



SyncMaster 400T





Safety Instructions

- ▶ **Notational**
- ▶ Power
- ▶ Installation
- ▶ Cleaning
- ▶ Other

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Please read the following safety instructions as they are designed to prevent damage to property and harm to the user.



Warning / Caution



Failure to follow directions noted by this symbol could result in bodily harm or damage to equipment.

Notational Conventions



Prohibited



Important to read and understand at all times



Do not disassemble



Disconnect the plug from the outlet



Do not touch



Grounding to prevent an electric shock



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When not used for extended periods of time, set your PC to DPMS. If using a screen saver, set it to the active screen mode.



Do not use a damaged or loose plug.

- This may cause an electric shock or fire.



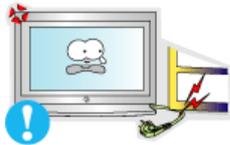
Do not pull the plug out by the wire nor touch the plug with wet hands.

- This may cause an electric shock or fire.



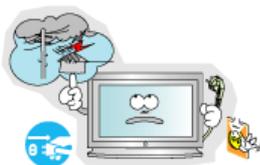
Use only a properly grounded plug and receptacle.

- An improper ground may cause electric shock or equipment damage.



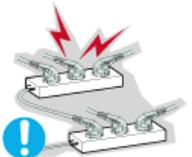
Do not excessively bend the plug and wire nor place heavy objects upon them, which could cause damage.

- This may cause an electric shock or fire.



Disconnect the plug from the outlet during storms or lightening or if it is not used for a long period of time.

- Failure to do so may cause an electric shock or fire.



Do not connect too many extension cords or plugs to an outlet.

- This may cause a fire.



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Do not cover the vents on the monitor cabinet.

- Bad ventilation may cause a breakdown or fire.



Put your monitor in a location with low humidity and a minimum of dust.

- An electric shock or fire could result inside the monitor.



Do not drop the monitor when moving it.

- This may cause damage to the product or human body.



Place the monitor on a flat and stable surface.

- The monitor can cause injury by falling.



Set down the monitor carefully.

- It could be damaged or broken.



Do not place the monitor face down.

- The TFT-LCD surface may be damaged.



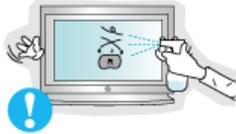
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When cleaning the monitor case or the surface of the TFT-LCD, wipe with a slightly moistened, soft fabric.



● **Do not spray detergent directly on the monitor.**

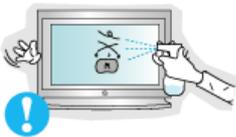


● **Use the recommended detergent with a smooth cloth.**



● **If the connector between the plug and the pin is dusty or dirty, clean it properly with a dry cloth.**

- A dirty connector can cause an electric shock or fire.



● **Do not set a glass of water, chemicals or any small metal objects on the monitor.**

- This may cause damage, electric shock or a fire.
- If a foreign substance gets into the monitor, disconnect the plug and then contact a [service center](#).



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- This may cause an electric shock or a fire.
- Refer servicing to qualified service personnel.

**If your monitor does not operate normally - in particular, if there are any unusual sounds or smells coming from it - unplug it immediately and contact an authorized dealer or service.**

- This may cause an electric shock or fire.

**Do not place any heavy objects on the monitor.**

- This may cause an electric shock or a fire.

**For each hour of looking at the monitor, you should let your eyes rest for 5 minutes.**

- This will reduce eye fatigue.

**Do not use or store inflammable substances near the monitor.**

- This may cause an explosion or fire.

**Do not try to move the monitor by pulling on the wire or the signal cable.**

- This may cause a breakdown, electric shock or a fire due to damage to the cable.

**Do not move the monitor right or left by pulling only the wire or the signal cable.**

- This may cause a breakdown, electric shock or a fire due to damage to the cable.

**Never insert anything metallic into the monitor openings.**

- This may cause an electric shock, fire or injury.

Keep all power adaptors apart.



- Possible fire hazard.



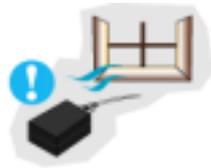
Keep power adaptor away from any other heat source.

- Possible fire hazard.



Remove and discard vinyl bag from power adaptor before use.

- Possible fire hazard.



Always keep power adaptor in well-ventilated area.



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- ▶ Remote Control
- ▶ Mechanical Lay-out

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Please make sure the following items are included with your monitor. If any items are missing, [contact your dealer](#).



Power Cord



DC Adapter



PC Stereo Cable



Remote Control /
Batteries (AAA X 2)



Monitor



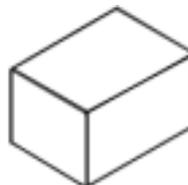
DVI Cable (DVI-D + DVI-D)



DVI Cable (DVI-I + D-Sub)



User's Guide and Driver
Installation CD



Wall Mount KIT



Speaker set

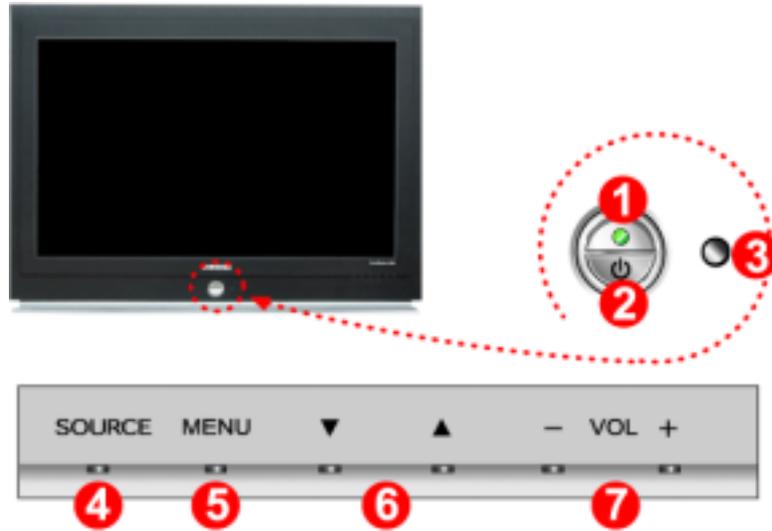


RS232C CABLE



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For detail information concerning the monitor functions, refer to [User Controls](#) under Adjusting Your Monitor. The monitor's front configuration may vary slightly depending on the monitor model.

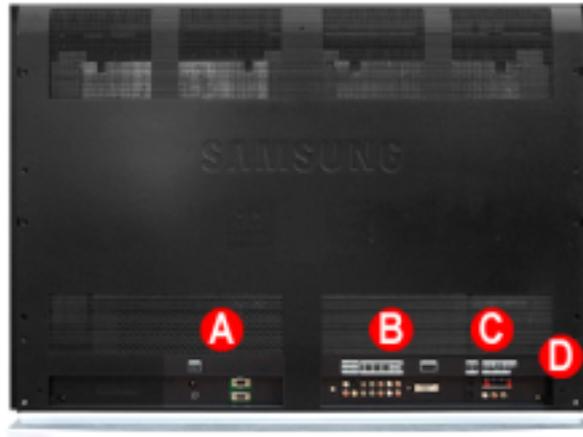


- | | |
|-------------------------|---------------------------------|
| 1 Power indicator | 5 Menu button / Exit button |
| 2 Power button | 6 Up / Down Key Move button |
| 3 Remote Control Sensor | 7 Volume button / Select button |
| 4 Source button | |



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For detailed information concerning cable connections, refer to [Connecting Cables](#) under Setup. The monitor's rear configuration may vary slightly depending on the monitor model.



- 1 Power Connection Terminal
- 2 RS232C Serial PORT :
MDC(Multifunction Device Control) Program Port



- 3 CVBS Video Connection /
Audio L/R Connection Terminal (Input)
- 4 S-Video Connection Terminal (Input)
- 5 Component 1 (DVD) Connection Terminal
- 6 Component 2 (DTV) Connection Terminal
- 7 PC Video Connection Terminal (DVI-D to
DVI-D(Digital) / DVI-I to D-SUB(Analog))



- 8 PC Audio Connection Terminal (Input)
- 9 Headphone Connection Terminal
- 10 Speaker Connection Terminal (Output)
- 11 Left/center Audio / Woofer Connection
Terminal (Output)



- 12 Kensington Lock



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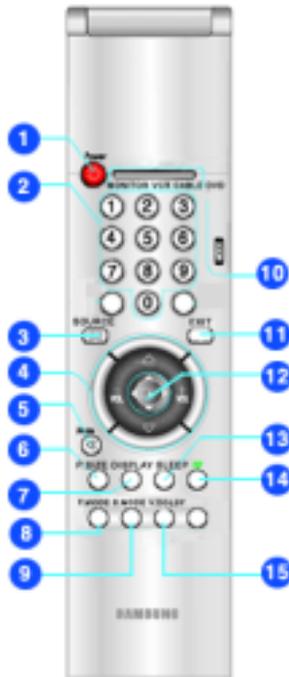
For detailed information of the Remote Control Unit functions, refer to Adjusting Your Monitor > User Controls > User Control Buttons > [Remote Control buttons](#).

The remote control's configuration may vary slightly depending on the monitor model.

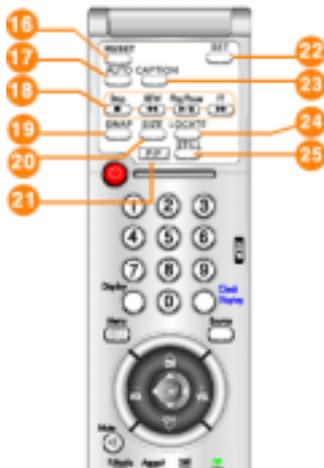
The Remote control may function within a range of 0.23 to 33 feet (7cm to 10m) and 30 degrees to the left and right of the monitor's Remote Control Reception sensor.

[Button Names](#) | [Replacing Batteries](#) | [Usage](#)

1. Button Names

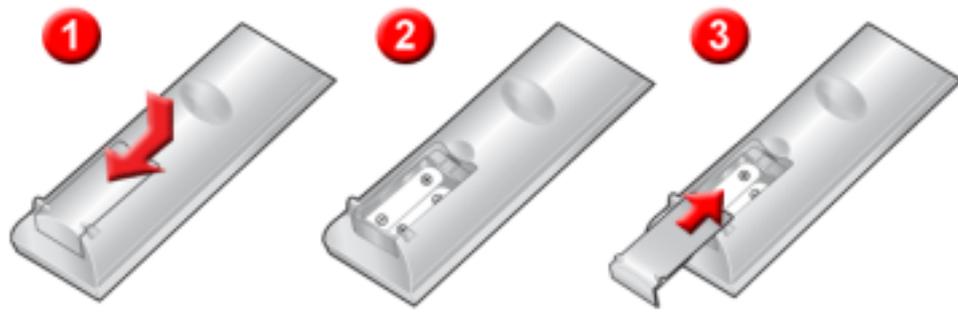


- 1 Power button
- 2 Number button
- 3 Source button
- 4 VOL(Volume)and Up/Down buttons
- 5 Mute button
- 6 P.Size button
- 7 Display button
- 8 P.MODE button
- 9 S.MODE button
- 10 Mode button
- 11 EXIT button
- 12 MENU button
- 13 SLEEP button
- 14 PIP button
- 15 V.DOLBY button



- 16 RESET button
- 17 AUTO button
- 18 VCR Controls button
- 19 SWAP button
- 20 SIZE button
- 21 PIP button
- 22 SET button
- 23 CAPTION button
- 24 Location button
- 25 Still button

2. Replacing Batteries



1. Slide out the cover pressing part marked .
2. Insert the batteries matching their polarities (+, -).
3. Slide in the cover.



