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GPIB

Using Your NI-488.2™ Software for DOS or Windows 3 with Windows 95/98

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Customer Communication

About This Manual

This manual contains instructions to help you use your current National Instruments GPIB interfaces and your NI-488.2 software for DOS or Windows with Windows 95 or Windows 98.

This manual assumes that you are already familiar with DOS or Windows, and with Windows 95 or Windows 98.

Conventions Used in This Manual

The following conventions are used in this manual:

» The **»** symbol leads you through nested menu items and dialog box options to a final action. The sequence **File»Page Setup»Options»Substitute Fonts** directs you to open the **File** menu, select the **Page Setup** item, select **Options**, and finally select the **Substitute Fonts** option from the last dialog box.

☞ This icon to the left of bold italicized text denotes a note, which alerts you to important information.

bold Bold text denotes the names of menus, menu items, parameters, dialog boxes, dialog box buttons or options, icons, windows, Windows tabs, or LEDs.

bold italic Bold italic text denotes a note.

italic Italic text denotes variables, emphasis, a cross reference, or an introduction to a key concept. This font also denotes text from which you supply the appropriate word or value, as in Windows 3.*x*.

`monospace` Text in this font denotes text or characters that you should literally enter from the keyboard, sections of code, programming examples, and syntax examples. This font is also used for the proper names of disk drives, paths, directories, programs, subprograms, subroutines, device names, functions, operations, variables, filenames and extensions, and for statements and comments taken from programs.

monospace bold	Bold text in this font denotes the messages and responses that the computer automatically prints to the screen. This font also emphasizes lines of code that are different from the other examples.
monospace italic	Italic text in this font denotes that you must enter the appropriate words or values in the place of these items.

Related Documentation

The following documents contain information that you may find helpful as you read this manual:

- ANSI/IEEE Standard 488.1-1987, *IEEE Standard Digital Interface for Programmable Instrumentation*
- ANSI/IEEE Standard 488.2-1992, *IEEE Standard Codes, Formats, Protocols, and Common Commands*
- *Microsoft MS-DOS User's Guide*, Microsoft Corporation
- *Microsoft Windows User's Guide*, Microsoft Corporation
- Your Microsoft Windows 95/98 documentation

You may also need to refer to the getting started manuals that came with your National Instruments GPIB interfaces.

Customer Communication

National Instruments wants to receive your comments on our products and manuals. We are interested in the applications you develop with our products, and we want to help if you have problems with them. To make it easy for you to contact us, this manual contains comment and configuration forms for you to complete. These forms are in Appendix A, *Customer Communication*, at the end of this manual.

Chapter 1

AT-GPIB

Follow the instructions in this section to use the AT-GPIB and the NI-488.2 software for DOS or Windows 3 with Windows 95/98. Refer to your AT-GPIB getting started manual for additional information about the hardware installation.

What You Need to Get Started

- ❑ *Compatibility Release for the NI-488.2 Software for DOS and Windows 3 with Windows 95/98* disk
- ❑ One of the following disks:
  - *NI-488.2 Software for Windows and the AT-GPIB/TNT+, AT-GPIB/TNT(PnP), EISA-GPIB and AT-GPIB/TNT*

  or
  - *NI-488.2 Software for DOS and the AT-GPIB/TNT+, AT-GPIB/TNT(PnP), EISA-GPIB and AT-GPIB/TNT*
- ❑ Microsoft Windows 95 or Windows 98 installed on your computer
- ❑ AT-GPIB getting started manual for additional information about the hardware installation

Install the Hardware and Software

1. Reserve the resources (I/O, DMA, IRQ) to be used by the AT-GPIB hardware.
   a. Double-click on the **System** icon in the **Control Panel**. You can open the **Control Panel** by choosing **Start»Settings»Control Panel**.
   b. In the **System Properties** dialog box that appears, click on the **Device Manager** tab.
   c. Double-click on the **Computer** icon to bring up the **Computer Properties** dialog box.

d. Select the **View Resources** tab to determine which resources (I/O, IRQ, DMA) are available.

e. Switch to the **Reserve Resources** tab and select **Add** to add specific I/O, IRQ, and DMA resources. You must reserve I/O space for the hardware. Reserving an IRQ level and a DMA channel is optional. However, the software performs better if it is able to use both DMA and interrupts.

