SP7310

SPARKLE COMPUTER CO., LTD.

3D GRAPHIC ACCELERATOR MANUAL

1.0

5.1 Remove old Drivers: (only if you have old nVIDIA drivers) 7
5.2 Installation and Setup 7
5.3 How to Change Color Depth and Resolution in Windows XP 8
5.4 How to Change Refresh Rate in Windows XP 9
5.5 NVIDIA Utility in Windows System 10
5.5.1 GeForce4 MX440−8X (NVIDIA) 10
5.5.2 nView 11
5.5.2.1 Standard mode: 12
5.5.2.2 Color correction… 13
5.5.2.3 Screen Adjustment… 14
5.5.2.4 Display Timing… 14
5.5.2.5 nView enable mode 15
6. Manually install Windows 98 and Windows ME drivers 16
6.1 Remove old Drivers: (only if you have old nVIDIA drivers) 16
6.2 Installation and Setup 16
6.3 How to Change Color Depth and Resolution 17
6.4 How to Change Refresh Rate 17
7. Manually install Windows 2000 drivers 18
FCC Statement 19
Warning: 19
Trademark Acknowledgments 19

including Z occlusion culling, fast Z clear, and auto precharge – effectively multiplies the memory bandwidth to ensure fluid frame rates for the latest 3D and 2D games and applications

MX Memory Crossbar

Dual memory controllers allow more efficient utilization of memory bandwidth

Integrated Dual 350MHz DACs

Drivers two independent CRT display with crisp and clear image quality at 1600x1200 resolution (2 CRT output is optional function)

Integrated TV Encoder supporting 1024x768 Resolution

Provides best-in-class TV-out functionality (optional)

Accuview Antialiasing

Delivers unprecedented AA performance and quality to the mainstream market and enables high resolution, high frame rate, full-scene antialiasing for the first time ever in this market segment

Video Processing Engine (VPE)

Enables the highest quality, full-frame rate, full-screen HDTV and DVD without requiring a high performance CPU

AGP 8X/4X/2X with AGP Texturing and Fast Writes

AGP 8X is the highest performance connection between the CPU and graphics processor. Taking advantage of new methods for transferring information more efficiently allows content developers to use high-quality 32-bit color textures and high-polygon count scenes.

Other Features

2 dual-rendering pipelines
4 texels per clock cycle
Cube environment mapping
64MB/128MB high-speed 128-bit DDR RAM memory
High-performance 2D rendering engine
NVIDIA Shading Rasterizer
AGP Fast write and AGP Texturing Support
Integrated hardware transform engine
Integrated hardware lighting engine

DirectX 8.1 and lower

2. Hardware installation

2.1 Package Contents

1. NVIDIA GeForce4 MX440−8X/MX4000 3D Accelerator card
2. Drivers CD title
3. This manual
4. Accessories

See appendix for accessories detail and connection topology.

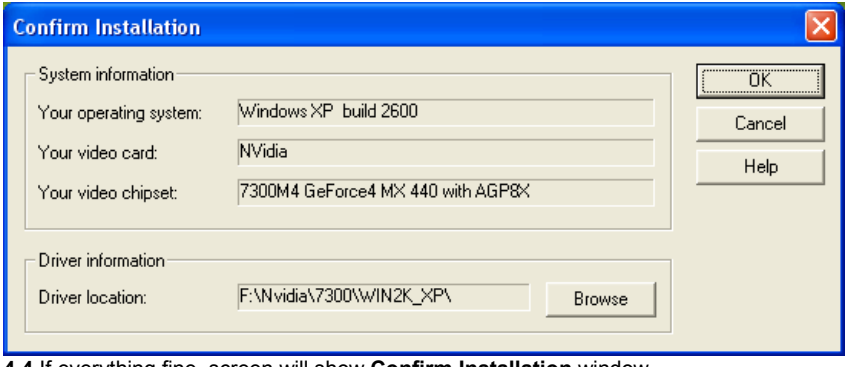
2.2 Installing the card

1. Turn off your computer
2. Remove the cover of the computer per the owner's manual
3. Install the card in the AGP bus slots
4. Replace the cover.

