



Agilent 82357B USB/GPIB Interface

Quick Start Guide



Notices

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Safety Symbols

	Caution, risk of danger (refer to this manual for specific Warning or Caution information)
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	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 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.
 N10149	The C-tick mark is a registered trademark of the Spectrum Management Agency of Australia. This signifies compliance with the Australia EMC Framework regulations under the terms of the Radio Communication Act of 1992.
	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.

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.

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. Agilent Technologies, Inc. assumes no liability for the customer's failure to comply with these requirements.

This product is designed for use in compliance with:

- IEC 61010-1:2001/EN 61010-1:2001
- USA: UL61010-1:2004
- Canada: CSA C22.2 No. 61010-1:2004

For further information on safety, refer to the *82357B User's Guide*.

Table of Contents

Introduction

1. Before You Install the 82357B

- Check your shipment items 2
- Check your PC operating system 2

2. Installing Agilent IO Libraries Suite

- Insert the Automation-Ready CD 3
- Install the IO Libraries Suite 3
- Look for circled IO icon 4

3. Connecting the 82357B

- Plug the 82357B into a USB Port 5
- Observe the 82357B LEDs 5

4. Configuring the 82357B

- Observe the Agilent Connection Expert 6
- Configure the 82357B 6

5. Connecting GPIB Instruments

- Connect the 82357B to GPIB instruments 7

6. Programming via the 82357B

- Use the Agilent Interactive IO to communicate with the GPIB instruments 8
- Program the GPIB instruments (optional) 8

Other References

- Related documentation 9
- Contacting Agilent 9

Introduction

This quick start guide shows a suggested six-step process to install the 82357B and the Agilent 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.

**NOTE**

The 82357B USB/GPIB Interface is supported **ONLY** for PCs with Windows XP Professional, Windows Vista, or Windows 7 operating systems.

The operating systems below are specifically not supported:

- Windows 2000
- Windows ME
- Windows 98 (Second Edition)
- Windows 98 First ("Gold") Edition
- Windows 95
- Windows NT 4.0 (OS does not support USB)

In case of difficulty in installing the 82357B, see *Chapter 3, "Troubleshooting the Agilent 82357B"* in the *82357B User's Guide*.

82357B USB/GPIB Interface

1. Before You Install the 82357B

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:

- Agilent 82357B USB/GPIB Interface
- Agilent Automation-Ready CD with Agilent IO Libraries Suite
- Printed copy of the Agilent 82357B USB/GPIB Interface Quick Start Guide

If any item is missing or damaged, keep the shipping materials and contact Agilent Technologies. See “Other References” on page 9 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[®] XP Professional (Service Pack 3 or later)
- Windows Vista[™] (32-bit and 64-bit) Service Pack 1 and 2 — Home Basic, Home Premium, Business, and Ultimate
- Windows 7 (32-bit and 64-bit) — Home Premium, Business, and Ultimate

NOTE

- If you have the Agilent 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.agilent.com/find/82357B>
 - For the full list of the minimum system requirements, see the *82357B User's Guide*.
-

2. Installing Agilent IO Libraries Suite

Insert the Automation-Ready CD

Turn on your PC and insert the Agilent Automation-Ready CD with Agilent IO Libraries Suite into the CD-ROM drive. If the auto-run window does not appear automatically, go to **Start > Run** then type `<drive>:autorun\auto.exe`, where `<drive>` is your CD drive letter.

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. You can download the latest version of IO Libraries Suite from the following site:
<http://www.agilent.com/find/iosuite>

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



82357B USB/GPIB Interface

2. Installing Agilent 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 Agilent IO Libraries.

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

Look for circled IO icon

After the libraries are installed, an IO icon is displayed on the Windows task bar on the bottom-right corner of the screen. 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

