

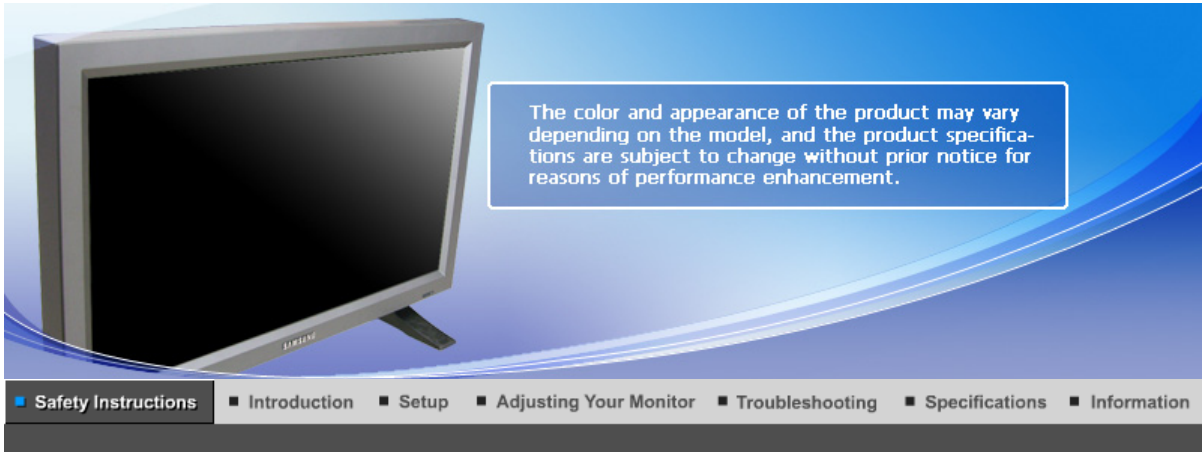


SyncMaster 320P





Model



Notational

Power

Installation

Clean

Others

Notational

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 the equipment.

Notational Conventions



Prohibited



Important to read and understand at all times



Do not disassemble



Disconnect the plug from the outlet



Do not touch



Ground to prevent an electric shock

Notational

Power

Installation

Clean

Others

Power



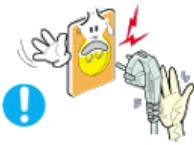
When not used for an extended period of time, set your computer to DPMS.
If using a screen saver, set it to active screen mode.

[Shortcut to Anti-Afterimage Instructions](#)

- Do not use a damaged or loose plug.

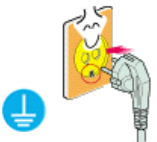


- This may cause electric shock or fire.



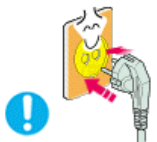
• **Do not pull the plug out by the wire nor touch the plug with wet hands.**

- This may cause electric shock or fire.



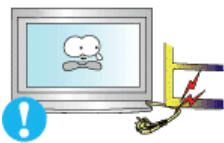
• **Use only a properly grounded plug and receptacle.**

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



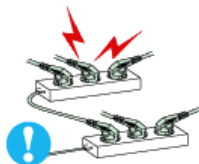
• **Insert the power plug firmly so that it does not come loose.**

- A bad connection may cause fire.



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

- This may cause electric shock or fire.



• **Do not connect too many extension cords or plugs to one outlet.**

- This may cause fire.



• **Do not disconnect the power cord while using the monitor.**

- A surge may be caused by the separation and may damage the monitor.



• **Do not use the power cord when the connector or plug is dusty.**

- If the connector or plug of the power cord is dusty, clean it with a dry cloth.
- Using the power cord with a dusty plug or connector may cause electric shock or fire.

Notational

Power

Installation

Clean

Others

• **Installation**

Be sure to contact an authorized the [Service Center](#), when installing your monitor in a



location with heavy dust, high or low temperatures, high humidity, and exposed to chemical substances and where it operates for 24 hours such as at airports, train stations etc.

Failure to do so may cause serious damage to your monitor.



● **Place your monitor in a location with low humidity and a minimum of dust.**

- Failure to do so may cause electric shock or fire inside the monitor.



● **Do not drop the monitor when moving it.**

- This may cause damage to the product or the person carrying it.



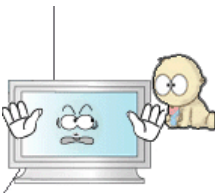
● **Install the monitor base in a showcase or on a shelf so that the end of the base does not protrude from the showcase or shelf.**

- Dropping the product may cause damage to the product or the person carrying it.



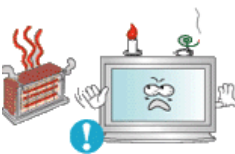
● **Do not place the product on an unstable or small surface area.**

- Place the product on an even and stable surface, as the product may fall and cause harm to someone walking by, specifically children.



● **Do not place the product on the floor.**

- Take care, as someone, specifically children may trip over it.



● **Keep any flammable objects such as candles, insecticides or cigarettes away from the product.**

- Otherwise, this may cause fire.



● **Keep any heating devices away from the power cable.**

- A melted coating may cause electric shock or fire.



● **Do not install the product in places with poor ventilation, for instance, a bookshelf, closet, etc.**

- Any increase in the internal temperature may cause fire.

● **Put down the monitor carefully.**



- Failing to do so may damage the monitor.



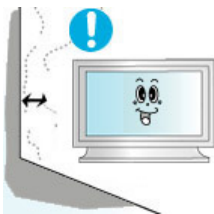
• **Do not place the monitor face down.**

- This may damage the TFT-LCD surface.



• **The installation of the bracket must be done by a qualified professional.**

- Installing the bracket by unqualified personnel may result in injury.
- Always use the mounting device specified in the owner's manual.



• **When installing the product, make sure to keep it away from the wall (more than 10 cm/4 inches) for ventilation purposes.**

- Poor ventilation may cause an increase in the internal temperature of the product, resulting in a shortened component life and degraded performance.



• **Keep the plastic packaging (bag) out of children's reach.**

- The plastic packaging (bag) may cause suffocation if children play with it.

Notational

Power

Installation

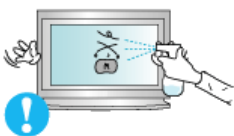
Clean

Others

• **Clean**



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



• **Do not spray water or detergent directly onto the monitor.**

- This may cause damage, electric shock or fire.



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

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



- A dirty connector may cause electric shock or fire.



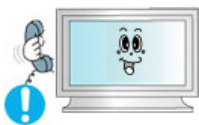
● **Make sure to unplug the power cord before cleaning the product.**

- Otherwise, this may cause electric shock or fire.



● **Unplug the power cord from the power outlet and wipe the product using a soft, dry cloth.**

- Do not use any chemicals such as wax, benzene, alcohol, thinners, insecticide, air freshener, lubricant or detergent.



● **Contact the SAMSUNG customer care center or Customer Center for interior cleaning once a year.**

- Keep the product's interior clean. Dust which has accumulated in the interior over an extended period of time may cause a malfunction or fire.

Notational

Power

Installation

Clean

Others

● **Others**



● **Do not remove the cover (or back).**

- This may cause electric shock or fire.
- Refer to a qualified servicing company.



● **If your monitor does not operate normally - in particular, if there is any unusual sound or smell coming from the monitor - unplug it immediately and contact an authorized dealer or the [Service Center](#).**

- This may cause electric shock or fire.



● **Keep the product away from places exposed to oil, smoke or moisture; do not install inside a vehicle.**

- This may cause a malfunction, electric shock or fire.
- In particular, avoid operating the monitor near water or outdoors where the monitor could be exposed to snow or rain.



● **If the monitor is dropped or the casing is damaged, turn the monitor off and unplug the power cord. Then contact the [Service Center](#).**

- The monitor may malfunction, causing electric shock or fire.



● **Adjust the resolution and frequency to the level appropriate for the model.**

- An inappropriate resolution may cause undesirable picture quality.

32 inch (80 cm) - 1360 X 768



● **Viewing the monitor continuously at a too close angle may result in damage to your eyesight.**



● **To ease eye strain, take at least a five-minute break after every hour of using the monitor.**



● **Do not install the product on an unstable, uneven surface or a location prone to vibrations.**

- Dropping the product may cause damage to the product or the person carrying it. Using the product in a location prone to vibrations may shorten the lifetime of the product or may cause the product to catch fire.



● **When moving the monitor, turn off and unplug the power cord. Make sure that all cables, including the antenna cable and cables connected to other devices, are disconnected before moving the monitor.**

- Failure to disconnect cables may damage it and cause fire or electric shock.



● **Make sure there are more than two people when moving the product.**

- Dropping the product may cause a malfunction or injury to the person carrying it.



● **Place the product out of children's reach, as they could damage by hanging onto it.**

- A falling product may cause injury to the person or even fatality.



● **When not using the product for an extended period of time, keep the product unplugged.**

- Otherwise, this may cause heat emission from the accumulated dirt or degraded insulation, causing electric shock or fire.



● **Do not place your children's favorite toys or any other objects of interest on the product.**

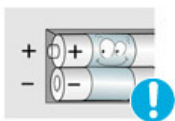
- Children may try to climb on the product to retrieve an object. The product could fall, causing injury or even fatality.

● **When removing batteries from the remote control, ensure that the children**



do not swallow the batteries. Keep the batteries out of children's reach.

- If the batteries are swallowed, see a doctor immediately.



- **When replacing batteries, place the batteries in the correct +/- polarity position as indicated on the battery holder.**

- The incorrect polarity may cause a battery to break or leak and may cause fire, injury, or contamination (damage).



- **Use only specified standard batteries. Do not use new and used batteries together.**

- This may cause a battery to break or leak and may cause fire, injury, or contamination (damage).



- **The batteries (and rechargeable batteries) is not ordinary refuse and must be returned for recycling purposes. The customer is responsible for returning the used or rechargeable batteries for recycling purposes as the consumer.**

- The customer can return used or rechargeable batteries to a nearby public recycling center or to a store selling the same type of the battery or rechargeable battery.

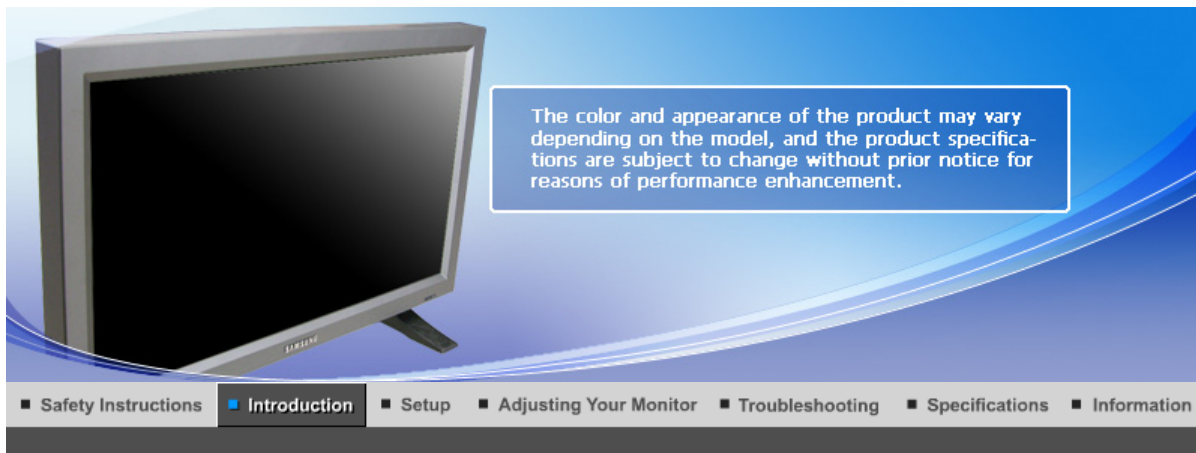
CALIFORNIA USA ONLY

This Perchlorate warning applies only to primary CR(Manganese Dioxide) Lithium coin cells in the product sold or distributed ONLY in California USA

Perchlorate Material - special handling may apply, See www.dtsc.ca.gov/hazardouswaste/perchlorate.



Model



Unpacking

Front

Rear

Remote Control

Mechanical Lay-out

Please make sure the following items are included with your monitor.
If any items are missing, [contact your dealer](#).
[Contact a local dealer](#) to buy optional items.



This stand is not for the Floor Standing Type.

Unpacking



Monitor

Manual



Quick Setup Guide



Warranty Card
(Not available in all locations)



User's Guide, MDC software,
Natural Color software

Cable



D-Sub Cable

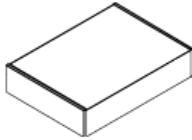


Power Cord



Speaker Wire Cable

Sold separately



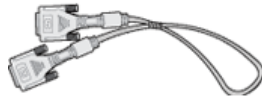
Wall Mount KIT



Speaker Set



Stand KIT



DVI Cable

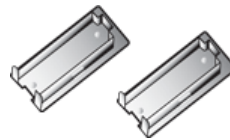
Other



Remote Control



Batteries (AAA X 2)



Cover-Hole



**BNC to RCA
Adapter Jack**



Semi Stand

for long periods.

Unpacking

Front

Rear

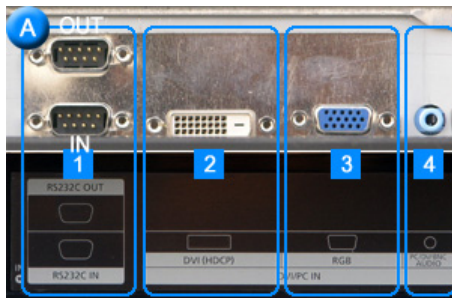
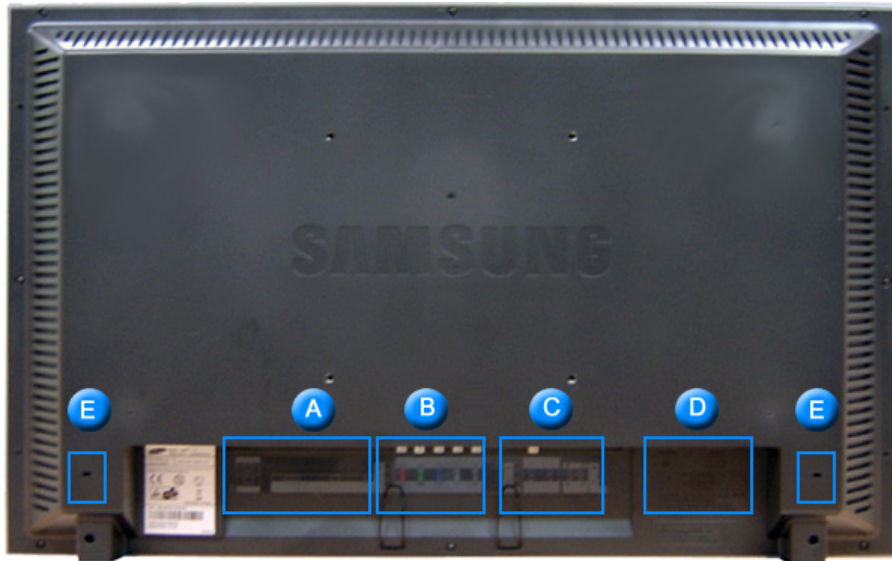
Remote Control

Mechanical Lay-out

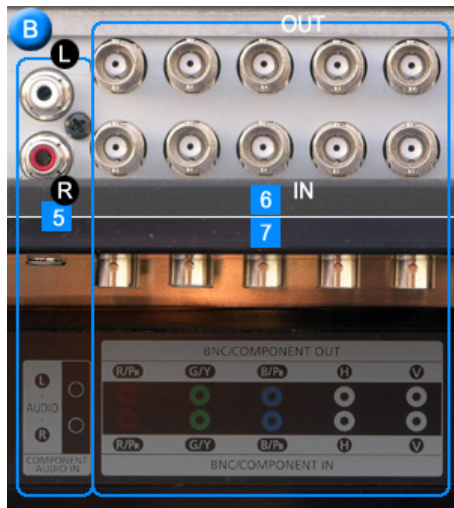
Rear



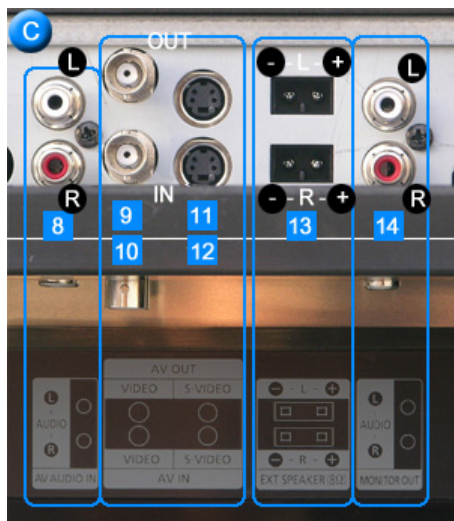
For detailed information concerning cable connections, refer to [Connecting Cables](#) under Setup. The monitor's configuration at the back may vary slightly depending on the monitor model.



