

Chyron PCI Driver Handbook

1. Introduction

This document and related utilities accompany Chyron systems and ‘board-level’ products containing **digital pcCODI boards**, **Lantern 32 boards**, **Lantern 64 boards** and **PCI Squeezeback boards**.

Throughout this document, the **digital pcCODI**, **Lantern 32** and **Lantern 64** boards may be referred to as **VPBs** (for Video Processor Board).

The accompanying disc provides drivers for the Chyron components named above, as well as other important utilities needed to properly configure your system for use with those components.

NOTES

- For SOLO users: Driver installation on SOLO requires installation procedures different from those described here. Please refer to the instructions in the SOLO Handbook, Chyron Pub. No. 2a02191. In particular, with the newer Lantern 64 boards, it is necessary to run the **Set Magma Registry 128 MB** utility found under the CD’s **Drivers and Utilities** menu.
- If you have purchased a Chyron application for use with the hardware mentioned above, the application’s CD may contain more up-to-date drivers than those on this disc.
- Different operating systems will display different screens and dialogs during the installation and configuration processes described herein. The screens and dialogs shown here are taken from Windows 2000 and should be regarded as *examples* of what you may see during these procedures.

2. Overview

When installing a new Video Processor Board, four distinct software driver installations need to occur:

- **Configuration Panel:** The Configuration Panel procedure described in **Section 3.1** installs the Configuration Panel application under the Program Files \ Chyron folder. In addition, the application **Configuration Panel** is added to the Windows Start menu under the Chyron Folder. This application enables setting of a variety of board-level registers, including vertical and horizontal timing, NTSC vs. PAL, gen-lock source, etc.
- **PCI Video Drivers:** The PCI Video Drivers installation installs several shared system **.dll files** (**auth-host.dll**, **tmcert.dll**, **tmman32.dll**) into Windows’ System folder (in most situations, WINNT\System32).
- **Tmman2K (Section 3.2):** A Windows 2000-compatible video driver for VPBs.
- **ChyronLMem (Section 3.3):** Chyron Memory Manager.

NOTES

The Tmman2k driver needs to be installed from Windows’ “Found New Hardware Wizard”.

HOWEVER...

Depending on the hardware changes you have made prior to loading the disc, you **MAY** first see a “Found New Hardware Wizard” or the disc’s interface presented by your system’s auto-run. Note that these installations may be performed in any order.

3. Procedures

3.1 VPB/Squeeze Configuration Panel

The **VPB/Squeeze Configuration Panel** enables you to set a variety of system registers that control the behavior of your VPB or Squeezeback board.

1. From the installation interface's **Drivers and Utilities** page, select **Configuration Panel Installation**. Follow the installation instructions.
2. Running **Config Panel** from **Start > Programs > Chyron** displays the menu seen in **Figure 3-1**.