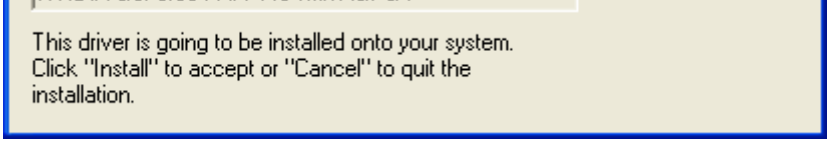
1024*768	16	60/70/72/75/85/100/120/140/144/150/170/200/240
	32	60/70/72/75/85/100/120/140/144/150/170/200
1152*864	8	60/70/72/75/85/100/120/140/144/150/170/200
	16	60/70/72/75/85/100/120/140/144/150/170/200
	32	60/70/72/75/85/100/120/140/144/150
1280*960	8	60/70/72/75/85/100/120/140/144/150/170
	16	60/70/72/75/85/100/120/140/144/150/170
	32	60/70/72/75/85/100/120/140/144/150
1280*1024	8	60/70/72/75/85/100/120/140/144/150/170
	16	60/70/72/75/85/100/120/140/144/150/170
	32	60/70/72/75/85/100/120/140/144/150
1600*900	8	60/70/72/75/85/100/120/140/144/150
	16	60/70/72/75/85/100/120/140/144/150
	32	60/70/72/75/85/100/120
1600*1200	8	60/70/72/75/85/100/120
	16	60/70/72/75/85/100/120
	32	60/70/72/75/85/100

Different driver version or different windows platform may have different support table.

4.3 Click **Driver installation**



4.4 If everything fine, screen will show **Confirm Installation** window.
Then Select **OK**



If the drivers is very new may not be certified by Microsoft, if so, system will prompt you the drivers do not have “digital signature”, still you can force to install.

4.6 Then click **“Yes”** to restart your computer.

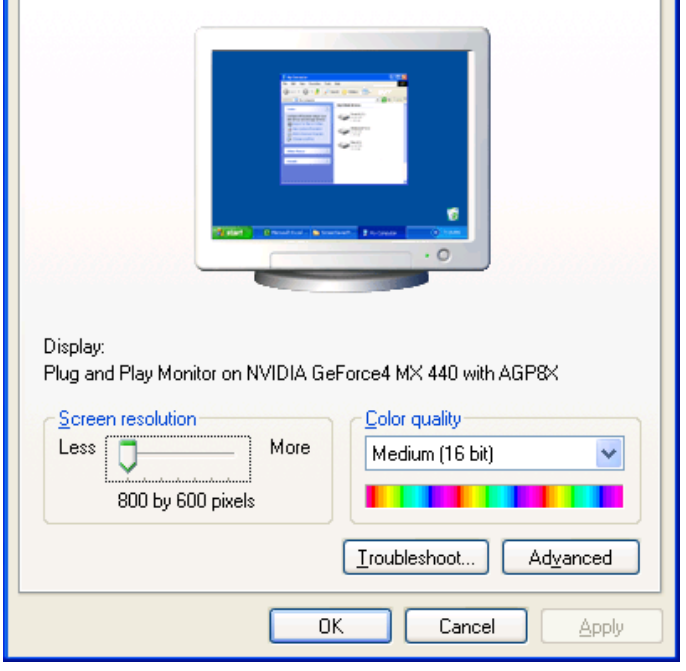
4. Double-click on the **Display** icon in the **Control Panel** folder. You can also click the right mouse button anywhere on the desktop and select the Properties option form the pop-out menu.
5. Click **Settings**, and then **Advanced**
6. Now shows **[Plug And Play Monitor and NVIDIA…] window**
   Select **Adapter**
7. Then show **Standard PCI Graphics…(or NVIDIA GeForce…)**
   Select **Properties**
8. Then show **Adapter Properties …**
   Select **Driver** and click **Update driver…**
9. Then show **Hardware Update Wizard**
   Select **Install from a list or specific location (Advanced)** – recommended for saving installation time
   Then select **Next.**
10. Default setting will select **Search for the best driver in these locations**
    Please check **Include this location in the search** – recommended for saving installation time
    Select **Browse**
11. Then show **Browse for Folder**

Select **E:\ NVIDIA\7300\win2K_XP** (If 7300 not exist, use 7X00 instead)

Note: "E:"-> CD Drive, **"NVIDIA"->** VGA chip brand name, **"7300"->** VGA model name