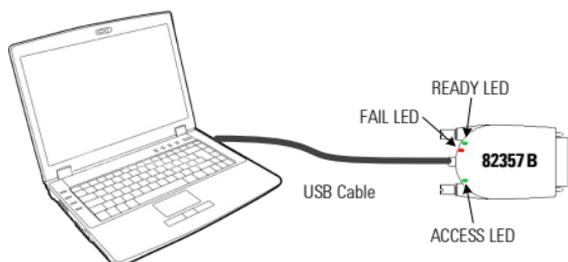
Plug the 82357B into a USB Port

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**

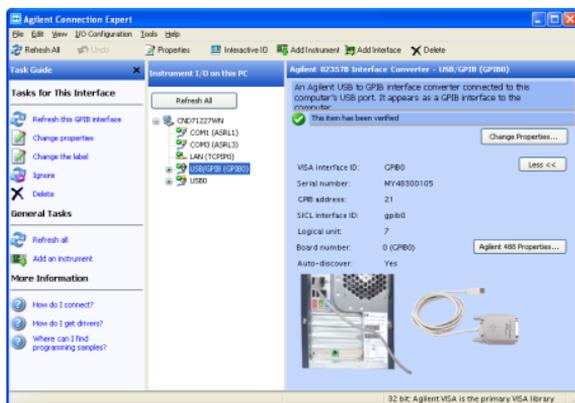
If any LED is not illuminated after 10 seconds, see *Chapter 3, "Troubleshooting the Agilent 82357B"* in the *82357B User's Guide* for more information.

4. Configuring the 82357B

Observe the Agilent Connection Expert

Run the Agilent Connection Expert to verify your I/O configuration: In the Windows Notification area, click the IO icon (IO), then click **Agilent Connection Expert**.

When the main screen appears, you will see a map of the system connections in the Instrument I/O on this PC pane (also called the “Explorer Pane”). At this time, the Connection Expert window should refresh. If it does not refresh automatically, click Refresh All. The 82357B will appear in the Connection Expert explorer 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 **Change Properties...** in the detail pane on the right side of the window.

NOTE

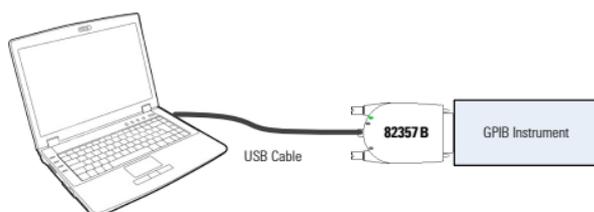
See *Chapter 2, “Using the Agilent 82357B”* in the *82357B User’s Guide* for more information on how to set the configuration parameters.

5. Connecting GPIB Instruments

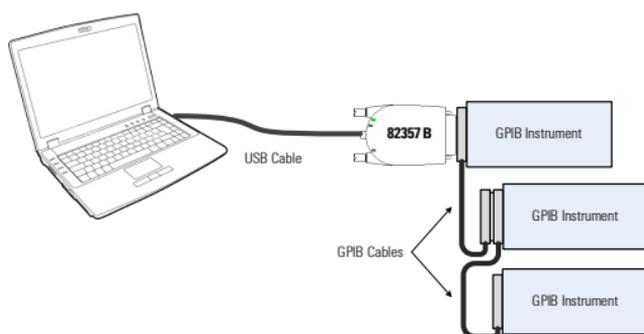
Connect the 82357B to GPIB instruments

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**

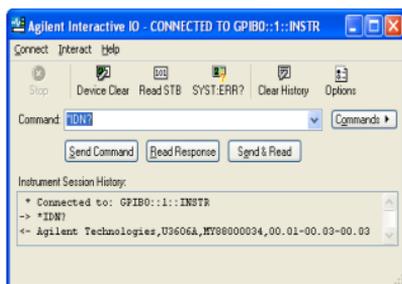
To minimize stress on the connector mountings, stack no more than three cable connector blocks.

6. Programming via the 82357B

Use the Agilent 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 9 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 task bar then selecting **Documentation**.

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

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

Contacting Agilent

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

Americas Call Center: 1- 800- 829- 4444

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

A list of contact information for other countries is available on the Agilent Web site: www.agilent.com/find/assist

82357B USB/GPIB Interface

Other References

www.agilent.com

Contact us

To obtain service, warranty or technical assistance, contact us at the following phone or fax numbers:

United States:

(tel) 800 829 4444 (fax) 800 829 4433

Canada:

(tel) 877 894 4414 (fax) 800 746 4866

China:

(tel) 800 810 0189 (fax) 800 820 2816

Europe:

(tel) 31 20 547 2111

Japan:

(tel) (81) 426 56 7832 (fax) (81) 426 56 7840

Korea:

(tel) (080) 769 0800 (fax) (080) 769 0900

Latin America:

(tel) (305) 269 7500

Taiwan:

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Other Asia Pacific Countries:

(tel) (65) 6375 8100 (fax) (65) 6755 0042

Or visit Agilent World Wide Web at:

www.agilent.com/find/assist

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