

EUT:VGA CARD

FCC ID:FQI3DBSSGAGP

JOYTECH COMPUTER CO., LTD.

User's Manual

FEDERAL COMMUNICATIONS COMMISSION

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.

NOTE

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. These limits are designed to provide reasonable protection. This equipment generates, uses and can radiated 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 antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

Shielded interface cables must be used in order to comply with emission limits.

Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

Table of Contents	
Section 1. Introduction	3
Section 2. Features	4
Section 3. Software Installation	7
3-1. System Requirements	7
3-2. Driver Installation	7
3-2-1. Windows 98	7
3-2-2. Windows NT 4.0	17

Section 1. Introduction

Voodoo Banshee incorporates leading-edge 3D graphics and extremely fast 128-bit Windows GUI/Video Acceleration into a single chip.

Voodoo Banshee is upward compatible with all the hundreds of 3D titles. It continues 3Dfx heritage to deliver 100 Mpixels fill rate and over 4 million triangles per second performance. It also provides advanced 3D features with the universal requirement of all serious game developers : no degradation performance and quality.

Voodoo Banshee is the only solution to fully exploit the processing power the Pentium II. The AGP interface is tuned for optimal 3D performance and supports both sideband addressing and pipelining for very fast texture downloading. Voodoo Banshee is a 100 MHz single-cycle GUI accelerator with 128-bit frame buffer interface. The video architecture is optimized for software DVD acceleration. It supports the new features of Windows98 and is compliant with PC97 and PC98.

Section 2. Features

1. General Features

- (1) Fully integrated 128-bit VGA/2D/3D/Video Accelerator.
- (2) Screen resolution up to 1600x1200 at 85 Hz with standard 230 MHz RAMDAC
- (3) PC97 and PC98 rev 1.0 compliant
- (4) VESA DDC2B support

2. 2D Acceleration

- (1) 100 MHz single-cycle 128-bit Windows GUI acceleration
- (2) Fully-featured 128-bit BitBlt Engine
- (3) Acceleration for Bresenham line draw, 2-edge polygon fill, scissor/rectangle clippers, 256 ROPs.
- (4) Source and destination chroma-keying for DirectDraw

3. 3D Acceleration

- (1) Full hardware setup of triangle parameters
- (2) Support for multi-triangle strips and fans

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- (3) 16-bit integer and floating-point Z-buffering with biasing
 - (4) Transparency and chroma-key with dedicated color mask
 - (5) Alpha blending of source and destination pixels
 - (6) Sub-pixel and sub-textel correction to 0.4x0.4 resolution
 - (7) 24-bit color dithering to native 16-bit RGB
 - (8) Per-pixel atmospheric fog with programmable fog zones
 - (9) Polygon edge anti-aliasing
 - (10) Perspective correct 3D texture mapping(true divide-per-pixel)
 - (11) True per-pixel LOD(level-of-detail) MIP mapping with biasing and clamping
 - (12) High performance bilinear and trilinear texture filtering
 - (13) RGB modulation/addition/blending combines textures and shaded pixels
 - (14) Texture compositing for multi-texture special effects
 - (15) Support of 14 texture map formats
 - (16) 8-bit paletted textures with full bilinear filtering
 - (17) Texture compression through narrow-channel YAB format

4. Host Interface

- (1) High performance AGP interface includes optimized support for sideband addressing and pipelining
- (2) PCI v2.1bus interface supports 33 MHz and 66 MHz
- (3) FIFO optimized for high speed bursting of geometry and texture data
- (4) Optimized for Pentium II I/O architecture
- (5) Bi-endian byte-ordering support

Section 3. Software Installation

3-1. System Requirements :

- PC with a Pentium, Pentium II, or Pentium Pro Processor and a free AGP slot
- 16MB of RAM

3-2. Driver Installation

3-2-1. Windows 98

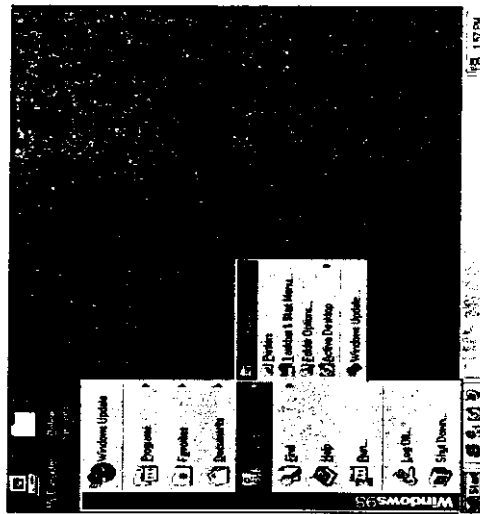
NOTICE: It is recommend that the video mode be set to standard VGA before beginning this installation. To configure your Windows 98 driver once it is installed.

