ProMotion® Evaluation Card

PCI/VL-Bus
Graphics+Video Accelerator

Introduction to ProMotion®

Thank you for choosing ProMotion, the first choice in hardware graphics and motion video acceleration. ProMotion offers superfast Windows performance, a wide variety of software drivers, and 100% compatibility combined with state-of-the-art hardware motion video acceleration. With today's Multi Media User interfaces (MMUI) making new demands on personal computer hardware, you need acceleration for graphics as well as full-motion video. ProMotion MMUI accelerators are the first choice for today and tomorrow.

ProMotion meets the needs of serious users:

- accelerated, scaleable full-motion video.

- Truecolor photo-realistic display of up to 16.7 million colors.

- Memory configurations of 1 MB and 2 MB.

- Graphics resolutions from 640×480 to 1600×1200.

- Compatibility with VGA and industry standards.

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Check the disk(s) included with your ProMotion card for README files before installing any drivers. README files contain material released since this manual was published.

Technical Support

Contact the manufacturer of your accelerator card for customer support or the latest software drivers.

Please write down the make and model of your computer, what kind of BIOS and motherboard you use, what is your operating system version, and printout your AUTOEXEC.BAT and CONFIG.SYS files before you contact technical support. Describe clearly to the support personnel what actually happened as well as what was supposed to happen when the problem occurred.

FCC Information

This device has been tested and found to comply with the limits for a Class B digital device pursuant to part 15 of the FCC rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy. If not installed and used in accordance with the instructions this device may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in any particular installation. If this equipment does cause harmful interference to radio or television

reception, which can be determined by turning this equipment on and off, the user is encouraged to try to correct the interference by one or more of the following:

- Reorient or relocate the receiving antenna.

- Increase the separation between the equipment and the receiver.

- Connect the equipment into an outlet on a circuit different than that to which the receiver is connected.

- Consult the dealer or an experienced radio/TV technician for help.

Any changes or modifications not expressly approved by Alliance could void the user's authority to operate this equipment.

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1.   ProMotion Hardware

1.1.   Installing a PCI Bus ProMotion Card

1) Turn off the power to your computer and remove the cover. Locate an empty PCI slot and remove the screw which secures the plate over the slot's slot-cover.

2) Insert the ProMotion card into one of the empty PCI slots of your computer. Press firmly as you insert the card, making certain the edge connector is seated properly in the slot. Replace the screw removed in step one to secure the ProMotion card in place.

3) Plug a VGA cable from your monitor into the connector on the card.

4) Replace the computer's cover, and turn the power on.

Adding graphics cards to some PCI systems with sound cards may cause IRQ conflicts. If you find your sound card does not initialize or play properly after adding a PCI card, try changing IRQ settings for your sound card or try moving the new PCI card to another PCI slot.

Install appropriate software drivers as directed in the next part of the manual to fully enjoy your accelerated PCI ProMotion graphics and video card!

1.2. Installing a VESA™ VL-Bus ProMotion Card

1) Turn off the power to your computer and remove the cover. Locate an empty VL-Bus slot and remove the screw which secures the plate over the slot's slot-cover.

2) Insert the ProMotion card into one of the empty VL-Bus slots of your computer. Press firmly as you insert the card, making certain the edge connector is seated properly in the slots. Replace the screw removed in step one to secure the ProMotion card in place.

3) Plug a VGA cable from your monitor into the connector on the card.

4) Replace the computer's cover, and turn the power on.

Install appropriate software drivers as directed in the next part of the manual to fully enjoy your accelerated VL-Bus ProMotion graphics and video card!

1.3. ProMotion Graphics Modes

The following table displays the modes supported by ProMotion with different memory configurations.

	256 Colors	32K/64K colors	16M colors
1600 × 1200	2MB	-	-
1280 × 1024	2MB	4MB	-
1152 × 864	1MB	2MB	-
1024 × 768	1MB	2MB	4MB
800 × 600	1MB	1MB	2MB
640 × 480	1MB	1MB	2MB

2. *ProMotion Software*

This chapter is divided into sections according to the software drivers available. You do not have to read all the sections, but rather only the installation notes for the software you plan to use with the ProMotion card.