1. **RS232C OUT/IN (RS232C Serial PORT):** MDC(Multiple Display Control) Program Port
2. **DVI IN(HDCP) (PC Video Connection Terminal)**
: Using a DVI Cable (DVI-D to DVI-D) - DVI mode (Digital PC)
3. **PC IN(RGB) (PC Video Connection Terminal)**
: Using a D-Sub Cable (15 pin D-Sub) - PC mode (Analog PC)
4. **PC/DVI/BNC AUDIO IN (PC/DVI/BNC Audio Connection Terminal (Input))**



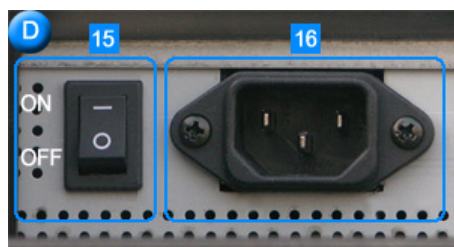
5. **COMPONENT AUDIO IN [L-AUDIO-R](Component Audio Connection Terminal (Input))**
6. **BNC/COMPONENT OUT (BNC/Component Connection Terminal (Output))**
 - BNC (Analog PC) Connection : connecting the R, G, H, V ports.
 - Component Connection : connecting the PR, Y, PB ports
7. **BNC/COMPONENT IN (BNC/Component Connection Terminal (Input))**



8. **AV AUDIO IN [L-AUDIO-R](Monitor Audio Connection Terminal (Input))**
9. **AV OUT [VIDEO](VIDEO Connection Terminal) : AV mode (Output)**
10. **AV IN [VIDEO](VIDEO Connection Terminal) (Input)**
11. **AV OUT [S-VIDEO](S-Video Connection Terminal) : S-Video mode (Output)**
12. **AV IN [S-VIDEO](S-Video Connection Terminal) (Input)**
13. **EXT SPEAKER(8 Ω) (EXT Speaker Connection Terminal)**
14. **MONITOR OUT [L-AUDIO-R](Monitor Audio Connection Terminal (Output))**
 - MONITOR OUT is terminal for the PC sound output.



The number of monitors that can be connected to loopout may differ depending on the cables, signal source etc. With cables where there is no degradation or signal source, up to ten monitors can be connected.



15. **POWER S/W** : Switches the monitor On/Off.
16. **POWER IN** : The power cord plugs into the monitor and the wall plug.

17. **Kensington Lock**



The Kensington lock is a device used to physically fix the system to something when using it in a public place. (The locking device has to be purchased separately.) For using a locking device, contact the place of purchase.



See [Connecting the Monitor](#) for further information regarding cable connections.

Unpacking

Front

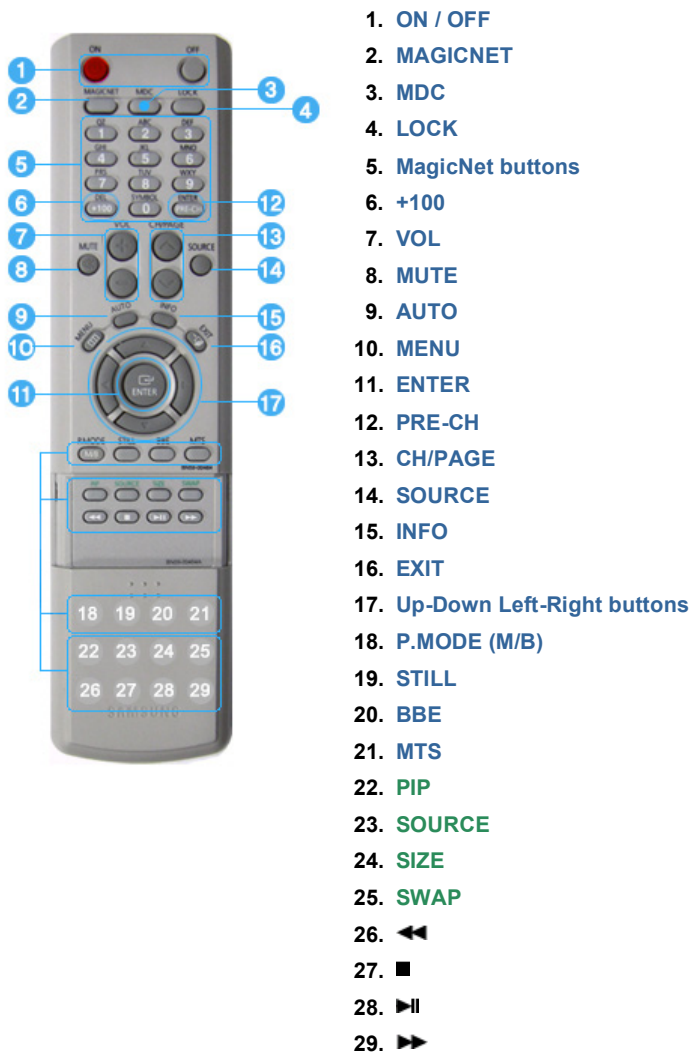
Rear

Remote Control

Mechanical Lay-out

Remote Control

The performance of the remote control may be affected by a TV or other electronic device operating near the monitor, causing a malfunction due to interference with the frequency.



1. ON / OFF

Turns the monitor On/Off.

2. MAGICNET

MagicNet Quick Launch Button.

- **This function does not work for this monitor.**

3. MDC

MDC Quick Launch Button.

4. LOCK

Activates or deactivates all function keys on both the remote control and the monitor except for the Power and LOCK buttons.

5. MagicNet buttons

- Used for MagicNet.

- Alphanumeric: Used to enter the Internet address.
- DEL : Functions as the backspace.
- SYMBOL: Used to enter the symbols (.O_ -:/).
- ENTER : Used to enter values.

- **This function does not work for this monitor.**

6. +100

Press to select channels over 100.

For example, to select channel 121, press "+100", then press "2" and "1".

- **This function does not work for this monitor.**

7. VOL

Adjusts the audio volume.

>>[Click here to see an animation clip](#)

8. MUTE

Pauses (mutes) the audio output temporarily.

This is displayed on the lower left corner of the screen.

The audio resumes if MUTE or - VOL + is pressed in the Mute mode.

9. AUTO

Adjusts the screen display automatically.

By changing the resolution in the control panel, auto function is performed.

10. MENU

Opens the on-screen menu and exits from the menu or closes the screen adjustment menu.

11. ENTER

Activates a highlighted menu item.

12. PRE-CH

Returns to the immediately previous channel.

- **This function does not work for this monitor.**

13. CH/PAGE

Selects channels or page.

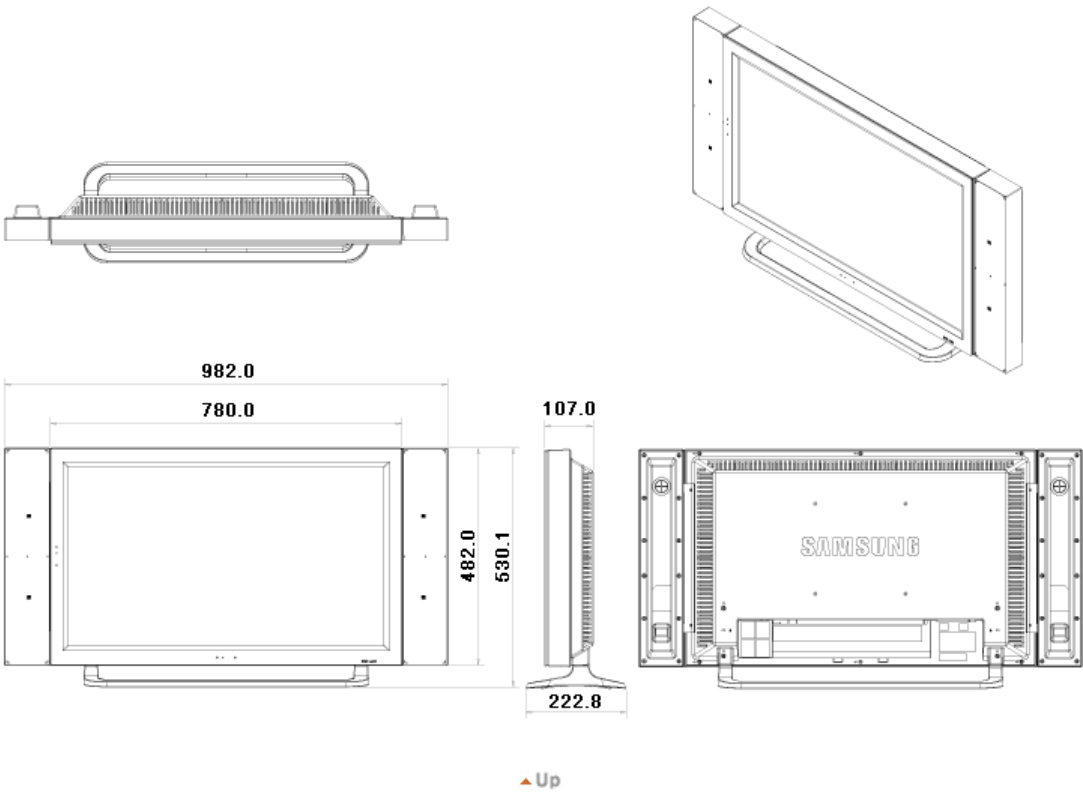
- **This function does not work for this monitor.**

14. SOURCE

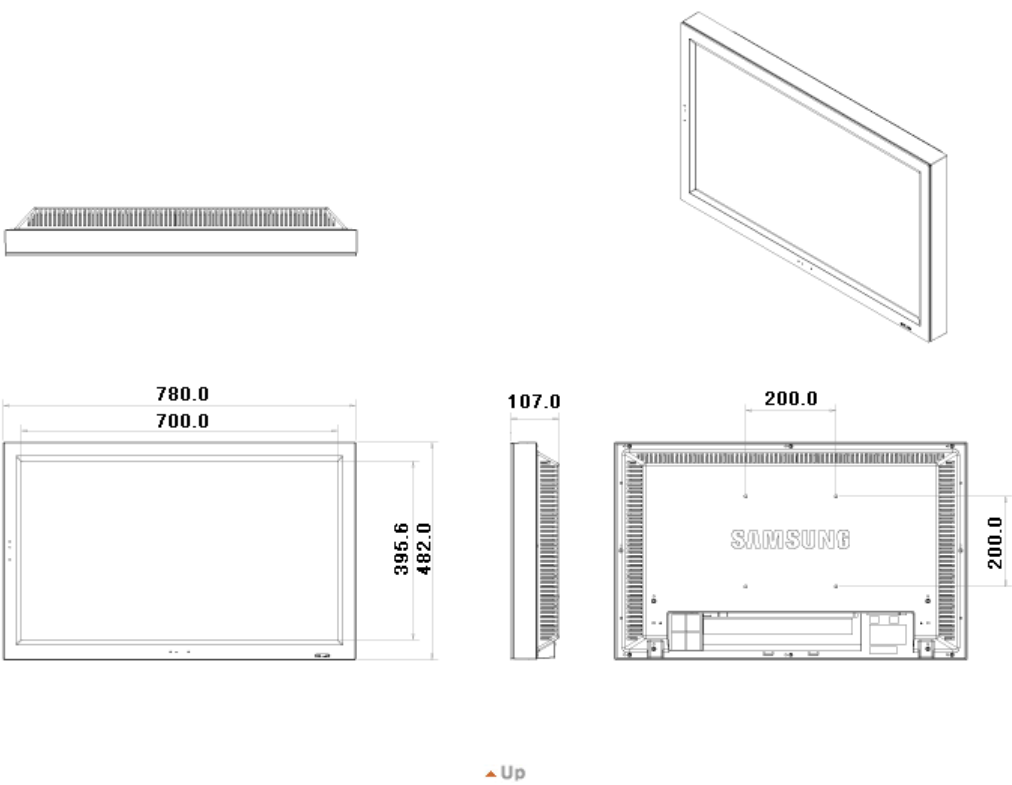
Changes the video source.

