



VXIpc-486™ Documentation Notice: AT-GPIB and AT&T UNIX Compatibility

The built-in GPIB Talker/Listener/Controller port on your VXIpc-486 module is compatible with the National Instruments AT-GPIB plug-in board, the industry-standard GPIB interface for PC AT computers. Your VXIpc-486 port uses the same GPIB hardware circuitry as the AT-GPIB, including the NAT4882™ and Turbo488® custom ASICs. These custom ASICs give your VXIpc-486, like the AT-GPIB, the highest possible GPIB performance, capable of achieving the maximum possible GPIB data transfer rate of 1 Mbyte/sec for both reads and writes. In addition, your VXIpc-486, like the AT-GPIB, is 100 percent compatible with IEEE-488.2 and SCPI (Standard Commands for Programmable Instruments). To summarize, this means that the NI-488M™ AT&T UNIX driver software for the AT-GPIB is compatible with the GPIB port on your VXIpc-486.

Because the GPIB port on your VXIpc-486 is compatible with the AT-GPIB, we have included a manual entitled *Getting Started with Your AT-GPIB and the NI-488M Software for AT&T UNIX System V* (part number 320463-01). The GPIB port is built into your VXIpc-486, however, so not all of the information in the AT-GPIB Getting Started manual is relevant to your kit. For example, you can disregard the information about the AT-GPIB kit contents given in Chapter 1, *Introduction*. In addition, the installation procedure for the AT-GPIB given in Chapter 2, *Hardware Installation*, does not apply to your VXIpc-486.

Chapter 3, *Software Installation and Configuration*, contains step-by-step instructions for changing the software configuration settings for an AT-GPIB board. This information is not relevant to your kit, because the settings for your VXIpc-486 are fixed in hardware and cannot be changed. On your VXIpc-486, the base I/O address is fixed at 180 (hex), the DMA channel is fixed at 5, and the interrupt line (IRQ) is fixed at 11. Notice that the base I/O address is different from the default setting for an AT-GPIB, which is shown in Table 3-1. Some UNIX kernels may contain the Adaptec SCSI driver, which also uses interrupt vector number 11 and DMA channel 5. On these systems, because the VXIpc-486 uses these settings, you would be unable to load the Adaptec driver. If you ordered your VXIpc-486 from National Instruments with the AT&T UNIX operating system already installed, the NI-488M driver software has been installed and the Adaptec driver is not present. If you are installing AT&T UNIX yourself, it is important that you first remove the Adaptec SCSI driver, if present, before you install the NI-488M software.

Note: If you install any plug-in boards into a VXIpc-486 expansion kit, ensure that these boards also do not conflict with the settings of your VXIpc-486 GPIB port.

To remove the Adaptec SCSI driver, complete the following steps listed on the reverse of this document before running the `ibinstall` installation script. If you cannot locate the indicated files, you can assume that the Adaptec driver is not installed.

In the following four steps, the fields you should change are indicated in boldface type.

1. In the `/etc/conf/sdevice.d/scsi` file, make the indicated change to the second field of each of the following lines.

From:

```
scsi   Y   1   5   0   11   330   332   0   0
scsi   Y   1   5   0   15   334   336   0   0
```

To:

```
scsi   N   1   5   0   11   330   332   0   0
scsi   N   1   5   0   15   334   336   0   0
```

2. In the `/etc/conf/sdevice.d/sd01` file, make the indicated change to the second field of the following line.

From:

```
sd01   Y   0   0   0   0   0   0   0   0
```

To:

```
sd01   N   0   0   0   0   0   0   0   0
```

3. In the `/etc/conf/sdevice.d/st01` file, make the indicated change to the second field of the following line.

From:

```
st01   Y   0   0   0   0   0   0   0   0
```

To:

```
st01   N   0   0   0   0   0   0   0   0
```

4. In the `/etc/conf/cf.d/mdevice` file, find the line starting with `scsi` and make the indicated change to the last field in the line.

From:

```
mdevice:scsi  Iocris  iHcf  scsi  0  60  1  2  5
```

To:

```
mdevice:scsi  Iocris  iHcf  scsi  0  60  1  2  -1
```

To install the NI-488M software, follow the instructions in Chapter 3 of the Getting Started manual. The *NI-488M Software Reference Manual* contains information on using the NI-488M functions. In addition, Appendix A, *New NI-488M Functions*, of the Getting Started manual describes three new functions not included in the *NI-488M Software Reference Manual*.