Appendix B

User's Manual

DMX-9700/9701/9703/9705

VGA Adapter with Video In/Out

User's Guide

Revision A1

DOMEX

DOMEX TECHNOLOGY
CORPORATION

FC Tested To Comply With FCC Standards
FOR HOME OR OFFICE USE

CE

ISO-9002

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Printed in Taiwan

For Europe

CE This drive is in conformity with the EMC directive.

FC Tested To Comply
With FCC Standards
FOR HOME OR OFFICE USE

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) This device must accept any interference received, including interference that may cause undesired operation.

Federal Communications Commission (FCC) Statement

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. Those limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antennas.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circlet different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

Warning:

A shielded-type power cord is required in order to meet FCC emission limits and also to prevent interference to the nearby radio and television reception. It is essential that only the supplied power cord be used.

Use only shielded cables to connect I/O devices to this equipment.

You are cautioned that changes or modifications not expressly approved by the party responsible for compliance could void your authority to operate the equipment.

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1. INTRODUCTION

DMX-970x VGA Adapter series are designed to provide the most cost-effective solution to multimedia system users. 9700 is the 2MB DRAM version of VGA, without BIOS, with TV-out. 9701 is the Video-in daughter board for 9700. The P5AL2K mainboard will provide the on-system-board VGA BIOS. 9703 is the 9700 with BIOS. 9705 is the full function Adapter integrated with 4MB DRAM, video-in, and video-out.

970x adapters are all using the same VGA chip with integrated 64-bit GUI accelerator, 200 MHz RamDac, and Video Input/Output, and can fulfill the need for most users. The video-out let the user to hook the output to the consumer products such as TV set. The video-in can easily provide solutions to applications like Video-Phone, Video Capture/Recording if with video-camera or other input devices.

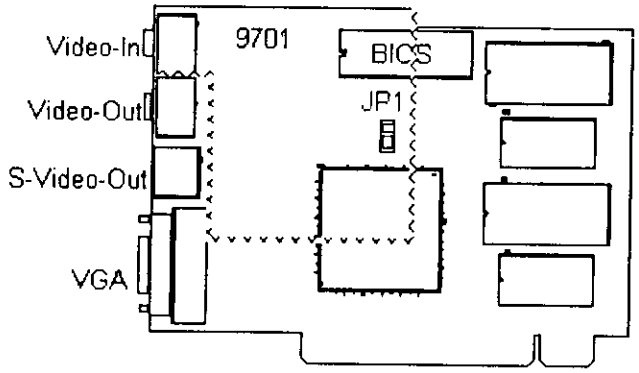
2. FEATURES AND SPECIFICATION

* Patented Flicker-Free Technology includes TV Encoder for True TV output
* Supports 640x480 output to NTSC TV and 800x600/640x480 output to PAL TV
* Video/Phone Conferencing with Camera or Camcorder and Three Scaleable Windows
* Simultaneous Dual and Multiple Display Support
* Simultaneous dual display including graphics on CRT and video playback on TV
* Multiple display hardware support
* Integrated 64 Bit GUI Accelerator, Soft3D/Direct3D Acceleration
* 64 bit integrated GUI Accelerator with 64 bit GUI engine , 200 Mhz RamDac, dual programmable clock
* Supports up to 1600x1200x8x60Hz, 1280x1024x16x75Hz, 1024x768x24x85Hz , 800x600x24x90Hz and 640x480x24x90Hz
* Windows 95 Plug and Play compatible
* VESA DDC2B , DPMS support
* VGA output with SCART support
* Soft3D acceleration of 3D games using Direct3D
* High speed EDO/DRAM on board (2MB for 9701/9703, 4MB for 9705)
* Video Acceleration for MPEG & Live Video
* Direct Draw /Active Movie MPEG playback using hardware double buffering, scaling, overlay, CSC, and chroma key
* YUV 12 Planar (YUV420) & YUV 422/411 support
* Direct interface to Virtual Reality/3D glasses
* Full Software Support for Microsoft Windows 3.x/95/ NT3.5x, 4.x, IBM OS/2, AutoCAD, AutoDESK 3D-Studio, and other application software
* Video-capture on board for video input