15. INFO

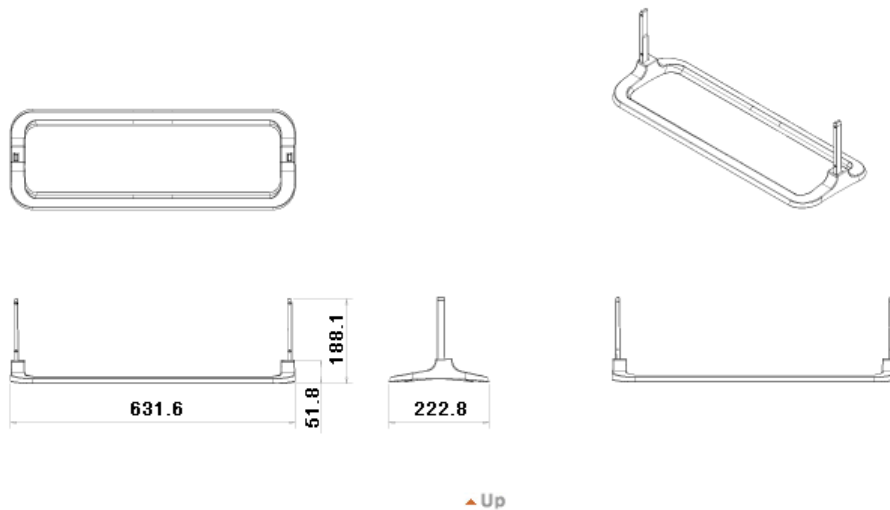
1. Mechanical Layout



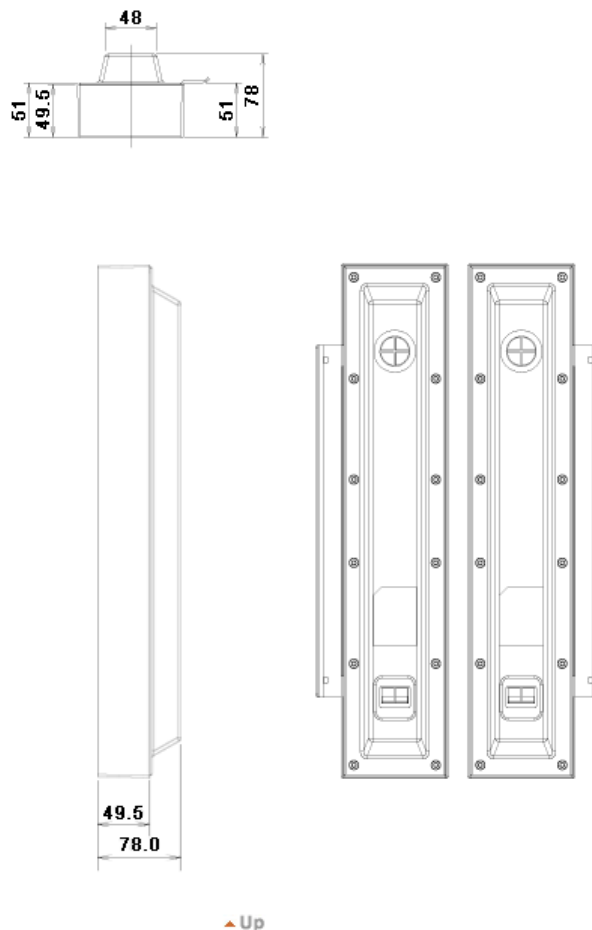
2. Monitor Head



3. Stand

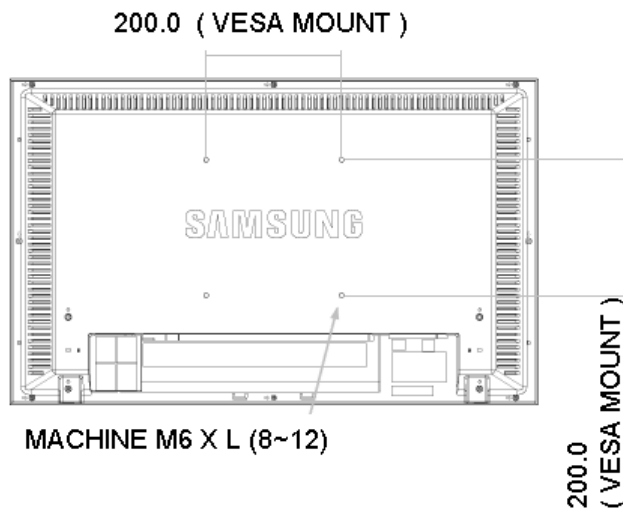


4. Speaker



5. Installation VESA Bracket

- When installing VESA, make sure to comply with the international VESA standards.
- Purchasing VESA Bracket and Installation Information : Please contact your nearest Samsung Distributor to place an order. After your order is placed, installation professionals will visit you and install the bracket.
- At least 2 persons are needed in order to move the LCD Monitor.
- Samsung is not responsible for any product damage or any injury caused by installation at customer's discretion.



For securing the bracket on a wall, use only machine screws of 6 mm diameter and 8 to 12 mm length.

▲ Up

6. Wall Bracket Installation

- Contact a technician for installing the wall bracket.
- Samsung Electronics is not responsible for any damages to the product or harm to customers when the installation is done by the customer.
- This product is for installing on cement walls. The product may not stay in place when installed on plaster or wood.

Components(Sold separately)

Only use the components and accessories shipped with the product.



A Wall-Bracket B Set-Bracket C Screw: 8 EA D Screw: 3 EA E Wood Screw: 7 EA F Anchor: 7 EA G Installation Guide

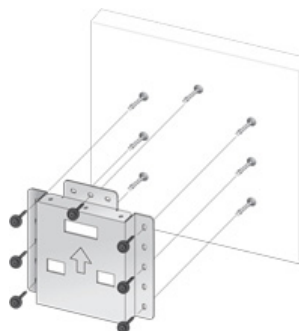
How to assemble the Wall Mount Bracket

1

1. Mark the location of hole on the wall.
2. Make over 35mm-depth-hole on the marked location using drill.
3. Fix anchors **F** on each hole on the wall.
4. Connect wall-bracket **A** to the wall with wood screws **E** after fitting anchors **F** into the wall-bracket **A**.



If the bracket is not firmly fixed to the wall, set can fall off.



2

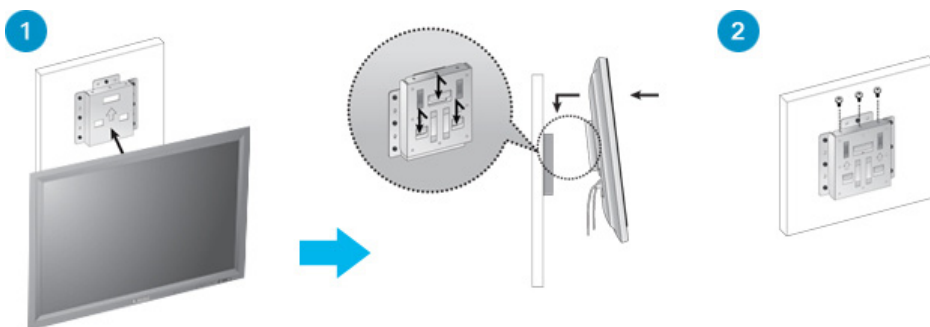
1. Turn the power off and unplug the power cord from the outlet.
2. Place the monitor faced down on a soft cloth or cushion on a table.
3. Attach the set-bracket **B** onto the rear side of the monitor set and secure the screws **C**.



- 3
1. Insert three Hangers of the set-bracket **B** into the grooves of the wall-bracket **A**.
 2. Fix set-bracket **B** and wall-bracket **A** with screws **D**.



Before installing the set on the wall, connect the cables to the set first.



▲ Up

The color and appearance of the product may vary depending on the model, and the product specifications are subject to change without prior notice for reasons of performance enhancement.

■ Safety Instructions ■ Introduction ■ **Setup** ■ Adjusting Your Monitor ■ Troubleshooting ■ Specifications ■ Information

Installing The Stand Kit | [Connecting the Monitor](#) | [MDC](#) | [Natural Color](#) |

Installing the Stand Kit



Only the supplied bolts should be used.



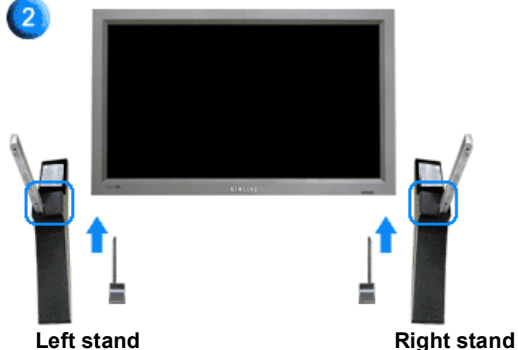
Samsung Electronics will not be responsible for damages caused by using a base other than those specified.

1. Installing the Semi Stand

1



2



Make sure to install the stand with the Caution label folded backwards.

3



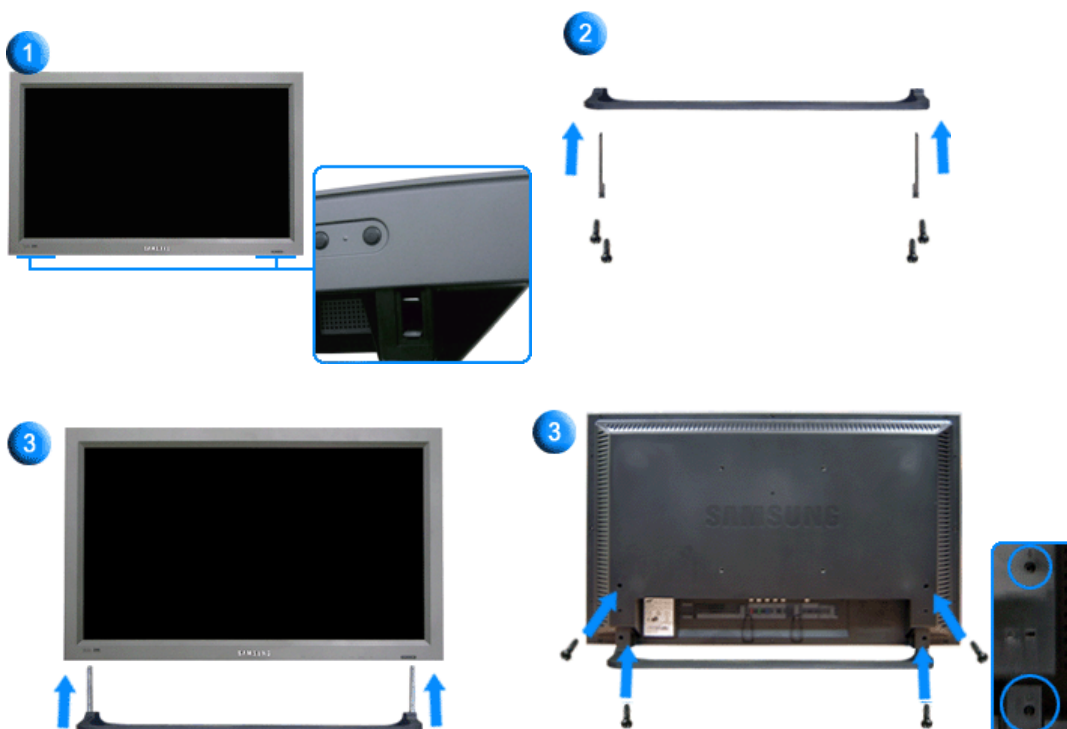
1. A 'Cover-Protector' is used to protect the hole at the bottom of the monitor, where the stand is inserted. Be sure to remove the 'Cover-Protector' when attaching the provided Semi Stand or stand kit (sold separately) and cover the hole using the 'Cover-Hole' when attaching the wall mount kit.
2. Set up the left and right stands respectively.

3. Insert the stand into the hole at the bottom of the monitor.
Insert the screw into the hole indicated and tighten it. (M4 × L15)



This stand is designed for adjusting the screen angle. The company is not responsible for any problem caused when using this stand. Under no circumstances use the product as a stand for placing something on.

2. Installing the Stand Kit (sold separately)



1. A 'Cover-Protector' is used to protect the hole at the bottom of the monitor, where the stand is inserted. Be sure to remove the 'Cover-Protector' when attaching the provided Semi Stand or stand kit (sold separately) and cover the hole using the 'Cover-Hole' when attaching the wall mount kit.
2. Ensure that the parts are inserted in the right direction and in the right place. (M4 × L15)
3. Insert the stand into the hole at the bottom of the monitor.
4. Insert the screw into the hole indicated and tighten it. (M4 × L15)

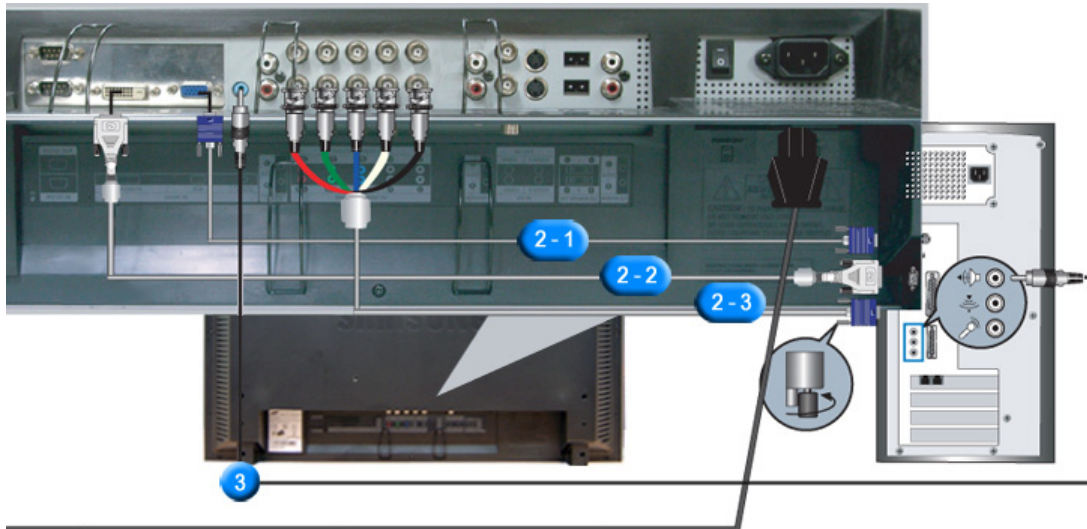
Using a Power cord with Earth

In the event of failure, the earth lead may cause electric shock. Make sure to wire the earth lead correctly, before connecting the AC power. When un-wiring the earth lead, make sure to disconnect the AC power in advance.



AV input devices such as DVD players, VCR's or camcorders as well as your computer can be connected to the monitor. For detailed information on connecting AV input devices, refer to the User Controls under Adjusting Your Monitor.

1. Connecting to a Computer



1. Connect the power cord for your monitor to the power port on the back of the monitor. Turn on the power switch.
2. There are 3 ways to connect the signal cable to your monitor. Choose one of the following:

2-1. Using the D-sub (Analog) connector on the video card.
Connect the signal cable to the 15-pin, RGB port on the back of your monitor.



2-2. Using the DVI (Digital) connector on the video card.
Connect the DVI Cable to the DVI(HDCP) port on the back of your monitor.



2-3. Using the BNC (Analog) connector on the video card.
Connect the BNC Cable to the **BNC/COMPONENT IN - R, G, B, H, V** ports on the back of your Monitor and the 15 pin D-sub Port on the computer.





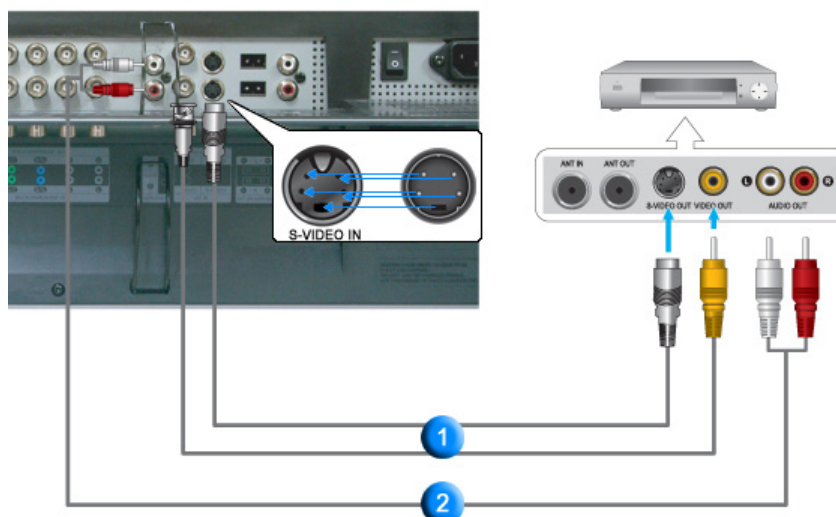
The DVI cable or BNC cable is optional.