1. Windows 98 should already be installed.
2. Power down the computer and install the 3D Banshee card.
3. Reboot the computer and start windows 98. The Windows 98 will auto detect and install standard VGA display driver into your system.
4. Now to active the 3D Banshee, please following the next step to install the 3D Banshee display driver.

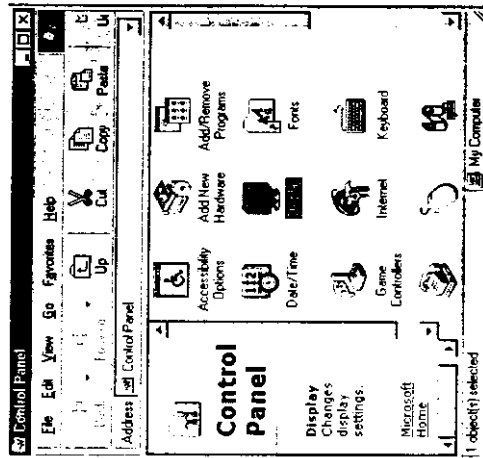
5. Click on **Start Menu**. (Figure 1)

6. Choose the **Settings**, and open the **Control Panel**. (Figure 1)

7. Double Click on **Display** icon. (Figure 2)



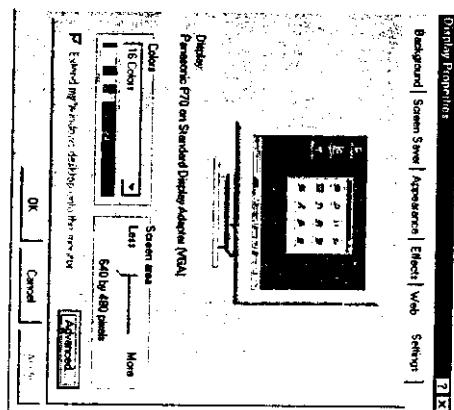
(Figure 1)



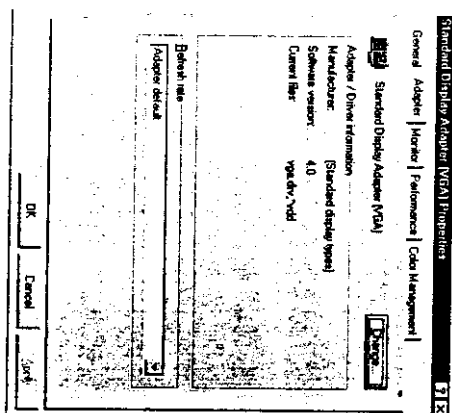
(Figure 2)

8. Click on **Settings** and click on **Advanced Properties**. (Figure 3)

9. Click on **Change** under **Adapter** sub-menu. (Figure 4)



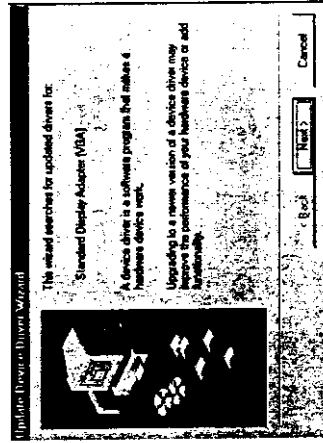
(Figure 3)



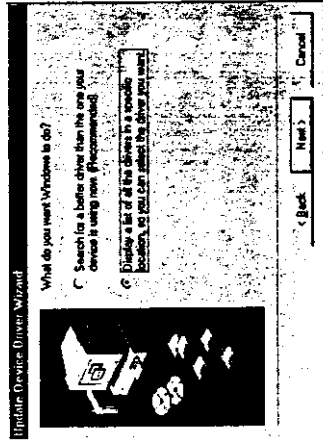
(Figure 4)