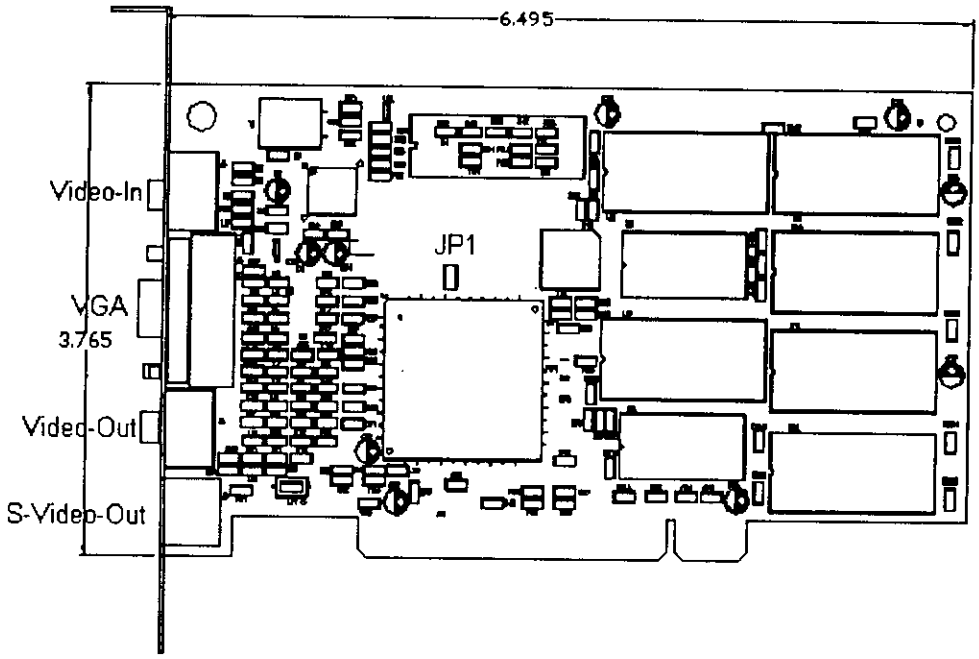
3. CONNECTORS AND JUMPERS

3.1 PCB Parts Locations

3.1.1 9700 VGA

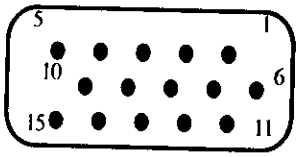


3.1.2 9705 VGA



3.2 On-Board Back-Panel Connectors

3.2.1 VGA Port



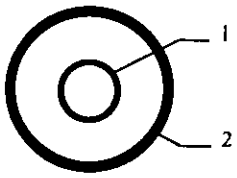
VGA Port Layout

Pin	Signal	Description	Pin	Signal	Description
1	RED	Red	9	NC/SCART2	NC/Scart Detect 2
2	GREEN	Green	10	GND	Ground
3	BLUE	Blue	11	NC	No Connect
4	NC/SCART	NC/Scart Detect	12	SDA	Serial Data (DDC2B)
5	GND	DDC Return	13	HSYNC	Horizontal Sync
6	GND	Ground	14	VSYNC	Vertical Sync
7	GND	Ground	15	SCL	Serial Clock (DDC2B)
8	GND	Ground			

** PIN 4/9 are NC for 9700, SCART for 9705*

VGA Port Signals

3.2.2 Composite Video-In Port

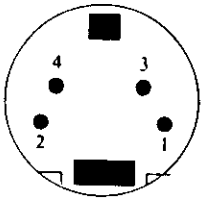


Composite Video-In (RCA Jack)

Pin	Signal	Description	Pin	Signal	Description
1	VideoIn	Video In	2	GND	Ground

Composite Video-In Jack Signals

3.2.3 S-Video In Port

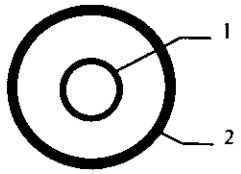


S-Video In Layout

PIN	SIGNAL	DESCRIPTION
1	GND	Ground
2	GND	Ground
3	Y-in	NTSC Luminance
4	C-in	NTSC Chrominance

S-Video In Port Signals

3.2.4 COMPOSITE VIDEO-OUT PORT

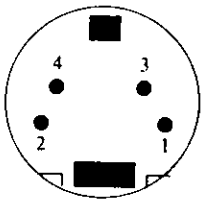


Composite Video-Out (RCA Jack)