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



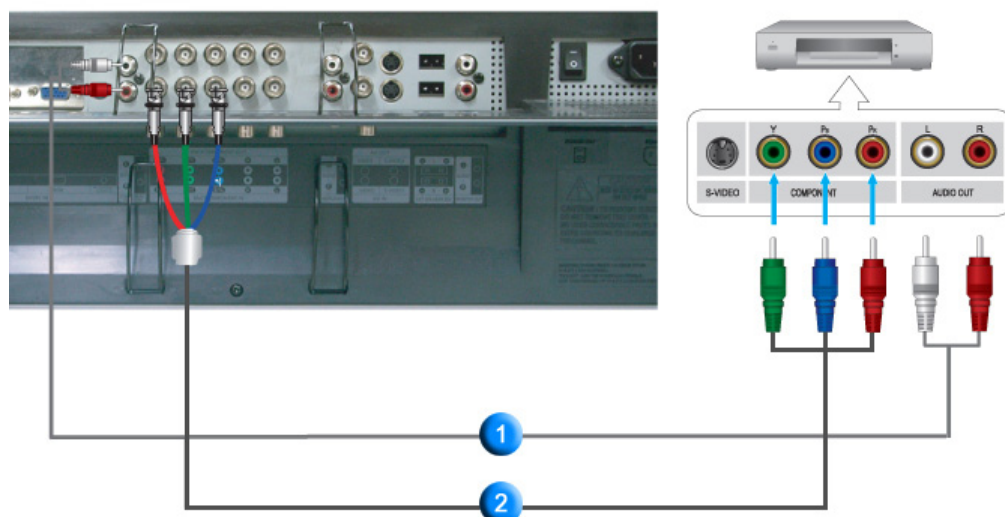
1. AV input devices such as VCRs or Camcorders are connected via the AV IN [VIDEO] or AV IN [S-VIDEO] of the monitor using an S-VHS or BNC cable.



The S-VHS or BNC cable is optional.

2. Connect the Audio (L) and Audio (R) terminals of a VCR or Camcorders to the monitor's **AV AUDIO IN [L-AUDIO-R]** using audio cables.
3. Select AV or S-Video for a connected VCR or Camcorder using the Source button on the front of the monitor or on the remote control.
4. Then, start the VCR or Camcorders with a tape inserted.

3. Connecting to a DVD Player



1. Connect a set of audio cables between the **COMPONENT AUDIO IN [L-AUDIO-R]** on the Monitor and the AUDIO OUT jacks on the DVD player.
2. Connect a Component cable between the **BNC/COMPONENT IN - P_R, Y, P_B port** on the Monitor and the P_R, Y, P_B jacks on the DVD player.



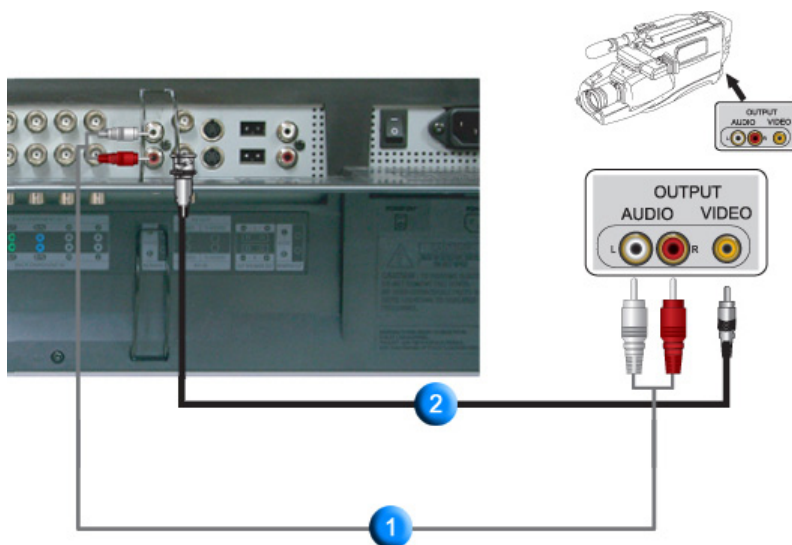
A component cable is optional.

3. Select Component for the connection to a DVD player using the Source button on the front of the monitor or on the remote control.
4. Then, start the DVD Player with a DVD disc inserted.



For an explanation of Component video, consult your DVD manual.

4. Connecting to a Camcorder



1. Locate the A/V output jacks on the camcorder. They are usually found on the side or back of the camcorder.
Connect a set of audio cables between the AUDIO OUTPUT jacks on the camcorder and the **AV AUDIO IN [L-AUDIO-R]** on the Monitor.
2. Connect a video cable between the VIDEO OUTPUT jack on the camcorder and the **AV IN [VIDEO]** on the Monitor.
3. Select AV for the Camcorder connection using the Source button on the front of the monitor or on the remote control.
4. Then, start the Camcorders with a tape inserted.

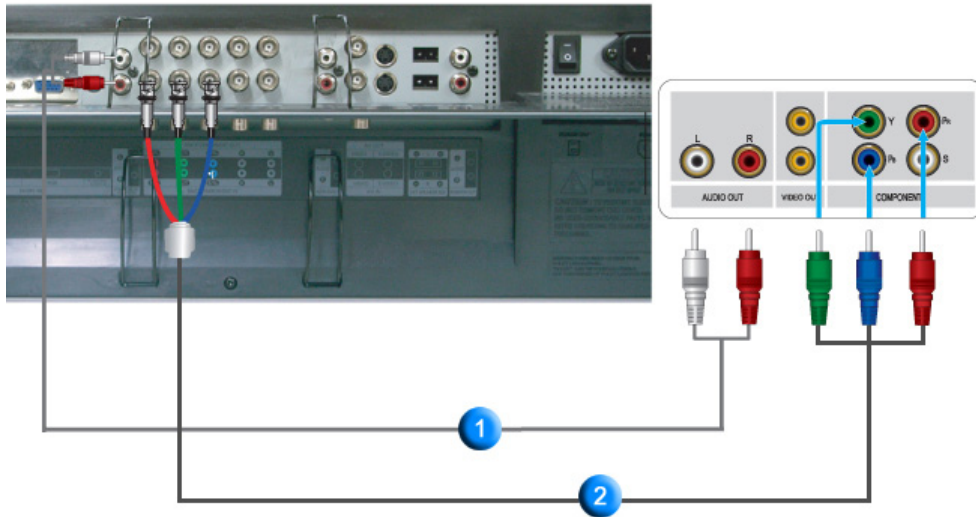


The audio-video cables shown here are usually included with a Camcorder.
(If not, check your local electronics store.)
If your camcorder is stereo, you need to connect a set of two cables.

5. Connecting to a DTV Set Top Box



The connections for a typical Set Top Box are shown below.



1. Connect a set of audio cables between the **COMPONENT AUDIO IN [L-AUDIO-R]** on the Monitor and the **AUDIO OUT** jacks on the Set Top Box.
2. Connect a Component cable between the **BNC/COMPONENT IN - PR, Y, PB port** on the Monitor and the **PR, Y, PB jacks** on the Set Top Box.
3. Select Component for the connection to a DTV Set Top Box using the Source button on the front of the monitor or on the remote control.



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

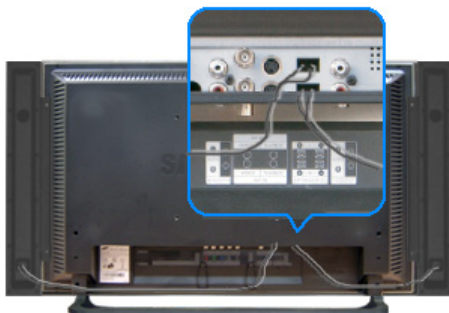
6. Connecting Speakers

1. Fasten the SET and the speaker using the screws.



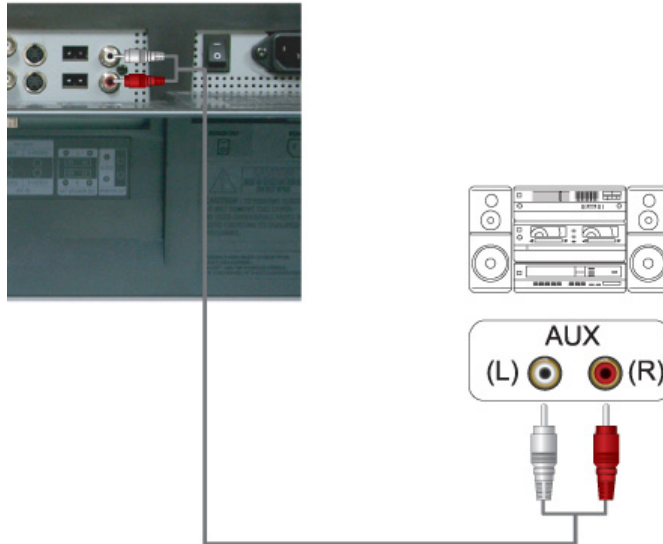
* Mount the speaker set without the speaker stand.

2. Connect the speaker connection cable between the speaker connection jack on the back of the SET and the speaker connection jack on the back of the speaker.



Do not move the SET while the SET is connected to the speakers.
The speaker-bracket for connecting the SET speaker may become damaged.

7. Connecting to an Audio System



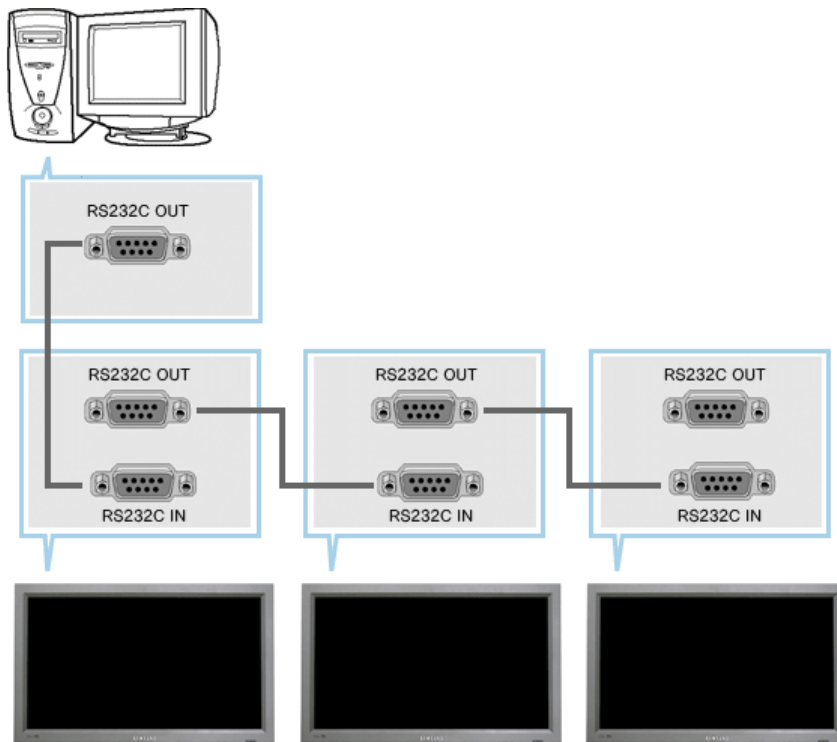
1. Connect a set of audio cables between the AUX L, R jacks on the AUDIO SYSTEM and MONITOR OUT [L-AUDIO-R] on Monitor.

[Installing The Stand Kit](#) | [Connecting the Monitor](#) | **MDC** | [Natural Color](#) |

Multiple Display Control *MDC System*

- | | |
|--|--|
| 1. Introduction | 6. Time Control |
| 2. Beginning :
Main Screen Port Selection | 7. PIP Control :
PIP Size PIP Source |
| 3. Power Control | 8. Settings Control :
Picture Picture PC Audio Image Lock |
| 4. Input Source Control | 9. Maintenance Control - Lamp Control |
| 5. Image Size Control :
PC, BNC, DVI | 10. Maintenance Control - Scroll |
| AV, S-Video, Component, DVI(HDCP) | 11. Maintenance Control - Video Wall |
| | 12. Troubleshooting |
| | 13. Settings Value Display In Multiple Display Mode |

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 communicating 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.

2. 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.



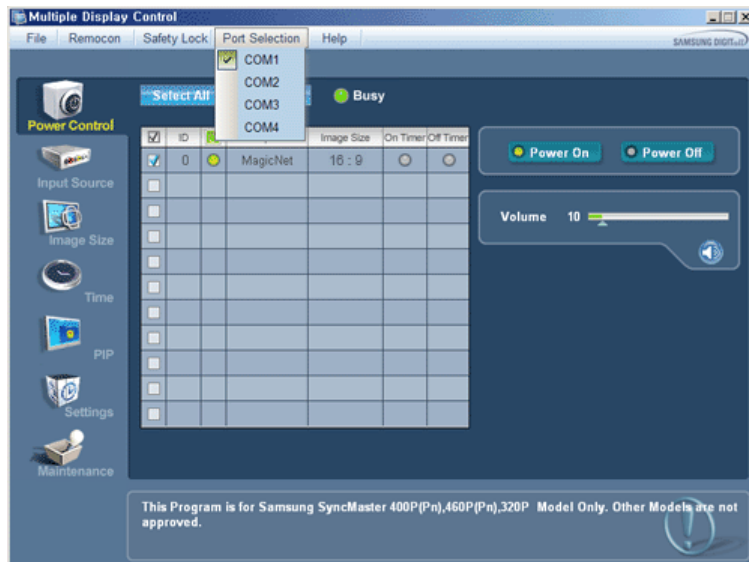
- | | |
|------------------|---------------------|
| ① Main Icons | ⑤ Select Button |
| ② Remocon | ⑥ Info Grid |
| ③ Safety Lock | ⑦ Display Selection |
| ④ Port Selection | ⑧ Control Tools |

1. Use the main icons to switch to each screen.
2. Enables/Disables the remote control signal receiving function of the display unit.
3. The setting for the PC Serial Port can be changed. The original value is COM1.
4. Sets the Lock Function.
5. Click Select all or Clear to select or clear all displays.
6. Use Grid to view brief information on the selected display.
7. Select a display in Display Selection.
8. Use the Control Tools to control the displays.



The remote control Enable/Disable function operates regardless of whether the power is On/Off, and this applies to all displays connected via 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.