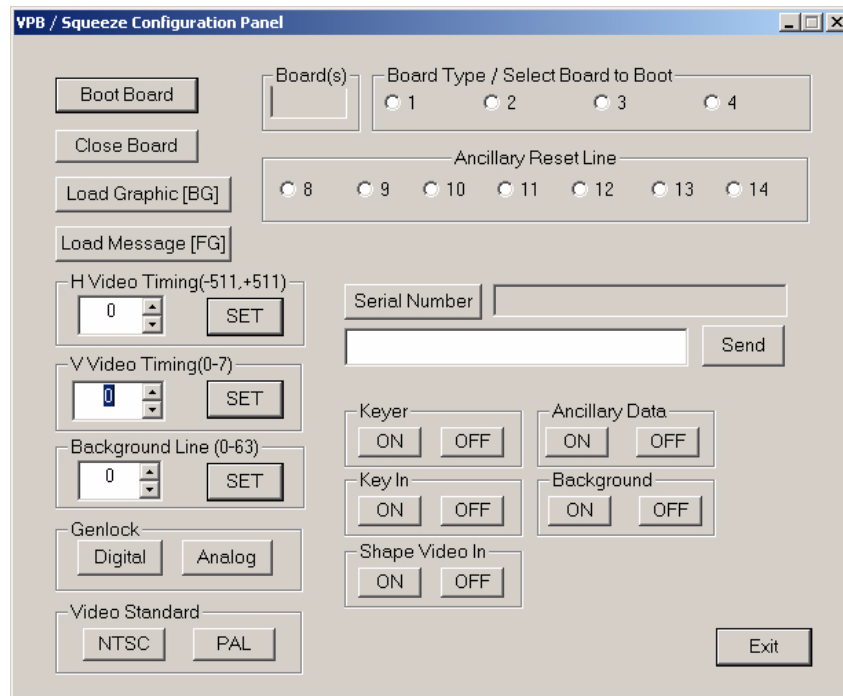


Figure 3-1. The VPB/Squeeze Configuration Panel

Selecting the various configuration buttons issues the appropriate CODI commands to the video board to perform the desired action. The board's state is saved in internal registers and applied upon boot up.

- **Boot Board:** Boots the video board. This must be done first for any other functions to be enabled.
- **Close Board:** Disconnects application from video board.
- **Load Graphic [BG]:** (VPBs only) Loads a test graphic into the Background video plane.
- **Load Message [FG]:** Loads a test page into the Foreground video plane.
- **Board Type / Select Board to Boot:** Enables selection of individual board in multi-board systems.
- **Ancillary Reset Line:** Sets the line number to disable ancillary data pass through. Normal default is 10 for NTSC/525-line.
- **H Video Timing:** Sets Horizontal video timing.
- **V Video Timing:** Sets Vertical video timing.

- **Background Line:** Sets Background line.
- **Genlock:** Sets genlock source. If Digital, use BNC labeled Bkgnd. If Analog, use external panel.
- **Video Standard:** Set to NTSC or PAL.
- **Serial Number:** Displays serial number of video board.
- **Send:** Sends CODI command strings entered in the adjacent edit field to video board.
- **Keyer:** Enables/disables internal keyer.
- **Key In:** Enables/disables key in signal.
- **Shape Video In:** (VPB only) Enables/disables shaping of incoming video.
- **Ancillary Data:** Enables/disables passing of ancillary data on line 21.
- **Background:** Enables/disables background video plane.
- **Exit:** Exits Configuration Panel application.

For more detailed explanation of these controls, consult the documentation of the software that accompanied your board purchase.

3.2 Installing the “Lantern Board” driver (tmman2k.inf)

1. Following installation of your VPB or Squeezeback board, restart the system. When restart is complete, the **Welcome** dialog of the **Found New Hardware Wizard** should appear. If it does not, make sure that the new device is firmly seated in its PCI slot.



Figure 3-2. Found New Hardware Wizard; Welcome.

2. **Install Hardware Device Drivers** appears. Select “Search for a suitable driver for my device”.



Figure 3-3. Decide whether to search for a driver or ask for a list of drivers known to Windows.

3. Load the driver disc into your CD drive and click **Next**. Select the **Specify a location** checkbox and then click **Next**.