10. Click on **Next** (Figure 5)

11. Click on **Display** a list of all the drivers in a specific location, so you can select the driver you want then click on **Next** (Figure 6)

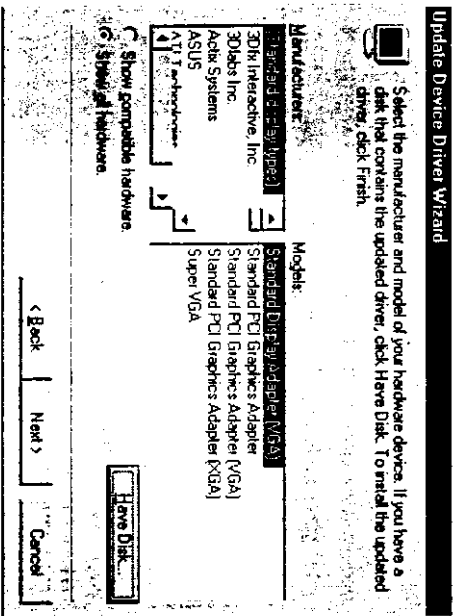


(Figure 5)



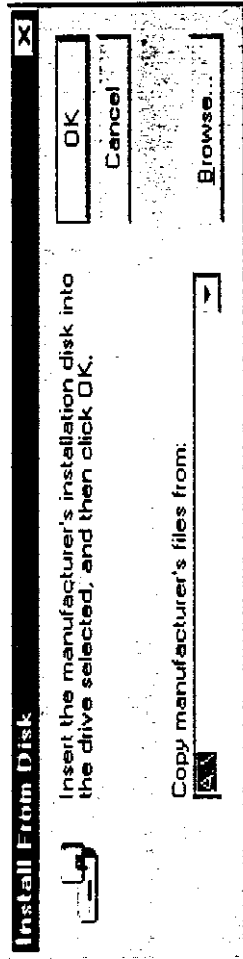
(Figure 6)

12. Click on **Have Disk** (Figure 7)



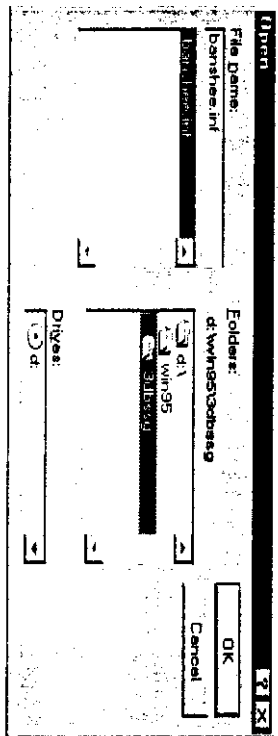
(Figure 7)

13. Insert the 3D Banshee Windows 98 driver disk (CD or Floppy disk) , if you install from floppy disk **A:** , or from CD drive D:\Win95\3DBSSG and click on **Browse**. (Figure 8)

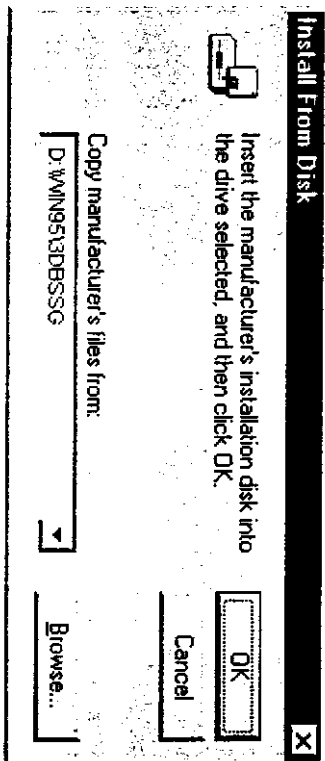


(Figure 8)