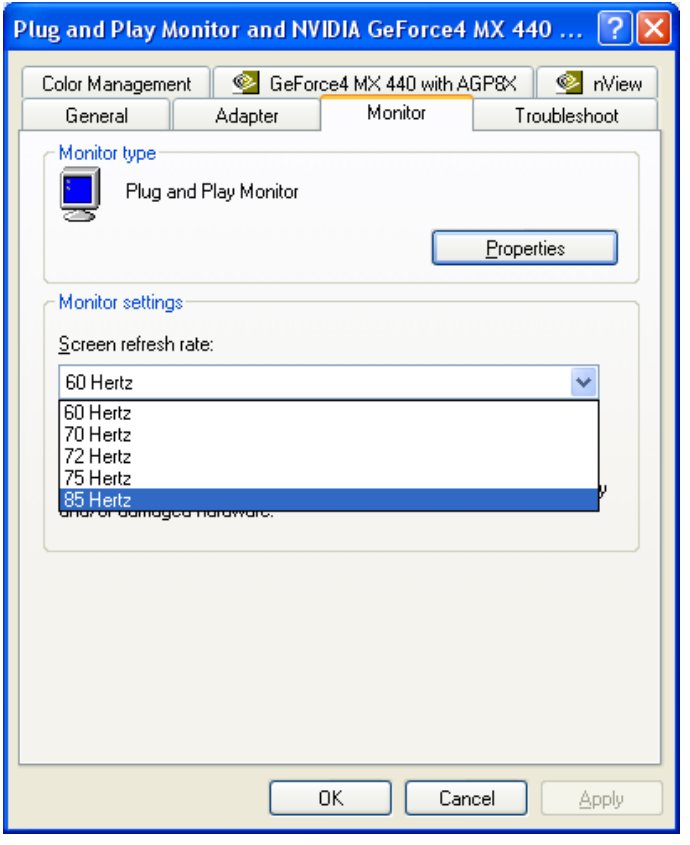
Then select **OK** and then click **Next**

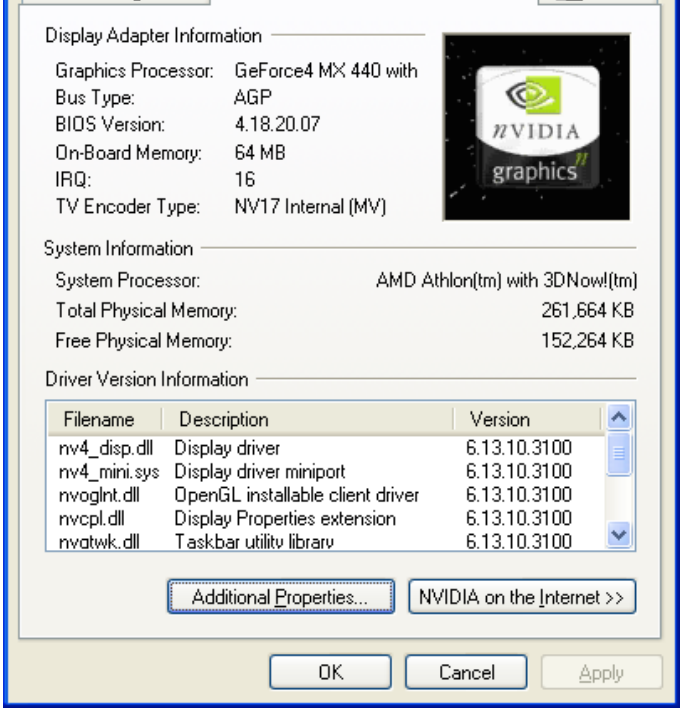
12. If no problem occur, system will start to install the driver
13. Then show **Completing the Hardware Update Wizard**
    Select **Finish**
14. Close the **Adapter Properties window**
15. Then show **System Settings Change**
    Select **OK**, System will restart automatically.