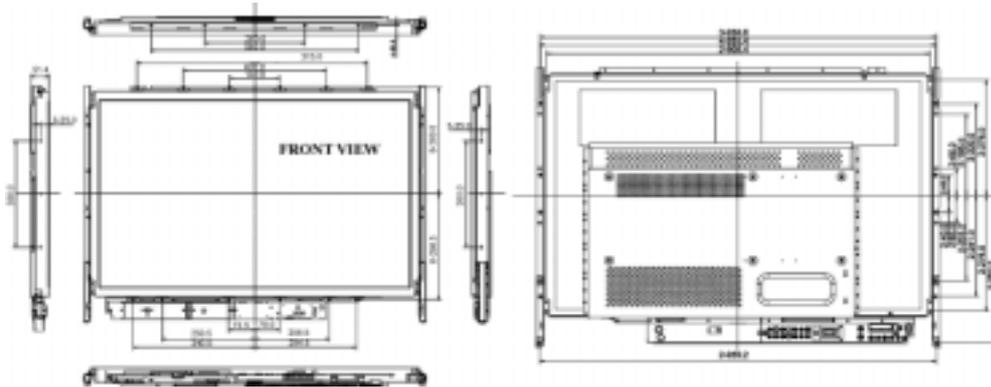
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- ▶ **Mechanical Lay-out**

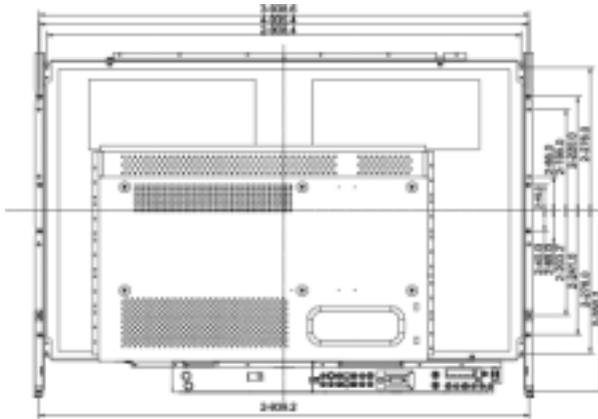
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[Monitor Head](#) | [Rear](#) | [Speaker](#) | [Mounting Bracket](#)

1. Monitor Head

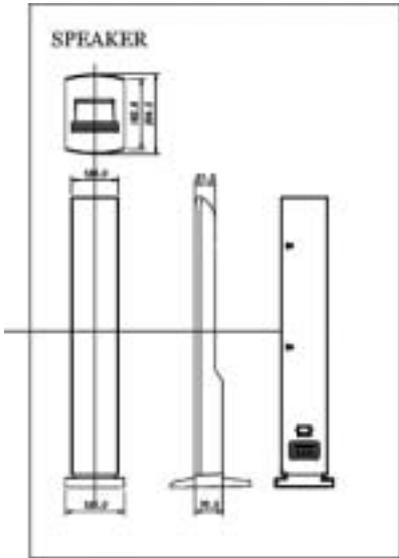


2. Rear

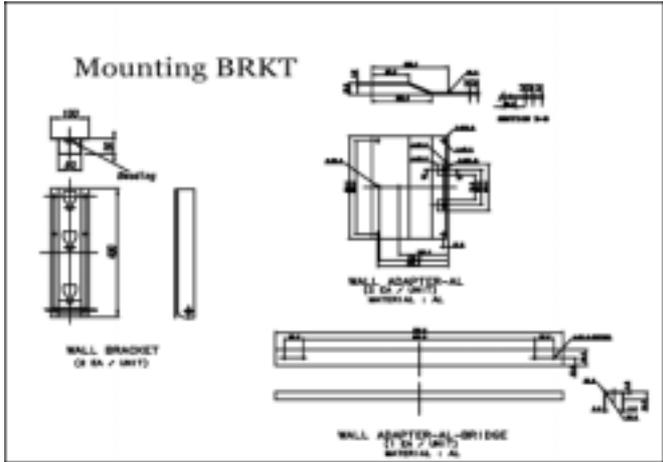


3. Speaker

3. Speaker



4. Mounting Bracket





Setup

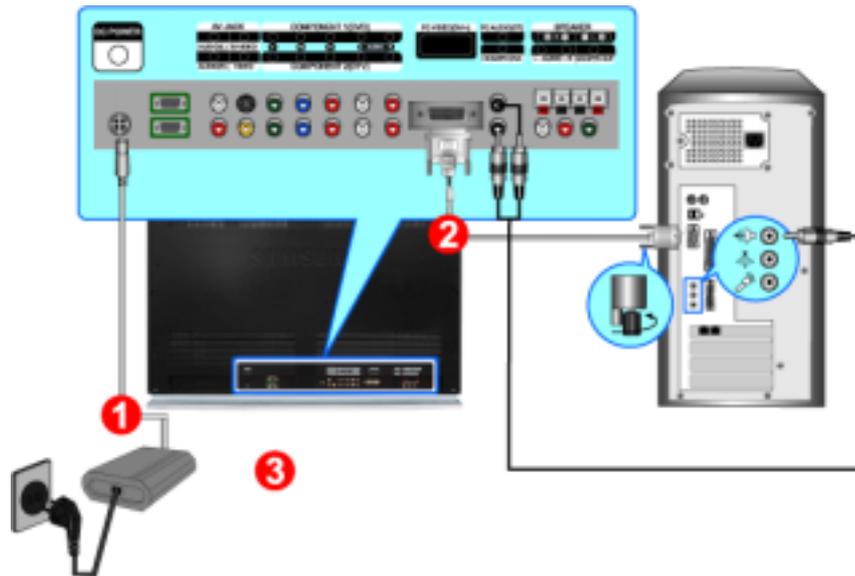
- ▶ Connecting Your Monitor
- ▶ Multiple Display Control (MDC)

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AV input devices like DVDs, VCRs or Camcorders as well as your computer may be connected to the monitor. For detailed information on connecting AV input devices, refer to [User Controls](#) under Adjusting Your Monitor.

[Connecting to a Computer](#) | [Connecting to a VCR](#) | [Connecting to a DVD Player](#) | [Connecting a Camcorder](#) | [Connecting D-TV Set Top Box](#) | [Connecting Speakers](#) | [Connecting to an Audio System and Sub-woofer](#)

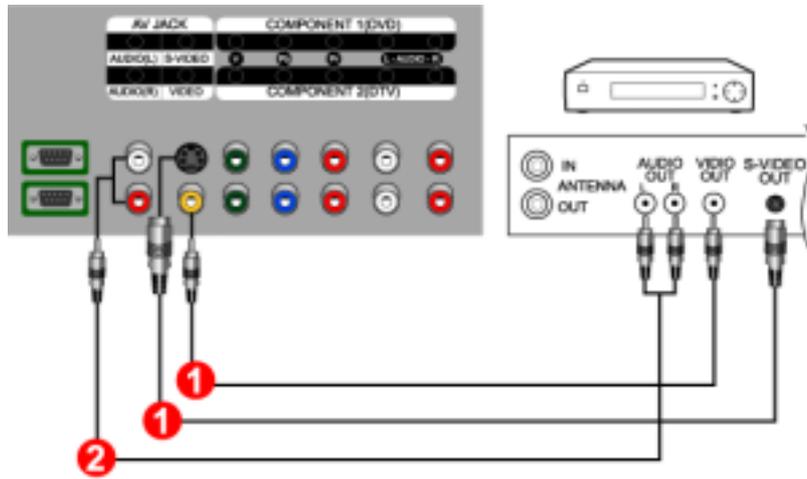
1. Connecting to a Computer



1. Connect the power cord to the Adapter and connect the adapter jack to the DC28V power port on the back of your monitor.
2. Connect the signal cable to the video port on your computer.
3. Connect the audio cable for your monitor to the audio port on the back of your computer.
4. Turn on both your computer and the monitor.

Contact a local Samsung Electronics [service center](#) to buy optional items.

2. Connecting to a VCR

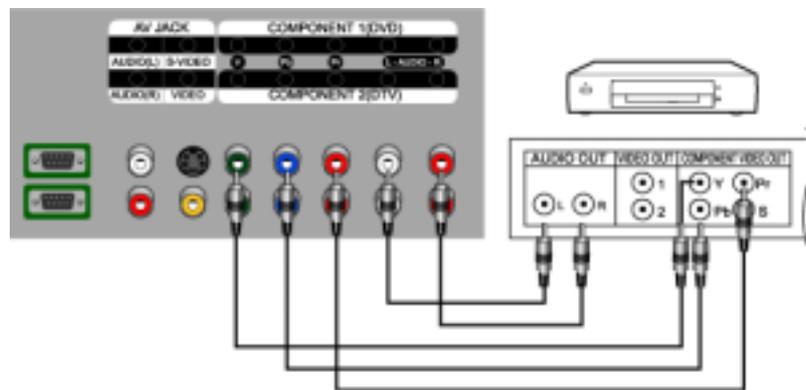


1. AV input devices like DVDs, VCRs or Camcorders are connected to the S-Video (V1) or Video (V2) terminal of the monitor using the S-VHS or RCA cable.

 S-VHS or RCA cable is optional.

2. Connect the Audio (L) and Audio (R) terminals of a DVD, VCR or Camcorders to the monitor's L and R audio input terminals using audio cables.
3. Select Video or S-Video that is connected to a DVD, VCR or Camcorders using the Source button on the monitor's front.
4. Then, start the DVD, VCR or Camcorders with a DVD disc or tape inserted.

3. Connecting to a DVD Player

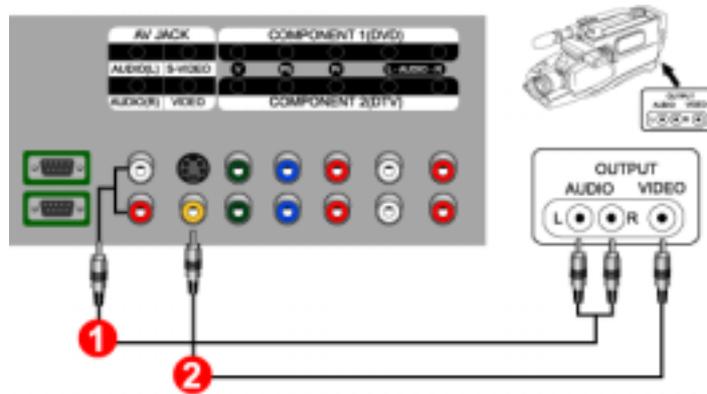


1. Connect a set of audio cables between the COMPONENT1(DVD) L, R AUDIO INPUT jacks on the Monitor and the AUDIO OUT jacks on the DVD player.
2. Connect a video cable between the COMPONENT1(DVD) Y, Pb, Pr jacks on the Monitor and the Y, Pb, Pr jacks on the DVD player.

 For an explanation of Component video, see your DVD player owner's manual.

4. Connecting a Camcorder

 They allow you to view the camcorder tapes without using a VCR.

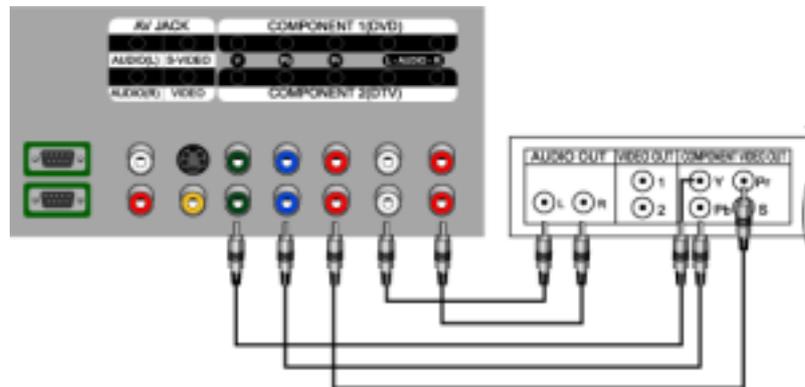


1. Locate the A/V output jacks on the camcorder. They are usually found on the side or back of the camcorder.
2. Connect a set of audio cables between the AUDIO OUTPUT jacks on the camcorder and the AUDIO jacks on the Monitor.
3. Connect a video cable between the VIDEO OUTPUT jack on the camcorder and the VIDEO jack on the Monitor.

 The audio-video cables shown here are usually included with a Camcorder. (If not, check your local electronics store.) If your camcorder is stereo, you need to connect a set of two cables.

5. Connecting D-TV Set Top Box

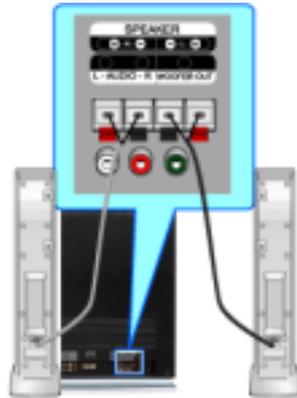
 The connections for a typical set-top box are shown below.