14. Select CD drive D:\win95\3dbssg\banushce.inf file . (Figure 9 , Figure 10)

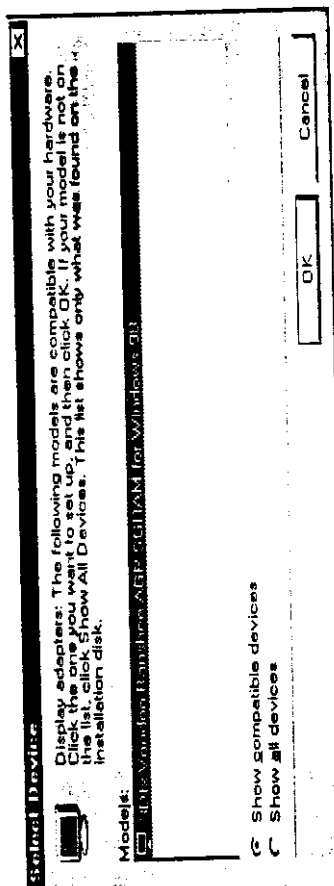


(Figure 9)

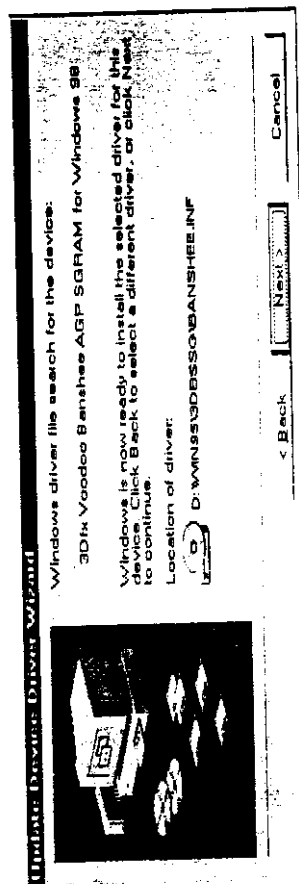


(Figure 10)

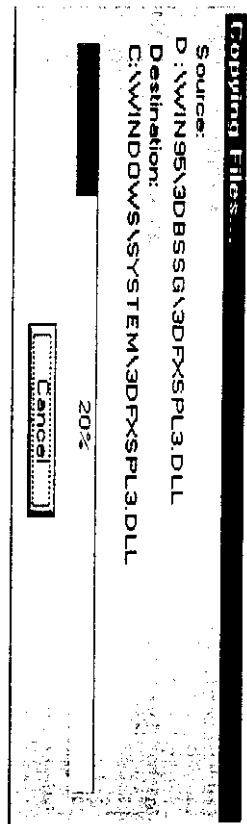
15. Under **Select Device** Menu, click on **OK**. (Figure 11 · Figure 12 · Figure 13)



(Figure 11)

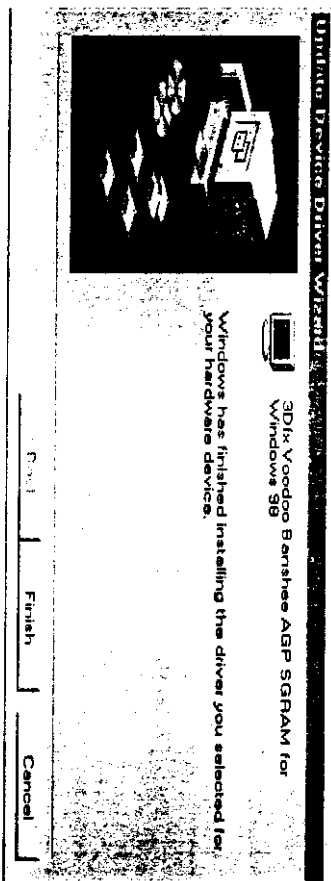


(Figure 12)



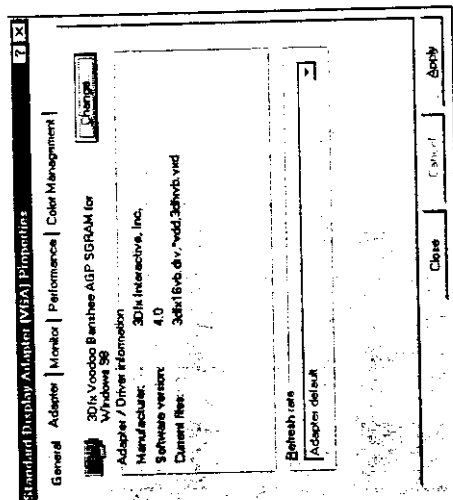
(Figure 13)