Before starting, it is a good idea to make a backup copy of your installation diskette(s). Use this copy for installations and place the original in a safe place.

These installation notes assume you have a hard disk C: and you are installing from floppy drive A:. If your setup is different, you must substitute drive letter(s) as appropriate.

2.1. *Installing MS-DOS drivers*

This section includes instructions for installing the ProMotion MS-DOS display driver files. The ProMotion DOS refresh rate utilities include the following items: REF_UTIL.EXE, CALCREF.EXE, and SETCRTC.COM.

Installation and the setup utility must be launched from the DOS prompt. You may modify any choice after installation using the program REF_UTIL.EXE.

The installation modifies your AUTOEXEC.BAT file with a call to SETCRTC.COM, and for some machines there is an additional call to 6422CNFG.EXE.

1) Insert the driver disk containing the DOS refresh rate utilities and enter the following command from the DOS command line, as appropriate for your floppy drive:

    ```
    a:\dos6422\install
    ```

    Use an appropriate letter for the drive containing the drivers disk.

2) The installer creates a directory for the ProMotion drivers, with C:\DOS6422 as the default. You may change this directory at the time of installation. It will take a few moments to copy the files to your hard disk. The DOS driver files are installed regardless of whether you have a ProMotion card installed in your system.

3) The ProMotion DOS Utilities installer determines whether you have a ProMotion card in your system before attempting to configure the hardware. If a ProMotion card is found, the installation automatically scans and configures refresh rates for your system.

4) ProMotion DOS display drivers are now installed on your computer. You may modify any choice after installation using the program REF_UTIL.EXE.

2.1.1. REFUTIL.EXE

REF_UTIL.EXE is a DOS program. Run this program from the DOS command line to set the refresh rates stored in MONITORS.DAT.

1) Enter REF_UTIL from the DOS command line.

2) Use either a keyboard combination <ALT> + <*highlighted key*> or a mouse to make selections from the menus at the top of the screen: File; Monitor; Refresh; Help.

Use the File menu to save your configuration or to exit the program. If you save changes. REF_UTIL saves the old AUTOEXEC.BAT and CONFIG.SYS as AUTOEXEC.ASC or CONFIG.ASC.

Use the Monitors menu to show the current monitor setting or to select your specific monitor type; select General or Unlisted monitor if your particular monitor is not on the list.

Use the Refresh menu to show or to change the refresh rate for a given display resolution. Each refresh rate may be altered individually from the Refresh menu. The following is an example of the configuration window shown using the Refresh menu.

Sample Configuration:

640×480	60 Hz
800×600	72 Hz
1024×768	60 Hz
1152×864	60 Hz
1280×1024	66 Hz
1600×1280	60 Hz

Use the Help menu to get on-line help for REF_UTIL.EXE, or to determine the program version number.

2.1.2. CALCREF.EXE

CALCREF.EXE is a DOS program used to automatically calculate actual refresh rates used by the hardware. Run this program from the DOS command line. Follow the on screen directions to select each resolution and color depth.

1) Enter CALCREF from the DOS command line

2) If you wish to calculate refresh rate, select a resolution by pressing its number (1-6). .

3) Select the color depth for that resolution by pressing its number (1-4). A message appears warning you that the screen will be blanked for 10–12 seconds while CALCREF determines the proper refresh rate.

4) Press E to exit CALCREF.EXE, or any other key to start over at step 1. Changes are automatically saved.

2.1.3. SETCRTC.COM

SETCRTC.COM is a terminate-and-stay-resident (TSR) program used at bootup to load refresh rate values stored in MONITORS.DAT. Your AUTOEXEC.BAT should run this TSR at bootup time to automatically load the refresh rate data. Note that a successful loading of the TSR displays a list of refresh values during the boot process.

2.2. Installing Windows 3.x drivers

This setup utility must be launched from within Windows to install ProMotion Windows 3.x display driver files.

