

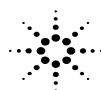
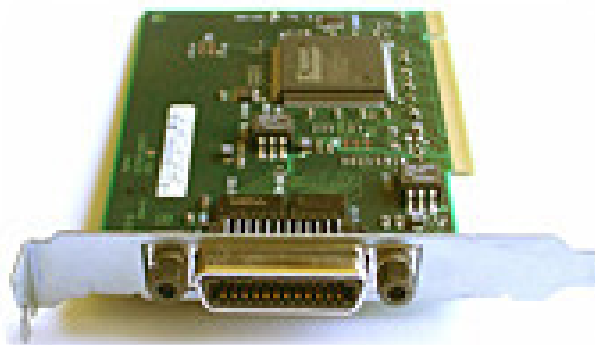
Agilent Technologies

82350B PCI GPIB Interface



IMPORTANT

**Install Agilent IO Libraries Suite Software
Before Installing 82350B in Your PC**



Agilent Technologies

82350B General Information

- ❑ **82350B Related Documentation.** See the following documents for information related to the 82350B. All documents are available in electronic format by clicking the circled **IO** icon on the Windows Notification Area and select **Documentation**.
 - *Agilent 82350B PCI GPIB Interface Installation and Configuration Guide* describes the 82350B and provides installation and troubleshooting information.
 - *Agilent IO Libraries Suite Getting Started 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 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 <http://www.agilent.com/find/82350B> for additional information on the 82350B.

Contacting Agilent

Americas Call Center: 1-800-829-4444

World-Wide Web with Country-Specific Telephone Numbers:

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

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Part Number 82350-90100

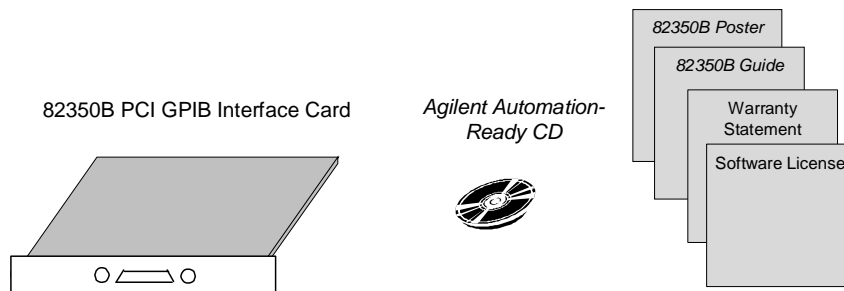
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1 Before You Install the 82350B

- Check Your Shipment Items.** Verify that you received the following items in your shipment of the 82350B GPIB Interface:

- *Agilent 82350B PCI GPIB Interface Card*
- *Automation-Ready CD with Agilent IO Libraries Suite*
- *82350B Getting Started Poster*
- *82350B PCI GPIB Installation and Configuration Guide*
- *82350B Warranty Statement*
- *Software License Agreement*



If items are missing or damaged, contact Agilent Technologies.

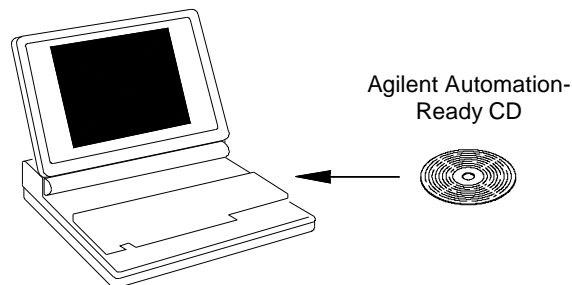
See “General Information” on this poster for telephone and Web contact information.

- Check Your PC Operating System.** To install the 82350B PCI GPIB card, your PC operating system must be one of the following: Windows Vista or Windows XP or Windows 2000.

Note: If the version of the Agilent IO Libraries is less than 15.0, you must install the latest version included on your *Automation-Ready CD* to support the 82350B. If possible, you should always use the current version of the Agilent IO Libraries Suite. This version supports the latest interfaces and operating systems and has the most advanced features.

2 Install Agilent IO Libraries Suite

- ❑ **Insert the CD.** Turn on your PC and insert the *Automation-Ready CD with Agilent IO Libraries Suite* into the CD-ROM drive. If the installer is not automatically activated, click **Start > Run** and type `<drive>:autorun\auto.exe`

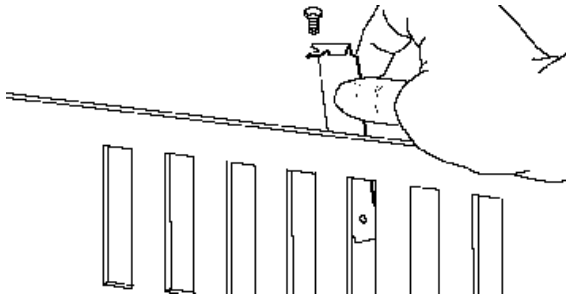


- ❑ **Install the Libraries.** When the Agilent IO Libraries Suite window appears, follow the on-screen instructions to install the libraries. You do not need to run Agilent Connection Expert at this time.
- ❑ **Look for Circled IO Icon.** After the libraries have installed, a circled IO icon is displayed on the Windows Notification Area at the bottom-right corner of the screen. You can click the icon to manually run I/O configuration utilities and to display online documentation. It is not necessary to use the icon at this time.