16. Under **Update Device Driver Wizard** Menu, click on **Finish** button. (Figure 14)

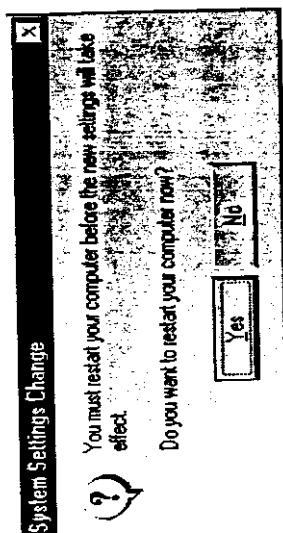


(Figure 14)

17. Under **Standard Display Adapter (VGA) Properties** Menu, click on **Apply** (Figure 15)
18. Under **System Settings Change** Menu, click on **Yes** and it's completed. (Figure 16)



(Figure 15)

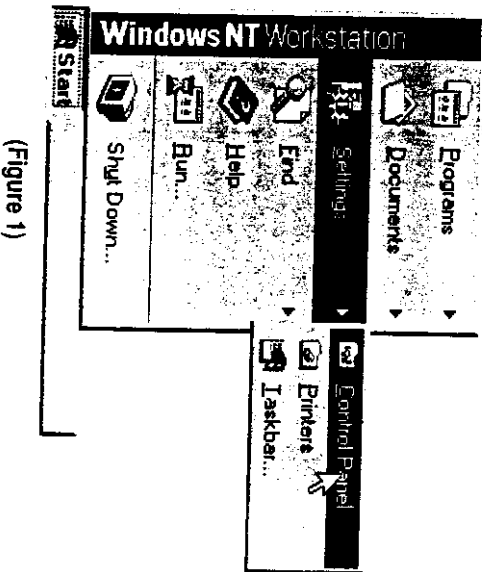


(Figure 16)

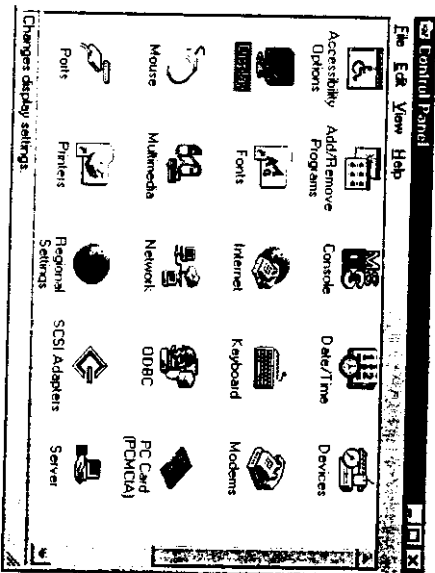
3-2-2. Windows NT 4.0

NOTICE : If you are first time to start windows NT 4.0, please select **VGA Mode** from boot menu.

1. After you login the Windows NT 4.0, the default display are standard VGA mode, now you need to install the 3D Banshee to active the driver.
2. Click on **Start Menu**(Figure 1)
3. Move your mouse pointer to **Setting > Control Panel**, and click on it. (Figure 1)

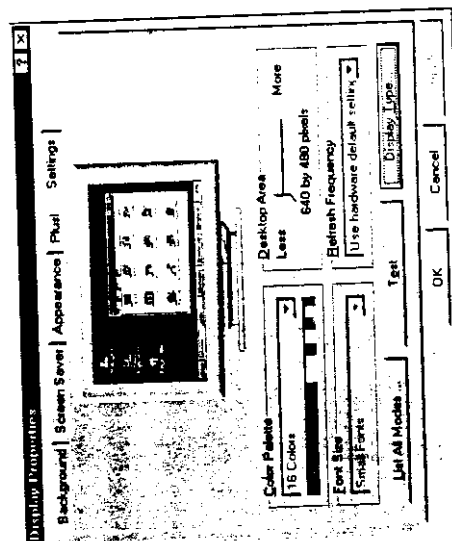


(Figure 1)