1) Start Windows using its included generic VGA driver (640×480 resolution). Refer to your Windows documentation if you need assistance. If you have been using a different high-resolution graphics drivers then you should use Windows Setup to select the 640×480 VGA driver before starting Windows.

2) Once Windows is running, with the ProMotion driver diskette in your floppy drive, select Run from the File menu of the Program Manger. Enter the following as the command line:

   `a:setup`

   Use an appropriate letter for the drive containing the drivers disk. A window appears with three menus: Display, Desktop, and Card.

3) Choose your monitor type from the ProMotion Display menu. If your exact model of monitor is not shown, choose the "generic display" or enter custom refresh rates for the "unlisted display" (refer to your monitor's documentation for the frequencies it supports). Click the OK button to proceed.

4) Select the color depth, resolution, and font size from the ProMotion desktop menu. Click the OK button to proceed. It will take a few moments to copy the files to your hard disk.

5) ProMotion Windows display drivers are now installed on your computer. Click the button for "Restart Windows" in order to use the new drivers.

You may modify any choice after installation from the ProMotion control panel. Double click the Control Panels icon, usually found in the Main program group. Double click the ProMotion icon to change ProMotion settings. The three categories are Desktop, Display, and Card.

2.2.1. Desktop

The **Desktop** window allows you to change settings for colors (256, 32,768, 65,536, and 16.7 million), font size (small and large), and resolution (640×480, 800×600, 1024×768, 1152×864, 1280×1024, and 1600×1280). Because colors and resolutions are dependent on memory and display type, higher color depths are not available at higher resolutions (refer to section 1.3 for a chart).

2.2.2. Display

The **Display** window allows you to change settings for display type and vertical refresh rates. If your exact display is not listed in the display type then select the option for "Generic" or select "Unlisted Display" and modify values for any refresh rate. A higher value refresh rate tends to flicker less when your eyes are tired, but not all monitors are capable of higher refresh rates.

2.2.3. Card

The **Card** window allows you to change the setting for Memory Address, and display the version numbers of your ROM and ProMotion Windows drivers. The typical user doesn't need to change the default setting for memory address.

2.3. Installing Windows 95 drivers

1) Open Display, found in the Control Panels folder of My Computer. A window appears named Display Properties.

2) Click on the Settings tab at the top right of this window. Click on the button for Change Display Type found in the lower right. A window appears named Change Display Type.

3) Click on the Change button to the right of Adapter Type, found at the top of the window. A window appears named Select Device.

4) Click on the button for Have Disk, found on the right side. A window appears named Install From Disk.

5) In the space under Copy Manufacturer's Files From, type the path to the location of the ProMotion driver files, or click on Browse to search for the proper directory. Select the file PROMOTN.INF. For example, if you're installing from a floppy disk, use the path name:

   `A:\PROMOTN.INF`

   With PROMTN.INF selected, click OK three times to close the front three windows, leaving the window for Change Display Type in front.

6) Click on the button for Close. When the Settings window is in front, click on the button for Apply. Windows 95 now restarts with your ProMotion driver active.

2.4. Installing Windows NT drivers

1) Login Windows NT using its included generic VGA driver (640×480 resolution). Refer to your Windows NT documentation if you need assistance. This is most important if you have installed other high-resolution drivers previous to installing your ProMotion card.

2) Open the Display control panel. Click the button for "Change Display Type."

3) In the new window, under Adapter Type, click the button for "Change."

4) In the new window, under Select Device, click the button for "Other." A window appears asking for the path to the ProMotion installer. Enter an appropriate path and click the button for "OK."

Versions of NT prior to 1.0.2 install drivers only from the root directory of a floppy (such as A:\ or B:\ ). You may need to copy the drivers to the root directory of a blank diskette if your distribution disk has ProMotion NT drivers in a subdirectory.

5) Select one of the ProMotion options. Click the button for "Install." If Windows NT asks you to disable the currently installed driver, click the button for "Yes." A new window appears asking for the path to the ProMotion drivers. Click the button for "Continue." It will take a few moments to copy the files to your hard disk.

6) ProMotion Windows NT display drivers are now installed on your computer.