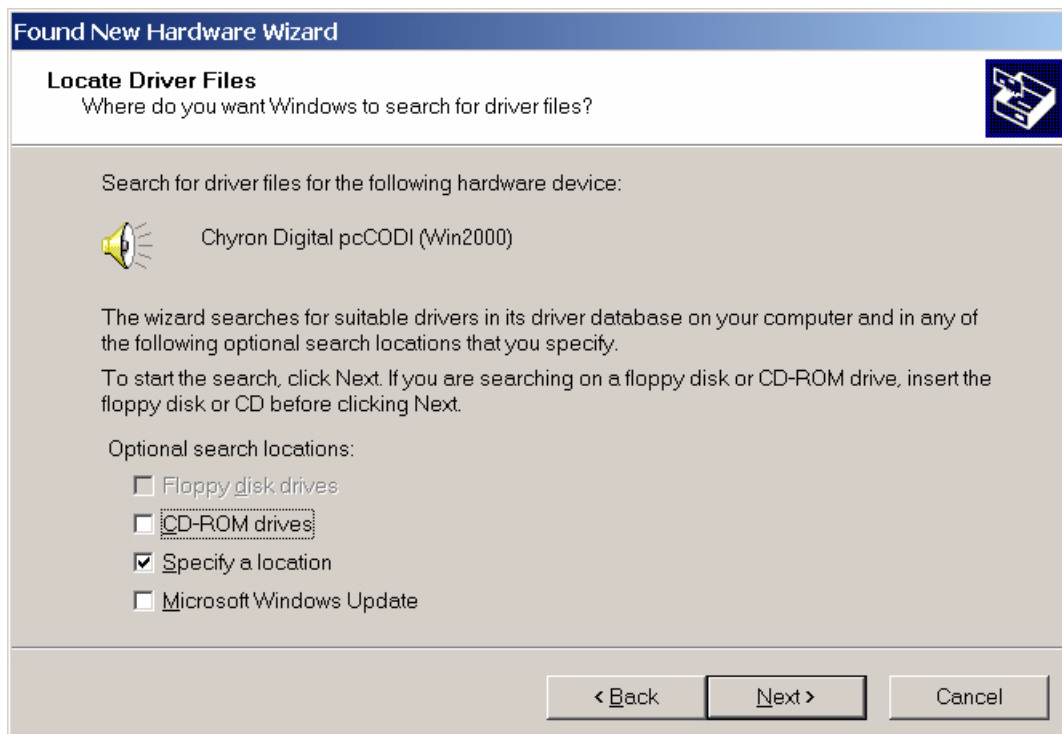


Figure 3-4. Instructing the system where to look for the drivers.

The following dialog appears:

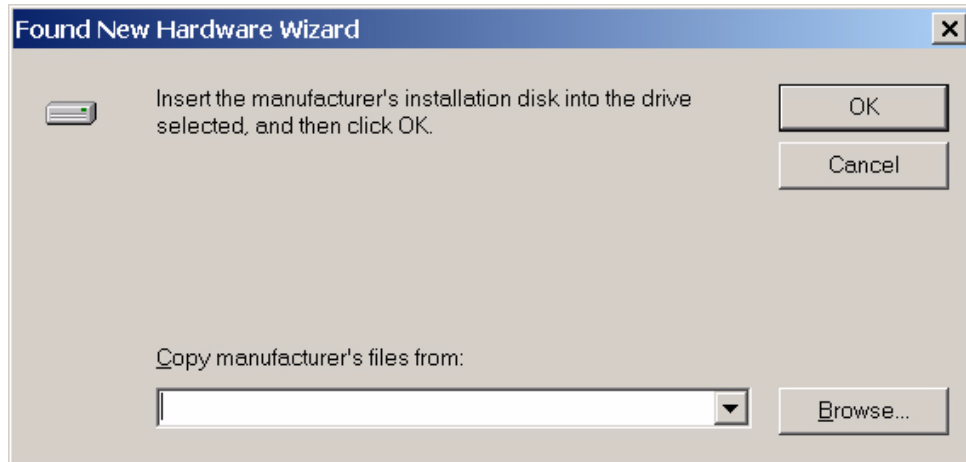


Figure 3-5. Prompt to load the driver disc CD-ROM and navigate to the appropriate filepath.

4. Click **Browse** and navigate to the **appropriate folder on the CD for your operating system**. Most users will access the **Win2k** or **WinXP** folders. (Shown here is the appropriate filepath in the CD's **\Win2k\drivers** directory.) Also, when considering the next couple of illustrations, remember that the drive letter of your CD-ROM device may be different than what's shown here.
5. In the **Locate Files** dialog, select **tmman2k.inf** and click **Open**.