1. Connect a set of audio cables between the COMPONENT2(DTV) L, R AUDIO INPUT jacks on the Monitor and the AUDIO OUT jacks on the Set-Top Box.
2. Connect a video cable between the COMPONENT2(DTV) Y, Pb, Pr jacks on the Monitor and the Y, Pb, Pr jacks on the Set-Top Box.

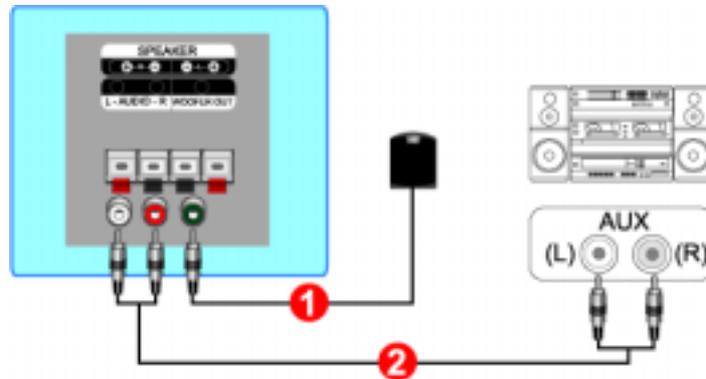
 For an explanation of Component video, see your Set-Top Box owner's manual.

6. Connecting Speakers



1. Connect the Left, Right audio speaker cable to the external speaker output jacks on the rear of the Monitor, matching the red "+" and the black "-" ends of the cable with the diagram on the Monitor.

7. Connecting to an Audio System and Sub-woofer



1. Connect a set of audio cables between the AUX L, R jacks on the AUDIO SYSTEM and the AUDIO OUTPUT L, R jacks on the Monitor.
2. Connect an audio cable between the INPUT jack on an active(powered) Sub woofer and the WOOFER OUT jack on the Monitor.

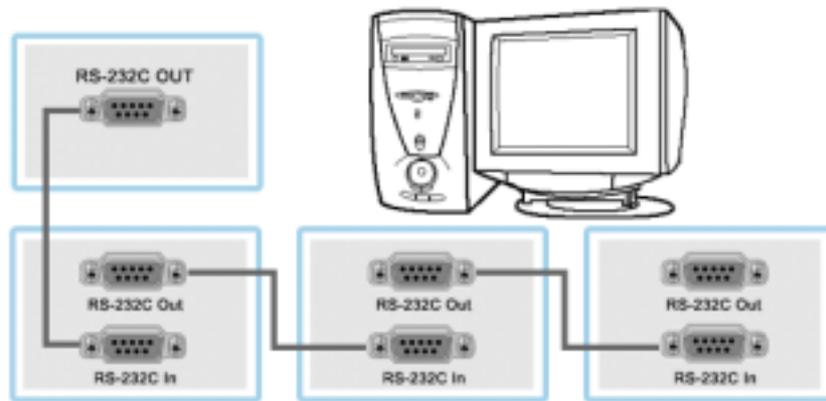


Setup

- ▶ Connecting Your Monitor
- ▶ Multiple Display Control (MDC)

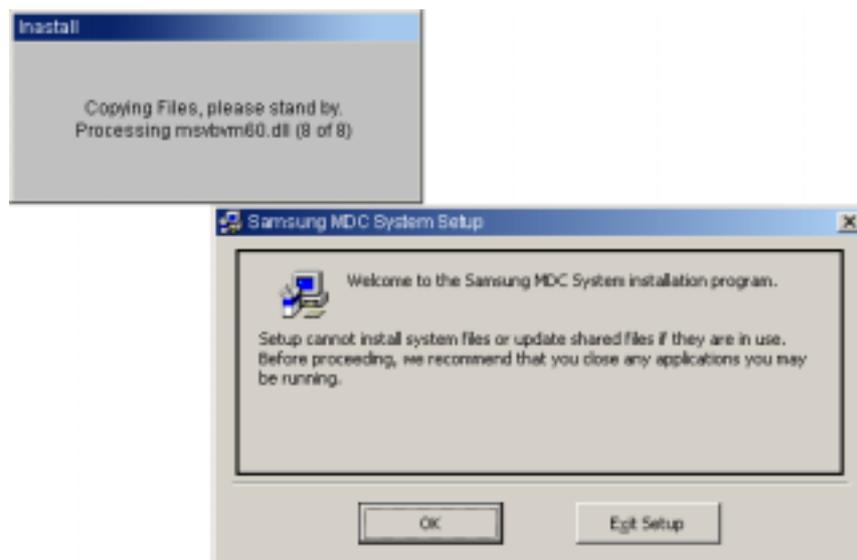
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1. Introduction



A Multiple Display Control (MDC) is an application allowing various displays to be easily and simultaneously operated on a PC. RS-232C, a standard of serial communication, is used for the communication between a PC and a display. Therefore, a serial cable should be connected between the serial port on a PC and the serial port on a display. Figure 1-1 shows how a PC and multiple displays are connected.

2. Install

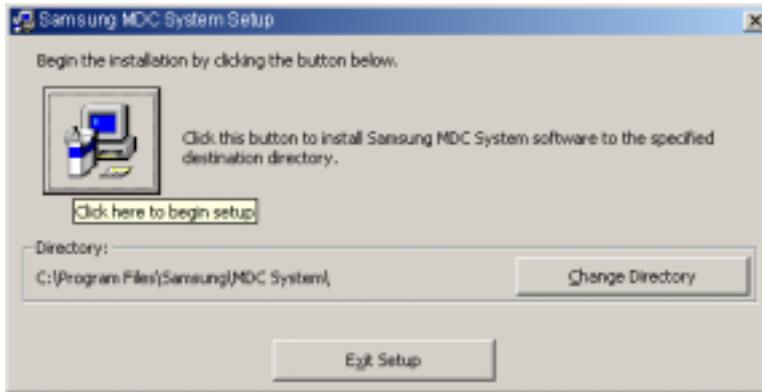


1. PC Requirements (recommended): Pentium II, 64M or greater RAM, 800 x 600, 256 color or higher PC display.
2. OS: Windows 95, Windows 98, Windows ME, Windows 2000, Windows XP and XP Professional
 - ▶ Minimum system requirement for MDC Program
 - Windows 98/ME : Support both English and Others version.
 - Windows 2000/XP : Support both English and Others version.

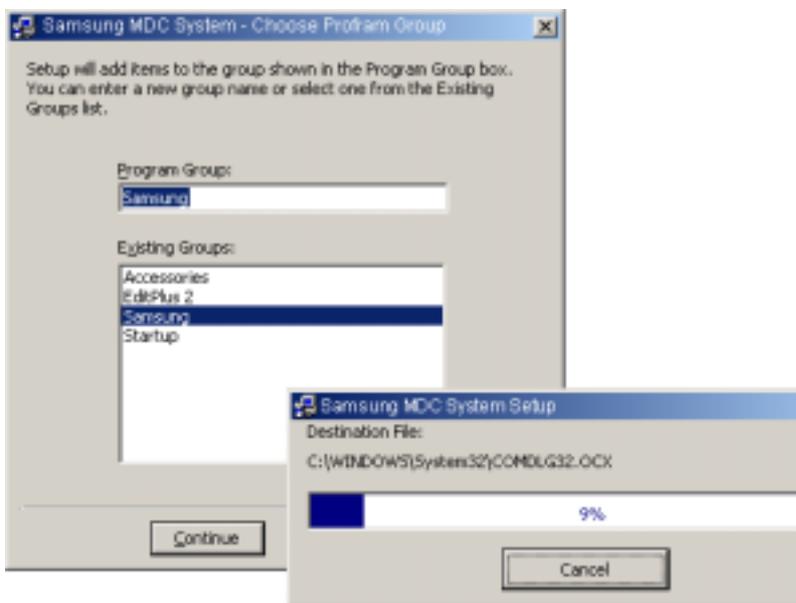
(For other version of the OS, User log in ID should be in English)

3. Install: Click SETUP.EXE, and the following screen appears and the basic files for setup are copied.

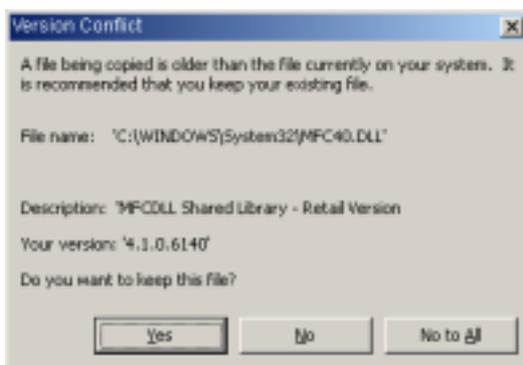
 The proper operation of this program is guaranteed only when it is used with Samsung Syncmaster 400T model and is not guaranteed when the user run this program with other models.



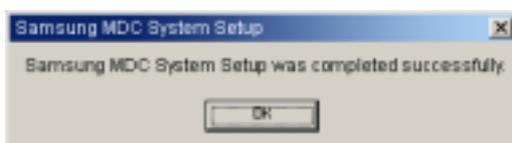
4. Select a folder to install the program and click the button to begin setup.



5. Select a program group and click Continue to continue installation.



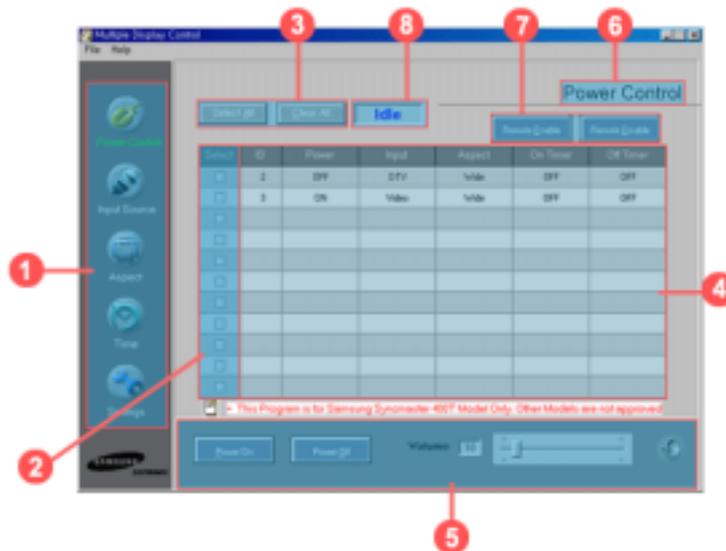
6. If you see the message Version Conflict as below during installation, ignore the message and click Yes because it means that this version is not compatible with the existing program library on your system.



7. You can run the program once the installation is complete.

3. Beginning – Main Screen

- Click Start > Program > Multiple Display Control to start the program.
- Select a set to see the volume of the selected set within the slider.



- 1 Main Icons
- 2 Display Selection
- 3 Select Button
- 4 Info Grid
- 5 Control Tools
- 6 Title
- 7 Remocon
- 8 Comm. Status

1. Use the main icons to switch into each screen.
2. Select a display from Display Selection.
3. Click Select all or Clear to select or clear all displays.
4. Use Grid to view brief information on selected display.
5. Use Control Tools to control displays.
6. The current title to be controlled is displayed.
7. Allows you to enable or disable the remote control signal receiving function of the display unit.
8. Indicates the communication status between the LCD and the display. Shows "Busy" while communicating and "Idle" when the communication is off.