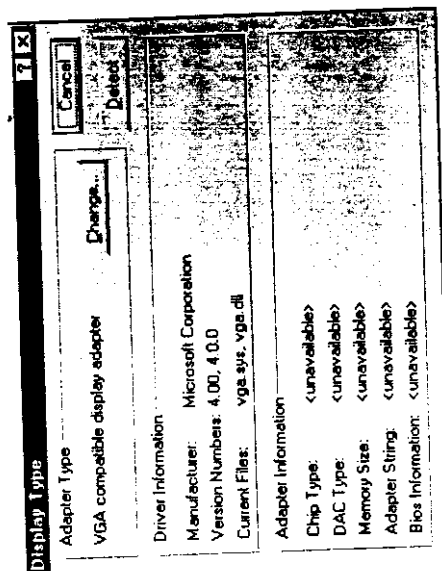


(Figure 2)

4. Now you bring up the **Control Panel**, double click on **Display** icon. (Figure 2)
5. Move the mouse pointer to **Display Type**, and click on it. (Figure 3)
6. You will find now the NT 4.0 set default display types as **VGA Compatible Display Adapter**.
7. Click on **Change** button. (Figure 4)



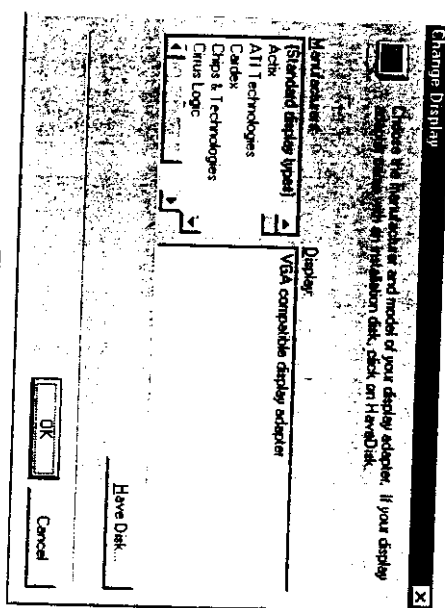
(Figure 3)



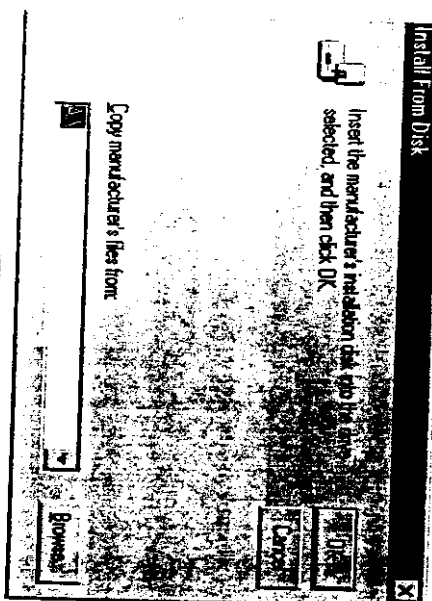
(Figure 4)

8. Please click on **Have Disk** button. (Figure 5)

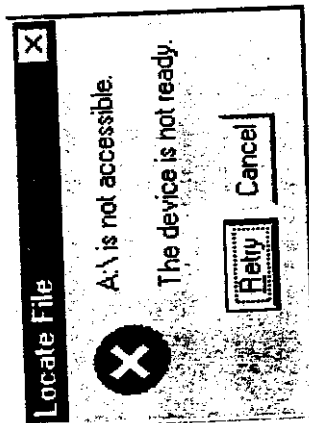
9. Please insert the Installation CD or Driver Disk with the 3D Banshee VGA into CD-ROM or Floppy Disk, and type the display driver path as follow **D:\NT40\3DBSSG\BANSHEE.INF** and click **O.K.** button. (Note: the CD-ROM location are depend on what your system assigned) (Figure 6-1 ~ Figure 6-5)