   – The AT-GPIB I/O address must be in the range 0x100 to 0x3E0. 0x20 bytes of contiguous I/O address space are required. For example, if you are selecting a base I/O address of 0x2C0, enter 2C0 for the **Start Value** and enter 2DF for the **End Value**.

   – The options for the DMA channel are 5, 6, 7, or none.

   – The options for the IRQ level are 3, 4, 5, 6, 7, 9, 10, 11, 12, 14, 15, or none.

f. Click on the **OK** button to exit the **Computer Properties** dialog box.

g. Click on the **No** button in the **System Settings Change** dialog box.

h. Close the **Control Panel**.

2. Configure the jumpers and DIP switches on the AT-GPIB to reflect the reserved I/O, IRQ and DMA settings. Refer to your getting started manual for information about configuring the hardware.

3. Complete the following steps to shut down Windows and install the new hardware:

   a. Select **Shut Down** from the **Start** menu.

   b. In the **Shut Down Windows** dialog box, select the **Shut down the computer?** option, then click on the **Yes** button.

   c. When the screen displays the message **It's now safe to turn off your computer**, power off the computer.

   d. Insert the AT-GPIB hardware. Refer to your AT-GPIB getting started manual for installation instructions.

4. Power on the computer.

5. DOS only: Create a **DOS Only Prompt** shortcut to run the NI-488.2 for DOS utilities rather than using the DOS Shell from the **Start»Program»MS-DOS Prompt** menu. Many NI-488.2 software utilities are combined DOS/Win16 applications. By default, Windows runs such combined applications in Win16 mode when executing them

in a standard MS-DOS shell. For NI-488.2 for DOS, these combined applications must be run in DOS mode. Therefore, you need to create a special **DOS Only Prompt** in which to run the NI-488.2 for DOS utilities. Complete the following steps to create the **DOS Only Prompt** shortcut:

a. Right-click on the desktop and select **New**. From the **New** menu list, select the **Shortcut** item. The **Create Shortcut** dialog box appears.

b. Click on the **Browse** button. Find the **Dosprmpt** item in the Windows directory (usually `c:\windows`) and double-click on it. This initializes **Command Line** correctly and returns you to the **Create Shortcut** dialog box.

c. Click on the **Next** button and rename the shortcut icon to **DOS Only Prompt**.

d. Click on the **Finish** button to close the **Create Shortcut** dialog box. The **DOS Only Prompt** icon should appear on the desktop.

e. Right-click on the **DOS Only Prompt** icon and select the **Properties** menu item.

f. Select the **Program** tab and click on the **Advanced** button. The **Advanced Program Settings** dialog box appears.

g. Select the first item, **Prevent MS-DOS-based programs from detecting Windows**. The **Suggest MS-DOS mode as necessary** item should also be selected. Click on the **OK** button to exit the dialog box.

h. Click on the **OK** button to exit the **DOS Only Prompt Properties** dialog box.

6. Install the appropriate DOS or Windows NI-488.2 software for the AT-GPIB from your floppy drive.

   a. For DOS, complete the following steps:

      1. Close all open applications.
      2. Double-click on the **DOS Only Prompt** icon.
      3. Insert the *NI-488.2 Software for DOS and the AT-GPIB/TNT+, AT-GPIB/TNT(PnP), EISA-GPIB, and AT-GPIB/TNT* into your floppy drive.
      4. At the DOS prompt, type *x*`:\install` (where *x* is the letter of your floppy drive).

b. For Windows, complete the following steps:

1. Select **Run** from the **Start** menu.
2. Insert the *NI-488.2 Software for Windows and the AT-GPIB/TNT+, AT-GPIB/TNT(PnP), EISA-GPIB, and AT-GPIB/TNT* into your floppy drive.
3. Type *x*`:\setup` (where *x* is the letter of your floppy drive).

c. To run Win32 GPIB applications, copy the `gpib-32.dll` and `gpib-16.dll` files from the *Compatibility Release for the NI-488.2 Software for DOS and Windows 3 with Windows 95/98* disk into your Windows system directory (usually `c:\windows\system`).