PIN	SIGNAL	DESCRIPTION	PIN	SIGNAL	DESCRIPTION
1	VidOut	Video Out	2	GND	Ground

Composite Video-Out Jack Signals

3.2.5 S-VIDEO OUT PORT



S-Video Out Port Layout

PIN	SIGNAL	DESCRIPTION
1	GND	Ground
2	GND	Ground
3	Y-in	NTSC Luminance
4	C-in	NTSC Chrominance

S-Video Out Port Signals

3.3 Configuration Headers

TV SYSTEM

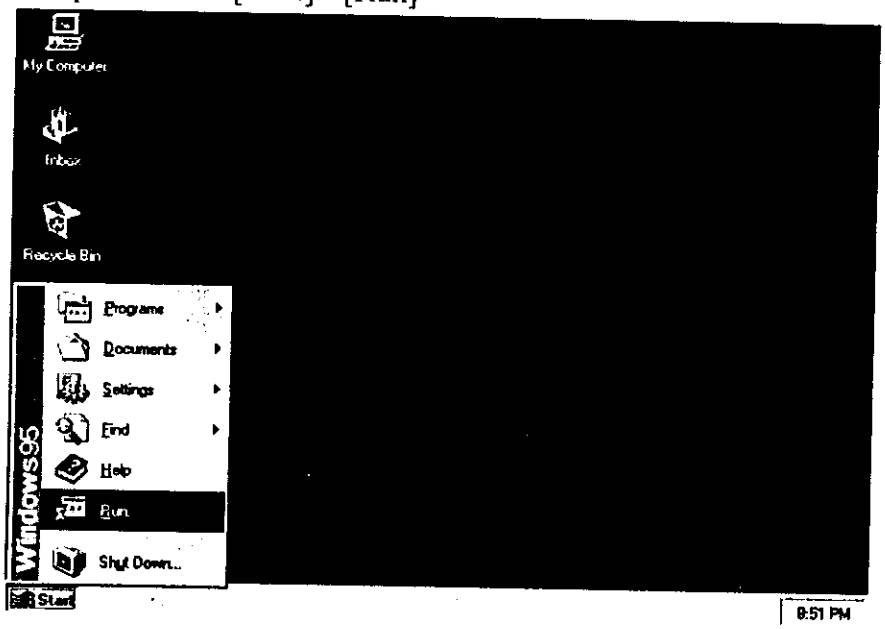