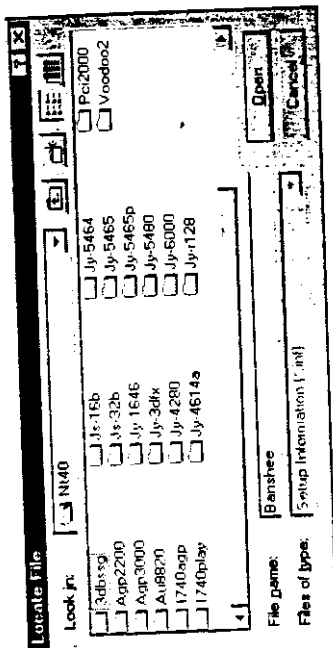
(Figure 5)



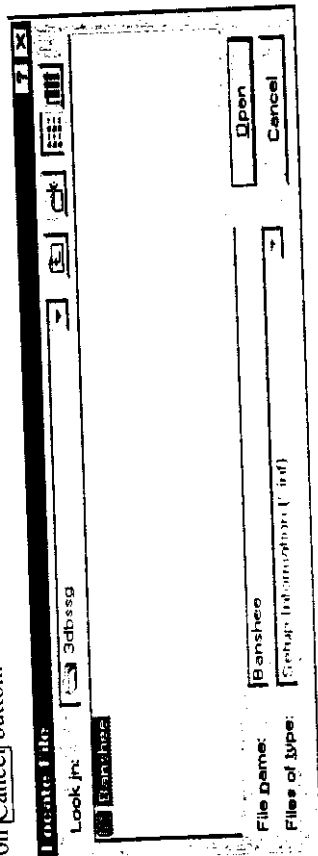
(Figure 6-1)



(Figure 6-2) Click on **Cancel** button.

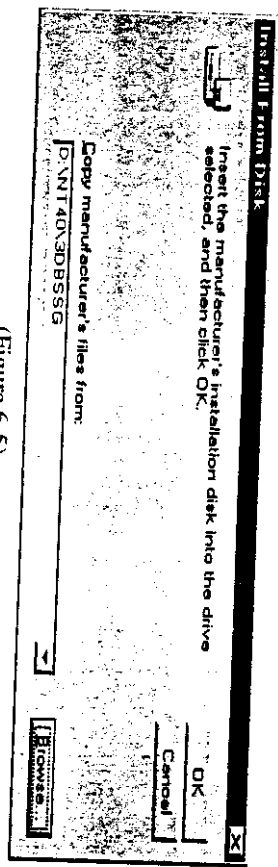


(Figure 6-3)



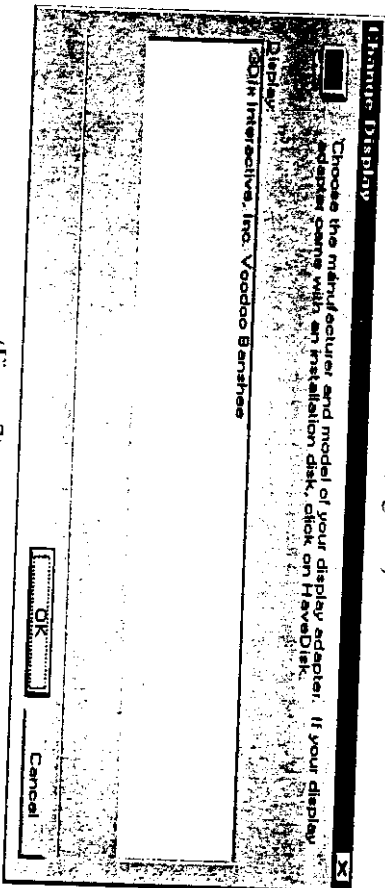
(Figure 6-4)

10. Under **Install From Disk** Menu, and click on **OK** button.



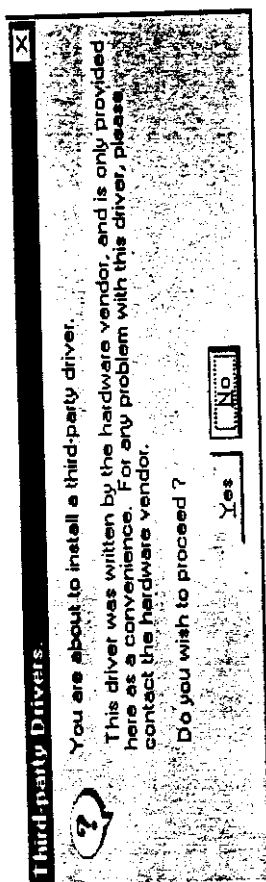
(Figure 6-5)