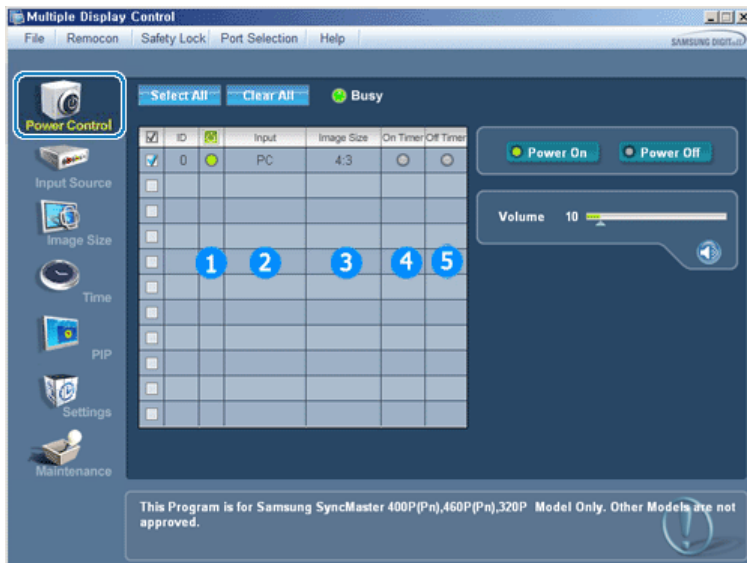
2. Beginning - Port Selection



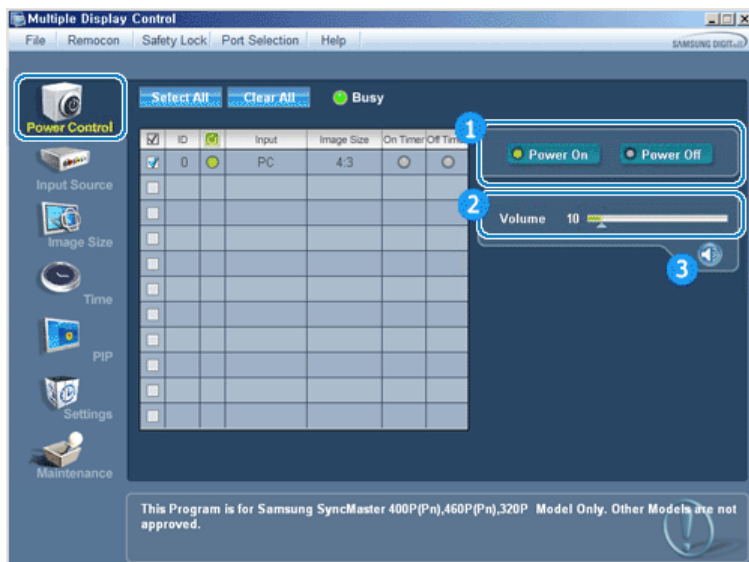
1. Multiple Display Control is originally set to COM1.
2. If any port other than COM1 is used, COM1 to COM4 can be selected in the Port Selection Menu.
3. If the exact port name which is connected to the monitor using a serial cable is not selected, communication will not be available.
4. The selected port is stored in the program and is used for the next program as well.

3. Power Control

1. Click on Power Control from the main icons and the Power Control screen appears.



- ▶ The Info Grid shows some basic information necessary to Power Control.
 - 1) Power Status
 - 2) Input Source
 - 3) Image Size
 - 4) On Timer Status
 - 5) Off Timer Status
- 2. Use the Select All button or the Check Box to choose a display to control.



► ☒ Power Control allows the controlling of 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 canceling the selection or choosing Select All, the value returns to the default value 10)

3) Mute On/Off

- Enables/disables the Mute function of the selected display.

When selecting one set at a time, enable Mute when the Mute function is enabled for the selected set.

The Mute function is disabled automatically when adjusting the volume level.

(The values return to the default settings when undoing the selections or choosing "Select All.")

• **The Power Control feature is available for all displays.**

• **The Volume Control and Mute features are only available for displays where the power is ON.**

4. Input Source Control

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

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



► The Info Grid shows some basic information necessary for the Input Source Control.

1) PC

- Changes the Input Source of the selected display to PC.

2) BNC

- Changes the Input Source of the selected display to BNC.

3) DVI

- Changes the Input Source of the selected display to DVI.
 - 4) AV
 - Changes the Input Source of the selected display to AV.
 - 5) S-Video
 - Changes the Input Source of the selected display to S-Video.
 - 6) Component
 - Changes the Input Source of the selected display to Component.
 - 7) MagicNet
 - The Input source of MagicNet works only for the MagicNet model.
- **The Input Source Control feature is only available for the displays where the power is ON.**
-

5. Image Size Control - PC, BNC, DVI

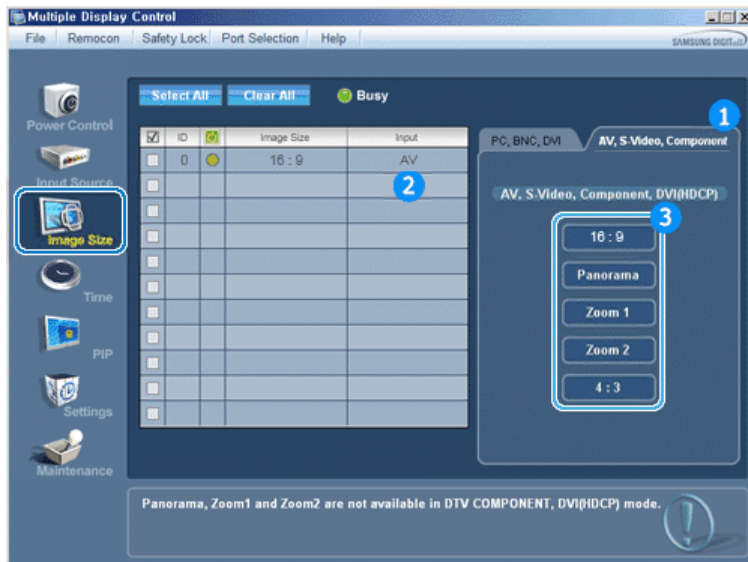
1. Click on Image Size from the main icons and the Image Size control screen appears.



- ▶ The Info Grid shows some basic information necessary for the Image Size Control.
- 1) Power
 - Shows the power status of the current display.
 - 2) Image Size
 - Shows the current Image Size of the display in use.
 - 3) Input Source
 - Shows the current Input Source of the display in use.
 - 4) The Info Grid displays only the displays where the Input Source is PC, BNC, DVI.
 - 5) When clicking Image Size, the PC, BNC, DVI tabs appear first.
 - The Image Size Control button controls the available Image Size for PC, BNC, DVI.
 - 6) Click the AV, S-Video, Component tab to control the Image Size for the respective Input Source.
- **Image Size Control is only available for displays for where the power is ON.**
 - **The Input source of MagicNet works only for the MagicNet model.**
-

5. Image Size Control - AV, S-Video, Component, DVI(HDCP)

1. Click on Image Size from the main icons and the Image Size control screen appears.



► The Info Grid shows some basic information necessary for the Image Size Control.

- 1) Click the AV, S-Video, Component tab to adjust Image Size for AV, S-Video, Component. Click Select All or use the Check Box to select a display to control.
- 2) The Info Grid only shows the display with AV, S-Video, Component or DVI(HDCP) as the input source.
- 3) Switches the Image Size of the selected display randomly.



Panorama, Zoom1 and Zoom2 are not available for selection when the input signal type for Component and DVI (HDCP) is 720p or 1080i.

- The Image Size Control feature is only available for displays where the power is ON.
- The Input source of MagicNet works only for the MagicNet model.

6. Time Control

1. Click on Time from the main icons and the Time Control screen appears.



► The Info Grid shows some basic information necessary for the Time Control.

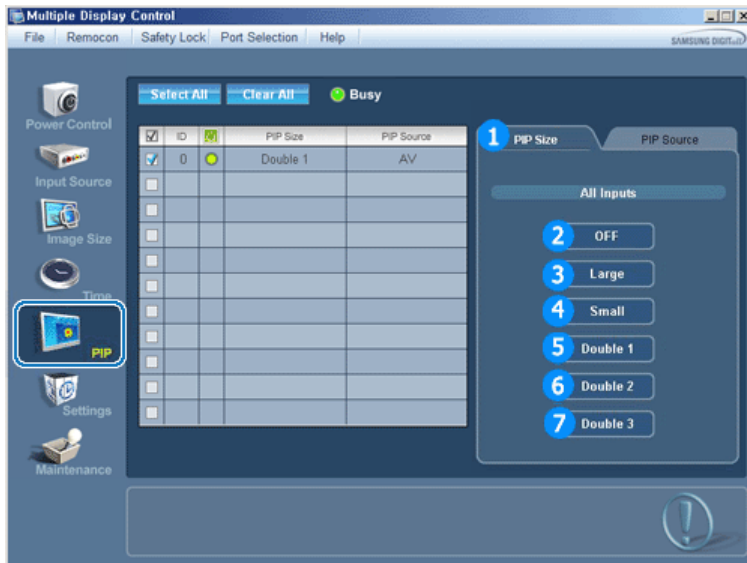
- 1) Current Time
 - Set the current time for the selected display (PC Time).
 - To change the current time, change the PC Time first.
- 2) On Time Setup
 - Set the hour, minute, AM/PM of the On Time, Status, Source, and Volume of the selected display.
- 3) Off Time Setup
 - Set the hour, minute, and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

- Time Control is only available for displays where the power is ON.

- The Input source of MagicNet works only for the MagicNet model.

7. PIP Control - PIP Size

1. Click on PIP from the main icons and the PIP Control screen appears.
Click Select All or use the Check Box to select a display to control.

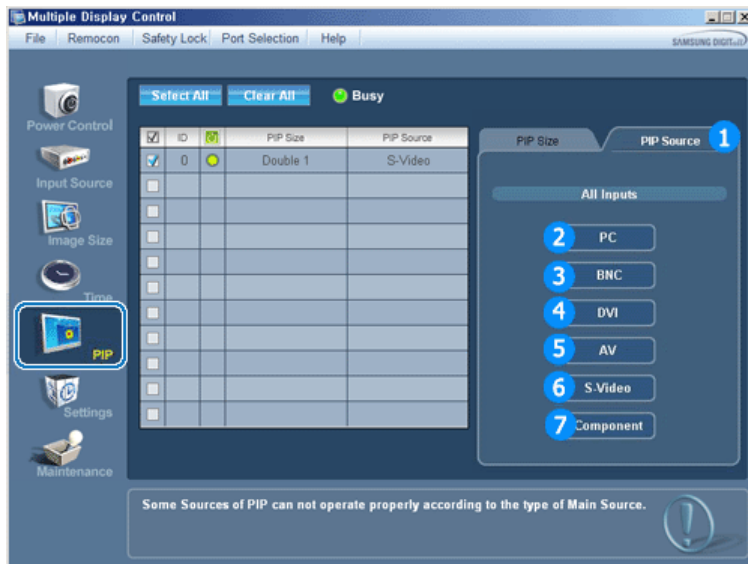


- The Info Grid shows some basic information necessary for the PIP Size Control.

- 1) PIP Size
 - Shows the current PIP Size of the display in use.
 - 2) OFF
 - Turns off the PIP of the selected display.
 - 3) Large
 - Turns on the PIP of the selected display and changes the size to Large.
 - 4) Small
 - Turns on the PIP of the selected display and changes the size to Small.
 - 5) Double1
 - Turns on the PIP of the selected display and changes the size to Double 1.
 - 6) Double2
 - Turns on the PIP of the selected display and changes the size to Double 2.
 - 7) Double3 (Picture By Picture)
 - Turns on the PIP of the selected display and changes the size to Double 3.
- The PIP Size can be controlled by turning on the monitor power.
 - The Input source of MagicNet works only for the MagicNet model.

7. PIP Control - PIP Source

1. Click on PIP from the main icons and the PIP Control screen appears.



► The Info Grid shows some basic information necessary for the PIP Source Control.

- 1) PIP Source
 - The PIP Source can be controlled by turning on the monitor power.
- 2) PC
 - Changes the source of the PIP of the selected display to PC.
- 3) BNC
 - Changes the source of the PIP of the selected display to BNC.
- 4) DVI
 - Changes the source of the PIP of the selected display to DVI.
- 5) AV
 - Changes the source of the PIP of the selected display to AV.
- 6) S-Video
 - Changes the source of the PIP of the selected display to S-Video.
- 7) Component
 - Changes the source of the PIP of the selected display to Component.



Some of the PIP Sources may not be available for selection depending on the type of input source of the Main Screen.

- The PIP Control feature is only available for displays where the power is ON and when the PIP function is set to ON.
- The Input source of MagicNet works only for the MagicNet model.

8. Settings Control - Picture

1. Click on Settings from the main icons and the Settings Control screen appears.



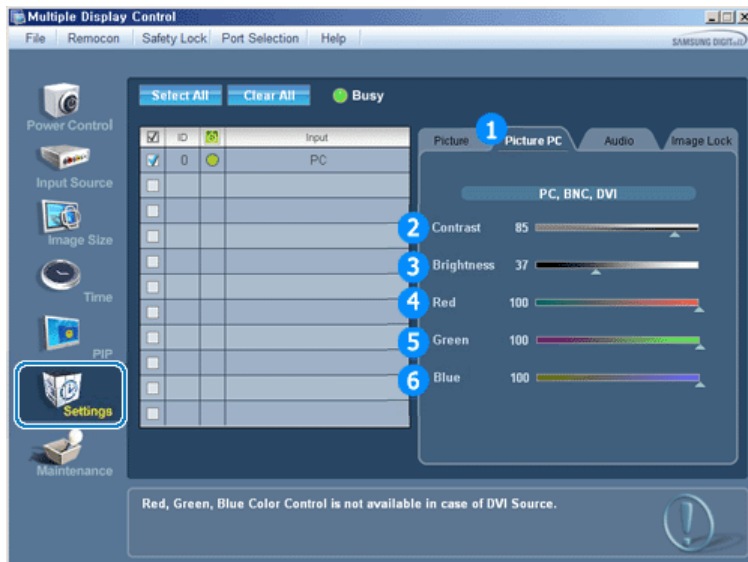
- ▶ The info Grid shows some basic information necessary for the Settings Control. When each function is selected, the set value of the selected function is displayed in the slide. When Select All is selected, the default value (50) is returned. Changing a value in this screen automatically changes the mode to "CUSTOM."

- 1) Picture
 - Available only for AV, S-Video, Component, DVI(HDCP).
- 2) Contrast
 - Adjusts the Contrast of the selected display.
- 3) Brightness
 - Adjusts the Brightness of the selected display.
- 4) Sharpness
 - Adjusts the Sharpness of the selected display.
- 5) Color
 - Adjusts the Color of the selected display.
- 6) Tint
 - Adjusts the Tint of the selected display.
- 7) Color Tone
 - Adjusts the Color Tone of the selected display.

- **This feature is only available for displays where the power is ON and if no selection is made, the factory default is displayed.**
- **The Input source of MagicNet works only for the MagicNet model.**

8. Settings Control - Picture PC

1. Click on Settings from the main icons and the Settings Control screen appears.



- ▶ The info Grid shows some basic information necessary for the 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) is returned. Changing a value in this screen automatically changes the mode to "CUSTOM."