Use the Display control panel to change and test ProMotion settings at a later time.

2.5. *Installing OS/2 drivers*

These instructions assume you have installed OS/2 in directory c:\os2 and you are installing from floppy drive a.

1) Reset your display adapter support to VGA. Refer to your OS/2 documentation Installation Manual for assistance. This is most important if you have installed other high-resolution drivers previous to installing your ProMotion card.

2) From the OS/2 desktop open the OS/2 System icon.

3) Open the Command Prompts icon in the OS/2 System window.

4) Open the OS/2 Full Screen icon.

5) With the OS/2 drivers diskette in drive A, enter the following command:

   ```
   copy a:\*.dsc c:\os2\install
   ```

   Use an appropriate letter for the drive containing the drivers disk. Copying this allows the Alliance drivers to appear to the installation program.

6) Run DSPINSTL.EXE from the directory c:\os2\install.

7) Select Primary Display and click the button for "OK."

8) Select Alliance Display Drivers and click the button for "OK." At this point some versions of OS/2 display a warning about support for display adapters. Click on the button for "OK."

9) A window appears asking for the path to the ProMotion installer, such as A:\PRO-OS2\SETUP. Enter an appropriate path and click the button for "OK."

10) ProMotion OS/2 display drivers are now installed on your computer. You will be asked to restart OS/2. Click the button for "OK."

11) Exit the command interpreter with the EXIT command.

12) Shut down OS/2 and reboot the computer. If the message asking you to PLEASE WAIT remains for more than a minute, you likely need to reset the computer manually.

2.5. Installing WordPerfect 6.0 DOS drivers

If you have installed other high-resolution video drivers previously, you should remove old drivers from the WordPerfect directory. Be certain to copy any files you may need later before you delete them. Do not remove WordPerfect's IBM.VRS.

1) Copy the file PROMTN.VRS from the floppy disk to your WordPerfect directory.

   ```
   xcopy a:\wpdriver\promtn.vrs c:\wp60
   ```

   Use an appropriate letter for the drive containing the drivers disk. Refer to your MS-DOS documentation if you need assistance.

2) ProMotion WordPerfect for DOS display drivers are now installed on your computer. You now must configure the drivers from within WordPerfect. Launch WordPerfect.

3) From the File menu select Setup.

4) Select Display.

5) Select Graphics Mode.

6) Select Screen.

7) Select ProMotion SVGA driver. If there is no ProMotion choice here, verify that you copied the PROMTN.VRS driver file to the proper directory in step 1).

8) Select the resolution you wish to use, and exit. This ends the configuration process.

2.6.   *Installing Video for Windows v1.1D*

This section includes instructions for installing Video for Windows driver files.

1) Start MS Windows. With the Video for Windows diskette in your floppy drive, select Run from the File menu of the Program Manger. Enter the following as the command line:

   `a:setup`

   Use an appropriate letter for the drive containing the drivers disk.

2) In the new window, click the button for "Continue." It will take a few moments to copy the files to your hard disk.

3) Video for Windows is now installed on your computer. In the new window click the button to restart Windows.

2.7. *Installing Xing MPEG Player*

Your ProMotion card may be bundled with MPEG playback software from XING Technology. This software requires a CD ROM drive and a Pentium-class processor for high frame rate. The Xing software permits MPEG video playback without a dedicated MPEG card.

You must first install Video for Windows or another DCI-compliant driver in order to use the Xing MPEG player.

If your installation disk includes the file XPLAY_09.EXE in the root directory then start with Step 1. XPLAY_09.EXE is a compressed archive which must be decompressed before the installation can occur. If SETUP.EXE appears in the root directory **without** XPLAY_09.EXE, then the installation files are fully decompressed, so start with Step 4. If **both** files XPLAY_09.EXE and SETUP.EXE are in the root directory then start with Step 1 to guarantee proper installation

1) From the DOS command line or a MS-DOS box within MS Windows create a temporary directory.

```
mkdir c:\xtemp
```

2) Copy the compressed file XPLAY_09.EXE to this temporary directory, make the directory current, and decompress the self extracting archive by entering the following commands.

```
cd \xtemp
xcopy a:\xplay_09.exe
```

```
xplay_09 -d
```

It is important to enter the -d option in order to create the proper subdirectories. It will take a few moments for the files to be extracted from the archive to this temporary directory.