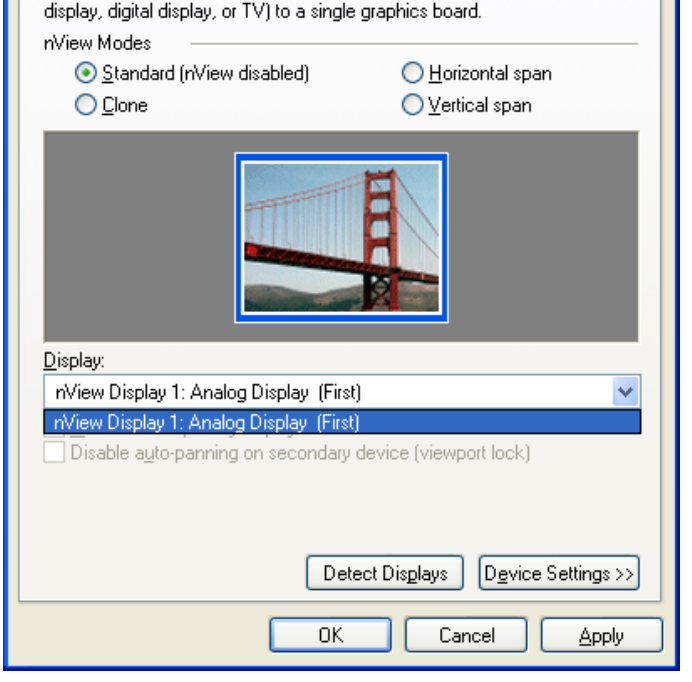


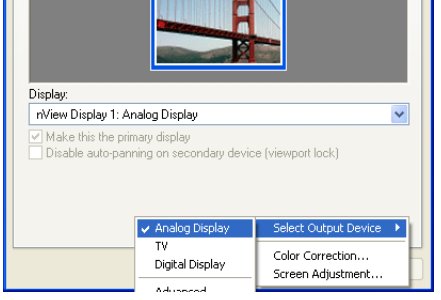
Click on the pull-down arrow from the Color palette area to select color depth or adjust the sliding bar to either **Less** or **More** from the Desktop area
Select **OK** to restart System and new color depth or new resolution will take effect.

monitor. Otherwise you can't select the refresh rate you wanted.

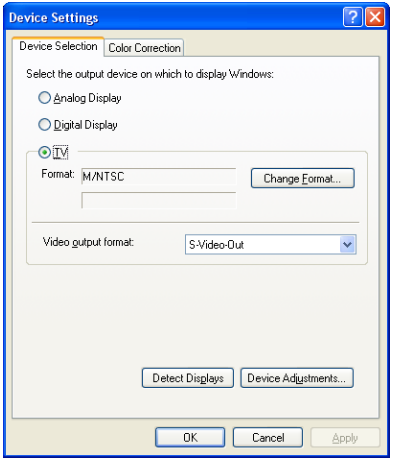



Display Adapter Information
Graphics Processor: GeForce4 MX 440 with
Bus Type: AGP
BIOS Version: 4.18.20.07
On-Board Memory: 64 MB
IRQ: 16
TV Encoder Type: NV17 Internal (MV)
nVIDIA
graphics
System Information
System Processor: AMD Athlon(tm) with 3DNow!(tm)
Total Physical Memory: 261,664 KB
Free Physical Memory: 152,264 KB
Driver Version Information
Filename Description Version
nv4_disp.dll Display driver 6.13.10.3100
nv4_mini.sys Display driver miniport 6.13.10.3100
nvoglnt.dll OpenGL installable client driver 6.13.10.3100
nvcpl.dll Display Properties extension 6.13.10.3100
nvqtwk.dll Taskbar utility library 6.13.10.3100
Additional Properties...
NVIDIA on the Internet >>
OK
Cancel
Apply

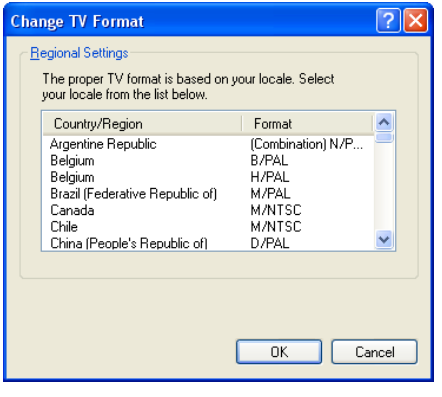

display, digital display, or TV) to a single graphics board.
nView Modes
Standard (nView disabled)
Horizontal span
Clone
Vertical span
Display:
nView Display 1: Analog Display (First)
nView Display 1: Analog Display (First)
Disable auto-panning on secondary device (viewport lock)
Detect Displays
Device Settings >>
OK
Cancel
Apply