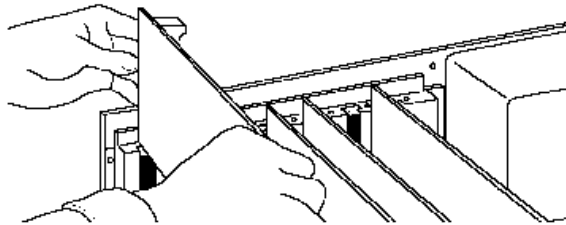
3 Install the 82350B in Your PC

- ❑ **Record the Card Serial Number.** Remove the card from its anti-static bag and record the Serial Number for future reference. Save the anti-static bag so that you can protect the card if you need to remove the card from the PC.
- ❑ **Remove PC Cover.** Turn off power to the PC and all of its peripherals. Remove the power cord from the PC. Remove the cover from the PC to allow access to the I/O slots. See your PC documentation for instructions. *Take precautions against static discharge when handling and installing cards.*



- ❑ **Remove a Cover Plate.** Remove one of the PC back panel cover plates. The 82350B is a 5V PCI card and will not fit in a 3.3V PCI slot or in an EISA or ISA slot. Choose a 5V PCI slot that will give adequate clearance for the GPIB connector.

Insert the card's edge connector into the PCI expansion slot connector of the PC. Make sure the interface is fully seated by pushing firmly on the top edge of the card with the palm of your hand. The GPIB connector should extend through the back panel opening to allow GPIB cable connection. Be sure to hold the card by its edges. Also, be careful with the metal faceplate around the GPIB connector as the faceplate can be bent.



- ❑ **Install the 82350.**

- ❑ **Replace the Cover Plate Screw.** This will hold the 82350 in place. Save the blank cover plate for use if the 82350 is later removed. Replace the PC cover(s) as described in your PC documentation.

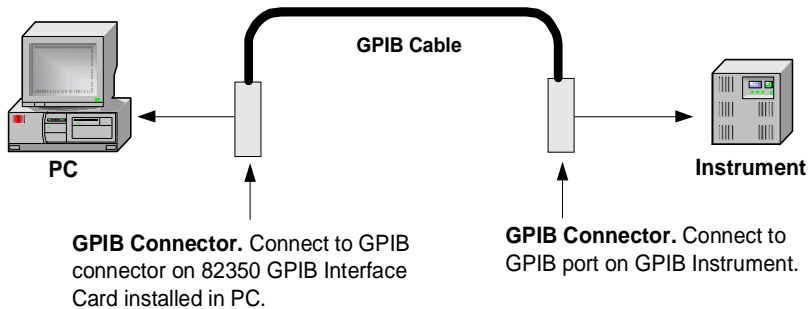
4 Connect GPIB Instruments

- Review Connection Guidelines.**
 - *To minimize stress on connector mountings, stack not more than three cable connector blocks.*
 - *Minimize cable length as much as possible. See the 82350B Installation and Configuration Guide for maximum cable lengths.*

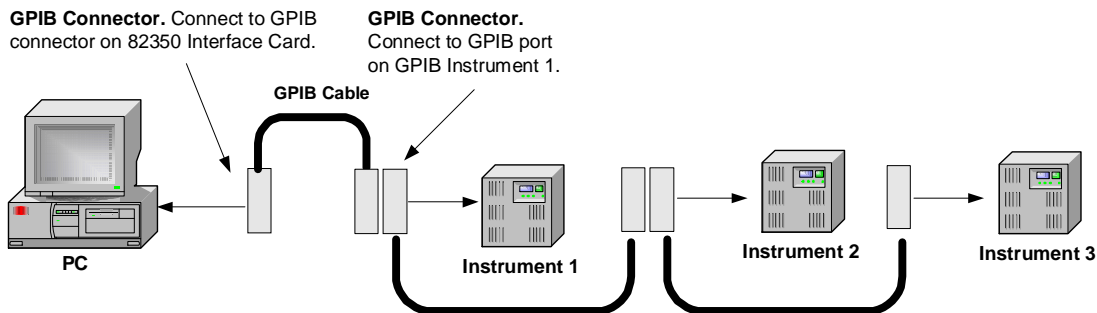
- Connect GPIB Cables to the 82350B.**

Tighten the GPIB connector screws finger-tight only.