7. Restart Windows.
   a. Select **Shut Down** from the **Start** menu.
   b. In the **Shut Down Windows** dialog box, click on the **Restart the Computer?** option, then click on the **Yes** button.
8. Configure the software to use an AT-GPIB with the proper I/O, DMA and IRQ settings.
   a. For DOS, complete the following steps:
      1. Close all open applications.
      2. Double-click on the **DOS Only Prompt** icon and switch into the directory where the NI-488.2 software for DOS was installed.
      3. Type `ibconf` to run the configuration utility.
   b. For Windows, double-click on the **GPIB** icon in the **Control Panel**. You can open the **Control Panel** by choosing **Start»Settings»Control Panel**.
9. Restart Windows.
   a. Select **Shut Down** from the **Start** menu.
   b. In the **Shut Down Windows** dialog box, click on the **Restart the Computer?** option, then click on the **Yes** button.
10. Run the diagnostic tests.
    a. For DOS, complete the following steps:
       1. Close all open applications.
       2. Double-click on the **DOS Only Prompt** icon and switch into the directory where the NI-488.2 software for DOS was installed.

3. Type `ibdiag` to run the hardware diagnostic test. If `ibdiag` fails because of a DMA problem, go back to step 8 and disable DMA. If `ibdiag` fails because of an interrupt problem, go back to step 8 and disable IRQ.
4. After `ibdiag` completes successfully, type `ibtest` to run the software diagnostic test. If `ibtest` completes successfully, the software and hardware are properly installed.

b. For Windows, complete the following steps:

1. Choose **Start»Programs»NI-488.2 GPIB Software**.
2. From the list that appears, select **Hardware Diagnostic Test**. If the test fails because of a DMA problem, go back to step 8 and disable DMA. If the test fails because of an interrupt problem, go back to step 8 and disable IRQ.
3. After the **Hardware Diagnostic Test** completes successfully, bring up the list again and select **Software Diagnostic Test**. If both of these tests complete successfully, the software and hardware are properly installed.

11. (Optional) Run the interactive control utility.

a. For DOS, complete the following steps:

1. Close all open applications.
2. Double-click on the **DOS Only Prompt** icon and switch into the directory where the NI-488.2 software for DOS was installed.
3. Type `ibic` to run the interactive control utility.

b. For Windows, complete the following steps:

1. Choose **Start»Programs»NI-488.2 GPIB Software**.
2. From the list that appears, select **Win16 Interactive Control** to run the Win16 version of the utility, or select **Win32s Interactive Control** to run the Win32 version of the utility.

Chapter 2

GPIB-232/485CT-A

Follow the instructions in this section to use the GPIB-232CT-A or GPIB-485CT-A and the NI-488.2 software for DOS or Windows 3 with Windows 95/98.

What You Need to Get Started

- ❑ *Compatibility Release for the NI-488.2 Software for DOS and Windows 3 with Windows 95/98* disk
- ❑ One of the following disks:
  - – *NI-488.2 Software for Windows and the GPIB-232/485CT-A* disk

  or
  - – *NI-488.2 Software for DOS and the GPIB-232/485CT-A* disk
- ❑ Microsoft Windows 95 or Windows 98 installed on your computer
- ❑ GPIB-232/485CT-A getting started manual for additional information about the hardware installation

Install the Hardware and Software

1. Select an available COM resource for the GPIB-232/485CT-A hardware. The GPIB-232/485CT-A driver does not configure, acquire, or use hardware resources other than COM port designations. COM1 through COM4 have standard base addresses and IRQ configurations. Other COM ports, if available, are configured either through Windows or through third party serial driver vendor utilities.
   a. Double-click on the **System** icon in the **Control Panel**. You can open the **Control Panel** by choosing **Start»Settings»Control Panel**.
   b. In the **System Properties** dialog box that appears, click on the **Device Manager** tab.

c. Double-click on the **Ports (COM & LPT)** item. The screen displays a list of COM ports that are set up in Windows.

d. Choose an unused COM port from those that are set up. Connect that COM port to the GPIB-232/485CT-A hardware with your serial cable.

e. Click on the **OK** button to exit the **System Properties** dialog box.

f. Close the **Control Panel**.