- 1) Picture PC
 - Available only for PC, BNC, DVI.
 - 2) Contrast
 - Adjusts the Contrast of the selected display.
 - 3) Brightness
 - Adjusts the Brightness of the selected display.
 - 4) Red
 - Adjusts the red color of the selected display.
 - 5) Green
 - Adjusts the green color of the selected display.
 - 6) Blue
 - Adjusts the blue color of the selected display.
- **This feature is only available for displays where the power is ON and if no selection is made, the factory default is displayed.**
 - **The Input source of MagicNet works only for the MagicNet model.**

8. Settings Control - Audio

1. Click on Settings from the main icons and the Settings Control screen appears.



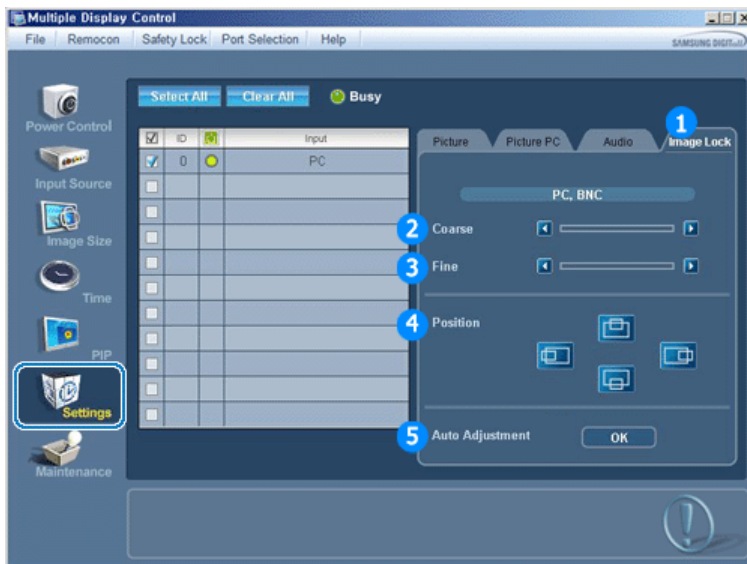
- ▶ The info Grid shows some basic information necessary for the Settings Control. When each function is selected, the set value of the selected function is displayed in the slide.

When Select All is selected, the default value (50) is returned.
Changing a value in this screen automatically changes the mode to "CUSTOM."

- 1) Audio
 - Controls the audio settings for all input sources.
 - 2) Bass
 - Adjusts the Bass of the selected display.
 - 3) Treble
 - Adjusts the Treble of the selected display.
 - 4) Balance
 - Adjusts the Balance of the selected display.
 - 5) Dolby Virtual
 - Switches the Dolby Sound On/Off for the selected display.
 - 6) BBE
 - BBE Sound On/Off for the selected display.
 - 7) Sound Select
 - Select either Main or Sub when PIP is On.
- **This feature is only available for displays where the power is ON and if no selection is made, the factory default is displayed.**
 - **The Input source of MagicNet works only for the MagicNet model.**
-

8. Settings Control - Image Lock

1. Click on Settings from the main icons and the Settings Control screen appears.

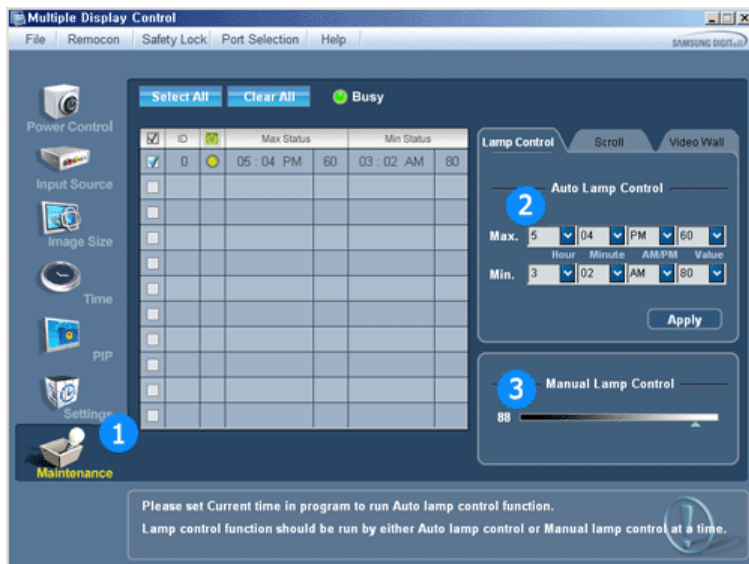


- ▶ The info Grid shows some basic information necessary for the Settings Control.

- 1) Image Lock
 - Available only for PC, BNC.
 - 2) Coarse
 - Adjusts the Coarse of the selected display.
 - 3) Fine
 - Adjusts the Fine of the selected display.
 - 4) Position
 - Adjusts the Position of the selected display.
 - 5) Auto Adjustment
 - Self-Adjusts the incoming PC signal automatically.
- **Settings Control is only available for displays where the power is ON.**
 - **The Input source of MagicNet works only for the MagicNet model.**
-

9. Maintenance Control - Lamp Control

1. Click on Maintenance from the main icons and the Maintenance Control screen appears.



► An "Info Grid" showing several basic data items appears.

1) Maintenance

- Allows Maintenance Control for all input sources.

2) Auto Lamp Control

- Automatically adjusts the backlight of the selected display at a specified time.

- The Auto Lamp Control automatically turns off if you adjust using the Manual Lamp Control.

3) Manual Lamp Control

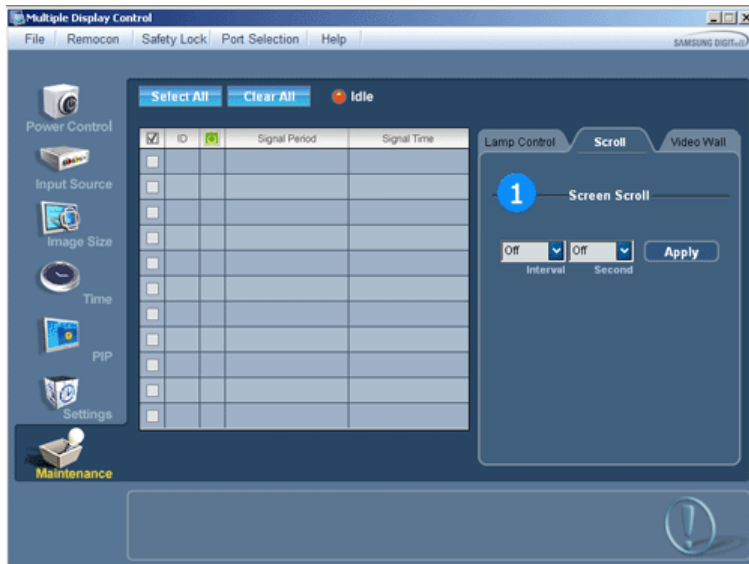
- Allows you to adjust the backlight of the selected display regardless of the time.

- The Auto Lamp Control automatically turns off if you adjust using the Manual Lamp Control function.

- **The Maintenance Control feature is only available for displays where the power is ON.**
- **The Input source of MagicNet works only for the MagicNet model.**

10. Maintenance Control - Scroll

1. Click on Maintenance from the main icons and the Maintenance Control screen appears.



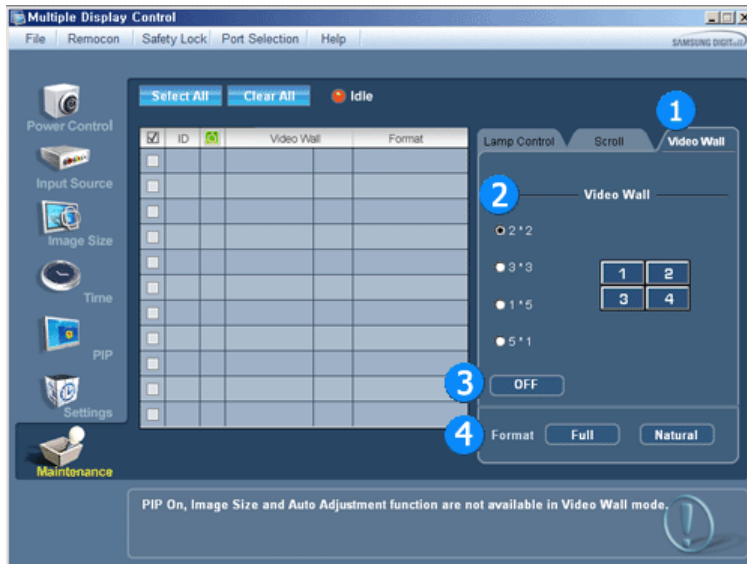
1) Screen Scroll

- Eliminates the afterimages that can be caused when the selected display stays in Pause mode for an extended period of time. The repeat cycle timer can be selected by hours and seconds.

- **The Maintenance Control feature is only available for displays where the power is ON.**
- **The Input source of MagicNet works only for the MagicNet model.**

11. Maintenance Control - Video Wall

1. Click on Maintenance from the main icons and the Maintenance Control screen appears.



1) Video Wall

- A Video Wall is a set of video screens that are connected together, so that each screen shows a part of the whole picture or where the same picture is repeated on each screen.

2) Screen Divider

- The screen can be divided into several images.
- A number of screens can be selected with a different layout when dividing.
- Select a mode in Screen Divider.
- Select a display in Display Selection.
- The selection will be set up by pressing a number in the selected mode..

- 2*2

1	2
3	4
- 3*3

1	2	3
4	5	6
7	8	9
- 1*5

1	2	3	4	5
---	---	---	---	---
- 5*1

1
2
3
4
5

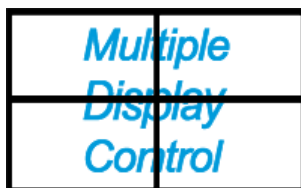
3) On / Off

- Turns the Video Wall function of the selected display On/Off.

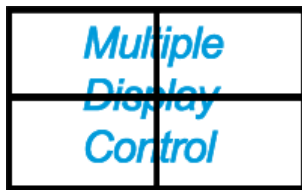
4) Format

- The format can be selected to see a divided screen.

- Full



- Natural



- The Maintenance Control function is only available for displays where the power is ON.
- The Input source of MagicNet works only for the MagicNet model.

12. Troubleshooting

- The display you wish to control does not appear in the Power Control Info Grid.
 - Check the RS232C connection. (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 display has the same ID, those displays are not properly detected by the program due to data conflict.
 - Check if the Display Set ID is a value between 1 and 10. (Adjust using the Display menu)



A Display Set ID must be a value between 1 and 10.
If the value is out of the range, the MDC system cannot control the display.

- The display you wish to control does not appear in the other Control Info Grids
 - Check to see if the display power is ON. (You can check this in the Power Control Info Grid)
 - Check if you can change the input source of the display.
- The dialogue box appears repeatedly.
 - Check to see if the display you wish to control is selected. ☒
- Both On Timer and Off Timer have been set but a different time is shown.
 - Apply the current time to synchronize the display clocks.
- The remote may not function properly when turning off the remote function, disconnecting the RS-232C cable, or exiting the program in an irregular manner. Rerun the program and turn on the remote function again to restore normal functions.



This program may malfunction due to problems in the communication circuits or interference from electronic appliances nearby.



13. Settings Value Display In Multiple Display Mode

- ▶ When there is more than one display connected, the settings values are displayed as follows.
- No selection: Displays the Factory Default Value.
 - Selected one display: Fetches and displays the settings value for the selected display.
 - 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.
 - Selected all sets using Select All: Returns to the Factory Default Value.



Natural Color

- 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 is only available for Samsung monitors and ensures that the color of the images on the monitor are the same as the printed or scanned images.

For more information, refer to Help (F1) in the software program.

Installing the Natural Color Software

Insert the CD included with the Samsung monitor into the CD-ROM Drive. The initial Natural Color screen will appear. Click on Natural Color in the startup window 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 Windows [Start] button, select [Run...].

Enter D:\color\NCProSetup.exe and then press the <Enter> key.

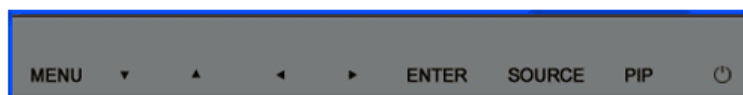
(If the drive where the CD is inserted is not D:\, enter the applicable drive.)



Uninstalling the Natural Color Software Program























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

Model [Input](#) | [Picture](#) | [Sound](#) | [Setup](#) | [Multi Control](#) | [Direct Functions](#)

Input

Available Modes **P** : PC / BNC / DVI **A** : AV **S** : S-Video **C** : Component





OSD	Description	Play
Source List	<p>Use to select PC, BNC or other external input sources connected to the Monitor. Use to select the screen of your choice. - The direct button on the remote control is the 'SOURCE' button.</p> <p> PIP turns off when the monitor is switched to an external source.</p> <ol style="list-style-type: none">1) PC2) BNC3) DVI4) AV5) S-Video6) Component	
PIP	<p>When external AV devices such as VCRs or DVDs are connected to the monitor, PIP allows you to watch video from those devices in a small window super-imposed on the PC</p>	








	<p>Video signal. (Off/On)</p> <p> More than one PIP cannot be overlapped on screen as BNC and the component use the same terminal.</p> <p>1) PIP - The direct button on the remote control is 'PIP' button.  Off  On : Turns the PIP Screen Off/On.</p> <p>2) Source - The direct button on the remote control is the 'SOURCE' button.  PC / DVI : AV / S-Video / Component Mode  BNC : AV / S-Video Mode  AV / S-Video : PC / BNC / DVI Mode  Component : PC / DVI Mode : Selects the input source for the PIP.</p> <p>3) Swap - The direct button on the remote control is 'SWAP' button. : Swaps the contents of the PIP and main image. The image in the PIP window will appear on the main screen, and the main screen image will appear in the PIP window.</p> <p>4) Size - The direct button on the remote control is 'SIZE' button. : Changes the Size of the PIP window. If you select , ,  in Size, Position and Transparency will not be activated.</p> <p>5) Position : Change the Position of the PIP window.</p> <p>6) Transparency  High  Medium  Low  Opaque : Adjusts the Transparency of PIP windows.</p> <p>Available Modes : PIP</p>	<p>1) PIP  2) Source  3) Swap  4) Size  5) Position  6) Transparency  </p>
Edit Name	<p>Name the input device connected to the input jacks to make your input source selection easier.</p> <p>1) PC 2) BNC 3) DVI 4) AV 5) S-Video 6) Component</p>	

Picture








Available Modes **P** : PC / BNC / DVI **A** : AV **S** : S-Video **C** : Component










OSD	Description	Play
MagicBright™	<p>MagicBright™ is a new feature providing the optimum viewing environment depending on the contents of the image you are watching. Currently four different modes are available: Entertain, Internet, Text and Custom. Each mode has its own pre-configured brightness value. You can easily select one of the four settings by simply pressing the MagicBright™ control button.</p> <p>- The direct button on the remote control is 'M/B' button.</p> <p>1) Entertain : High brightness For watching motion pictures such as a DVD or VCD.</p> <p>2) Internet : Medium brightness For working with a mixture of images such as the text with graphics added.</p> <p>3) Text : Normal brightness For documentations or work involving a lot of text.</p> <p>4) Custom Although the values are carefully chosen by our engineers, the pre-configured values may not be comfortable for your eyes depending on your taste. If this is the case, adjust the brightness and contrast by using the OSD menu.</p>	
Custom	<p>You can use the on-screen menus to change the contrast and brightness according to personal preferences.</p> <p>1) Contrast : Adjusts the Contrast.</p> <p>2) Brightness : Adjusts the Brightness.</p>	
 By adjusting the picture using the Custom function, MagicBright will change to Custom mode.		
Color Tone	<p>The color tones can be changed.</p> <p>- Available in PC/BNC Mode Only</p> <p>1) Cool 2) Normal 3) Warm 4) Custom</p>	
Color Control	<p>Adjust the individual R, G, B color controls.</p> <p>- Available in PC/BNC Mode Only</p>	