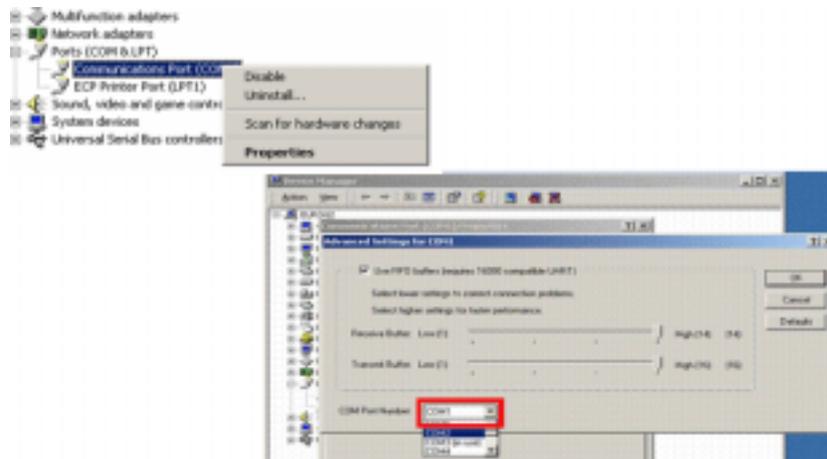
<Note> The remote control Enable/Disable function operates whether or not the power is On/Off, and this applies to all displays connected to the displays connected to the MDC. However, regardless of the status at the time the MDC is shut down, the remote control signal receiving function of all displays is initialized to Enable when the MDC is closed.

3. Beginning – Port Setting



1. The Multiple Display Control uses only “Com1.” The Control does not function with any other ports.
2. To check which port is installed, go to Control Panel > System > Hardware > Device Manager > Ports.
3. If the port installed is Com2, change to Com1 in Windows 2000 (See next chapter). For all the other operating systems, the change can be made from the BIOS Setup of your PC.
4. Use Exit to end the program. The Help menu shows how to use the program and general information about the program.

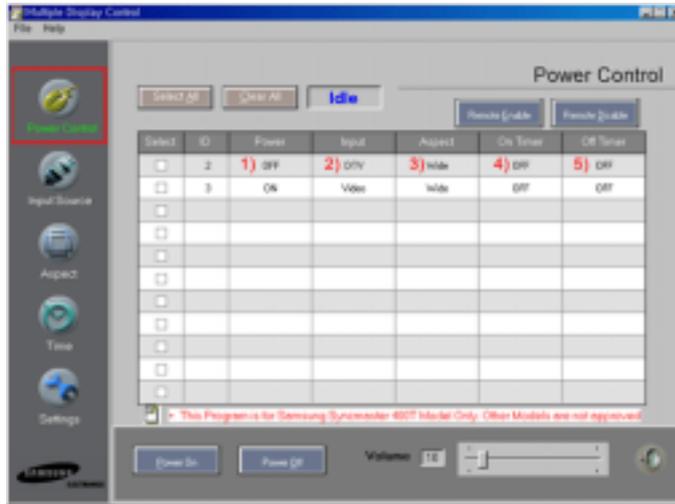
3. Beginning – Port Change



1. The Multiple Display Control uses only with Com1. It does not function with any other ports including Com2.
2. You can change the port to “Com1” in Windows 2000 as follows.
3. Go to Control Panel > System > Hardware > Device Manager > Ports > Right Mouse Click > Properties > Port Settings Tab > Advanced
4. Choose COM1

4. Power Control

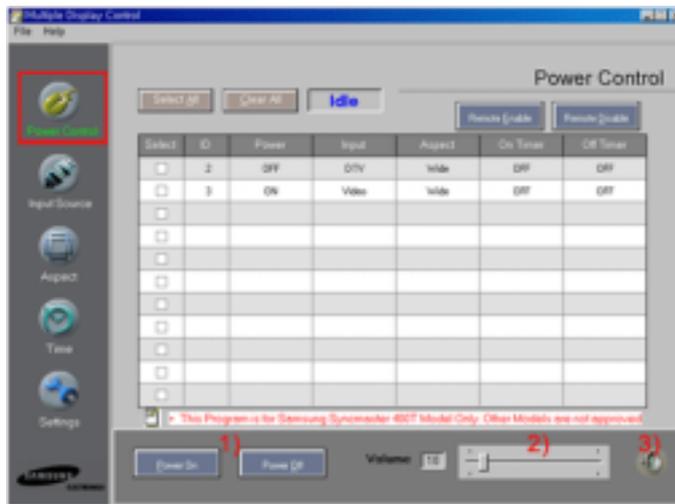
1. Click Power Control of the main icons and the Power Control screen appears.



▮ Info Grid shows some basic information necessary to Power Control.

- 1) Power Status
- 2) Input Source
- 3) Aspect Ratio
- 4) On Timer Status
- 5) Off Timer Status

2. Use the Select All button or Check Box to choose a display to control.



▮ Power Control allows controlling some of the functions of the selected display.

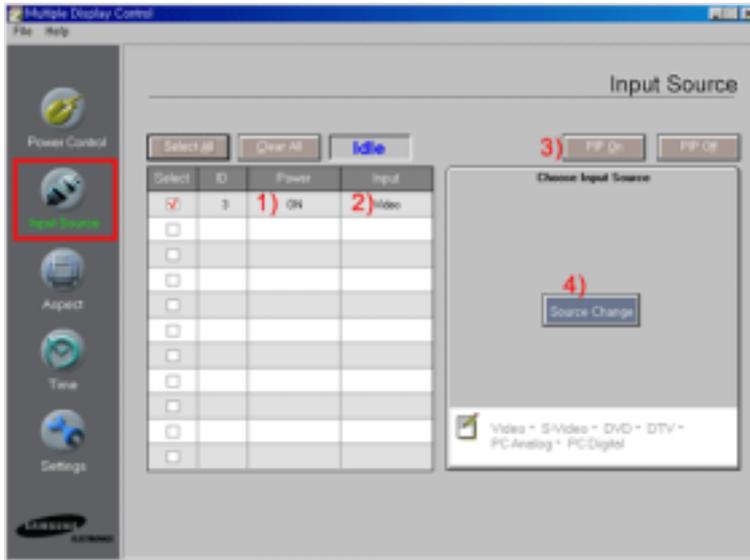
- 1) Power On/Off
 - Turns the power of the selected display On/Off.
- 2) Volume Control
 - Controls the volume level of the selected display. It receives the volume value of the selected display from the sets and displays it in the slider. (When you cancel the selection or choose Select All, the value returns to the default value 10)
- 3) Mute On/Off
 - Turns the mute of the selected display On/Off . When selecting one set at a time, if the selected set is already set to MUTE, you must mark the MUTE display. (If you choose undo the selections or choose Select All, the values return to default settings.)

▮ **Power Control applies to all displays.**

▮ **The Volume and Mute functions are available only for the displays for which the power status is ON.**

5. Input Source Control

1. Click Input Source of the main icons and the Input Source control screen appears.

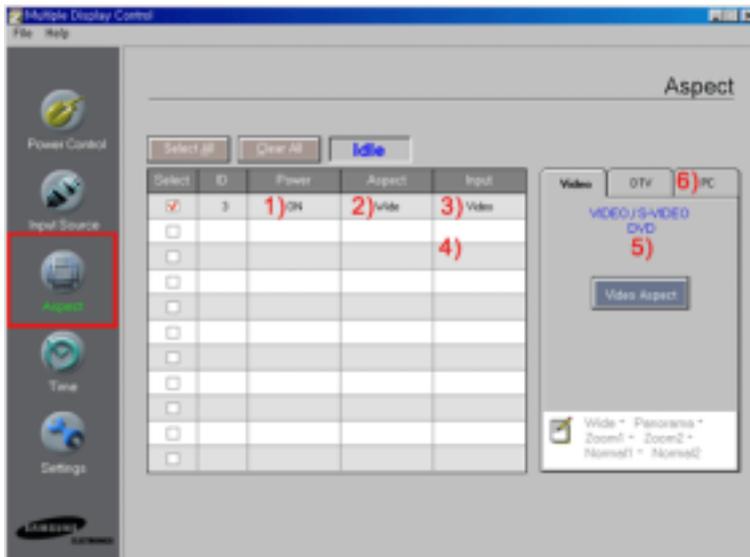


▮ Info Grid shows some basic information necessary to Input Source Control.

- 1) Power Status
 - Shows the power status of the current display.
 - 2) Input Source
 - Shows the Input Source currently in use.
 - 3) PIP Control
 - Turns the PIP of selected display On/Off.
 - 4) Source Change
 - Change Input Source of the selected display.
 - The change is made in the sequence of Video > S-Video > DVD > DTV > PC Analog > PC Digital.
- **Input Source Control applies only to the displays for which the current status is ON.**

6. Aspect Ratio Control – Video / S-Video / DVD

1. Click Aspect of the main icons and the Aspect Ratio control screen appears.



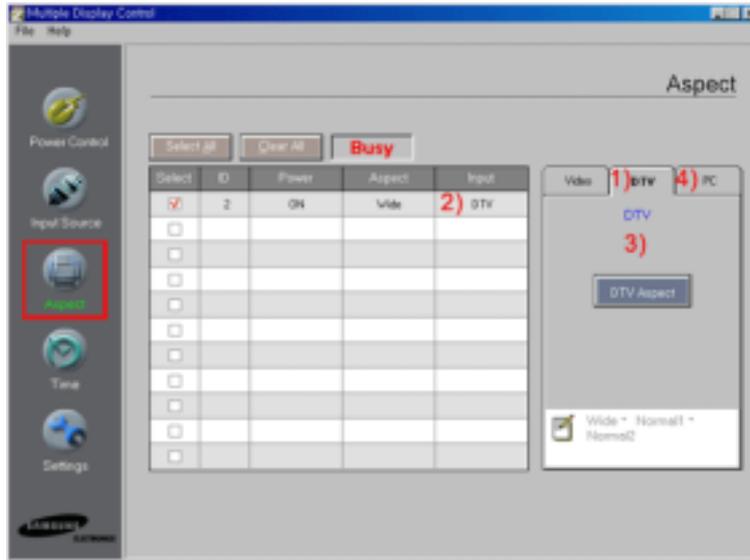
▮ Info Grid shows some basic information necessary to Aspect Ratio Control.

- 1) Power
 - Shows the power status of the current display.
- 2) Aspect
 - Shows the current Aspect Ratio of the display in use.
- 3) Input Source
 - Shows the current Input Source of the display in use.
- 4) Info Grid displays only the displays whose Input Source is Video, S-Video or DVD.
- 5) When you click Aspect Ratio, the Video, S-Video and DVD tabs first appear.

- The Aspect Ratio Control button controls Aspect Ratio available for Video, S-Video and DVD
- 6) Click the DTV tab or the PC tab to control Aspect Ratio for respective Input Source.
- **Aspect Ratio Control is available only for the displays for which power status is ON.**

6. Aspect Ratio Control – DTV

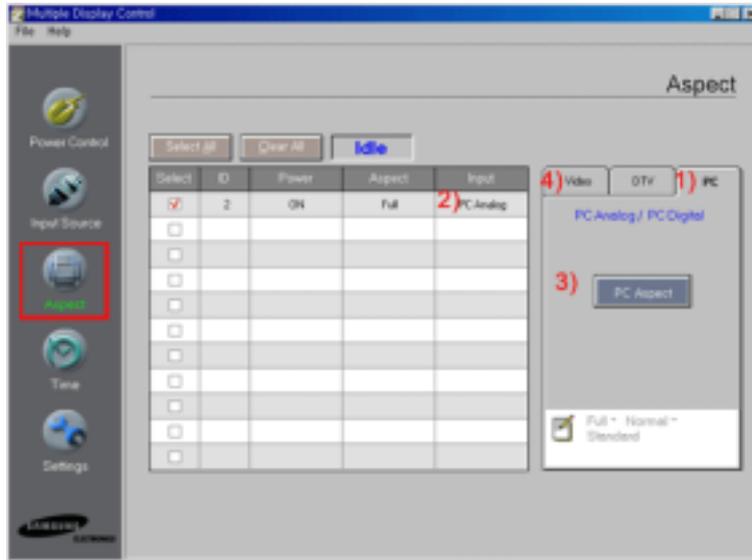
1. Click Select All or use Check Box to select a display to control.