3) Make an installation floppy disk for future use. Put a blank floppy disk into your drive and enter the following command.

```
xcopy c:\xtemp *.* a:\ /s
```

It is important to enter the /s option switch in order to create the proper subdirectories.

4) The following steps must be done from within MS Window; start MS Windows if it is not running. With the Xing MPEG driver disk in your CD or floppy drive, select Run from the File menu of the Program Manger. Enter the following as the command line:

```
a:\setup
```

Use an appropriate letter for the drive containing the drivers disk.

5) A window appears asking if you agree to the software license terms. Click YES with your mouse to proceed with the installation.

6) A window appears asking for the destination installation directory. The default directory is C:\XING. Make changes if required and click OK to continue. It will take a few moments to copy the files to your hard disk.

7) A window appears with options for the Xing MPEG Screen Saver. The defaults install the Xing software as your current screen saver and copy the sample movie(s) to your hard disk. Click the button for INSTALL or SKIP, as appropriate. It will take a while to copy movie(s) to your hard disk.

Due to file size constraints, floppy installation disks do not include any MPEG sample files. No movies are installed from floppy disk regardless of your selections.

8)   Restart Windows to use your new Xing MPEG Player software.

2.8. Installing panaStation v1.x drivers

This section includes instructions for installing the ProMotion panaStation driver files.

1) Insert the panaStation disk into your floppy disk drive. Enter the following command.

   ```
   a:\panastat\install
   ```

   Use an appropriate letter for the drive containing the drivers disk.

2) After completing the registration information, panaStation will prompt you for information about your MicroStation installation. Verify that the given information is correct and then press ENTER. It will take a few moments to copy the files to your hard disk. For TIGA installations only, you must copy the file DLDEXT.RLM from your panaStation sub-directory to your TIGA software sub-directory.

3) From your \USTATION sub-directory type the following.

   ```
   usconfig
   ```

4) Use your arrow keys to highlight the DISPLAY ADAPTERS option. Press the ENTER key to display the Right Screen Graphics Adapter menu. From the list of available display drivers, highlight Vendor Supplied Driver and press ENTER. Next highlight panaStation from the list of vendor supplied drivers. Press ENTER to continue to the Left Screen Graphics.

5) If you are configuring a single monitor system, highlight No Second Adapter and press ENTER to display the Virtual Swap Screen dialog box. When using panaStation, MicroStation's Virtual Swap Screen feature is available to all graphics boards. On graphics boards using dual page memory

switching, the page swap is done using the graphics board hardware. On all other graphics boards, the page swap is simulated by panaStation.

6) To use virtual page swapping, answer "N" to the "Do you want to disable the virtual graphics page?" question. To disable virtual page swapping answer "Y". Once the Swap Screen question has been answered you will return to the Main Configuration menu.

7) If you are configuring a dual monitor system, highlight Vendor Supplied Driver from the list of available display drivers. As with the Right Screen Graphics Adapter, highlight panaStation, by Panacea, Inc. from the list of vendor supplied drivers. Press ENTER to return to the main configuration menu.

8) At the main menu, highlight Exit and Save to exit the USCONFIG program and return to the DOS prompt. The panaStation drivers are now installed on your computer.

9) In order for the new panaStation driver to take effect it is necessary to re-boot your computer. Turn off the power to your system or press the RESET button if you have one. After re-booting change to your \USTATION directory and type:

`ustation`

to start MicroStation. Upon startup of MicroStation you will be greeted with the panaStation welcome screen. If you do not see the welcome screen, be sure you have properly selected panaStation from the list of vendor supplied drivers and that you have re-booted your computer.

