

# GPIB Controller for USB

## NI GPIB-USB-B

- Completely IEEE 488.2 compatible
- Controls up to 14 GPIB instruments
- Compact size and light weight
- Plug and Play configuration
- USB 2.0 full-speed signaling – 12 Mb/s
- 880 kB/s maximum transfer rate
- No external power required
- Built-in 2 m USB cable
- No GPIB cable required to connect to instruments
- Compatible with USB 1.1

### Operating Systems

- Windows 2000/XP/Me/98
- Linux

### Recommended Software

- LabVIEW
- LabWindows/CVI
- Measurement Studio

### Driver Software (included)

- NI-488.2



## Overview

The compact National Instruments GPIB-USB-B transforms any computer with a USB port into a full-function, IEEE 488.2 controller that can control up to 14 programmable GPIB instruments. The small size and light weight of the NI GPIB-USB-B make it ideal for portable applications using a laptop computer or other applications in which the computer has no available internal I/O slots. The GPIB-USB-B works with Windows 2000/XP/Me/98 or Linux computers with a USB port.

The GPIB-USB-B is easy to install and use because there are no external DIP switches and you do not need to restart your computer for the system to recognize your IEEE 488.2 interface. The GPIB-USB-B is a plug-and-play interface that the OS automatically recognizes and configures as soon as you physically attach it to the USB port on your computer. With the GPIB-USB-B, you can get up and running quickly, so you can focus on developing your instrument control applications.

Using a TNT family Talker/Listener/Controller IEEE 488.2 ASIC, the GPIB-USB-B implements the full range of GPIB controller functions, including those required and recommended by IEEE 488.2. It also implements normal and extended talker and listener, serial and parallel polling, service requests, and pass/receive control functions. Drawing power directly from the USB port, the GPIB-USB-B requires no external power input.

With NI-488.2, you get a robust driver with additional utilities and wizards that help you troubleshoot your applications and decrease your development time (see Figure 2). Furthermore, you maintain compatibility with existing systems. Applications previously written for other National Instruments GPIB controllers can run unmodified with the GPIB-USB-B.

## Connecting the GPIB-USB-B to Your Instruments

The GPIB-USB-B does not require a GPIB cable for connecting to your instruments. You can attach it directly to the GPIB port on your instrument and then connect the USB cable to the USB port on your computer. If you have multiple instruments in a daisy chain or star configuration, attach any cables that connect to the other instruments first, and then piggyback the GPIB-USB-B as the last connector in the stack.

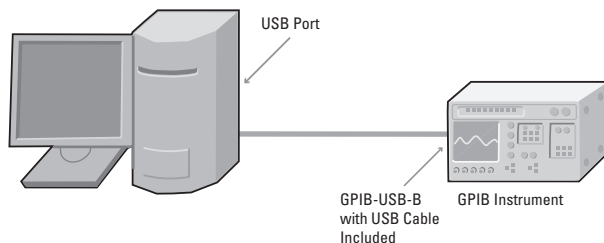
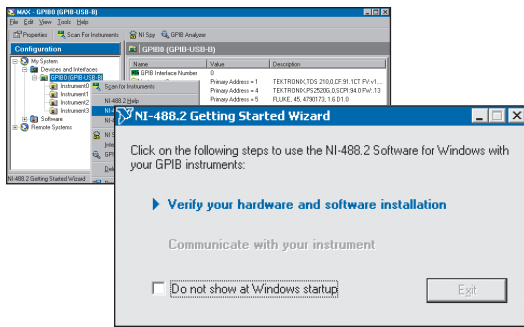


Figure 1. Easily connect your GPIB instruments to the USB port of your computer.

# GPIB Controller for USB

## A. Run the Getting Started Wizard



## B. Communicate with your instrument

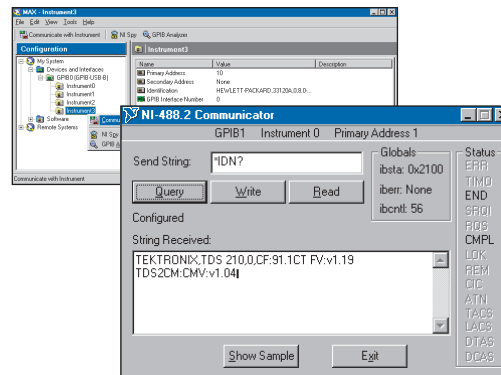


Figure 2. Take these easy steps to get up and running with your instrument communication.

## Ordering Information

GPIB-USB-B and NI-488.2 for	
Windows 2000/XP .....	778416-01
Windows Me/98 .....	779192-01
Linux .....	779354-01
Includes built-in 2 m USB cable.	