Example: Single Instrument Connections

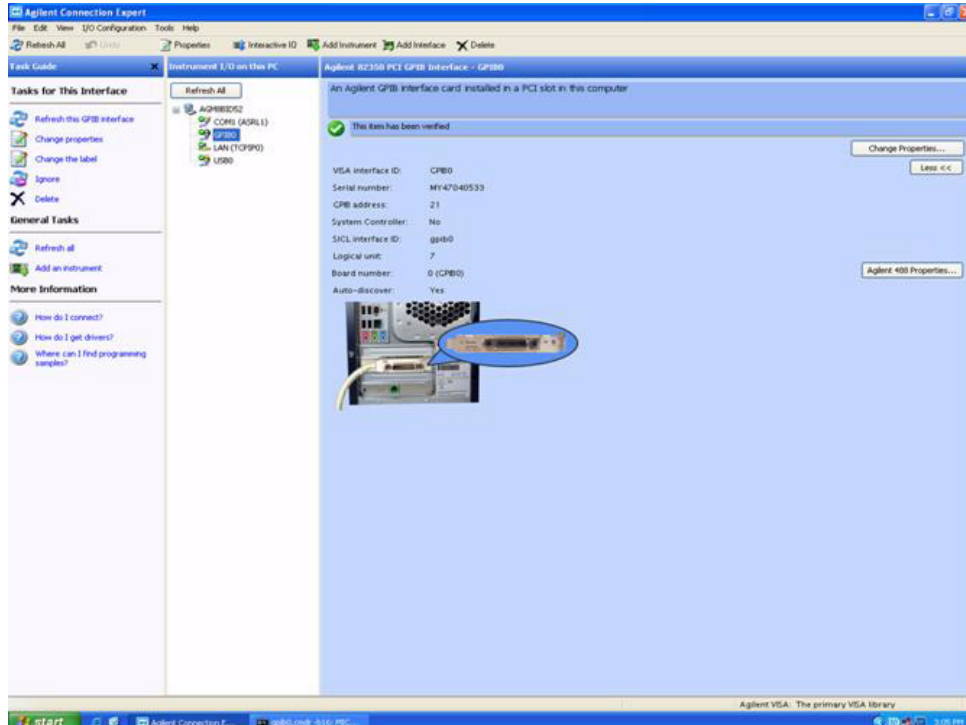


Example: Multiple Instrument Connections



5 Configure 82350B Interface

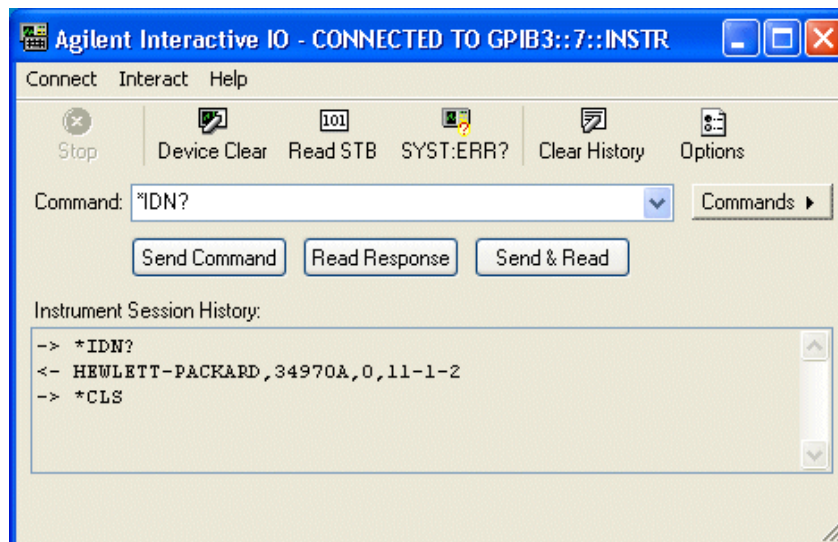
- ❑ **Start Your PC.** You may see a Windows **Found New Hardware** wizard. Click **Next** to step through the wizard. It is not necessary to insert a CD. (This step is not applicable to Windows Vista. When you install the Agilent IO Libraries Suite v15, your driver 82350B will be installed also.)
- ❑ **Start the Agilent Connection Expert.** Click the circled IO icon at the bottom right corner of your screen. Click **Agilent Connection Expert**.
- ❑ **Observe the Agilent Connection Expert.** The 82350B will appear in the Connection Expert explorer as a PCI GPIB interface. Connected instruments will be displayed beneath the interface. At any time, you can click **Refresh All** to update the displayed information.



- ❑ **Configure the 82350B.** Once you see the 82350B displayed in Connection Expert, it has been configured and can be used for programming. **To edit the configuration settings, click **Change Properties...** in the detail pane on the right side of the window.**

6 Program Instruments via 82350B

- ❑ **Use Interactive IO to Communicate with Instruments.** After the 82350B has been connected to GPIB instruments and configured, you can use Interactive IO to establish communication between your PC and GPIB instruments. To run Interactive IO for an IEEE-488.2 compliant instrument:
 1. Click the instrument's icon in the Connection Expert window.
 2. Click **Send Commands To This Instrument** to display Interactive IO.
 3. With the default command, ***IDN?**, displayed in the text box, click the **Send & Read** button.
 4. The instrument identification string should appear.
 5. Repeat Steps 1 - 4 for the next instrument.



- ❑ **Program GPIB Instruments (Optional).** After communication has been established, you can program your GPIB instruments using VISA, VISA COM, or SICL. See **82350B General Information** on this poster for applicable documentation.