	1) Red 2) Green 3) Blue	
 If you adjust picture using Color Control function, Color Tone will turn to Custom mode.		
Image Lock	<p>Image Lock is used to fine-tune and get the best image by removing noise that creates unstable images with jitters and shakiness. If satisfactory results are not obtained using the Fine adjustment, use the Coarse adjustment and then use Fine again.</p> <p>- Available in PC/BNC Mode Only</p> <p>1) 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.</p> <p>2) Fine : Removes noise such as horizontal stripes. If the noise persists even after fine tuning, repeat it after adjusting the frequency (clock speed).</p> <p>3) Position : Adjusts the screen location horizontally and vertically.</p>	1) Coarse / Fine 3) Position 
Auto Adjustment	<p>The values of Fine, Coarse, Position are adjusted automatically.</p> <p>By changing the resolution in the control panel, the auto function is performed.</p> <p>- The direct button on the remote control is 'AUTO' button.</p> <p>- Available in PC/BNC Mode Only</p>	
Signal Balance	<p>This is used to make up for the weak RGB signal transmitted by a long signal cable.</p> <p>1) Signal Balance Selects either On or Off with the signal control.</p> <p>2) Signal Control Adjusts the R Phase, G Phase, B Phase, Gain and Sharpness manually.</p>	1) Signal Balance 2) Signal Control 
Size	<p>The Size can be switched.</p> <p>1) 16:9 2) 4:3</p>	
PIP Picture	<p>Adjusts the PIP Screen Settings.</p> <p>1) Contrast : Adjusts the Contrast of the PIP window on the screen.</p> <p>2) Brightness : Adjusts the Brightness of the PIP window on the screen.</p> <p>3) Sharpness : Adjusts the difference between the lightest and darkest areas of the PIP window.</p> <p>4) Color : Adjusts the Color of the PIP window on the screen.</p> <p>5) Tint : Adds a natural tone to the PIP window.</p> <p>Available Modes : PIP</p>	



Available Modes **P** : PC / BNC / DVI **A** : AV **S** : S-Video **C** : Component

OSD	Description	Play
Mode	<p>The Monitor has four automatic picture settings ("Dynamic", "Standard", "Movie" and "Custom") that are preset at the factory. Dynamic, Standard, Movie, or Custom can be activated. - The direct button on the remote control is the P.MODE' button.</p> <ol style="list-style-type: none"> 1) Dynamic 2) Standard 3) Movie 4) Custom 	
Custom	<p>You can use the on-screen menus to change the contrast and brightness according to personal preferences.</p> <ol style="list-style-type: none"> 1) Contrast : Adjusts the Contrast. 2) Brightness : Adjusts the Brightness. 3) Sharpness : Adjusts the picture sharpness. 4) Color : Adjusts the picture color. 5) Tint (Available in AV/S-Video Mode Only) : Adds a natural tone to the display. 	
Color Tone	<p>The color tones can be changed. The individual color components are also user adjustable.</p> <ol style="list-style-type: none"> 1) Cool2 2) Cool1 3) Normal 4) Warm1 5) Warm2 	
Size	<p>The Size can be switched.</p> <ol style="list-style-type: none"> 1) 16:9 2) Panorama 3) Zoom 1 4) Zoom 2 5) 4:3 <p>- ZOOM1, ZOOM2, Panorama are not available in 1080i(or over 720p) of DTV.</p>	
Digital NR	<p>- Digital Noise Reduction. Turns the Digital Noise Reduction feature Off/On. The Digital Noise Reduction feature allows you to enjoy clearer and crisper images.</p>	













	 Off  On	
Film Mode	Turns Film Mode Off/On. The Film Mode feature offers you a theater-quality viewing experience.  Off  On	
DNle Demo	<p>- Digital Natural Image engine</p> <p>Samsung's new technology brings you more detailed images with contrast and white enhancement and 3D noise reduction. A New image compensation algorithm gives brighter, clearer images to our customers. DNle technology will match every signal to your eyes.</p> <p>You can compare a screen with DNle to that without DNle. The left half will show an image with DNle while the right half will display the image without DNle.</p> <p>This monitor supports the DNle feature by default.</p>  Off : Switches off the DNle Demo mode.  On : Switches on the DNle Demo mode.	
PIP Picture	Adjusts the PIP Screen Settings. 1) Contrast : Adjusts the Contrast of the PIP window on the screen. 2) Brightness : Adjusts the Brightness of the PIP window on the screen. Available Modes : PIP	

Input | Picture | **Sound** | Setup | Multi Control | Direct Functions |

Sound
















Available Modes **P** : PC / BNC / DVI **A** : AV **S** : S-Video **C** : Component


OSD	Description	Play
Mode	<p>The Monitor has a built-in high fidelity stereo amplifier.</p> <p>1) Standard : Selects Standard for the standard factory settings.</p> <p>2) Music : Selects Music when watching music videos or concerts.</p> <p>3) Movie : Selects Movie when viewing movies.</p> <p>4) Speech : Selects Speech when watching a show that is mostly dialogue (i.e., news).</p> <p>5) Custom : Selects Custom if you want to adjust the settings according to your personal preferences.</p>	
Custom	<p>The sound settings can be adjusted to suit your your personal preferences.</p> <p>1) Bass : Emphasizes low frequency audio.</p> <p>2) Treble : Emphasizes high frequency audio.</p> <p>3) Balance : Allows you to adjust the sound balance between the left and right speakers. - You can hear the sound even when sound value is set to 0.</p>	
Dolby Virtual	<p>Dolby Virtual Sound Off/On (Dolby Virtual simulates the effect of the Dolby Surround sound system, recreating the movie-theatre or concert-hall- quality sound.)</p> <p> Off</p> <p> On</p>	
BBE	<p>The direct button on the remote control is 'BBE' button.</p> <p>BBE (Bass Booster Effect) recreates the natural sound and improves sound clarity through boosting high and low range frequencies. As a result, high sounds are clearer, brilliant and finely detailed while low sounds are tight, well-defined and harmonically rich.</p> <p> Off</p> <p> On</p>	
 BBE and Dolby Virtual cannot be functioned at the same time.		
Sound Select	<p>Selects either Main or Sub when PIP is On.</p> <p> Main</p> <p> Sub</p> <p>Available Modes : PIP</p>	

Setup



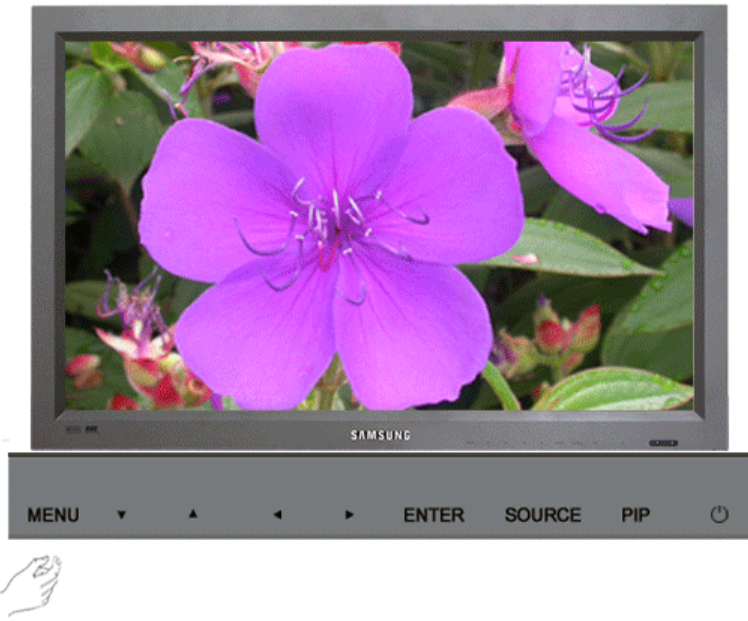
Available Modes **P** : PC / BNC / DVI **A** : AV **S** : S-Video **C** : Component

OSD	Description	Play
Time	<p>Selects from one of 4 time settings, Clock Set, Sleep Timer, On Timer, and Off Timer.</p> <p>1) Clock Set : Current Time Setting.</p> <p>2) Sleep Timer : Turns the Monitor off automatically at certain times. (Off, 30, 60, 90, 120, 150, 180)</p> <p>3) On Timer : Turns the Monitor on automatically at a preset time. Controls the mode and the volume level at the time the monitor turns on automatically.</p> <p>4) Off Timer : Turns the Monitor off automatically at a preset time.</p> <p> When selecting Yes for the On Timer or Off Timer when the Clock is not set up, a guiding message pops up: "Set the clock first."</p>	<p>1) Clock Set </p> <p>2) Sleep Timer </p> <p>3) On Timer </p> <p>4) Off Timer </p> <p>PASC</p>
Lamp Control	Adjusts the inverter lamp in order to reduce energy consumption.	 PASC
Language	<p>You can choose from 11 languages.</p> <ul style="list-style-type: none"> English, Deutsch, Español, Français, Italiano, Svenska, 日本語, 中国語, Русский, 한국어, Português <p> The language chosen affects only the language of the OSD. It has no effect on any software running on the computer.</p>	 PASC
Menu Transparency	<p>Changes the opaqueness of the OSD background.</p> <p>1) High 2) Medium 3) Low 4) Opaque</p>	 PASC
Safety Lock PIN	<p>The password can be changed.</p> <p> The preset password on the monitor is "0000".</p>	 PASC
Reset	<p>The picture parameters are replaced with the factory default values.</p> <p>1) Image Reset 2) Color Reset</p>	<p>1) Image Reset </p> <p>2) Color Reset </p>



	<p>(1~5 Seconds) By default, the time is set to 5 seconds.</p> <p> 1~5 Seconds</p>	
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	<div> <div>Input</div> <div>Picture</div> <div>Sound</div> <div>Setup</div> <div>Multi Control</div> <div>Direct Functions</div> </div>	
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Multi Control



Available Modes  : PC / BNC / DVI  : AV  : S-Video  : Component





OSD	Description	Play
Multi Control	<p>Assigns an individual ID to the SET.</p> <p>1) ID Setup : Assigns distinctive IDs to the SET.</p> <p>2) ID Input : Use to select the transmitter functions of the individual SET. Only a SET where the ID corresponds to the transmitter setting becomes activated.</p>	<p>1) ID Setup</p>  <p>2) ID Input</p> 

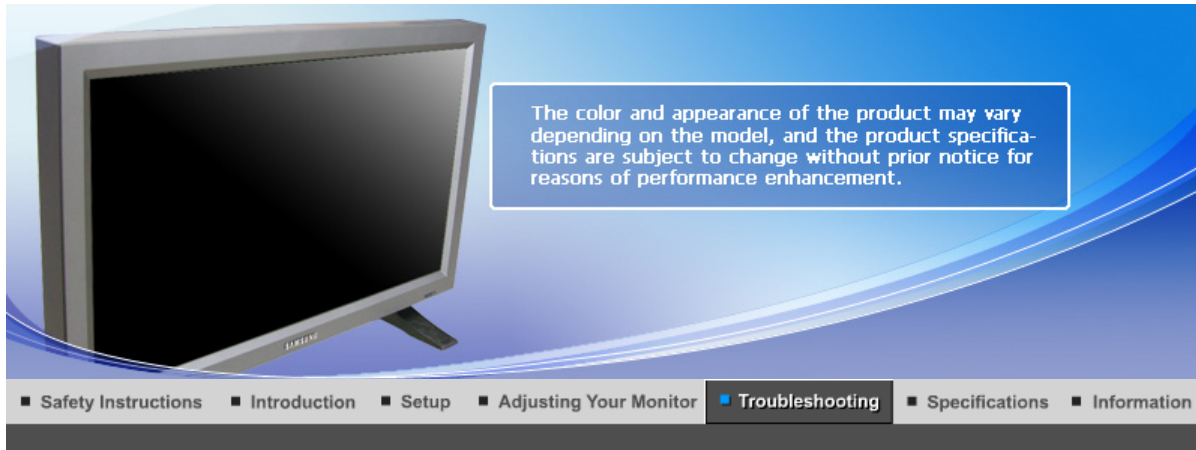
	<div> <div>Input</div> <div>Picture</div> <div>Sound</div> <div>Setup</div> <div>Multi Control</div> <div>Direct Functions</div> </div>	
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Direct Functions



Available Modes **P** : PC / BNC / DVI **A** : AV **S** : S-Video **C** : Component

OSD	Description	Play
MDC	Moves to the Multi Control OSD screen.	
LOCK	<p>Sets the Safety Lock function.</p> <p>1) Lock On : It will be locked.</p> <p>2) Lock Off : It will be unlocked.</p> <p> When setting the Lock function, you can only operate the power and lock buttons on the remote control and set.</p> <p>The preset password on the monitor is "0000".</p>	<p>1) Lock On </p> <p>2) Lock Off </p>

Model [Self-Test Feature Check](#) | [Check List](#) | [Q & A](#) |

Self-Test Feature Check



Check the following items yourself before calling for assistance. Contact a Service Center for problems that you cannot solve by yourself.

[Self-Test Feature Check](#) | [Not Optimum Mode](#) |
[Maintenance and Cleaning](#) | [Symptoms & Recommended Actions](#)

1. 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 working normally even though no video signal is detected: While in the Self-Test mode, the LED power indicator remains green and the figure moves around on the screen.

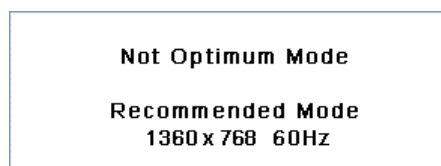


4. Turn off your monitor and reconnect the video cable; then turn on both your computer and the monitor.

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

2. Not Optimum Mode

You can even view the screen at a resolution of 1360X768. However, you will receive the following message for a minute; You can choose to change the screen resolution or stay in the current mode during that time. And if the resolution is more than 85Hz, you will see the black screen because the monitor does not support over 85Hz.



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 the 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 the Monitor) Ensure that the PC or video sources are turned on.
"Not Optimum Mode " message	<ul style="list-style-type: none"> Check the maximum resolution and the frequency of the video adapter. Compare these values with the data in the Preset Timing Modes Chart.
The The The The picture rolls vertically.	<ul style="list-style-type: none"> Check if the signal cable is securely connected. Re-connect it, if necessary. (Refer to Connecting to a Computer)
The image is not clear; picture is blurred.	<ul style="list-style-type: none"> Run Frequency Coarse and Fine tuning. Turn on again after removing all accessories (video extension cable, etc.) Set the resolution and frequency to the recommended ranges.
The picture image is unstable and shakes.	<ul style="list-style-type: none"> Check if the resolution and frequency set for the computer video card falls in the range supported by the monitor. If not, reset them referring to the current Information under the monitor menu and Preset Timing Modes.
Ghost images are shown in the picture.	
The image is too light or too dark	<ul style="list-style-type: none"> adjust the brightness and contrast. (Refer to the Brightness, Contrast)
The The screen color is inconsistent.	<ul style="list-style-type: none"> Adjust color using Custom under OSD Color Adjustment menu.
The color image is distorted by dark shadows.	
The color white is poor.	
The The power Indicator blinks green.	<ul style="list-style-type: none"> The monitor is currently saving the changes made to the settings to the OSD memory.
The screen is blank and the power indicator is steady green or blinks every 0.5 or 1 seconds	<ul style="list-style-type: none"> The monitor is using its power management system. Press a key on the keyboard.
The screen is blank and is blinking.	<ul style="list-style-type: none"> If you see the "TEST GOOD" message on the screen when you pressing the MENU button, check the cable connection between the monitor and the computer to ensure that the connector is properly connected.