10) Once you have read through the panaStation welcome message, press any key to continue to the Left Screen Main Configuration menu. You will need to configure panaStation for use with your graphics board type and the resolution under which you wish to run MicroStation. Use your arrow keys to

highlight Select Graphics Board/Resolution and then press ENTER to display the Select Graphics Board/Resolution menu.

11) The Select Graphics Board/Resolution menu configures panaStation settings for graphics board/type and display and rendering resolutions. Choose Select Graphics Board to manually select the ProMotion graphics board. A list of options is given, based on the findings of panaStation's built-in graphics platform detection utility. Use the Up and Down arrow keys, and the Pg Up and Pg Dn keys to scroll through the list and highlight ProMotion.

12) panaStation includes a graphics platform detection utility that queries the graphics card for type, Hi-Color support and installed memory. Based on the graphics platform detector's information, panaStation will list a set of Display/Rendering resolutions. Due to the variety of graphics boards and their specific implementations of platform chip sets, the detector is not always accurate. Therefore, when selecting a Display or Rendering resolution, be sure to use only resolutions that your ProMotion memory configuration supports, as detailed in Section 1.3. Press ENTER to accept your choice and return to the Select Graphics Board/Resolution menu.

13) Choose Select Display Resolution to configure the display/rendering resolution of your MicroStation screen. Display/rendering options are also based on the findings of panaStation's graphics platform detection utility. Use the Up and Down arrow keys, and the Pg Up and Pg Dn keys to scroll through and highlight the resolution and color option you wish to use. Press the ENTER key to accept your resolution choice and return to the Select Graphics Board/Resolution menu.

13 panaStation provides you the option of adjusting the aspect ratio of your MicroStation screen. To change the default aspect ratio, select the Adjust Aspect Ratio menu and measure, in millimeters, the height and width of the Aspect Ratio dialog box. Enter the measured values in the corresponding

height and width data boxes. Highlight Return to Previous Menu and press the ENTER key to return to the Main Configuration menu.

14) When configuring a dual screen MicroStation configuration, panaStation allows you to select which monitor will display text and which will display graphics. To designate a monitor for text, select the Dual Screen Configuration menu and simply choose Left if you wish to have the text appear on the monitor configured as MicroStation's Left screen. Or, choose Right if you would like text to appear on the monitor configured as the Right screen. Highlight Return to Previous Menu and press the ENTER key to return to the Main Configuration menu.

15) When configuring a dual monitor system a Right Screen Main Configuration menu will be displayed. Configure for the second screen as you did for the Left Screen above.

16) Once all of the panaStation parameters have been configured, select SAVE, EXIT to save the configuration information and create PANACFG1.DAT and, for dual screen configurations, PANACFG2.DAT in the \USTATION sub-directory. After the PANACFG files have been created, MicroStation will start up with the newly selected panaStation resolution.

If panaStation has already been configured, upon starting MicroStation you will be asked whether you would like to re-configure. Type Y to go to the panaStation Main Configuration Menu or N to start MicroStation.

If you start MicroStation from a sub-directory other than the \USTATION sub-directory you gave during installation, PANACFG files will be created in that directory.

2.9. Installing AutoCAD TurboDLD Lite drivers

This installation assumes your AutoCAD files are in the directory C:\ACAD and the floppy drive you're installing from is drive A:, and that you wish to install the new drivers to C:\ACAD\DRV. If your system is different, then make appropriate changes.

1) Run the TurboDLD Lite installation program by typing:

```
a:\turbodld\install
```

Use an appropriate letter for the drive containing the drivers disk. TurboDLD Lite's install program asks for registration information and then prompt for AutoCAD information. The remaining prompts ask for sub-directory information. After all information has been provided, TurboDLD Lite files are now copied from the distribution floppy to the hard drive.

2) Begin AutoCAD with the re-configure switch by typing

```
acadr12 -r
```

Choose option 3, Configure Video Display from the AutoCAD configuration menu. Type Y at the "Do you want to select..." message to display the available video options for AutoCAD. Select "TurboDLD Lite by Panacea Inc." from the list of display options. Continue installation at step 3 below.