## BUY NOW!

For complete product specifications, pricing, and accessory information, call (800) 813 3693 (U.S. only) or go to [ni.com/gpib](http://ni.com/gpib).

## Specifications

### USB Port

Full-speed USB signaling ..... 12 Mb/s

### IEEE 488 Compatibility

IEEE 488.1 and IEEE 488.2 compatible

### Maximum IEEE 488 Bus Transfer Rates

Standard IEEE 488 handshake ..... 880 kB/s

### External Indicators

USB configured, USB active

### Power Requirement

USB self-powered device

Maximum power consumption ..... 200 mA

### Physical

Dimensions ..... 10.7 by 6.6 by 2.6 cm (4.2 by 2.6 by 1.0 in.)

### I/O Connectors

GPIB ..... IEEE 488 standard 24 pin

USB ..... USB standard series A plug

### Operating Environment

Temperature ..... 0 to 55 °C

Relative humidity ..... 10 to 90%, noncondensing

### Storage Environment

Temperature ..... -20 to 70 °C

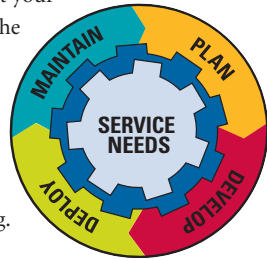
Relative humidity ..... 5 to 95%, noncondensing

### Compliance

Online at [ni.com/compliance](http://ni.com/compliance)

# NI Services and Support

NI has the services and support to meet your needs around the globe and through the application life cycle – from planning and development through deployment and ongoing maintenance. We offer services and service levels to meet customer requirements in research, design, validation, and manufacturing. Visit [ni.com/services](http://ni.com/services).



## Training and Certification

NI training is the fastest, most certain route to productivity with our products. NI training can shorten your learning curve, save development time, and reduce maintenance costs over the application life cycle. We schedule instructor-led courses in cities worldwide, or we can hold a course at your facility. We also offer a professional certification program that identifies individuals who have high levels of skill and knowledge on using NI products. Visit [ni.com/training](http://ni.com/training).

## Professional Services

Our Professional Services Team is comprised of NI applications engineers, NI Consulting Services, and a worldwide NI Alliance Partner Program of more than 600 independent consultants and integrators. Services range from start-up assistance to turnkey system integration. Visit [ni.com/alliance](http://ni.com/alliance).



## OEM Support

We offer design-in consulting and product integration assistance if you want to use our products for OEM applications. For information about special pricing and services for OEM customers, visit [ni.com/oem](http://ni.com/oem).

## Local Sales and Technical Support

In offices worldwide, our staff is local to the country, giving you access to engineers who speak your language. NI delivers industry-leading technical support through online knowledge bases, our applications engineers, and access to 14,000 measurement and automation professionals within NI Developer Exchange forums. Find immediate answers to your questions at [ni.com/support](http://ni.com/support).

We also offer service programs that provide automatic upgrades to your application development environment and higher levels of technical support. Visit [ni.com/ssp](http://ni.com/ssp).

## Hardware Services

### NI Factory Installation Services

NI Factory Installation Services (FIS) is the fastest and easiest way to use your PXI or PXI/SCXI combination systems right out of the box. Trained NI technicians install the software and hardware and configure the system to your specifications. NI extends the standard warranty by one year on hardware components (controllers, chassis, modules) purchased with FIS. To use FIS, simply configure your system online with [ni.com/pxiadvisor](http://ni.com/pxiadvisor).

## Calibration Services

NI recognizes the need to maintain properly calibrated devices for high-accuracy measurements. We provide manual calibration procedures, services to recalibrate your products, and automated calibration software specifically designed for use by metrology laboratories. Visit [ni.com/calibration](http://ni.com/calibration).

## Repair and Extended Warranty

NI provides complete repair services for our products. Express repair and advance replacement services are also available. We offer extended warranties to help you meet project life-cycle requirements. Visit [ni.com/services](http://ni.com/services).



[ni.com](http://ni.com) • (800) 813 3693

National Instruments • [info@ni.com](mailto:info@ni.com)

© 2005 National Instruments Corporation. All rights reserved. CVI, LabVIEW, Measurement Studio, National Instruments Alliance Partner, NI, NI-488.2, ni.com, and SCXI are trademarks of National Instruments. Other product and company names listed are trademarks or trade names of their respective companies. A National Instruments Alliance Partner is a business entity independent from NI and has no agency, partnership, or joint-venture relationship with NI.