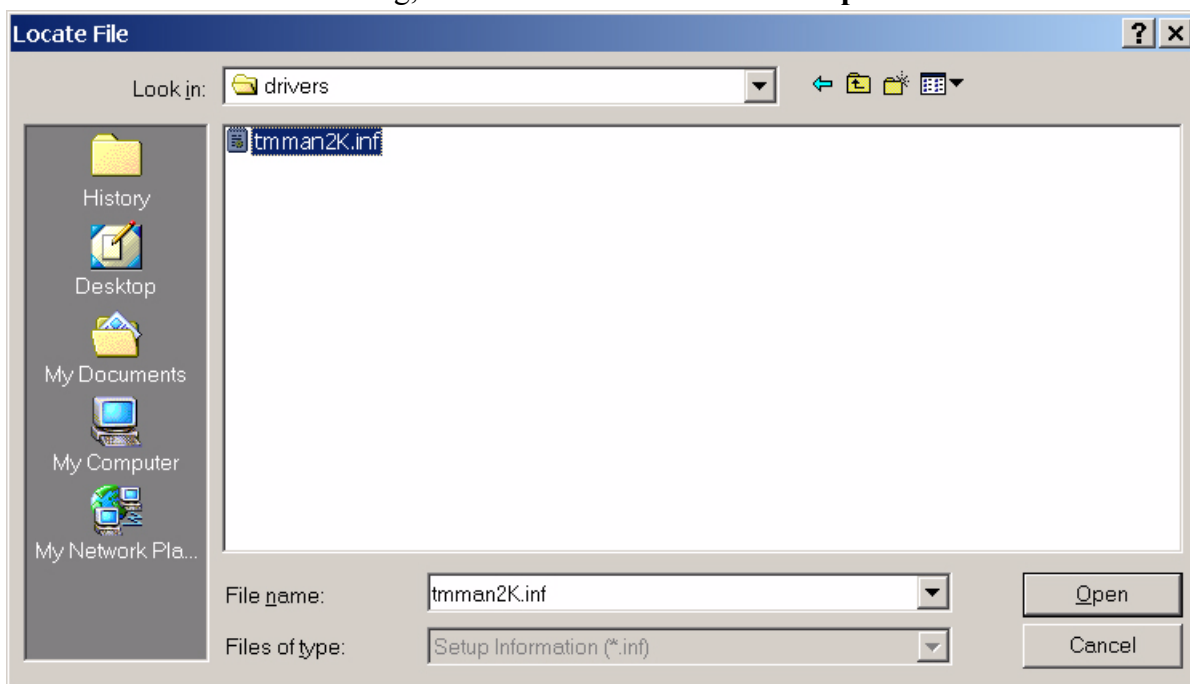


Figure 3-6. Selecting the required file *tmman2k.inf*.

6. In the next dialog, click **OK**:

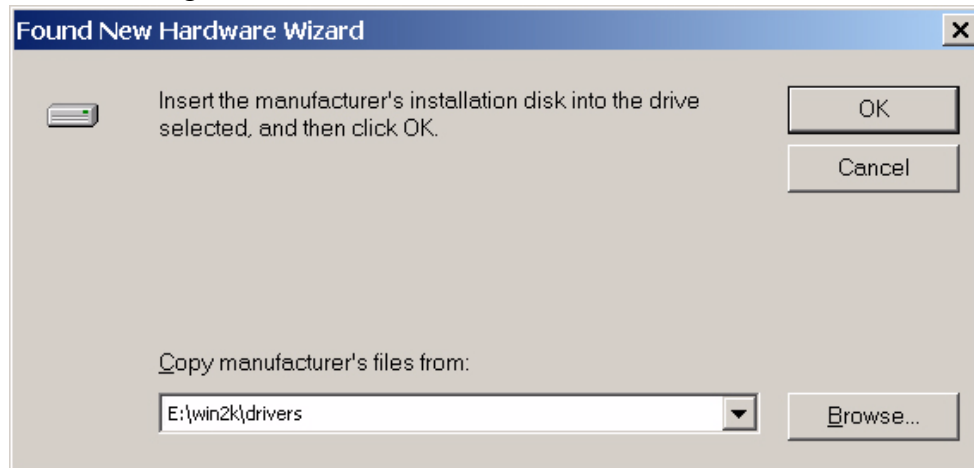


Figure 3-7. Specifying the filepath from which to load *tmman2k.inf*.