- Info Grid shows some basic information necessary to Aspect Ratio Control.
- 1) Click the DTV tab to adjust Aspect Ratio for DTV.
- 2) Info Grid displays only the display having DTV as input source.
- 3) Adjust Aspect Ratio of the selected display one by one.
- 4) You can also adjust Aspect Ratio for Video PC if you click on the Video or the PC tabs.
- **Aspect Ratio Control is available only for the displays for which the power status is ON.**

6. Aspect Ratio Control – PC Analog / PC Digital

1. Click Select All or use Check Box to select a display to control.

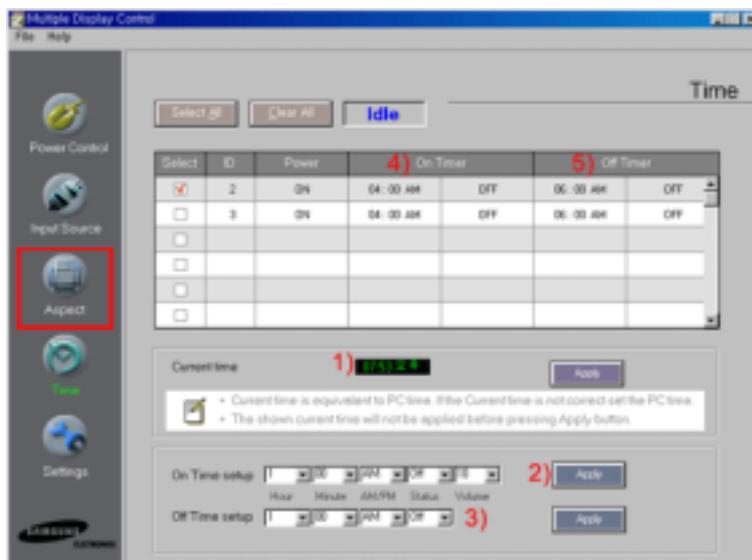


▮ Info Grid shows some basic information necessary to Aspect Ratio Control.

- 1) Click the PC tab to adjust Aspect Ratio for PC Analog and PC Digital.
 - 2) Info Grid displays only the display having PC Analog and PC Digital as input source.
 - 3) Adjust Aspect Ratio of the selected display one by one.
 - 4) You can also adjust Aspect Ratio for Video or DTV if you click on the Video or the DTV tabs.
- ▮ **Aspect Ratio Control is available only for the displays for which the power status is ON.**

7. Time Control

1. Click Time of the main icons and the Time Control screen appears.



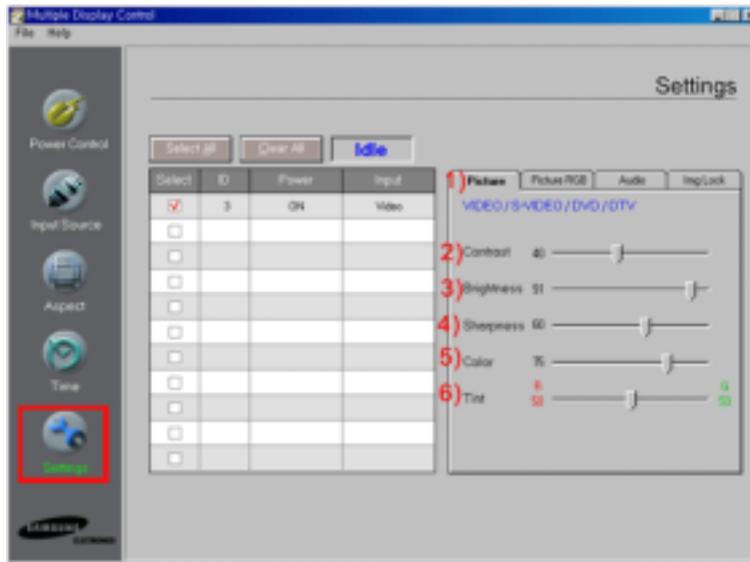
▮ Info Grid shows some basic information necessary to Time Control.

- 1) Current Time
 - Set the current time for the selected display (PC Time)
 - To change the current time, first change the PC Time.
- 2) On Time Setup
 - Set the hour, minute, AM/PM of On Time, volume of the selected display.
- 3) Off Time Setup
 - Set the hour, minute, and AM/PM for Off Timer of the selected display.
- 4) Shows the On Timer settings.
- 5) Shows the Off Timer settings.

▮ **Time Control is available only for the displays for which the power status is ON.**

8. Settings Control - Picture

1. Click Settings of the main icons and the Settings Control screen appears.



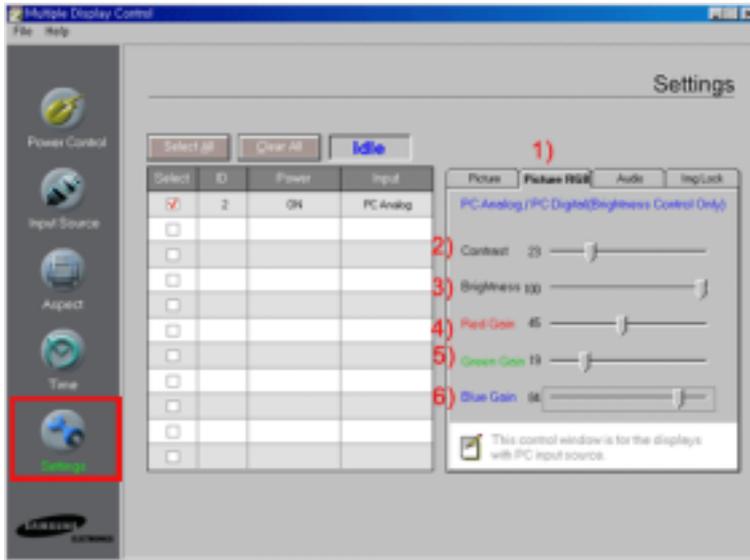
- ▀ Info Grid shows some basic information necessary to Settings Control. When each function is selected, the set value of the selected function is displayed in the slide. When Select All is selected, the default value (50) returns. If you change the value in the Settings Control screen, it switches to CUSTOM mode automatically.

- 1) Picture
 - Available only for Video, S-Video, DVD and DTV.
- 2) Contrast
 - Adjusts Contrast of the selected display.
- 3) Brightness
 - Adjusts Brightness of the selected display.
- 4) Sharpness
 - Adjusts Sharpness of the selected display.
- 5) Color
 - Adjusts Color of the selected display.
- 6) Tint
 - Adjusts Tint of the selected display.

- ▀ **Settings Control is available only for the displays for which the power status is ON and the default value is 50 when no adjustments are made.**

8. Settings Control - Picture(RGB)

1. Click Settings of the main icons and the Settings Control screen appears.



Info Grid shows some basic information necessary to Settings Control. When each function is selected, the set value of the selected function is displayed in the slide. When Select All is selected, the default value (50) returns. If you change the value in the Settings Control screen, it switches to CUSTOM mode automatically.

1) Picture (RGB)

- Available only for PC. All functions are available for PC Analog, and only Brightness can be adjusted for PC Digital.

2) Contrast

- Adjusts Contrast of the selected display.

3) Brightness

- Adjusts Brightness for the selected display.

4) Red Gain

- Adjusts Red Gain of the selected display.

5) Green Gain

- Adjusts Green Gain of the selected display.

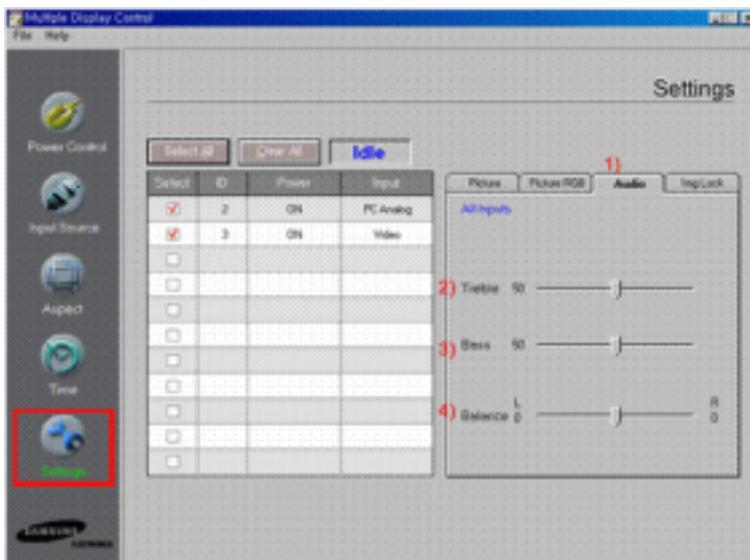
6) Blue Gain

- Adjusts Blue Gain for the selected display.

Settings Control is available only for the displays for which the power status is ON and the default value is 50 when no adjustments are made.

8. Settings Control - Audio

1. Click Settings of the main icons and the Settings Control screen appears.



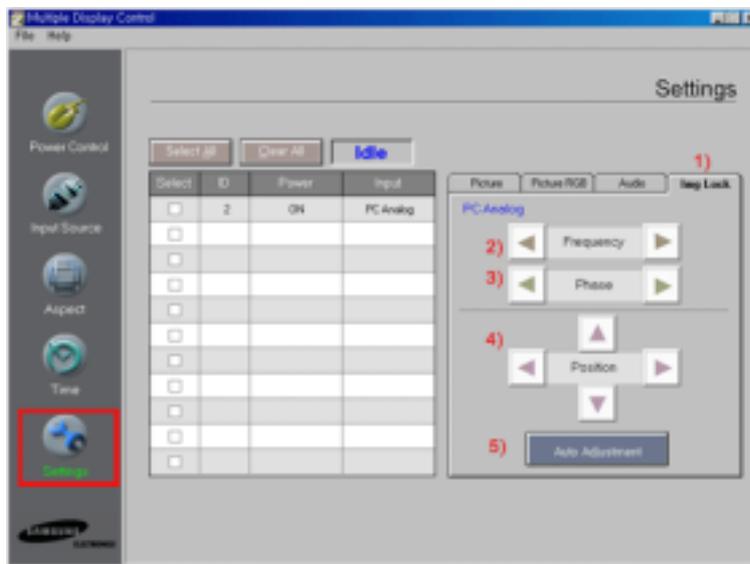
Info Grid shows some basic information necessary to Settings Control. When each function is selected, the

set value of the selected function is displayed in the slide.
When Select All is selected, the default value (50) returns. If you change the value in the Settings Control screen, it switches to CUSTOM mode automatically.

- 1) Audio
 - Controls audio settings for all input sources.
 - 2) Treble
 - Adjusts Treble of the selected display.
 - 3) Bass
 - Adjusts Bass of the selected display.
 - 4) Balance
 - Adjusts Balance of the selected display.
- **Settings Control is available only for the displays for which the power status is ON and the default value is 50 when no adjustments are made.**

8. Settings Control – Image Lock (PC Analog Only)

1. Click Settings of the main icons and the Settings Control screen appears.



- Info Grid shows some basic information necessary to Settings Control.
Note that you cannot change the settings for PC Digital display although you see it in the Grid.

- 1) Image Lock
 - Controls the Image Lock setting only for PC Analog.
 - 2) Frequency
 - Adjusts Frequency of the selected display
 - 3) Phase
 - Adjusts Phase of the selected display.
 - 4) Position
 - Adjusts Position of the selected display.
 - 5) Auto Adjustment
 - Adjusts the Audio settings of the selected display.
- **Settings Control is available only for the displays for which the power status is ON.**

9. Troubleshooting

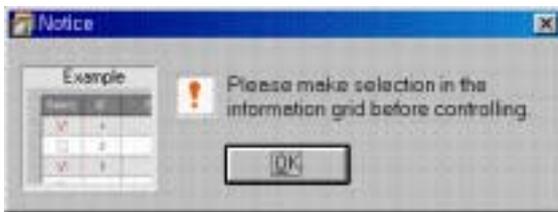
1. The display you wish to control does not appear on the Power Control Info Grid
 - Check the connection of RS232C. (Check if it is properly connected to the Com1 port)
 - Check the displays to see if any of the other displays connected have the same ID. If more than one displays have the same ID, those displays are not properly detected by the program due to data conflict.
 - Check if the Display Set ID is a number between 1 and 6. (Adjust using the Display menu)

Note :

A Display Set ID must be a value between 1 and 6. If the value is out of the range, the MDC system cannot control the display. Samsung Electronics guarantees that this program operates

up to four displays at a time. Although it may operate between 4 to 6 displays simultaneously, but Samsung Electronics cannot guarantee normal operation in that case.