2. DOS only: Create a **Strictly DOS** shortcut. The **Strictly DOS** shortcut shuts down Windows and gives you a DOS prompt. You must use this shortcut to run the NI-488.2 software for DOS and the GPIB-232/485CT-A. When you are finished using the software and hardware, you can simply type `exit` to restart Windows. The NI-488.2 software for DOS and the GPIB-232/485CT-A cannot be used in a standard DOS shell in Windows because Windows virtualizes the COM hardware. Complete the following steps to create the **Strictly DOS** shortcut:

   a. Right-click on the desktop and select **New**. From the **New** menu list, select the **Shortcut** item. The **Create Shortcut** dialog box appears.

   b. Click on the **Browse** button. Find the **Dosprmpt** item in the Windows directory (usually `c:\windows`) and double-click on it. This initializes **Command Line** correctly and returns you to the **Create Shortcut** dialog box.

   c. Click on the **Next** button and rename the shortcut icon to **Strictly DOS**.

   d. Click on the **Finish** button to close the **Create Shortcut** dialog box. The **Strictly DOS** icon should appear on the desktop.

   e. Right-click on the **Strictly DOS** icon and select the **Properties** menu item.

   f. Select the **Program** tab and click on the **Advanced** button. The **Advanced Program Settings** dialog box appears.

   g. Select **MS-DOS mode**. The **Use current MS-DOS configuration** item should also be selected. Click on the **OK** button to exit the dialog box.

   h. Click on the **OK** button to exit the **Strictly DOS Properties** dialog box.

3. Install the appropriate DOS or Windows NI-488.2 software for the GPIB-232/485CT-A from your floppy drive.
   a. For DOS, complete the following steps:
      1. Close all open applications.
      2. Double-click on the **Strictly DOS** icon. Windows shuts down and gives you a DOS prompt.
      3. Insert the *NI-488.2 Software for DOS and the GPIB-232/485CT-A* into your floppy drive.
      4. At the DOS prompt, type *x*`:\install` (where *x* is the letter of your floppy drive).
   b. For Windows, complete the following steps:
      1. Select **Run** from the **Start** menu.
      2. Insert the *NI-488.2 Software for Windows and the GPIB-232/485CT-A* into your floppy drive.
      3. Type *x*`:\setup` (where *x* is the letter of your floppy drive).
   c. To run Win32 GPIB applications in Windows 95 or Windows 98, copy the `gpib-32.dll` and `gpib-16.dll` files from the *Compatibility Release for the NI-488.2 Software for DOS and Windows 3 with Windows 95/98* disk into your Windows system directory (usually `c:\windows\system`).
4. Configure the GPIB-232/485CT-A for the selected COM port.
   a. For DOS, complete the following steps:
      1. Close all open applications.
      2. Double-click on the **Strictly DOS** icon and switch into the directory where the NI-488.2 software for DOS was installed.
      3. Type `ibconf` to run the configuration utility.
   b. For Windows, double-click on the **GPIB** icon in the **Control Panel**. You can open the **Control Panel** by choosing **Start»Settings»Control Panel**. Skip to step 6 after the configuration utility runs.

5. DOS only: Reboot your computer in order for gpib.com to load and for any changes to take effect.
   a. Type `exit` to return to Windows.
   b. Restart Windows:
      1. Select **Shut Down** from the **Start** menu.
      2. In the **Shut Down Windows** dialog box, click on the **Restart the Computer?** option, then click on the **Yes** button.
6. Run the software diagnostic test.
   a. For DOS, complete the following steps:
      1. Close all open applications.
      2. Double-click on the **Strictly DOS** icon and switch into the directory where the NI-488.2 software for DOS was installed.
      3. Type `ibtest` to run the software diagnostic test. If `ibtest` fails, refer to the *Installation Verification and Troubleshooting* chapter of the *Getting Started with Your GPIB-232/485CT-A and the NI-488.2 Software for DOS* manual. If you are using third party COM ports, you may need to refer to the manual that came with your COM port hardware.
   b. For Windows, complete the following steps:
      1. Choose **Start»Programs»NI-488.2 GPIB Software**.
      2. From the list that appears, select **Software Diagnostic Test**. If the test fails, refer to the *Installation Verification and Troubleshooting* chapter of the *Getting Started with Your GPIB-232/485CT-A and the NI-488.2 Software for Windows* manual. If you are using third party COM ports, you may need to refer to the manual that came with your COM port hardware.