7. A Dialog confirming that the appropriate has been found appears. Click **Next**.

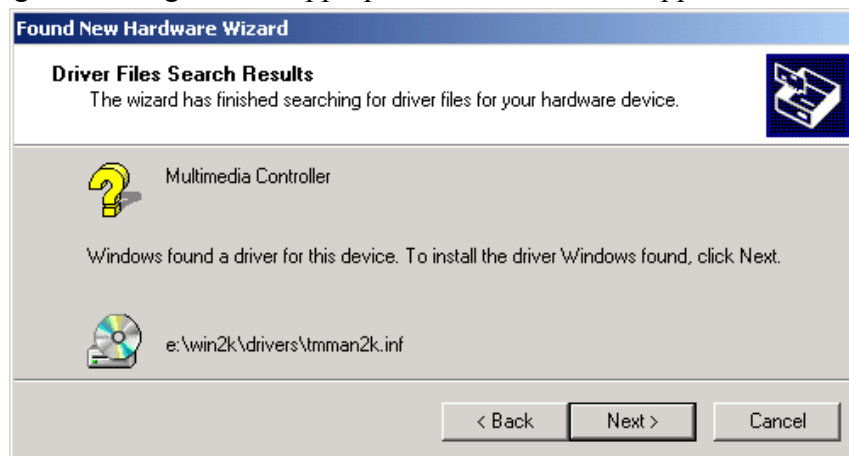


Figure 3-8. Confirming installation of the driver.

8. The **Digital Signature Not Found** dialog appears. The software search suggested in the text is not necessary. Click **Yes** to continue the installation.

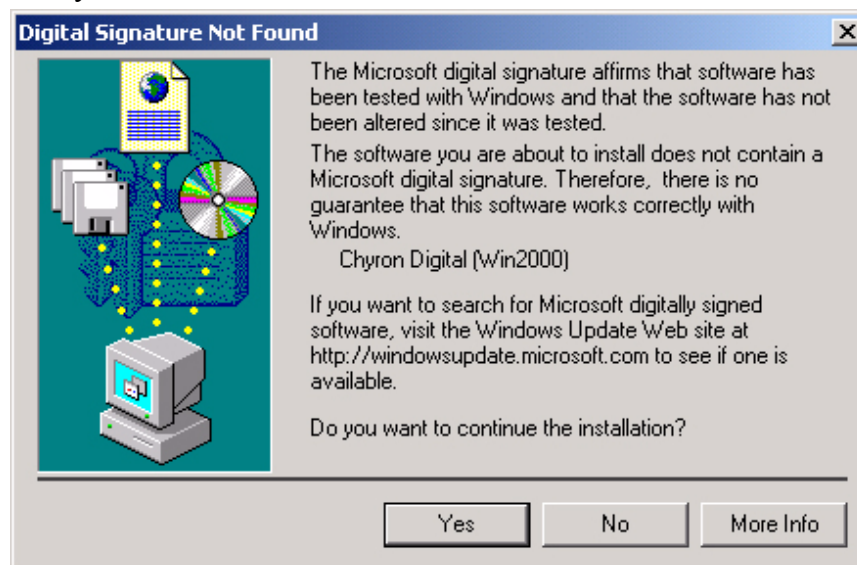


Figure 3-9. “Digital Signature Not Found” warning; disregard it and press “Yes”.

9. The hardware installation is complete. Press the **Finish** button.



Figure 3-10. Installation complete.

3.3 Installing Chyron Memory Manager (ChyronLMem)

Do not be concerned by the similarity of this procedure to installation of a hardware driver; you are installing a “virtual device”.

1. Select **Start > Settings > Control Panel**.
2. Double click **Add/Remove Hardware** then click **Next**. The *Add/Remove Hardware Wizard-Choose a Hardware Task* menu is displayed.
3. Select **Add/Troubleshoot a device** and then click **Next**.