JP1

CLOSE	PAL
OPEN	NTSC

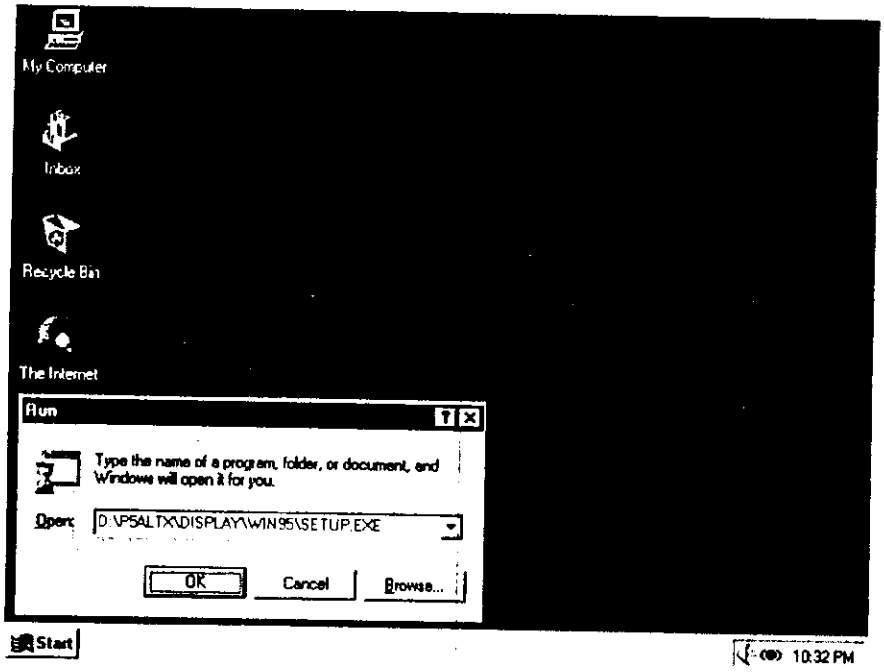
4. OPERATION GUIDE

4.1 Windows 95 Setup

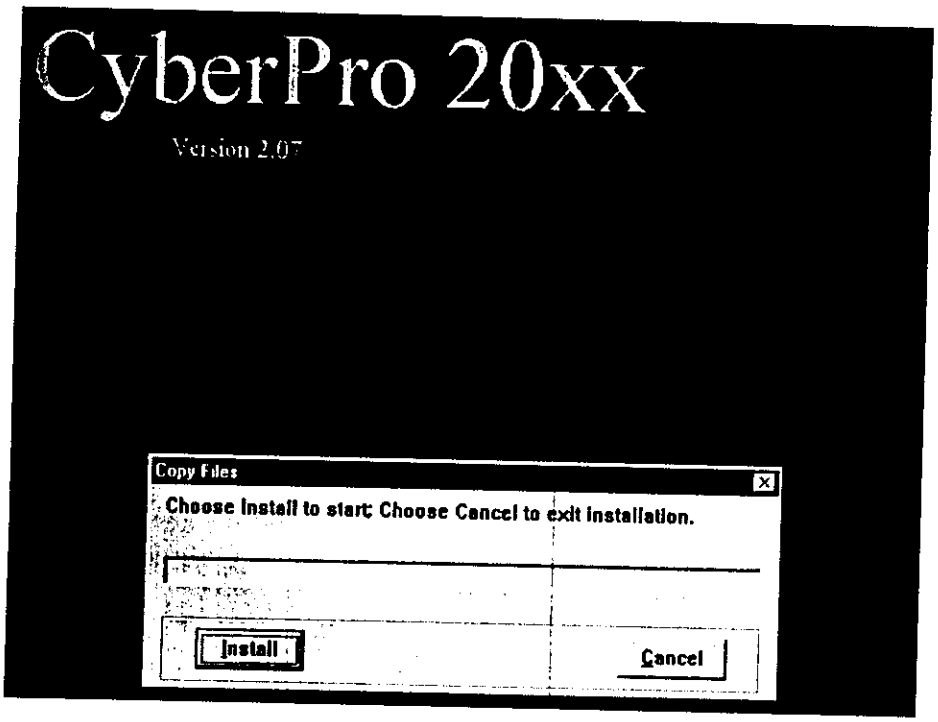
Setup 1. Install "DOMEX System Driver" CD-ROM (as D: in this example)
Setup 2. Select: [Start]->[Run]



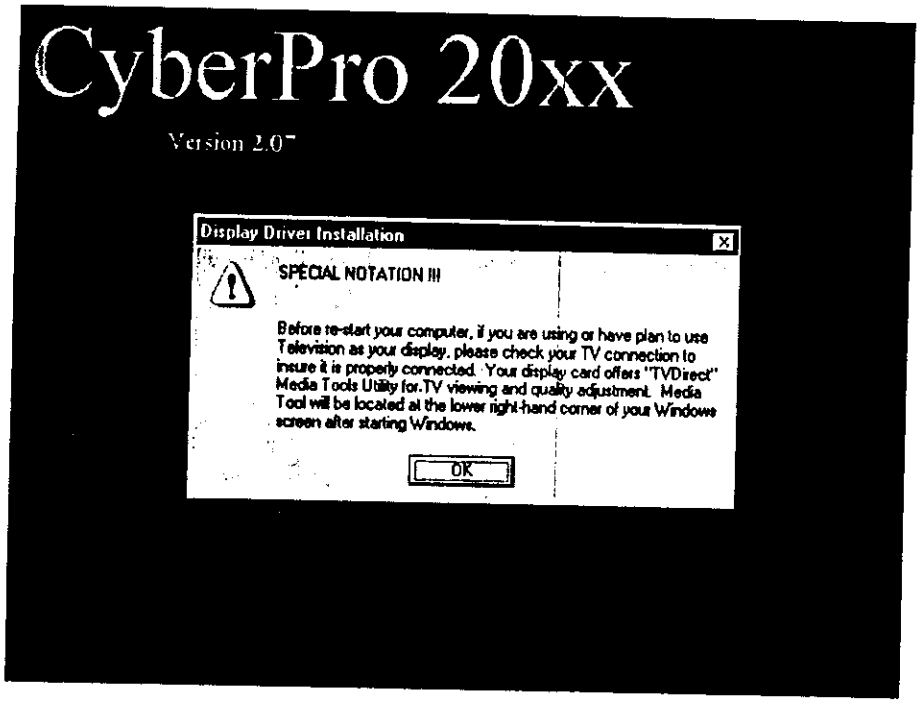
Setup 3 Type "D:\ P5ALTX\DISPLAY\WIN95\SETUP.EXE" , then select OK