11. Under **Change Display** Menu, click on **OK** button. (Figure 7)



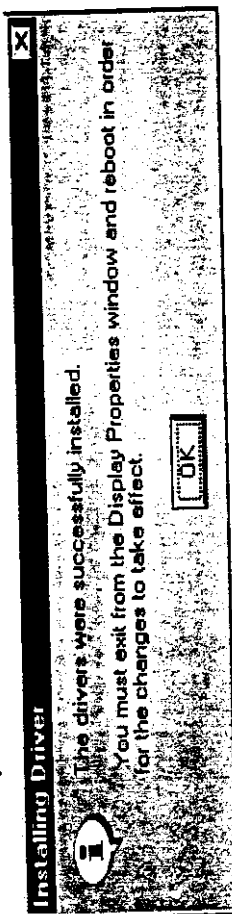
(Figure 7)

12. The system will prompt you about a **Third Party Driver** and click on **Yes** button. (Figure 8)



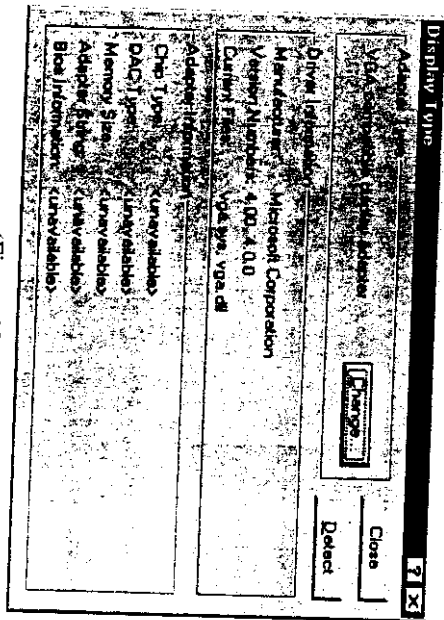
(Figure 8)

13. Then the system will prompt you the driver are installed successfully, click on **O.K.** (Figure 9)

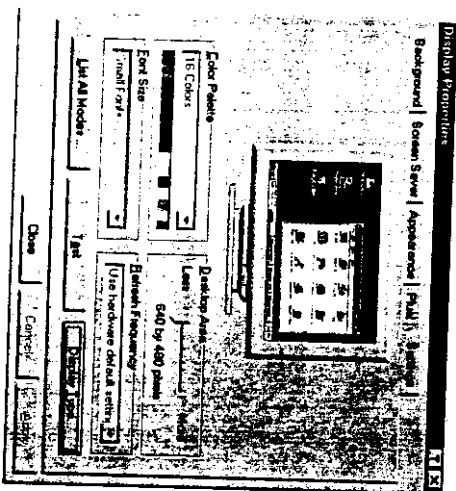


(Figure 9)

14. Now you go back to **Display Type** Menu, Click on **Close** button. (Figure 10)
15. Under **Display Properties** Menu, just click on **Close** button, the system will prompt you to restart Windows. (Figure 11)

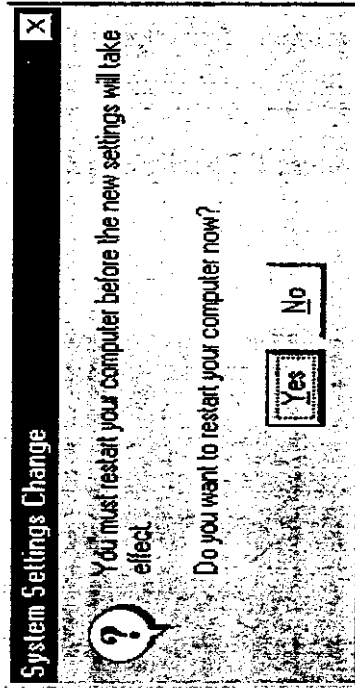


(Figure 10)



(Figure 11)

16. Click on the ☐ button. (Figure 12)



(Figure 12)