2. The display you wish to control does not appear on the other Control Info Grids
 - Check to see if the display power is ON. (You can check this in Power Control Info Grid)
 - Check if you can change the input source of the display.
3. The dialogue box (Figure 9-1) appears repeatedly.
 - Check to see if the display you wish to control is selected.
4. Both On Timer and Off Timer have been set but different time is showing.
 - Apply current time to synchronize the display clocks.
5. The remote may not function properly when you turn off the remote Function, disconnect the RS-232C cable, or exit the program in an Irregular manner. Rerun the program and turn the remote function again to Restore normal functions.
6. **<Note>** This program may malfunction due to problems in communication circuits or interference from electronic appliances nearby.
7. Go to (Samsung Electronics Web Site) or contact Samsung Electronics personnel at (phone numbers, contact info, service centers, etc.) (additional info necessary)



10. Settings Value Display In Multiple Display Mode

▮ When there are more than one displays connected, the settings values are displayed as follows.

1. No selection: Displays the Factory Default Value.
2. Selected one display: Fetches and displays the settings value for the selected display.
3. Selected one display (ID1) and add another display (ID3): The program, which was displaying the settings value of ID 1, fetches and displays the value of ID3.
4. Selected all sets using Select All: Returns to the Factory Default Value.
5. Maximum set connection of MDC Program is 6.



Adjusting Your Monitor

- ▶ **User Controls**
- ▶ On-Screen Display

Main Page

- ▶▶ Introduction remote control buttons
- ▶▶ Direct-Access Features

✎ The control button configuration may vary slightly depending on the monitor model.

[Monitor Buttons](#) | [Remote Control Buttons](#)

| Monitor Buttons |

✎ For more information about screen adjustment, refer to [On-Screen Display](#).



1. Power indicator

Lights up when you turn the power off. Refer to Specifications > [PowerSaver](#).

2. Power button

Use this button to turn the monitor on and off.

3. Remote control sensor

Aim the remote control towards this spot on the Monitor.

4. Source button

Turns on the indicator to indicate the currently displayed input signal.

To switch Screen modes: PC Analog --> PC Digital --> Video --> S-Video --> DVD --> DTV (Press [here](#) to view Screen Mode Switching Animation Clips)

5. Menu button / Exit button

When screen adjustment menu is off: Use this button to open the OSD and activate a highlighted menu item.

When screen adjustment menu is on: Exit button exits from the menu screen or closes screen adjustment menu.

6. Up / Down Key Move button

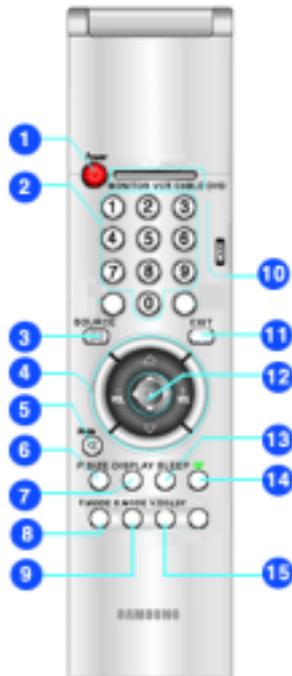
7. Volume button / Select button

Moves from one menu item to another horizontally or adjusts selected menu values. Also adjusts the audio volume. For more information, refer to Direct-Access Features > [Volume](#).

| Remote Control Buttons |

✎ For more information on the screen adjustment functions, refer to [On-Screen Display](#).

- 1 [Power button](#)
- 2 [Number button](#)
- 3 [Source button](#)
- 4 [VOL\(Volume\)and Up/Down buttons](#)



- 5 Mute button
- 6 P.Size button
- 7 Display button
- 8 P.Mode button
- 9 S.MODE button
- 10 Mode button
- 11 EXIT button
- 12 MENU button
- 13 SLEEP button
- 14 PIP button
- 15 V.Dolby button

1 Power button 

Use this button to turn the monitor on and off.

2 Number button 

Press to select channels directly on the Monitor.

3 Source button 

Press to display all of the available video sources.

4 VOL(Volume)and Up/Down buttons 

Press to increase or decrease the volume. (Also used to make selections on the on-screen menus.)

5 Mute button 

Pauses (mutes) the audio output temporarily. The audio resumes if Mute or - VOL + button is pressed in the Mute mode.

6 P.Size button 

Press to change the screen size.

7 Display button 

Shows a Video Source, Audio Source, current channel number, an audio type and Speaker Mute ON/OFF on the upper right corner of the screen.

8 P.MODE button 

Adjust the Monitor picture by selecting one of the preset factory settings(or select your personal, cus-tomized picture settings).

9 S.MODE button 

Adjust the Monitor sound by selecting one of the preset factory settings (or select your personal, customized sound settings).

10 MODE button 

Selects a target device to be controlled by the Samsung remote control.

11 EXIT button 

Press the menu to exit.

12 MENU button 

Press to pause the current screen.

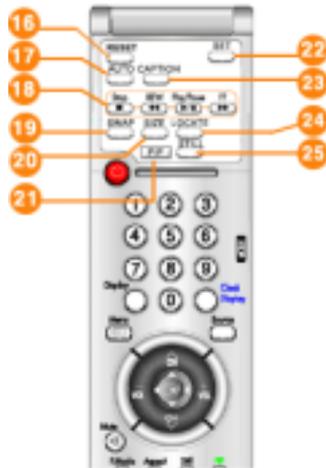
13 Sleep button - U P

Press to select a preset time inter-val for automatic shutoff.

14 PIP button - U P

Press this button to control the PIP window.

15 V.DOLBY button - U P



16 RESET button

17 Auto button

18 VCR Controls

19 SWAP button

20 SIZE button

21 PIP button

22 SET button

23 CAPTION button

24 LOCATION button

25 STILL button

16 RESET button - U P

If your remote is not functioning properly, take out the batteries and press the reset button for about 2-3seconds. Re-insert the batteries and try using the remote control again.

17 Auto button - U P

Press to self-adjust to the incoming PC signal. The values of fine,coarse and position are adjusted automatically.

18 VCR-Controls - U P

Stop:Press this button to stop a tape during play, record, rewind or fast forward. If the button is pressed during Full-Automatic play, the function will be cancelled

REW: Press to rewind a tape in your VCR

PLAY/Pause:Press the Play/Pause button to play back prerecorded tapes or pause the tape

FF: Press to fast forward the tape in your VCR

19 Swap button - U P

Exchanges the video signal that is currently displayed on the main screen with the signal in the PIP window.

20 Size button - U P

Press to make the PIP window small, large, double screen or stock ticker window..

21 PIP button - U P

Press this button to control the PIP window.

22 SET button - U P

Use this button when you are setting up your remote control to operate your VCR, cable box, or DVD

23 CAPTION button - U P

Press to set caption on/off.

24 Location button - U P

Press to move the PIP window to any of the four corners of the monitor screen.

25 STILL - U P

Press to stop the action during a particular scene. Press again to resume normal video.



Adjusting Your Monitor

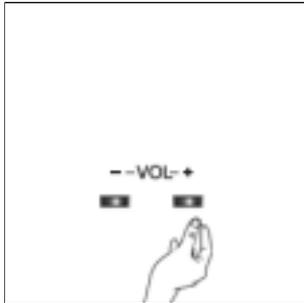
- ▶ **User Controls**
- ▶ On-Screen Display

Main Page



Direct-Access Features let you display Monitor Adjustment Menu by simply pressing Auto button once. Or they are used to adjust monitor functions. You need to activate functions other than Auto Adjustment only when Auto-Access Features are off.

1. Volume



When OSD is not on the screen, push the - or + button to adjust volume.

1. Push the - button to decrease the volume.
2. Push the + button to increase the volume.



Adjusting Your Monitor

- ▶ [User Controls](#)
- ▶ [On-Screen Display](#)

[Main Page](#)

 Characters and icons become highlighted in blue during adjustment for each menu.

[PC Analog Screen](#) | [PC Digital Screen](#) | [Video / S-Video Screen](#) | [DVD / DTV Screen](#)

1. PC Analog Screen

 For detailed information on Screen Adjustment in the PC Analog mode, refer to [PC Analog Screen Adjustment Animation Clips](#).

	<p>Sound Allows you to control the sound characteristics.</p> <p>1) Mode: Allows you to control the various aspects of the speaker sound.</p> <ul style="list-style-type: none"> • Bass: Emphasize low frequency audio. • Treble: Emphasize high frequency audio. • Balance: Sound balance ==> Allows you to adjust the sound balance between the left and the right speakers. (The ideal setting is 50 for the left speaker and 50 for the right speaker.) <p>2) Virtual dolby: Virtual Dolby Sound On/Off (Virtual Dolby simulates the effect of the Dolby Surround sound system, recreating the movie-theatre or concert-hall- quality sound.)</p> <p>3) Sub woofer: Sub-Woofer On/Off</p>
	<p>ID Assigns individual ID to the SET.</p> <p>1) ID Setup: Assigning distinctive IDs to the SET.</p> <p>2) ID Input: Use to select the transmitter functions of the individual SET. Only the SET whose ID corresponds to the transmitter setting becomes activated.</p>
	<p>Function Funtion Settings</p> <p>1) Time: Clock Setting</p> <ul style="list-style-type: none"> • Clock: Current Time Setting • On time: Use to set the TV to turn on automatically at preset time. • Off time: Use to set the TV to turn off automatically at preset time. • Sleep: Sleep Function • On time Vol.: Use to control the volume level at the time the TV turns on automatically. <p>2) PIP: When external A/V devices such as VCR or DVD are connected to the monitor, PIP allows you to watch video from such devices in a small window super-imposed on pc video signal. (On/Off)</p> <ul style="list-style-type: none"> • Video: Select the input source for the PIP • Swap: Switch between the main screen • Size: Resizing the PIP Screen <p>3) Language: You can choose one of 3 languages. (English, Spanish, French)</p>
	<p>PC PC Display Controls</p>

<p>1) Image: PC Screen Settings</p> <ul style="list-style-type: none"> • Brightness: Adjust Brightness. • Contrast: Adjust Contrast. • Size: Adjusting Screen Size(full-normal-standard) <p>2) Image Lock: Image Lock is used to fine tune and get the best image by removing noises that creates unstable images with jitters and shimmers. If satisfactory results are not obtained using the Fine adjustment, use the Coarse adjustment and then use Fine again.</p> <ul style="list-style-type: none"> • Coarse: Removes noise such as vertical stripes. Coarse adjustment may move the screen image area. You may relocate it to the center using the Horizontal Control menu. • Fine: Removes noise such as horizontal stripes. If the noise persists even after Fine tuning, repeat it after adjusting the frequency (clock speed). <p>3) Position: This adjusts the screen location horizontally and vertically.</p> <ul style="list-style-type: none"> • H-Position: Adjusting Horizontal Size • V-Position: Adjusting Vertical Size <p>4) Color adjust: Adjusting Color(Use this function for fine color adjustments.Custom - Color1 - Color2 - Color3)</p> <ul style="list-style-type: none"> • Red: Adjusting the Red value • Green: Adjusting the Green value /font> • Blue: Adjusting the Blue value <p>5) Recall: Initializing the Settings</p> <ul style="list-style-type: none"> • Image recall: Initializing the Display Settings • Color recall: Initializing the Color Settings

2. PC Digital Screen

 For detailed information on Screen Adjustment in the PC Digital mode, refer to [PC Digital Screen Adjustment Animation Clips](#).

	<p>Sound</p> <p> For explanations on the PC Digital control menu, refer to the explanations under Video Screen. You may control Monitor properties in the same way as for PC Analog Screen.</p>
	<p>ID</p> <p> For explanations on the PC Digital control menu, refer to the explanations under Video Screen. You may control Monitor properties in the same way as for PC Analog Screen.</p>
	<p>Function</p> <p> For explanations on the PC Digital control menu, refer to the explanations under Video Screen. You may control Monitor properties in the same way as for PC Analog Screen.</p>
	<p>PC In PC digital mode, you can adjust only the diplay settings.</p> <p>1) Image:</p> <ul style="list-style-type: none"> • Brightness: Adjust Brightness. • Size: Resizing the screen (Full - Normal - Standard)

3. Video / S-Video Screen

 For detailed information on Screen Adjustment in the Video mode, refer to [Video / S-Video Screen Adjustment Animation Clips](#). Screen Adjustment in the Video mode does not affect the PC screen at

all.