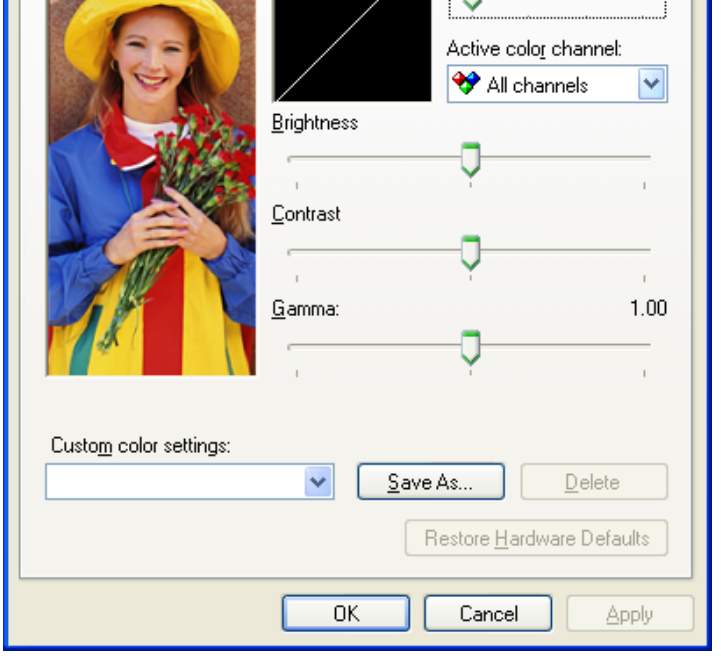
Do not use Auto select.

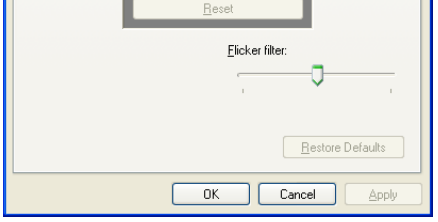


Click **Change Format** to select your country and TV system – NTSC or PAL, no SECAM.



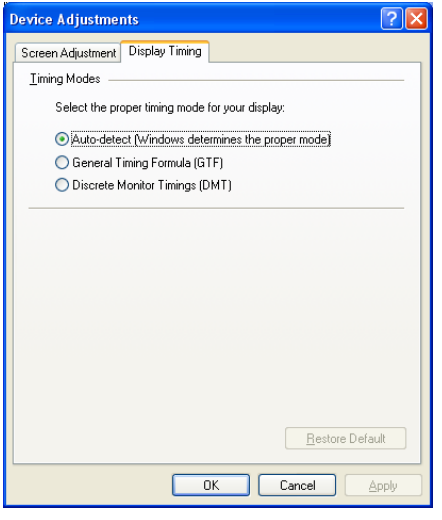
Note:
If you can not switch from PAL back to NTSC, please set resolution to 640x480 and try again

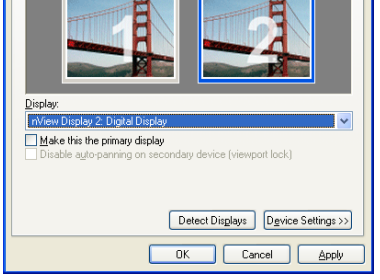

Active color channel:
All channels
Brightness
Contrast
Gamma:
1.00
Custom color settings:
Save As...
Delete
Restore Hardware Defaults
OK
Cancel
Apply



5.5.2.4 Display Timing…
Display Timing can let you set your computer timing.
Default setting is “Auto-detect(Windows determines the proper mode)”.

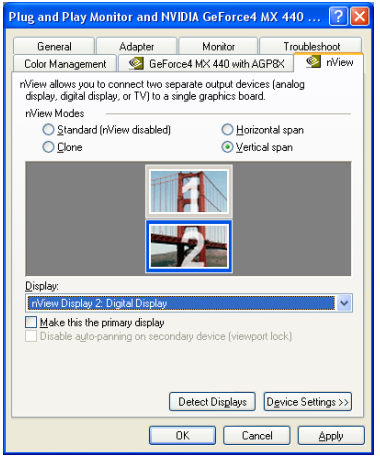
The other 2 options are “General Timing Formula (GTF)” and “Discrete Monitor Timings (DMT)”.