7. (Optional) Run the interactive control utility.
   a. For DOS, complete the following steps:
      1. Close all open applications.
      2. Double-click on the **Strictly DOS** icon and switch into the directory where the NI-488.2 software for DOS was installed.
      3. Type `ibic` to run the interactive control utility.
   b. For Windows, complete the following steps:
      1. Choose **Start»Programs»NI-488.2 GPIB Software**.
      2. From the list that appears, select **Win16 Interactive Control** to run the Win16 version of the utility, or select **Win32s Interactive Control** to run the Win32 version of the utility.

Chapter 3

GPIB-1284CT

Follow the instructions in this section to use the GPIB-1284CT and the NI-488.2 software for DOS or Windows 3 with Windows 95/98.

What You Need to Get Started

- ❑ *Compatibility Release for the NI-488.2 Software for DOS and Windows 3 with Windows 95/98* disk
- ❑ One of the following disks:
  - – *NI-488.2 for Windows Distribution Disk for the GPIB-1284CT* disk

  or
  - – *NI-488.2 for DOS Distribution Disk for the GPIB-1284CT* disk
- ❑ Microsoft Windows 95 or Windows 98 installed on your computer
- ❑ GPIB-1284CT getting started manual for additional information about the hardware installation

Install the Hardware and Software

☞ **Note** ***For the*** *Compatibility Release for the NI-488.2 Software in Windows 95/98****, you cannot use the GPIB-1284CT and pass-through printing at the same time. This is because Windows virtualizes the LPT ports, thereby preventing simultaneous use of the LPT port by the printer and the GPIB-1284CT driver. If you alternate between using the GPIB-1284CT for pass-through printing and using it for GPIB access, you should not have any problems.***

1. Select an available LPT resource for the GPIB-1284CT hardware. The GPIB-1284CT driver does not configure, acquire, or use hardware resources other than LPT port designations. LPTs have standard base addresses.
   a. Double-click on the **System** icon in the **Control Panel**. You can open the **Control Panel** by choosing **Start»Settings»Control Panel**.
   b. In the **System Properties** dialog box that appears, click on the **Device Manager** tab.
   c. Double-click on the **Ports (COM & LPT)** item. The screen displays a list of printer ports that are set up in Windows.
   d. Choose an unused LPT port from those that are set up. Connect that port to the GPIB-1284CT hardware with your parallel cable.
   e. Click on the **OK** button to exit the **System Properties** dialog box.
   f. Close the **Control Panel**.
2. DOS only: Create a **DOS Only Prompt** shortcut to run the NI-488.2 for DOS utilities rather than using the DOS shell from the **Start»Programs»MS-DOS Prompt** menu. Many NI-488.2 software utilities are combined DOS/Win16 applications. By default, Windows runs such combined applications in Win16 mode when executing them in a standard MS-DOS shell. For NI-488.2 for DOS, these combined applications must be run in DOS mode. Therefore, you must create a special **DOS Only Prompt** in which to run the NI-488.2 for DOS utilities. Complete the following steps to create the **DOS Only Prompt** shortcut:
   a. Right-click on the desktop and select **New**. From the **New** menu list, select **Shortcut**. The **Create Shortcut** dialog box appears.
   b. Click on the **Browse** button. Find the **Dosprmpt** item in the Windows directory (usually `c:\windows`) and double-click on it. This initializes **Command Line** correctly and returns you to the **Create Shortcut** dialog box.
   c. Click on the **Next** button and rename the shortcut icon to **DOS Only Prompt**.
   d. Click on the **Finish** button to close the **Create Shortcut** dialog box. The **DOS Only Prompt** icon should appear on the desktop.
   e. Right-click on the **DOS Only Prompt** icon and select the **Properties** menu item.
   f. Select the **Program** tab and click on the **Advanced** button. The **Advanced Program Settings** dialog box appears.

g. Select the first item, **Prevent MS-DOS-based programs from detecting Windows**. The **Suggest MS-DOS mode as necessary** item should also be selected. Click on the **OK** button to exit the dialog box.

h. Click on the **OK** button to exit the **DOS Only Prompt Properties** dialog box.