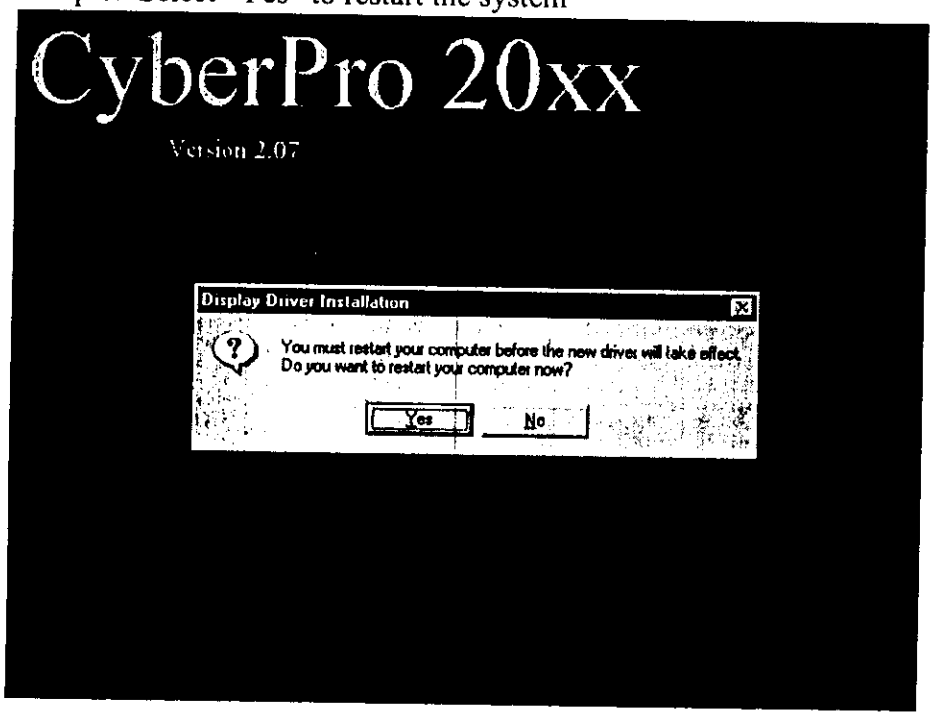
Setup 4. Select "Install"



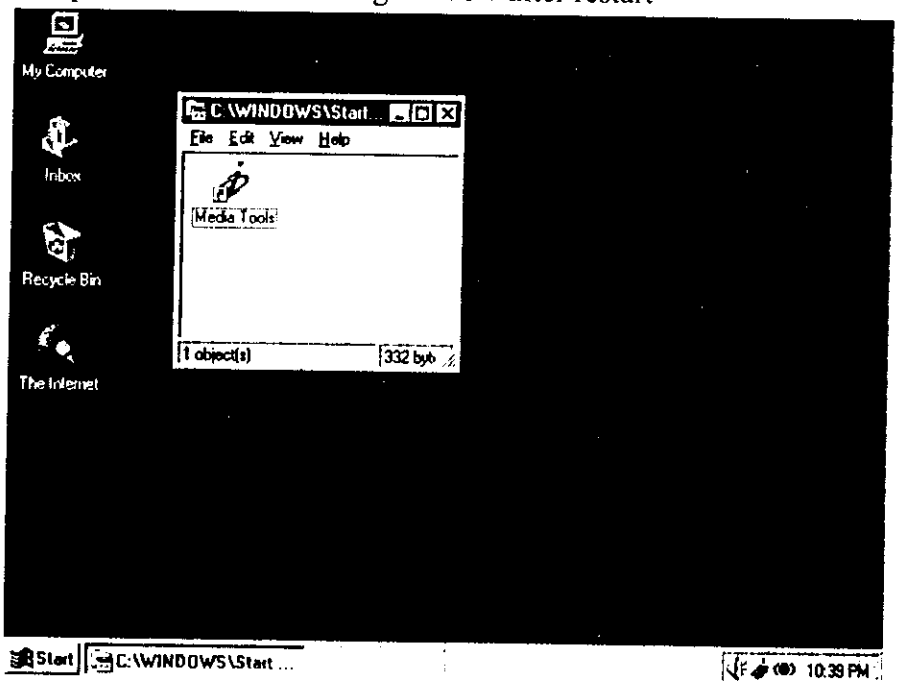
Setup 5. Select "OK"