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 the Monitor) Check the volume level. (Refer to the Volume)
The The The sound level is too low.	<ul style="list-style-type: none"> Check the volume level. (Refer to the Volume)

	<ul style="list-style-type: none"> • 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 the appropriate levels.

4. Problems related to the 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 polarities (+/-) of the batteries. • Check if the batteries are empty. • 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.

[Self-Test Feature Check](#)

[Check List](#)

[Q & A](#)

Q & A

Question	Answer
How can I change the frequency?	<p>The 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?	<ul style="list-style-type: none"> • Windows XP : Set the resolution at the Control Panel→Appearance and Themes→Display→Settings. • Windows ME/2000 : Set the resolution at the Control Panel→Display→Settings. * Contact the video card manufacturer for details.
How can I set the Power Saving function?	<ul style="list-style-type: none"> • Windows XP : Set the resolution at the Control Panel→Appearance and Themes→Display→Screen Saver . Set the function in the BIOS-SETUP of the computer. (Refer to Windows/Computer Manual). • Windows ME/2000 : Set the resolution at the Control Panel→Display→Screen Saver. Set the function in the BIOS-SETUP of the computer. (Refer to Windows/Computer Manual).
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 detergent or scratches on the case. Do not let any water enter the monitor.</p>



Model SyncMaster 320P ▼



The color and appearance of the product may vary depending on the model, and the product specifications are subject to change without prior notice for reasons of performance enhancement.

■ Safety Instructions ■ Introduction ■ Setup ■ Adjusting Your Monitor ■ Troubleshooting ■ **Specifications** ■ Information

General

PowerSaver

Preset Timing Modes

General

General

Model Name SyncMaster 320P

LCD Panel

Size 32 " Diagonal (80 cm)

Display area 697.685 mm (H) x 392.256 Mm (V)

Pixel Pitch 0.511mm (H) x 0.511mm (V)

Synchronization

Horizontal 30 ~ 70 kHz

Vertical 50 ~ 85 Hz

Display Color

16.7 M Colors

Resolution

Optimum resolution 1360 x 768 / 1366 x 768 @ 60 Hz depends on graphics card used

Maximum resolution 1366 x 768 @ 60 Hz

Input Signal, Terminated

RGB Analog , DVI(Digital Visual Interface) Compliant Digital RGB.
0.7 Vp-p $\pm 5\%$, Positive bright, 75 $\Omega \pm 10\%$ (Terminated),
Separate H/V sync, TTL level, positive or negative

Maximum Pixel Clock

100 MHz(Analog, Digital)

Power Supply

AC 100 - 240 V~ (+/- 10 %), 50/60 Hz

Signal Cable

15pin-to-15pin D-sub cable, detachable
DVI-D to DVI-D connector, detachable

Signal Connectors

D-sub, BNC, DVI-D, YPbPr, S-VHS, VCR

Power Saving

Preset Timing Modes

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	35.000	66.667	30.240	-/-
MAC, 832 x 624	49.726	74.551	49.500	+/+
IBM, 640 x 350	31.469	70.086	25.175	+/-
IBM, 640 x 480	31.469	59.940	25.175	-/-
IBM, 720 x 400	31.469	70.087	28.322	-/+
VESA, 640 x 480	37.500	75.000	31.500	-/-
VESA, 640 x 480	37.861	72.809	31.500	-/-
VESA, 640 x 480	43.269	85.008	36.000	-/-
VESA, 800 x 600	35.156	56.250	36.000	+/+
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, 800 x 600	53.674	85.000	56.250	+/+
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	+/+
VESA, 1024 x 768	68.677	85.997	94.500	+/+
VESA, 1360 x 768	47.712	60.000	85.500	+/+

Horizontal Frequency

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

Model 

The color and appearance of the product may vary depending on the model, and the product specifications are subject to change without prior notice for reasons of performance enhancement.

■ Safety Instructions ■ Introduction ■ Setup ■ Adjusting Your Monitor ■ Troubleshooting ■ Specifications ■ **Information**

[Contact SAMSUNG WORLDWIDE](#) | [Terms](#) | [For Better Display](#) | [Authority](#) | [Image Retention Free](#) | [Correct Disposal](#) |



Contact SAMSUNG WORLDWIDE



If you have any questions or comments relating to Samsung products, please contact the SAMSUNG customer care center.

North America

U.S.A	1-800-SAMSUNG (7267864)	http://www.samsung.com
CANADA	1-800-SAMSUNG (7267864)	http://www.samsung.com/ca
MEXICO	01-800-SAMSUNG (7267864)	http://www.samsung.com/mx

Latin America

ARGENTINE	0800-333-3733	http://www.samsung.com/ar
BRAZIL	4004-0000	http://www.samsung.com/br
CHILE	800-726-7864 (SAMSUNG)	http://www.samsung.com/cl
COLOMBIA	01-8000112112	http://www.samsung.com.co
COSTA RICA	0-800-507-7267	http://www.samsung.com/latin
ECUADOR	1-800-10-7267	http://www.samsung.com/latin
EL SALVADOR	800-6225	http://www.samsung.com/latin
GUATEMALA	1-800-299-0013	http://www.samsung.com/latin
JAMAICA	1-800-234-7267	http://www.samsung.com/latin
PANAMA	800-7267	http://www.samsung.com/latin
PUERTO RICO	1-800-682-3180	http://www.samsung.com/latin
REP. DOMINICA	1-800-751-2676	http://www.samsung.com/latin
TRINIDAD & TOBAGO	1-800-7267-864	http://www.samsung.com/latin
VENEZUELA	1-800-100-5303	http://www.samsung.com/latin

Europe

BELGIUM	02 201 2418	http://www.samsung.com/be
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For Better Display

1. Adjust computer resolution and screen injection rate (refresh rate) on computer as described below to enjoy the best quality of picture. You can have an uneven quality of picture in the screen if the best quality of picture is not provided in TFT-LCD.
 - Resolution: 1360 x 768
 - Vertical frequency (refresh rate): 60 Hz
2. TFT LCD panels manufactured by using advanced semiconductor technology with precision of 1ppm (one millionth) above are used for this product. But the pixels of RED, GREEN, BLUE and WHITE color appear to be bright sometimes or some black pixels may be seen. This is not from bad quality and you can use it without any problems.
 - For example, the number of TFT LCD sub pixels contained in this product are 3,133,440
3. When cleaning the monitor and the panel outside, please apply the recommended small amount of cleaner by using a soft cloth to polish. Do not force the LCD area but rub softly.
If excessive force is applied, you may stain it.
4. If you are not satisfied with the picture quality, you can get better quality of picture by performing the "auto adjustment function" in display screen that is appeared as window termination button is pressed.
If there's still noise after the automatic adjustment, use the FINE/COARSE adjustment function.
5. 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 a move the picture when you need to be away from the monitor for an extended period of time.

Authority

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BBE High Definition Sound is the core sound enhancement technology licensed by BBE Sound and featured in the BBE Sonic Maximizer range of professional audio signal processors.



MÉXICO

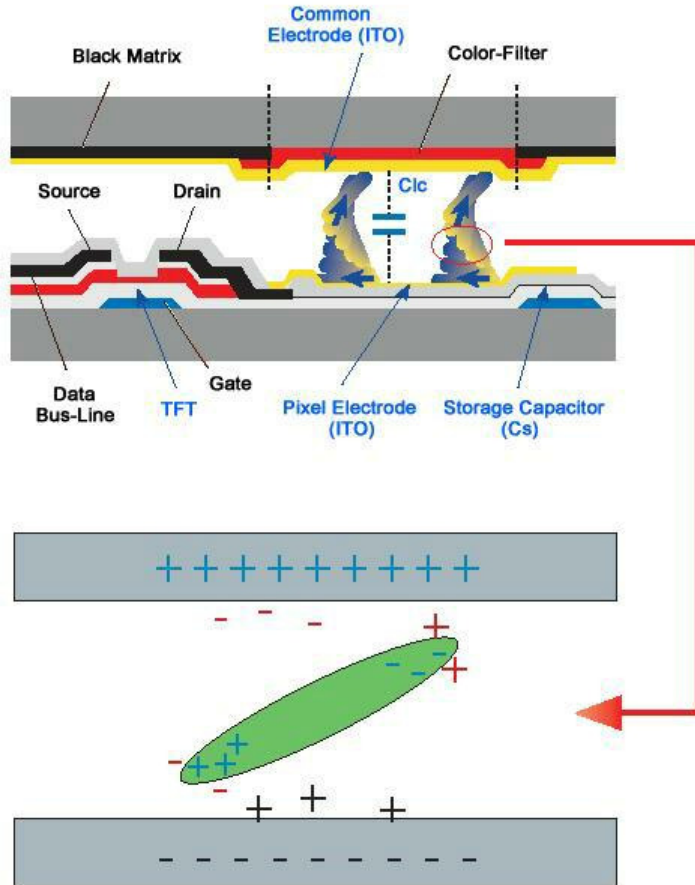
IMPORTADO POR: SAMSUNG ELECTRONICS MÉXICO. S.A. de C.V.
Vía Lopez Portillo No. 6, Col. San Fco. Chilpan
Tultitlán, Estado de México, C.P. 54940
Tel: 01-55-5747-5100 / 01-800-726-7864

EXPORTADO POR: Samsung Electronics CO.,LTD.
416, Mae tan-3dong, Yeongtong - gu,
Suwon City, Gyeonggi-do Korea

PRODUCT INFORMATION (Image Retention Free)

What is Image Retention ?

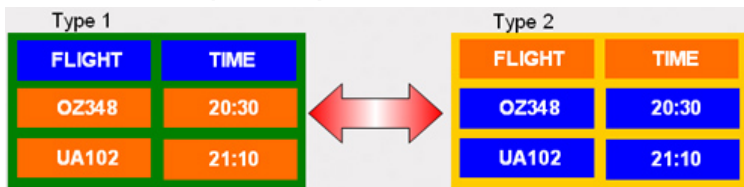
Image retention may not occur when a LCD panel is operated under normal conditions. Normal conditions are defined as continuously changing video patterns. When the LCD panel is operated for a long time with a fixed pattern (over 12 hours), there may be slight difference in voltage between electrodes that work the liquid crystal (LC) in a pixel. The voltage difference between electrodes increases with time, forcing the liquid crystal to lean. When this occurs, the previous image may be seen when the pattern is changed. To prevent this, the accumulated voltage difference must be decreased.



Power Off, Screen Saver, or Power Save Mode

- Turn the power off for 4 hours after 20 hours in use
- Turn the power off for 2 hours after 12 hours in use
- Set the Monitor to power off with the PC Display Properties Power Scheme.
- Use a Screen saver if possible
 - Screen saver in one color or a moving image is recommended.

Change the Color Information periodically



※ Use Two different colors

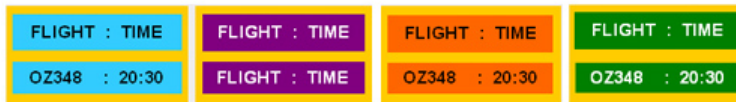
Rotate the Color Information with 2 different colors every 30 minutes.

- Avoid using a combination of characters and background color with large difference in luminance. Avoid using Grey colors, which can cause Image retention easily.
- Avoid: Colors with big difference in luminance (Black & White, Grey)



Change the characters color periodically

- Use Bright colors with little difference in luminance
 - Cycle : Change the characters color and background color every 30 minutes



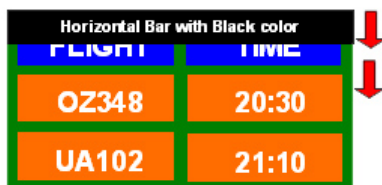
- Every 30 minutes, change the characters with movement.



- All area display Moving image together with Logo periodically.
 - Cycle: Display moving image together with Logo for 60 seconds after 4 hours in use.
- The best way to protect your monitor from Image retention is to turn Power off, or set your PC, or System to operate a Screen Saver program when you are not using it. Also Warranty service will be limited based on instruction guide.

● Apply the Screen Scroll function on Product

- Apply the Screen Scroll function
 - Symptom: Horizontal Bar with Black Color move up and down.

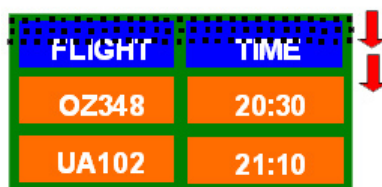


- Select method
 - . Instruction Guide : OSD Menu -> Set Up -> Safety Screen -> Screen Scroll
 - . Time Interval : 1 ~ 10 hours (Recommend : 1)
 - . Time Period : 1 ~ 5 second (Recommend : 5)

※ (Please check CD's User Guide at "OSD Function", some model's will not available)

● Apply the Screen Pixel function on Product

- Apply the Screen Pixel function
 - Symptom: Dot with Black Color move up and down.



- Select method
 - . Instruction Guide : OSD Menu -> Set Up -> Safety Screen -> Pixel
 - . Time Interval : 1 ~ 10 hours (Recommend : 1)
 - . Time Period : 10 ~ 50 second (Recommend : 50)

- Apply the Screen Bar function
 - Symptom: Horizontal / Vertical Bar with Black Color move up and down.

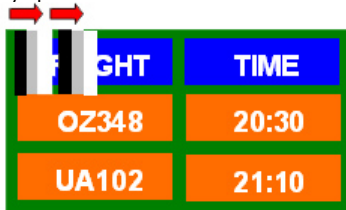


- Select method
 - . Instruction Guide : OSD Menu -> Set Up -> Safety Screen -> Bar
 - . Time Interval : 1 ~ 10 hours (Recommend : 1)
 - . Time Period : 10 ~ 50 second (Recommend : 50)

※ (Please check CD's User Guide at "OSD Function", some model's will not available)

● Apply the Screen Erasing function on Product

- Apply the Screen Erasing function
 - Symptom: 2 Vertical blocks move with erasing the display



- Select method
 - . Instruction Guide : OSD Menu -> Set Up -> Safety Screen -> Eraser
 - . Time Interval : 1 ~ 10 hours (Recommend : 1)
 - . Time Period : 10 ~ 50 second (Recommend : 50)

※ (Please check CD's User Guide at "OSD Function", some model's will not available)

Correct Disposal of This Product (Waste Electrical & Electronic Equipment) - Europe only



(Applicable in the European Union and other European countries with separate collection systems)

This marking shown on the product or its literature, indicates that it should not be disposed with other household wastes at the end of its working life. To prevent possible harm to the environment or human health from uncontrolled waste disposal, please separate this from other types of wastes and recycle it responsibly to promote the sustainable reuse of material resources.

Household users should contact either the retailer where they purchased this product, or their local government office, for details of where and how they can take this item for environmentally safe recycling.

Business users should contact their supplier and check the terms and conditions of the purchase contract. This product should not be mixed with other commercial wastes for disposal.