	<p>Picture Adjusting Display</p> <p>1) Mode: Adjusting the display ambience.(Options: Dynamic, Standard, Movie and Custom)</p> <ul style="list-style-type: none">• Contrast: Adjusting Contrast• Brightness: Adjusting Brightness• Sharpness: Use to adjust the difference between the lightest and darkest areas on the display.• Color: Use to adjust the lightness/darkness on the display.• Tint: Use to add the natural tone to the display. <p>2) Color tone: Adjusting the background color (Options: Standard, Warm1, Warm2, Cool1 and Cool2)</p>
	<p>Sound Allows you to control the sound characteristics.</p> <p>1) Mode: Allows you to control the various aspects of the speaker sound.</p> <ul style="list-style-type: none">• Bass: Emphasize low frequency audio.• Treble: Emphasize high frequency audio.• Balance: Sound balance ==> Allows you to adjust the sound balance between the left and the right speakers. (The ideal setting is 50 for the left speaker and 50 for the right speaker.) <p>2) Virtual dolby: Virtual Dolby Sound On/Off (Virtual Dolby simulates the effect of the Dolby Surround sound system, recreating the movie-theatre or concert-hall- quality sound.)</p> <p>3) Sub woofer: Sub-Woofer On/Off</p>
	<p>ID  For explanations on the PC Digital control menu, refer to the explanations under Video Screen. You may control Monitor properties in the same way as for PC Analog Screen.</p>
	<p>Function Funtion Settings</p> <p>1) Time: Clock Setting</p> <ul style="list-style-type: none">• Clock: Current Time Setting• On time: Use to set the TV to turn on automatically at preset time.• Off time: Use to set the TV to turn off automatically at preset time.• Sleep: Sleep Function• On time Vol.: Use to control the volume level at the time the TV turns on automatically. 7 <p>2) PIP: When external A/V devices such as VCR or DVD are connected to the monitor, PIP allows you to watch video from such devices in a small window super-imposed on pc video signal. (On/Off)</p> <ul style="list-style-type: none">• Video: Select the input source for the PIP• Swap: Switch between the main screen• Size: Resizing the PIP Screen <p>3) Language: You can choose one of 3 languages. (English, Spanish, French)</p>

4. DVD / DTV Screen

 For detailed information on screen adjustment functions, refer to [DVD / DTV Screen Adjustment Animation Clips](#).

	<p>Picture Adjusting display</p>
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	<p>1) Mode: Adjusting display Standard, Movie and custom ambience(option:Dynamic)</p> <ul style="list-style-type: none"> • Contrast: Adjusting Contrast • Brightness: Adjusting Brightness • Sharpness: Use to adjust the difference between the lightest and darkest areas on the display. • Color: Use to adjust the lightness/darkness on the display. • Tint: Use to add the natural tone to the display. <p>2) Fine tune: Due to weak signals or a wrong antenna configuration, some of the channels may not be tuned correctly.</p> <p>3) Position: This adjusts the screen location horizontally and vertically</p> <ul style="list-style-type: none"> • H-Position: Adjusting Horizontal Size • V-Position: Adjusting Vertical Size
	<p>Sound</p> <p> For explanations on the DVD / DTV control menu, refer to the explanations under Video Screen. You may control Monitor properties in the same way as for Video / S-Video Screen.</p>
	<p>ID</p> <p> For explanations on the PC Digital control menu, refer to the explanations under Video Screen. You may control Monitor properties in the same way as for PC Analog Screen.</p>
	<p>Function Funtion Settings</p> <p>1) Time: Clock Setting</p> <ul style="list-style-type: none"> • Clock: Current Time Setting • On time: Use to set the TV to turn on automatically at preset time. • Off time: Use to set the TV to turn off automatically at preset time. • Sleep: Sleep Function • On time Vol.: Use to control the volume level at the time the TV turns on automatically. <p>2) Language: You can choose one of 3 languages. (English, Spanish, French)</p>



- ▶ **Check before calling for service**
- ▶ Problems and Solutions
- ▶ Q & A

[Main Page](#)

 Check the following items yourself before calling for service. Contact the [service center](#) for problems that you cannot solve by yourself.

[Self-Test Feature Check](#) | [Video mode not supported](#) | [For Better Display](#) | [Dot Acceptable](#) | [Maintenance and Cleaning](#)

- Self-Test Feature Check

Your monitor provides a self test feature that allows you to check whether your monitor is functioning properly.

1. Turn off both your computer and the monitor.
2. Unplug the video cable from the back of the computer.
3. Turn on the monitor.

The figure shown below ("Check Signal Cable") appears on a black background when the monitor is in its normal working condition though it does not sense any video signal: While in the Self-Test mode, the LED power indicator remains green and the figure moves around on the screen.



Failure of any of the boxes to appear indicates a problem with your monitor. This box also appears during normal operation if the video cable becomes disconnected or damaged.

4. Turn off your monitor and reconnect the video cable; then turn on both your computer and the monitor.

If your monitor screen remains blank after using the previous procedure, check your video controller and computer system; **your monitor is functioning properly.**

- Video mode not supported

This indicates the display resolution or refresh rate is not properly set on your computer video card. Reboot the computer in Safe Mode and select "Default" in the "Refresh Rate Unknown" box while setting Adapter for Display Properties.

 **Contact the computer dealer or manufacturer for information on Safe Mode Booting.**

 Refer to Specifications > [Preset Timing Modes](#) for the resolutions or frequencies that are supported by the monitor.

The screen sometimes remains black even though it does not show the message "Video mode not supported." This indicates the monitor is set for a frequency out of range or the PowerSaver mode is on.

- For Better Display

1. Selecting Resolution and Color
If the monitor resolution or color is not properly set, the screen may show blurred images or mosaic patterns.

 Procedures for setting frequency in the Control Panel may vary depending on the video card.

Setting Color & Resolution >>

Click Start --> Settings --> Control Panel --> Display --> Settings --> Colors & Screen area --> Apply --> OK.



You can get the best image quality by selecting resolution depending on the monitor screen size as follows:

- 40 inch monitor : 1280 x 768 @60Hz



Select 16 or 24 bit color.

- Supported or not subject to the video card (the monitor is irrelevant)
- LCD monitors may display up to 16.77 million colors (24 bits).

2. Setting Refresh Rate

If the monitor refresh rate is not properly set, the screen image may be skewed or noise patterns will appear. You can enjoy the best screen image when the refresh rate is set to 60 Hz.

Setting Refresh Rate >>

Click Start --> Settings --> Control Panel --> Display --> Settings --> Advanced --> Refresh Rate --> Apply --> Yes --> OK --> Yes.

3. If the screen image is not acceptable or satisfactory, run AUTO ADJUSTMENT, to get a better image quality, in the screen that appears immediately after you click Windows System End button. If the noise persists even after AUTO ADJUSTMENT, adjust the screen settings using FINE/COARSE tuning buttons.
4. If you view a fixed screen for an extended period of time, residual image or blurriness may appear. Change the mode to energy save or set a screensaver to moving picture when you need to be away from the monitor for an extended period of time.

- Dot Acceptable

TFT LCD panel manufactured by using advanced semiconductor technology with precision of 99.999% above is used for this product. But the pixels of RED, GREEN, BLUE and WHITE color seem to be bright sometimes or some of black pixels could be seen. This is not from bad quality and you can use it without uneasiness.

The number of TFT LCD pixels : ● 40 inch: 2,949,120

- Maintenance and Cleaning

1. Maintaining the Monitor Case

Clean with a soft cloth after disconnecting the power cord.



- Do not use benzene, thinner or other flammable substances, or a wet cloth.
- We recommend a Samsung cleansing agent is used to prevent damage to the screen.

2. Maintaining the Flat Panel Display Screen

Clean with a soft cloth (cotton flannel) smoothly.



- Never use acetone, benzene or thinner. (They may cause flaws or deformation of the screen surface.)
- The user will be required to pay costs and related expenses for repair of damages caused by him/her.



Troubleshooting

- ▶ Check before calling for service
- ▶ **Problems and Solutions**
- ▶ Q & A

Main Page

 The following table lists possible problems and their solutions. Before calling for service, check the information in this section to see if you can remedy any problems yourself. If you do need assistance, please call the phone number on the warranty card, [the phone number on the Information section or contact your dealer.](#)

[Installation](#) | [Screen](#) | [Audio](#) | [Remote Control](#)

1. Problems related to Installation

 Problems related to the monitor installation and their solutions are listed.

Problems	Solutions
The monitor screen flickers.	<ul style="list-style-type: none"> Check if the signal cable between the computer and the monitor is securely connected and tightened. (Refer to Connecting to a Computer)
Strange characters appear on the screen.	<ul style="list-style-type: none"> Switch "Caption On" to "Caption Off" if strange characters appear on the Monitor screen. (Refer to Closed Caption)

2. Problems related to Screen

 Problems related to the monitor screen and their solutions are listed.

Problems	Solutions
Screen is blank and power indicator is off	<ul style="list-style-type: none"> Ensure that the power cord is firmly connected and the LCD monitor is on. (Refer to the Connecting Your Monitor)
"Check Signal Cable" message	<ul style="list-style-type: none"> Ensure that the signal cable is firmly connected to the PC or video sources. (Refer to the Connecting Your Monitor) Ensure that the PC or video sources are turned on.
"Video mode not supported" message	<ul style="list-style-type: none"> Check the maximum resolution and the frequency of the video adaptor. Compare these values with the data in the Preset Timing Modes Chart.
Picture rolls vertically.	<ul style="list-style-type: none"> Check if the signal cable is securely connected. Connect it again securely. (Refer to Connecting to a Computer)
Image is not clear. Picture is blurred.	<ul style="list-style-type: none"> Turn on again after removing all accessories (video extension cable, etc.) Set resolution and frequency to the recommended ranges. (1280 x 768 @ 60Hz)
The image is too light or too dark	<ul style="list-style-type: none"> Adjust the Brightness and Contrast (Refer to the Brightness, Contrast)
Screen color is inconsistent.	<ul style="list-style-type: none"> Adjust color using Mode under OSD Color Adjustment menu.
Color image is distorted with dark shadows.	
White color is poor.	
Power Indicator blinks green.	<ul style="list-style-type: none"> The monitor is currently saving the changes made in settings to the OSD memory.

Screen is blank and power indicator light is steady green or blinks every 0.5 or 1 seconds

- The monitor is using its power management system.
- Move the computer's mouse or press a key on the keyboard

3. Problems related to Audio



Problems related to audio signals and their solutions are listed below.

Problems	Solutions
No sound	<ul style="list-style-type: none">• Ensure that the audio cable is firmly connected to both the audio-in port on your monitor and the audio-out port on your sound card. (Refer to the Connecting Your Monitor)• Check the volume level. (Refer to the Volume)
Sound level is too low.	<ul style="list-style-type: none">• Check the volume level. (Refer to the Volume)• If the volume is still too low after turning the control to its maximum, check the volume control on the computer sound card or software program.
Sound is too high pitched or too low pitched	<ul style="list-style-type: none">• Adjust the Treble and Bass to appropriate level.

4. Problems related to Remote Control



Problems related to the remote control and their solutions are listed.

Problems	Items to check
The remote control buttons do not respond.	<ul style="list-style-type: none">• Check the battery polarities (+/-).• Check if the batteries have been exhausted.• Check if the power is on.• Check if the power cord is securely connected.• Check if a special fluorescent or neon lamp is on in the vicinity.



Troubleshooting

- ▶ Check before calling for service
- ▶ Problems and Solutions
- ▶ **Q & A**

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 Frequently asked questions are summarized here for your reference.