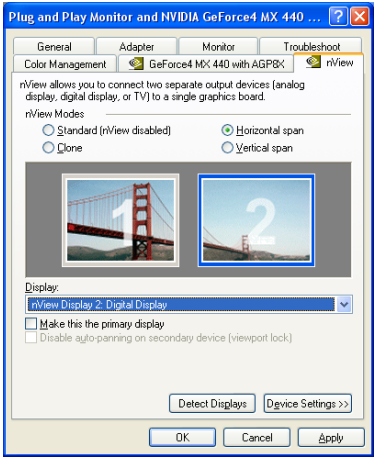


Vertical span mode:

Picture spans vertically on 2 monitors Select **Vertical span**, Click **Apply** to active.



Picture spans horizontally on 2 monitors. Select **Horizontal span**, Click **Apply** to active.



Monitor with blue frame is active. Right click on it will show the configuration menu. Or you can click **Device Settings>>** to set all the functions like “Standard mode”.

4. Double-click on the **Display** icon in the Setting -> **Control Panel** folder. You can also click the right mouse button anywhere on the desktop and select the Properties option form the pop-out menu.
5. Click the **Settings** tab.
6. Then show **[Unknown Device.] Properties** tab
   Select **Adapter**
7. Then show **Standard PCI Graphics…** tab
   Select **Change**
8. Then show **Update Device …** tab
   Select **Next**
9. Then show **Update Device …** tab
   Select **Search for a better…**
   Then select **Next.**
10. Then show **Update Device …** tab
    If the **Specify a location** is wrong
    Please select **Brows**
11. Then show **Browse for Folder** tab

Select **E:\ NVIDIA\7300\Win9X or \Winme** (If 7300 not exist, use 7X00 instead)

Note: "E:"-> CD Drive, **"NVIDIA"->** VGA chip brand name, **"7300"->** VGA model name

   Then select **OK**

12. Then show **Update Device Driver Wizard** tab
    Select **CD-ROM driver**
    Click the **Specify a locator,** if right
    Then select **Next**
13. Then show **Update Device Driver Wizard** tab
    Select **Next**
14. Then show **Update Device Driver Wizard** tab
    Select **Finish**
15. Then show **System Settings Change** tab
    Select **OK**

Properties folder and choose **Settings** click the **Advance Settings** choose **Adapter**

3. Click on the **Refresh Rate** sub window to change refresh rate
4. Select **OK** and new refresh rate takes effect
5. Refresh Rate default is Optimal.
6. If you change Refresh Rate from Optimal to another, you maybe need to restart Windows System for functional.

Note: If your monitor is not Branded or Plug&Play, you will only see Adapter default and optimal. Please contact your monitor supplier to get right or compatible drivers for your monitor. Otherwise you can not select the refresh rate you wanted.

7.2 The following steps describe how to update Windows2000 display drivers

Note: If you already have old nVIDIA drivers in your system, please remove old nVIDIA drivers before install new drivers.

Remove old Drivers: (only if you have old nVIDIA drivers)

From “Start”, “Setting”, select “Control Panel”, double click “Add or remove drivers”. Then comes up the list, find “NVIDIA WINDOWS …”, select it and click “install or remove” to remove it. Reboot your system and go on next step.

1. Place the Disc (CD Title) into CDROM Drive. If now shows SmartInstall window, please click **EXIT** button to quit
2. Right click mouse button on Desktop Area, now shows a sub menu window. Please select **Properties**.
3. Now come up **Display Properties** window, please select **Settings** on the top.
4. Select **Advanced**
5. Select **Adapter**.
6. Select **Change**
7. Now comes up a update drivers wizard window. Please follow the on screen instruction.
8. Please specify the drivers location at your CDROM letter: \NVIDIA\7300\win2K_XP (If 7300 not exist, use 7X00 instead) or the directory where you put your drivers
9. Select **Install** and click “**YES**” when the Installing Driver dialog box appears. If the drivers is very new may not certified by Microsoft, if so, system will prompt you the drivers do not have “digital signature”, still you can force to install.

A message appears stating that drivers were successfully installed. Click **OK**. Another message appears stating that the driver could not be restarted dynamically. Restart Windows2000 to run the new driver. Click **OK.**

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 form that to which the receiver in connected.
- Consult the dealer or an experienced radio/TV technician for help.

Notice:
(1) An Unshielded-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 by used.
(2) Use only shielded cables to connect I/O devices to this equipment.3
(3) Changes or modifications not expressly approved by the party responsible for compliance could void the use's authority to operate the equipment.

Trademark Acknowledgments

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