Installing the H25DRV.EXE driver

H25Drv.exe allows you to use a terminal-based program called DECICONS. To debug your programs, 'printf's' must be used. You cannot use the SDevTC tools for running programs or loading memory, although you can still compile programs using "psymake". H25Drv.exe is the basic, "no-frills" device driver which works with the PCI card. **You may use this driver to verify that the PCI card is functional.**

H25Bios.Com allows you to use the SDevTC tools RUN, PQBLOAD, and the interactive debugger DBUGPSX.

To install H25DRV.EXE, perform the following steps:

Step 1:   **Edit "config.sys" and "system.ini".**
Add the following line to "c:\config.sys":

```
DEVICE=C:\ps\psx\bin\H25DRV.EXE  /V   /N
```

If you use the EMM386.EXE memory manager, add the following line to "c:\config.sys":

```
DEVICE=EMM386.EXE. . . . . X=C800-C9FF
```

This reserves a block of memory for the PCI card.

To allow the DECICONS program (discussed later) to use colors, a line similar to the following should be added to your "c:\config.sys" file:

```
devicehigh=c:\dos\ansi.sys
```

The "ansi.sys" file may exist in a different directory, so please modify the above line accordingly. Otherwise, some of the text output by the DECICONS program will look like garbage.

If you use Windows 3.1 , add the following line to the "386Enh" section of "c:\windows\system.ini":

```
[386Enh]
EMMExclude=C800-C8FF
```

Step 2: **Run FLASHB8.BAT.**
If your PCI board was OK on bootup, run FLASHB8.BAT (this needs to be done only once):

```
cd c:\ps\psx\bin\DTLH2500\H25DRV
flashb8.bat
```

This loads the OS ROM image file c:\ps\psx\bin\DTLH2500\H25DRV\H2500b8.img into the flash ROM of the PCI board, which enables access to the PC filing system (PCFS). During the installation, your TV monitor will flash strange colors for a period of time. This does not indicate a problem; leave it alone until the configuration has finished. (If your monitor does not flash strange colors, there may be a memory conflict, but you should perform the following two steps and take special note of the BIOS. If you have an AMI BIOS, follow the steps in the section 'Installing to an AMI BIOS Machine.')

Step 3: **Shut down your machine.**

Step 4: **Reboot.**
Take careful note of the type of BIOS that is reported on the screen during the reboot. If you have an AMI BIOS, you will need to take some special actions.

If you still have problems, review the previous steps and recheck your work. For additional information refer to the chapter "Troubleshooting your installation."

Step 5: **Rename RESET25.exe.**
This is a program which resets (initializes) the PCI card. Every time you intend to run a PlayStation program, this program must be run first. If you intend to use the PCI board in NTSC mode, rename RESET25N.EXE to RESET25.EXE by typing the following:

```
cd c:\ps\psx\bin
rename reset25n.exe reset25.exe
```

If you intend to use the PCI board in PAL mode, rename RESET25P.EXE to RESET25.EXE by typing the following:

```
cd c:\ps\psx\bin
rename reset25p.exe reset25.exe
```

Step 6: **Run a sample program using H25DRV.EXE and the DECICONS utility.**
The sample program resides in c:\ps\psx\sample\balls, so type

```
cd c:\ps\psx\sample\graphics\balls
```

To start decicons, type

```
decicons
```

If the H2500 is operating correctly, the DOS prompt will switch to the DTL-H2500 Console Mode. The following commands can now be used:

[F1]	displays help
[F4]	loads a program file
[F3]	runs loaded program
[F7]	sets switch

    0   boots PlayStation CD-ROM

    1   PSX> prompt mode

    2   boots PlayStation CD-ROM with tty out

[F5]   Sets up logfile. All messages, such as printf output, will be sent to the file name you specify, as well as to the screen. To stop the output, hit [F10], [F5].

[F9][F7]   Sets video mode

    0   NTSC mode

    1   PAL mode

[F9][F10]   resets

[F10][F2]   quits decicons

Note: After hitting F9, F10 to reset the boards, hit F8 to get the prompt back.

The following steps explain how to run the sample program, BALLS.EXE:

- Press the [F9][10] keys to reset the PCI board.

- Press the [F4] key. This puts decicons into a "downloading" mode.

- When "Load[1]" is displayed, type

```
BALLS.EXE
```

- Press the [F3] key This executes the downloaded program.

- You should see a ball bouncing around on a blue screen (make sure your color television is hooked up and turned on).

- Press [F10] [F2] key to exit out of the DECICONS mode.

If you don't see the bouncing ball, please recheck your work and refer to the chapter "Troubleshooting the installation" for more help.

Step 7:   **(Optional) Running other sample programs.**
Using the DECICONS console, you can run the other examples in the "c:\ps\psx\sample" directory. For example, to run a sound demo,

- Type "decicons". This puts you into the terminal mode.

- Press the [F9][F10] keys to reset the PCI board.

- Wait until the message "Monitor started" appears.

- Press the [F2] key. This puts you in DOS mode. Type

    ```
    cd c:\ps\psx\sample\graphics\clutfog
    ```

- Press the [F2] key (yes, again). Type

    ```
    psymake all
    ```

- Press the [F2] key. Type

    ```
    edit makefile.mak
    ```

    "edit" just happens to be the editor on most DOS machines. Invoke any editor you want. Replace the word "pqbload" with "bload25". These programs will load raw binary data into the RAM of the PCI card. "bload25" works with H25DRV.Exe; "pqbload" works with "H25bios.com", which will be installed later.

- Exit out of the editor, and you will automatically be in decicons mode.

- Press the [F2] key. Type

    ```
    psymake load
    ```

- Press the [F2] key. Type

    ```
    run25  tuto0.cpe
    ```

- You willl get in the habit of pressing the F2 keys time and again.

- When you are satisfied that your installation is working properly, re-edit the makefile.mak and replace the word "bload25" with "pqbload".