

# 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.

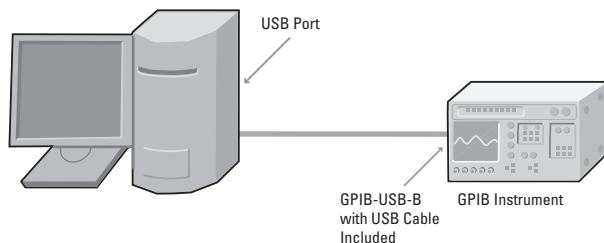
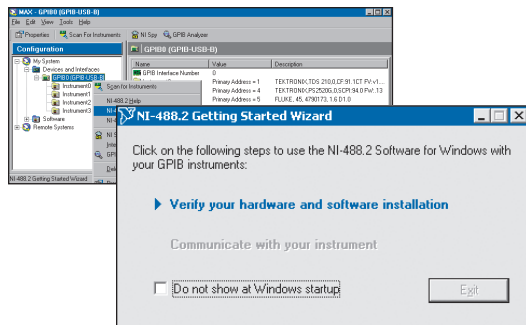


Figure 1. Easily connect your GPIB instruments to the USB port of your computer.



# GPIB Controller for USB

## A. Run the Getting Started Wizard



## B. Communicate with your instrument

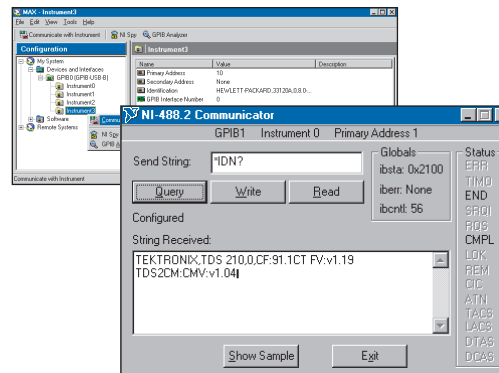


Figure 2. Take these easy steps to get up and running with your instrument communication.

## 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

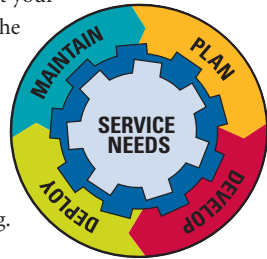
Relative humidity ..... 5 to 95%, noncondensing

### Compliance

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

# NI Services and Support

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## Hardware Services

### NI Factory Installation Services

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### Repair and Extended Warranty

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