Setup 6. Select "Yes" to restart the system

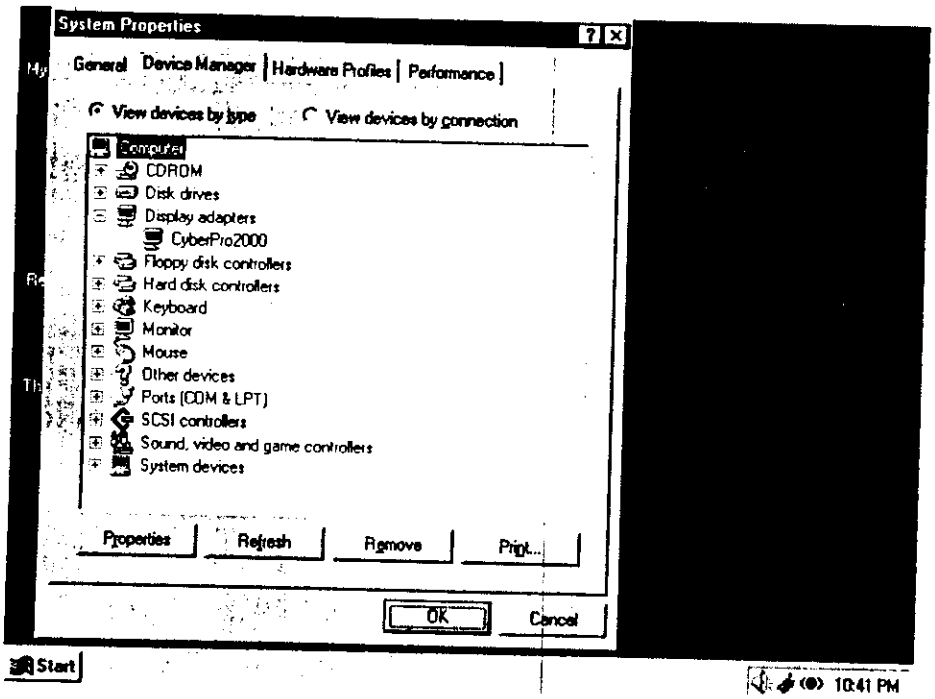


Setup 7. Close the following window after restart



Select "Media Tools" icon to change display/Graphics attributes. Video In/Out can also be controlled through this utility. Check "?" icon inside the program for details.

Setup 8. Select [Start]->[Setup]->[Control]->[System]->[Device Manager]
To verify the correct installation
"CyberPro2000" showed in "Display adapters"



4.2 Microsoft Windows 3.1 Drivers SETUP

SETUP VGA MODE

a. Change directory to Windows 3.1 and type "SETUP".
b. Select "DISPLAY" [ENTER].
c. Change to "VGA" [ENTER].
d. Click ENTER button to save the result.

SETUP DRIVER:

a. Start your Windows 3.1 program.
b. Insert the CD into the CD-ROM driver and run Setup program by selecting
Run from the Windows Program Manager.
c. Type D:\P5ALTX\DISPLAY\WIN31\DISK1\SETUP [Enter] in the run dialog box . The Windows 3.1 driver installation menu will appear on the screen .
Click on the "Start" button to begin installation .
The installation program will complete installation Windows 3.1 drivers .

4.3 Microsoft Windows NT4.0 Drivers SETUP

SETUP DRIVER

a. Turn on your computer and start Windows NT4.0 . Insert the CD driver into your CD-ROM .
b. Click the right mouse button anywhere on the Windows NT desktop and select Properties from the pop-up menu that appears on screen. Select Setting Display Type and then click the [Change] button for Adapter Type . When the Select Device dialog box appears on screen, check the [Have Disk] button and enter the path to the driver installation CD (e.g., D:\P5ALTX\DISPLAY\WINNT40) .
c. With " Video Accelerator 168x/2000 " highlighted , click " OK " .
Windows NT will copy the driver files to your hard drive .
d. After the files are copied. Windows NT will ask you to restart your computer .
Click " Yes " to restart the computer .

4.4 DOS Drivers Setup

a. Turn on your computer . Insert the CD driver into your CD-ROM. Type D:\P5ALTX\DISPLAY\DOS\SETUP [Enter] in the run dialog box .