AutoCAD Release 10/386 or 11	To Configure AutoCAD Release 10/386 or 11, Run the FASTACAD batch file created in your TurboDLD Lite sub-directory and then start AutoCAD. Re-configure AutoCAD to use TurboDLD Lite by selecting option 5, Configure AutoCAD from the AutoCAD main menu. From the next menu, select option 3, Configure Video Display. Choose Item 1, P386 ADI 4.0/4.1 (R11) or ADI P386 (R10), as your display device. (For more information, see your AutoCAD "Installation and Performance Guide.") After selecting the proper display device, the TurboDLD Driver Configuration menu will appear.

3) The first menu, Select Graphics Board/Resolution, configures TurboDLD Lite for the graphics board, and display and rendering resolutions to be used. Note that Rendering menu options only appear when configuring the rendering screens of AVE Render, 3D Studio and AutoShade2 with RenderMan. You will not see both menu options at the same time.

4a) Basic Configuration options set AutoCAD screen characteristics, number of text lines in the command-line area, font size and screen configuration mode.

4b) Expert Configuration options set the function of TurboDLD itself. This menu allows for customization of the driver for speed or to adjust for memory constraints.

5) Once all options have been set, scroll down to the Save and Exit option and then press the ENTER key to continue.

6) Next, configure the AutoCAD screen display characteristics and then type Y to accept the changes. Exit to the AutoCAD drawing editor to begin using TurboDLD Lite.

7) From the AutoCAD Command Line, type DLDCOLOR, to start CustomColors, TurboDLD's color configuration utility. Make any desired color changes and then Save the new color palette and then Exit to return to the drawing editor.

3. Troubleshooting

Problem	Solution
After DOS driver installation, refresh rates under DOS are not the values set.	For the refresh values to take affect, the SETCRTC.COM TSR must be loaded. Make sure it is actually being executed from your AUTOEXEC.BAT.
	Make sure a ProMotion-based card is in your machine.
Not enough memory to run REF_UTIL.EXE.	Boot up off a floppy and try executing REF_UTIL.EXE or A:\DOS6422\INSTALL.BAT again.
REF_UTIL.EXE will not run.	Make sure a ProMotion-based card is in your machine (vs. some other card).
Can not set refresh rates in DOS to user defined values when running REF_UTIL.EXE.	Select monitor as "Unlisted Display" with REF_UTIL.EXE.
DOS mouse doesn't work.	Verify you have loaded a DOS mouse driver such as MOUSE.COM or MOUSE.SYS.

Windows 3.x image on the screen is blurred, torn, or skewed, or the screen is blank	It is likely you selected a resolution or refresh rate higher than your monitor can support. To correct an unusable setting for resolution or refresh rate, you must re-configure the software. Use Windows Setup from DOS (typically you would use SETUP.EXE from the C:\WINDOWS directory; refer to your Windows documentation for help with Windows Setup). Switch from the current video setting to the generic "ProMotion Card" setting. This setting restores basic 640×480 VGA and permits you to start Windows and use the ProMotion control panel to try another ProMotion resolution.
Windows NT image is blurred, torn, or skewed, or the screen is blank	it is likely you selected a resolution or refresh rate higher than your monitor can support. Start Windows NT using the option for 'last working video driver.' Refer to your Windows NT documentation for assistance.
OS/2 image is blurred, torn, or skewed, or the screen is blank	It is likely you selected a resolution or refresh rate higher than your monitor can support. You may have to restart OS/2 with its generic VGA driver in order to try another setting for the ProMotion card.
OS/2 doesn't recognize the installation floppy disk.	Verify the installation disk label is "PROMOTION 1" (without the quotes). Note the space between the word and numeral.

WordPerfect image is blurred, torn, or skewed, or the screen is blank	It is likely you selected a graphics mode that your monitor cannot support. You may have to remove the ProMotion driver from the WordPerfect directory, start WordPerfect using its generic VGA driver, quit, and restart from step 1.
panaStation error message using Help.	The PSTATION.HLP file MUST be present in order for help information to appear. Be sure that the file PSTATION.HLP is in the MicroStation sub-directory given during installation.