After a short wait, the *Add/Remove Hardware Wizard-Choose Hardware Device* menu (**Figure 3-11**) is displayed.

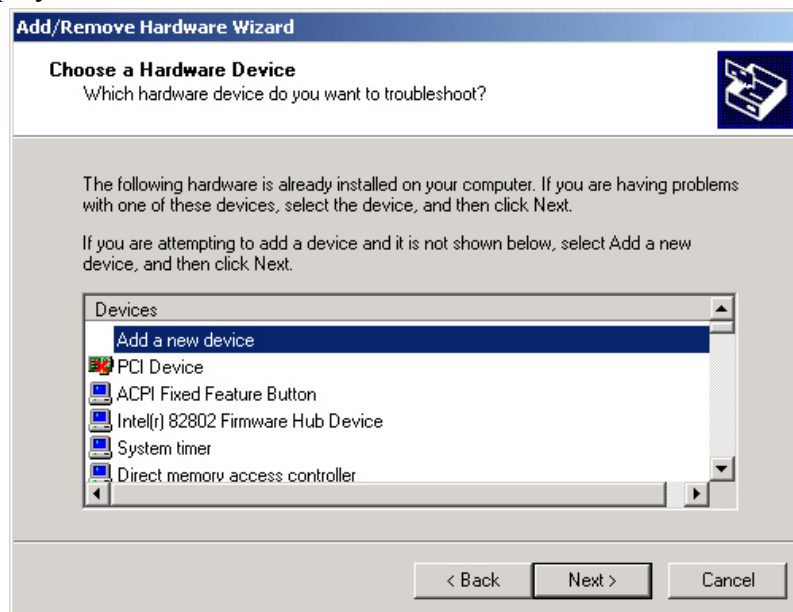


Figure 3-11. Add/Remove Hardware Wizard Menu - Choose a Hardware Device

4. Select **Add a new device** and press **Next**. When the *Add/Remove Hardware Wizard-Find New Hardware* menu is displayed, select **No, I want to select the hardware from a list**; click **Next**.



Figure 3-12. Decide whether to have the system search for new hardware or look for it in a list of devices known to Windows.

5. When the *Add/Remove Hardware Wizard-Hardware Type* menu (Figure 3-13) is displayed, select **Other devices** and then click **Next**

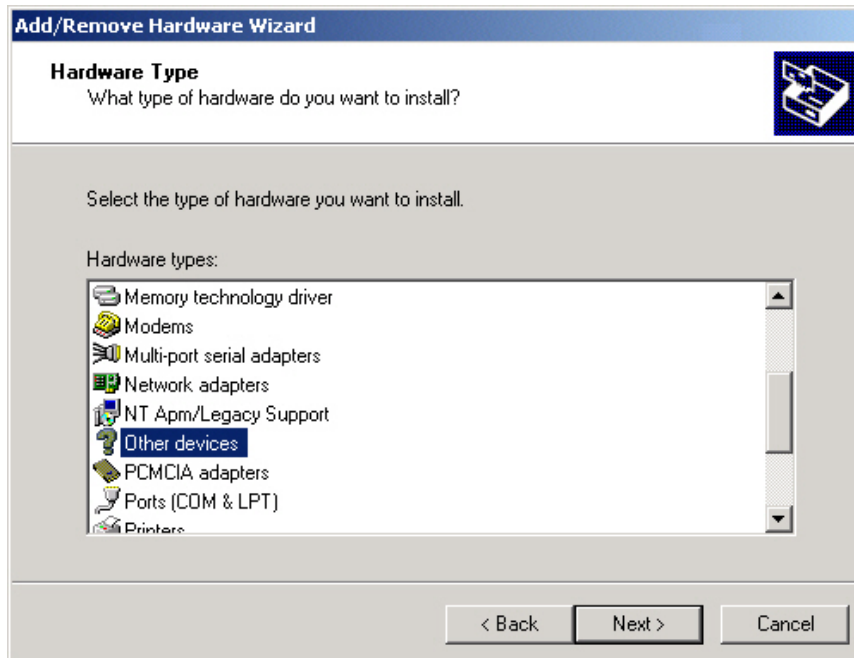


Figure 3-13. Add/Remove Hardware Wizard Menu - Hardware Type

6. When the *Add/Remove Hardware Wizard-Select a Device Driver* menu appears, click **Have Disk**.
7. Click **Browse** then select *E:\ChyronLMem* (again, remember to substitute the correct drive letter for your CD-ROM drive for “E”).
8. Select **ChyronLMem.inf** then click **Open**.

