to USB hubs, see the *82357B User's Guide*. The picture shown below is for illustration purposes only. It is not necessary to connect the 82357B to any GPIB instruments at this time.



Observe the 82357B LEDs

Observe the three LEDs on the 82357B. Initially, only the red FAIL LED should be illuminated. After 10 seconds, all three LEDs should be illuminated to show that the 82357B has been installed, and is configured for use with the IO Libraries.



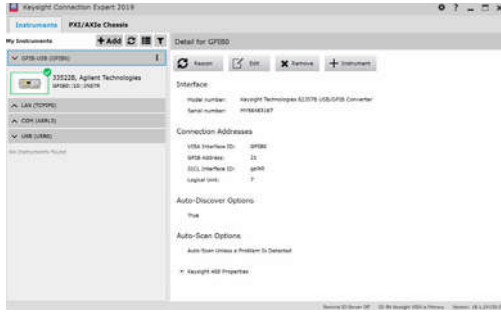
NOTE If any LED is not illuminated after 10 seconds, see *Chapter 3, "Troubleshooting the Keysight 82357B"* in the *82357B User's Guide* for more information.

4 Configuring the 82357B

Observe the Keysight Connection Expert

Run the Keysight Connection Expert to verify your I/O configuration: In the Windows taskbar notification area, click the IO icon, then click **Keysight Connection Expert**.

When the main screen appears, you will see a list of the system connections in the Instrument I/O on this PC pane (also called “My Instruments”). At this time, the Connection Expert window should refresh. If it does not refresh automatically, click the Refresh button. The 82357B will appear in the My Instrument panel as a USB/GPIB interface as shown below.



Configure the 82357B

Once you see the 82357B displayed in the Connection Expert, this means that it has been configured and can be used for programming. At this time, only the green READY LED should remain illuminated. To edit the configuration settings, click **Edit...** in the detail pane on the right side of the window.

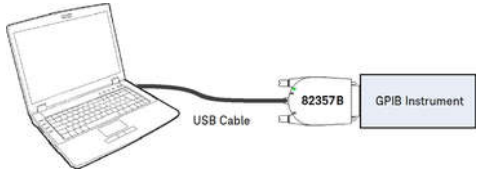
NOTE See *Chapter 2, "Using the Keysight 82357B"* in the *82357B User's Guide* for more information on how to set the configuration parameters.

5 Connecting GPIB Instruments

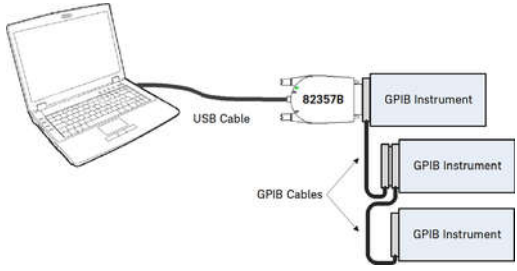
Connect the 82357B to GPIB instruments

Connect one or more GPIB instruments (up to 14 instruments maximum) to the GPIB connector on the 82357B as shown below:

– Single instrument connection



– Multiple instruments connection



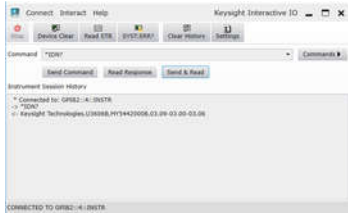
NOTE To minimize stress on the connector mountings, stack no more than three cable connector blocks.

6 Programming via the 82357B

Use the Keysight Interactive IO to communicate with the GPIB instruments

After the 82357B has been configured and connected to the GPIB instruments, you can use the Interactive IO to establish communication between your PC and the connected GPIB instruments. To run the Interactive IO for an IEEE-488.2 compliant instrument, perform the following:

1. Right click the instrument's icon in the Connection Expert window.
2. Click **Send Command** to display the Interactive IO.
3. With the default command `*IDN?` displayed in the text box, click **Send & Read**.
4. The instrument identification string should appear.



5. Repeat step 1 to step 3 for the next instrument.

Program the GPIB instruments (optional)

After communication has been established, you can program your GPIB instruments using the VISA, VISA COM, or SICL interfaces. See "Other References" on page 19 later in this guide for the relevant documentation.

Other References

Related documentation

See the following documents for information related to the 82357B. All documents are available in electronic format by clicking on the IO icon on the Windows taskbar notification area then selecting **Documentation**.

- *Keysight 82357B USB/GPIB Interface User's Guide* describes the 82357B, and provides installation and troubleshooting information.
- *Keysight IO Libraries Connectivity Guide* provides a description of the Keysight IO Libraries and utilities, and detailed installation information.
- *Keysight IO Libraries Suite Online Help* provides detailed usage information on the Keysight IO Libraries Suite utilities, including the Connection Expert.
- *Keysight VISA User's Guide* describes the Keysight Virtual Instrument Software Architecture (VISA) library.
- *Keysight SICL User's Guide for Windows* describes the Keysight Standard Instrument Control Library (SICL) for Windows.

Go to www.keysight.com/find/82357B for additional information on the 82357B.

Contacting Keysight

You can reach Keysight Technologies at this telephone number for the Americas:

Americas Call Center: 1-800-829-4444

For other countries, contact your country's Keysight support organization.

A list of contact information for other countries is available on the Keysight website:
www.keysight.com/find/assist

This information is subject to change without notice. Always refer to the Keysight website for the latest revision.

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