3. Install the appropriate DOS or Windows NI-488.2 software for the GPIB-1284CT from your floppy drive.

   a. For DOS, complete the following steps:

      1. Close all open applications.
      2. Double-click on the **DOS Only Prompt** icon.
      3. Insert the *NI-488.2 for DOS Distribution Disk for the GPIB-1284CT* into your floppy drive.
      4. At the DOS prompt, type *x*`:\install` (where *x* is the letter of your floppy drive).

   b. For Windows, complete the following steps:

      1. Select **Run** from the **Start** menu.
      2. Insert the *NI-488.2 for Windows Distribution Disk for the GPIB-1284CT* disk into your floppy drive.
      3. Type *x*`:\setup` (where *x* is the letter of your floppy drive).

   c. To run Win32 GPIB applications in Windows, copy the `gpib-32.dll` and `gpib-16.dll` files from the *Compatibility Release for the NI-488.2 Software for DOS and Windows 3 with Windows 95/98* disk into your Windows system directory (usually `c:\windows\system`).

4. Configure the software to use a GPIB-1284CT with the proper `Parallel port number`, `Type of parallel port`, and `Interrupt Level` settings.
   a. For DOS, complete the following steps:
      1. Close all open applications.
      2. Double-click on the **DOS Only Prompt** icon and switch into the directory where the NI-488.2 software for DOS was installed.
      3. Type `ibconf` to run the configuration utility.
   b. For Windows, complete the following steps:
      1. Choose **Programs** from the **Start** menu and select **MS-DOS Prompt**.
      2. Switch into the directory where the NI-488.2 software for Windows was installed.
      3. To run the configuration utility, type:

         `wibconf` *`x`*`:\`*`path`*`\gpib.ini`

         where *`x`* is the drive and *`path`* is the path of the Windows directory (usually `c:\windows`).
5. Restart Windows:
   a. Select **Shut Down** from the **Start** menu.
   b. In the **Shut Down Windows** dialog box, click on the **Restart the Computer?** option, then click on the **Yes** button.
6. Run the diagnostic tests.
   a. For DOS, complete the following steps:
      1. Close all open applications.
      2. Double-click on the **DOS Only Prompt** icon and switch into the directory where the NI-488.2 software for DOS was installed.
      3. Type `ibdiag` to run the hardware diagnostic test. If `ibdiag` fails because of an interrupt problem, go back to step 4 and disable the interrupt level.
      4. After `ibdiag` completes successfully, type `ibtest` to run the software diagnostic test. If `ibtest` completes successfully, the software and hardware are properly installed.

b. For Windows, complete the following steps:

1. Choose **Start»Programs»Gpib**.
2. From the list that appears, select **ibdiag**. If the test fails because of an interrupt problem, go back to step 4 and disable the interrupt level.
3. After **ibdiag** completes successfully, bring up the list again and select **wibtest**. If this test completes successfully, the software and hardware are properly installed.

7. (Optional) Run the interactive control utility.

a. For DOS, complete the following steps:

1. Close all open applications.
2. Double-click on the **DOS Only Prompt** icon and switch into the directory where the NI-488.2 software for DOS was installed.
3. Type `ibic` to run the interactive control utility.

b. For Windows, complete the following steps:

1. Choose **Start»Programs»Gpib**.
2. From the list that appears, select **wibic** to run the interactive control utility.

Customer Communication

Appendix
A

For your convenience, this appendix contains forms to help you gather the information necessary to help us solve your technical problems and a form you can use to comment on the product documentation. When you contact us, we need the information on the Technical Support Form and the configuration form, if your manual contains one, about your system configuration to answer your questions as quickly as possible.

National Instruments has technical assistance through electronic, fax, and telephone systems to quickly provide the information you need. Our electronic services include a bulletin board service, an FTP site, a fax-on-demand system, and e-mail support. If you have a hardware or software problem, first try the electronic support systems. If the information available on these systems does not answer your questions, we offer fax and telephone support through our technical support centers, which are staffed by applications engineers.