9. The *Add/Remove Hardware Wizard-Select a Device Driver* menu (**Figure 3-14**) is displayed. Select **Chyron Lyric Memory Manager** then click **Next**.

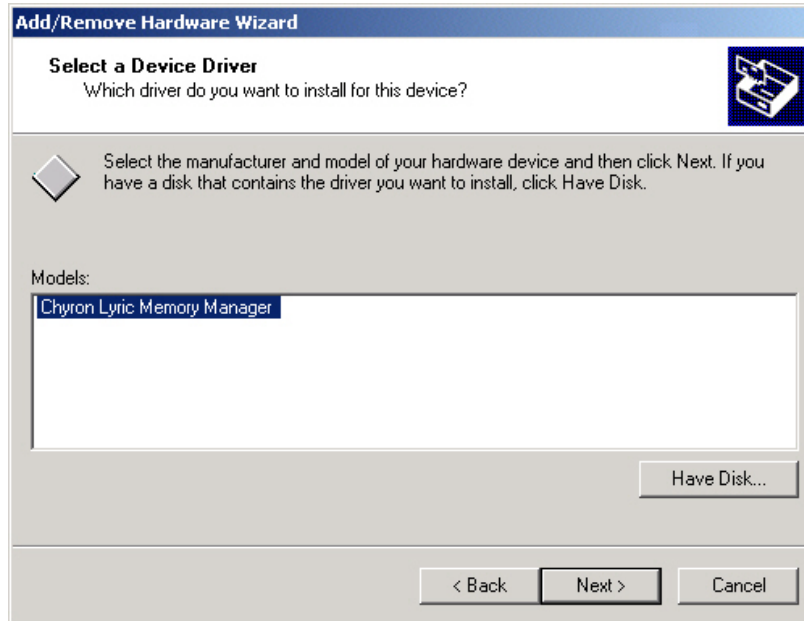


Figure 3-14. Add/Remove Hardware Wizard Menu - Select a Device Driver

10. When the *Start Hardware Installation* menu appears, click **Next** to install the memory manager.

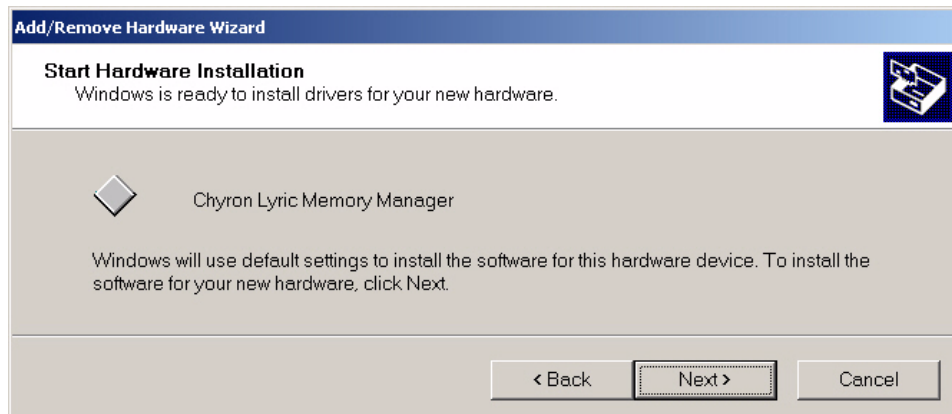


Figure 3-15. Starting ChyronLMem installation

11. When the installation process is complete, click **Finish** to end the procedure.