Question	Answer
How can I change the frequency?	<p>Frequency can be changed by reconfiguring the video card.</p> <p>Note that video card support can vary, depending on the version of the driver used. (Refer to the computer or the video card manual for details.)</p>
How can I adjust the resolution?	<p>Windows XP: Reset resolution by clicking Control Panel --> Appearance & Theme --> Display --> Settings.</p> <p>Windows ME/2000: Set the resolution at the Control Panel --> Display --> Settings.</p> <p>* Contact the video card manufacturer for details.</p>
How can I set the Power Saving function?	<p>Windows XP: Reset Power Saving parameters by clicking Control Panel --> Appearance & Theme --> Display --> Screen Saver or in the computer BIOS SETUP. (Refer to Windows/Computer Manual)</p> <p>Windows ME/2000: Set the function at BIOS-SETUP of the computer or the screen saver. (Refer to Windows/Computer Manual).</p>
How can I clean the outer case/LCD Panel?	<p>Disconnect the power cord and then clean the monitor with a soft cloth, using either a cleaning solution or plain water.</p> <p>Do not leave any remains of the detergent nor scratch the case. Do not allow any water to go inside the monitor.</p>



▶ **General**

▶ PowerSaver

▶ Preset Timing Modes

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 Design and specifications are subject to change without prior notice.

General

Model Name	SyncMaster 400T
LCD Panel	
Size	40.0 inch (Diagonal)
Display area	862.080 (H) x 517.248 (V)
Pixel Pitch	0.6735 (H) x 0.6735 (V)
Type	a-si TFT active matrix
Viewing Angle	85/85/85/85 (L/R/U/D)

Synchronization

Horizontal	30 ~ 60 kHz
Vertical	56 ~ 75 Hz

Display Color

16,777,216 Colors

Resolution

Optimum resolution	1024 x 768 @ 60Hz
Maximum resolution	1280 x 768 @ 60Hz

Input Signal

Sync.	Separate: TTL, P. or N. Composite: TTL, P. or N.
Video signal	0.7 Vp-p @ 75 ohm

Video

Color system	NTSC
Sound system	M/N
Video format	CVBS, S-VHS, RGB
DVD	YPbPr 480i (Only component 1) 480P 720P 1080i
DTV	YPbPr 480P 720P 1080i

Maximum Pixel Clock

90 MHz

Power Supply

AC 90 ~ 264 V, 1.0 ~ 0.5A (50/60 Hz)

Power Consumption

230W (Maximum)

Power Saving

Less than 8W

Dimensions (WxDxH)

Monitor body	1006.0 x 300.0 x 746.5 mm
With speakers	1247.6 x 300.0 x 746.5 mm

Weight

Monitor body	28.0 kg
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Environmental considerations

Operating	Temperature : 50°F ~ 104°F(10°C ~ 40°C) Humidity : 10% ~ 80%, non-condensing
Storage	Temperature : -13°F ~113°F (-25°C ~ 45°C) Humidity : 5% ~ 95%, non-condensing

Audio Characteristics

Audio Input 1	RCA Jack Red(R) White(L), 0.5Vrms (-9dB)
Audio Input 2	3.5Ø Stereo Jack, 0.5Vrms (-9dB)
DVD/DTV	RCA Jack Red(R) White(L), 0.5Vrms (-9dB)
Headphone out	Max. 10mW Output (3.5Ø Stereo Jack 32)
Frequency	RF: 80Hz ~ 15kHz (at -3dB)
Response	A/V: 80Hz ~ 20kHz (at -3dB)

Plug and Play Capability

This monitor can be installed on any Plug & Play compatible system. Interaction of the monitor and computer systems will provide the best operating conditions and monitor settings. In most cases, monitor installation will proceed automatically, unless the user wishes to select alternate settings.

Dot Acceptable

TFT LCD panel manufactured by using advanced semiconductor technology with precision of 99.999% above is used for this product. But the pixels of RED, GREEN, BLUE and WHITE color seem to be bright sometimes or some of black pixels could be seen. This is not from bad quality and you can use it without uneasiness.

The number of TFT LCD pixels : • 40 inch: 2,949,120



Specifications

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- ▶ **PowerSaver**
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This monitor has a built-in power management system called PowerSaver. This system saves energy by switching your monitor into a low-power mode when it has not been used for a certain amount of time. The monitor automatically returns to normal operation when you move the computer's mouse or press a key on the keyboard. For energy conservation, turn your monitor OFF when it is not needed, or when leaving it unattended for long periods. The PowerSaver system operates with a VESA DPMS compliant video card installed in your computer. Use a software utility installed on your computer to set up this feature.

State	Normal Operation	Power saving mode EPA/ENERGY 2000	Power Switch off
Power Indicator	Green	Green, Blinking	Amber
Power Consumption	Less than 230W	Less than 8W	Less than 1W



This monitor is EPA ENERGY STAR[®] compliant and ENERGY2000 compliant when used with a computer equipped with VESA DPMS functionality. As an ENERGY STAR[®] Partner, SAMSUNG has determined that this product meets the ENERGY STAR[®] guidelines for energy efficiency.



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If the signal transferred from the computer is the same as the following Preset Timing Modes, the screen will be adjusted automatically. However, if the signal differs, the screen may go blank while the power LED is on. Refer to the video card manual and adjust the screen as follows.

Table 1. Preset Timing Modes

Display Mode	Horizontal Frequency (kHz)	Vertical Frequency (Hz)	Pixel Clock (MHz)	Sync Polarity (H/V)
MAC, 640 x 480	31.469	59.940	25.175	-/-
MAC, 640 x 480	35.000	66.667	30.240	-/-
MAC, 832 x 624	49.726	74.551	57.284	-/-
IBM, 720 x 400	31.469	70.087	28.322	-/+
VESA, 640 x 480	37.861	72.809	31.500	-/-
VESA, 640 x 480	37.500	75.000	31.500	-/-
VESA, 800 x 600	37.879	60.317	40.000	+/+
VESA, 800 x 600	48.077	72.188	50.000	+/+
VESA, 800 x 600	46.875	75.000	49.500	+/+
VESA, 1024 x 768	48.363	60.004	65.000	-/-
VESA, 1024 x 768	56.476	70.069	75.000	-/-
VESA, 1024 x 768	60.023	75.029	78.750	+/+
GTF, 1280 x 768	47.700	60.000	80.136	-/-



Horizontal Frequency

The time to scan one line connecting the right edge to the left edge of the screen horizontally is called Horizontal Cycle and the inverse number of the Horizontal Cycle is called Horizontal Frequency. Unit: kHz

Vertical Frequency

Like a fluorescent lamp, the screen has to repeat the same image many times per second to display an image to the user. The frequency of this repetition is called Vertical Frequency or Refresh Rate. Unit: Hz



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● **Sync Signal**

Sync (Synchronized) Signals refer to the standard signals that are required to display desired colors on the monitor. They are divided into Vertical and Horizontal Sync Signals. These signals display normal color images by the set resolution and frequency.

Types of Sync Signals

Separate	This is a scheme of transmitting individual vertical sync signals to the monitor.
Composite	This is a scheme of combining vertical sync signals into one composite signal and transmitting it to the monitor. The monitor displays the color signals by separating the composite signal into original color signals.
Sync On Green	This scheme does not use sync signals. Instead, it combines horizontal and vertical sync signals into a Green signal and transmits to the monitor. It is mainly used for workstations.

● **Dot Pitch**

The image on a monitor is composed of red, green and blue dots. The closer the dots, the higher the resolution. The distance between two dots of the same color is called the 'Dot Pitch'. Unit: mm

● **Vertical Frequency**

The screen must be redrawn several times per second in order to create and display an image for the user. The frequency of this repetition per second is called Vertical Frequency or Refresh Rate. Unit: Hz

Example: If the same light repeats itself 60 times per second, this is regarded as 60 Hz. In this case, flickering of the screen can be detected. To avoid this problem, there is a Flicker-free Mode using a vertical frequency over 70 Hz.

● **Horizontal Frequency**

The time to scan one line connecting the right edge to the left edge of the screen horizontally is called Horizontal Cycle. The inverse number of the Horizontal Cycle is called Horizontal Frequency. Unit: kHz

● **Interlace and Non-Interlace Methods**

Showing the horizontal lines of the screen from the top to the bottom in order is called the Non-Interlace method while showing odd lines and then even lines in turn is called the Interlace method. The Non-Interlace method is used for the majority of monitors to ensure a clear image. The Interlace method is the same as that used in TVs.

● **Plug & Play**

This is a function that provides the best quality screen for the user by allowing the computer and the monitor to exchange information automatically. This monitor follows the international standard VESA DDC for the Plug & Play function.

● **Resolution**

The number of horizontal and vertical dots used to compose the screen image is called 'resolution'. This number shows the accuracy of the display. High resolution is good for performing multiple tasks as more image information can be shown on the screen.

Example: If the resolution is 1024 X 768, this means the screen is composed of 1024 horizontal dots (horizontal resolution) and 768 vertical lines (vertical resolution).



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■ FCC Information

User Instructions

The Federal Communications Commission Radio Frequency Interference Statement includes the following warning:

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 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 receptions, 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.

User Information

Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment. If necessary, consult your dealer or an experienced radio/television technician for additional suggestions. You may find the booklet called How to Identify and Resolve Radio/TV Interference Problems helpful. This booklet was prepared by the Federal Communications Commission. It is available from the U.S. Government Printing Office, Washington, DC 20402, Stock Number 004-000-00345-4.

The party responsible for product compliance:

SAMSUNG ELECTRONICS CO., LTD
America QA Lab of Samsung
3351 Michelson Drive,
Suite #290, Irvine, CA92612 USA
Tel) 949-975-7310
Fax) 949-922-8301

Warning

User must use shielded signal interface cables to maintain FCC compliance for the product.

Provided with this monitor is a detachable power supply cord with IEC320 style terminations. It may be suitable for connection to any UL Listed personal computer with similar configuration. Before making the connection, make sure the voltage rating of the computer convenience outlet is the same as the monitor and that the ampere rating of the computer convenience outlet is equal to or exceeds the monitor voltage rating.

For 120 Volt applications, use only UL Listed detachable power cord with NEMA configuration 5-15P type (parallel blades) plug cap. For 240 Volt applications use only UL Listed Detachable power supply cord with NEMA configuration 6-15P type (tandem blades) plug cap.

■ IC Compliance Notice

This Class B digital apparatus meets all requirements of the Canadian Interference-Causing Equipment Regulations of ICES-003.

Cet appareil Numérique de classe B respecte toutes les exigences du Règlement NMB-03 sur les équipements produisant des interférences au Canada.

■ MPR II Compliance

This monitor complies with SWEDAC(MPR II) recommendations for reduced electric and magnetic fields.

■ **European Notice (Europe only)**

Products with the CE Marking comply with both the EMC Directive (89/336/EEC), (92/31/EEC), (93/68/EEC) and the Low Voltage Directive (73/23/EEC) issued by the Commission of the European Community.

Compliance with these directives implies conformity to the following European Norms:

- EN55022:1998 - Radio Frequency Interference
 - EN55024:1998 - Electromagnetic Immunity
 - EN61000-3-2:1995+A1+A2 - Power Line Harmonics
 - EN61000-3-3:1995 - Voltage Fluctuations
 - EN60950 - Product Safety.
-

■ **PCT Notice**



■ **VCCI**

This is a Class B product based on the standard of the Voluntary Control Council for Interference by Information Technology Equipment (VCCI). If this is used near a radio or television receiver in a domestic environment, it may cause radio interference. Install and use the equipment according to the instruction manual.



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● **Natural Color Software Program**



One of the recent problems in using a computer is that the color of the images printed out by a printer or other images scanned by a scanner or a digital camera are not the same as those shown on the monitor. The Natural Color S/W is the very solution for this problem. It is a color administration system developed by Samsung Electronics in association with Korea Electronics & Telecommunications Research Institute (ETRI). This system is available only for Samsung monitors and makes the color of the images on the monitor the same as the printed or scanned images. For more information, refer to Help (F1) in the software program.

How to install the Natural Color software

Insert the CD included with the Samsung monitor into the CD-ROM Drive. Then, the initial screen of the program installation will be executed. Click Natural Color on the initial screen to install the Natural Color software. To install the program manually, insert the CD included with the Samsung monitor into the CD-ROM Drive, click the [Start] button of Windows and then select [Execute]. Enter D:\color\eng\setup.exe and then press the <Enter> key. (If the drive where the CD is inserted is not D:\, enter the applicable drive.)

How to delete the Natural Color software program

Select [Setting]/[Control Panel] on the [Start] menu and then double-click [Add/Delete a program]. Select Natural Color from the list and then click the [Add/Delete] button.



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