Electronic Services

Bulletin Board Support

National Instruments has BBS and FTP sites dedicated for 24-hour support with a collection of files and documents to answer most common customer questions. From these sites, you can also download the latest instrument drivers, updates, and example programs. For recorded instructions on how to use the bulletin board and FTP services and for BBS automated information, call 512 795 6990. You can access these services at:

United States: 512 794 5422
Up to 14,400 baud, 8 data bits, 1 stop bit, no parity

United Kingdom: 01635 551422
Up to 9,600 baud, 8 data bits, 1 stop bit, no parity

France: 01 48 65 15 59
Up to 9,600 baud, 8 data bits, 1 stop bit, no parity

FTP Support

To access our FTP site, log on to our Internet host, `ftp.natinst.com`, as `anonymous` and use your Internet address, such as `joesmith@anywhere.com`, as your password. The support files and documents are located in the `/support` directories.

Fax-on-Demand Support

Fax-on-Demand is a 24-hour information retrieval system containing a library of documents on a wide range of technical information. You can access Fax-on-Demand from a touch-tone telephone at 512 418 1111.

E-Mail Support (Currently USA Only)

You can submit technical support questions to the applications engineering team through e-mail at the Internet address listed below. Remember to include your name, address, and phone number so we can contact you with solutions and suggestions.

`support@natinst.com`

Telephone and Fax Support

National Instruments has branch offices all over the world. Use the list below to find the technical support number for your country. If there is no National Instruments office in your country, contact the source from which you purchased your software to obtain support.

Country	Telephone	Fax
Australia	03 9879 5166	03 9879 6277
Austria	0662 45 79 90 0	0662 45 79 90 19
Belgium	02 757 00 20	02 757 03 11
Brazil	011 288 3336	011 288 8528
Canada (Ontario)	905 785 0085	905 785 0086
Canada (Québec)	514 694 8521	514 694 4399
Denmark	45 76 26 00	45 76 26 02
Finland	09 725 725 11	09 725 725 55
France	01 48 14 24 24	01 48 14 24 14
Germany	089 741 31 30	089 714 60 35
Hong Kong	2645 3186	2686 8505
Israel	03 6120092	03 6120095
Italy	02 413091	02 41309215
Japan	03 5472 2970	03 5472 2977
Korea	02 596 7456	02 596 7455
Mexico	5 520 2635	5 520 3282
Netherlands	0348 433466	0348 430673
Norway	32 84 84 00	32 84 86 00
Singapore	2265886	2265887
Spain	91 640 0085	91 640 0533
Sweden	08 730 49 70	08 730 43 70
Switzerland	056 200 51 51	056 200 51 55
Taiwan	02 377 1200	02 737 4644
United Kingdom	01635 523545	01635 523154
United States	512 795 8248	512 794 5678

Technical Support Form

Photocopy this form and update it each time you make changes to your software or hardware, and use the completed copy of this form as a reference for your current configuration. Completing this form accurately before contacting National Instruments for technical support helps our applications engineers answer your questions more efficiently.

If you are using any National Instruments hardware or software products related to this problem, include the configuration forms from their user manuals. Include additional pages if necessary.

Name _____

Company _____

Address _____

_____

Fax (___) _____Phone (___) _____

Computer brand_____ Model _____Processor_____

Operating system (include version number) _____

Clock speed _____MHz RAM _____MB Display adapter _____

Mouse ___yes ___no Other adapters installed_____

Hard disk capacity _____MB Brand_____

Instruments used _____

_____

National Instruments hardware product model _____ Revision _____

Configuration _____

National Instruments software product _____ Version _____

Configuration _____

The problem is: _____

_____

_____

_____

_____

List any error messages: _____

_____

_____

The following steps reproduce the problem: _____

_____

_____

_____

_____

Documentation Comment Form

National Instruments encourages you to comment on the documentation supplied with our products. This information helps us provide quality products to meet your needs.

Title: *Using Your NI-488.2™ Software for DOS or Windows 3 with Windows 95/98*

Edition Date: June 1998

Part Number: 321011C-01

Please comment on the completeness, clarity, and organization of the manual.

_____

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If you find errors in the manual, please record the page numbers and describe the errors.

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Thank you for your help.

Name _____

Title _____

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