LCD Display

User Manual

Safety Instructions

Notational

Note

These safety instructions must be followed to ensure your safety and prevent property damage.

Make sure to read the instructions carefully and use the product in the correct manner.

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

Power

When not used for extended period of time, set your computer to DPM.

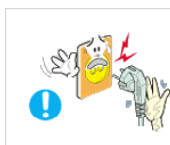If using screen saver, set it to active screen mode.

The images here are for reference only, and are not applicable in all cases (or countries).

Shortcut to Anti-Afterimage Instructions
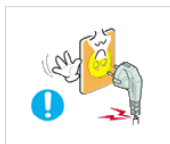
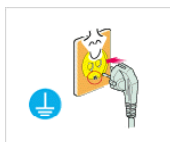Do not use a damaged power cord or plug or a damaged or loose power outlet.

- Otherwise, this may result in electric shock or fire.

Do not touch the power plug with wet hands when removing or plugging the plug into the outlet.
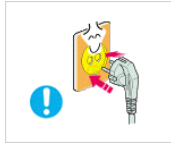
- Otherwise, this may result in electric shock.

Make sure to connect the power cord to a grounded power outlet.
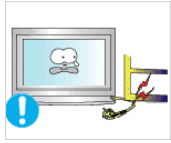
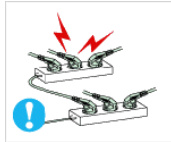- Otherwise, it may result in electric shock or personal injury.

Ensure that the power plug is plugged into the power outlet firmly and correctly.
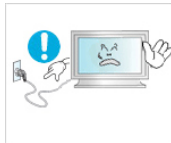
- Otherwise, this may result in fire.

Do not forcefully bend or pull the power plug and do not place any heavy material on it.

- Otherwise, this may result in fire.

Do not connect multiple appliances to the same power outlet.

- Otherwise, this may cause fire due to overheating.

Do not disconnect the power cord while using the product.

- Otherwise, this may result in damage to the product due to electric shock.

To disconnect the apparatus from the mains, the plug must be pulled out from the mains socket, therefore the mains plug shall be readily operable.

- This may cause electric shock or fire.

Use only the power cord provided by our company. Do not use the provided power cord of another product.

- Otherwise, this may result in fire or electric shock.

Installation

Be sure to contact an authorized 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.

Ensure that at least two persons lift and move the product.

- Otherwise, it may be dropped and cause personal injury, and/or damage the product.
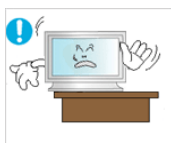
When installing the product in a cabinet or rack, make sure that the front end of the bottom of the product does not project out.

- Otherwise, it may fall or cause personal injury.

- Use a cabinet or rack of a size appropriate to the product.
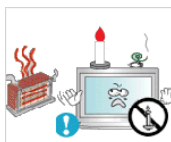
DO NOT PLACE CANDLES, MOSQUITO REPELLANT, CIGARETTES AND ANY HEATING APPLIANCES NEAR THE PRODUCT.

- Otherwise, this may result in fire.
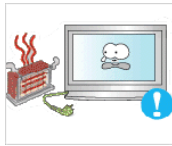
Keep heating appliances as far away from the power cord or the product as possible.

- Otherwise, this may result in electric shock or fire.

Do not install it in a badly ventilated location such as a bookcase or closet.

- Otherwise, this may result in fire due to an increase in the internal temperature.

When putting the product down, make sure to put it down softly.

- Otherwise, this may result in damage to the screen display.

Do not place the front of the product on the floor.

- Otherwise, this may result in damage to the screen display.

Ensure that an authorized installation company installs the wall mount.

- Otherwise, it may fall and cause personal injury.

- Make sure to install the specified wall mount.
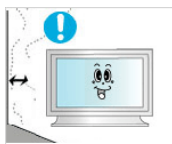
Install your product in a well ventilated location. Ensure that there is a clearance of more than 10 cm from the wall.

- Otherwise, it may result in fire due to an increase in the internal temperature.
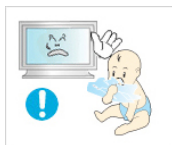
Ensure that the packaging vinyl is kept away from children.

- Otherwise, it may result in serious harm (suffocation) if children play with it.
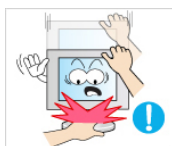
If the height of your monitor is adjustable, do not place any object or part of your body on the stand when lowering it.

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

Clean

When cleaning the monitor case or the surface of the TFT-LCD screen, wipe with a slightly moistened, soft fabric.
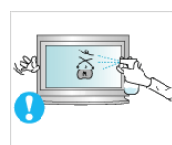
Do not spray cleaner directly onto the surface of the product.

- Otherwise, this may result in the discoloration and distortion of the structure and the screen surface may peel off.

Clean the product using a soft cloth with a monitor cleaner only. If you must use a cleaner other than the monitor cleaner, dilute it with water at a ratio of 1:10.

▶ When cleaning the power plug pins or dusting the power outlet, clean it with a dry cloth.

- Otherwise, it may result in fire.

▶ When cleaning the product, make sure to disconnect the power cord.

- Otherwise, it may result in electric shock or fire.

▶ When cleaning the product, disconnect the power cord and clean it softly with a dry cloth.

- (Do not use chemicals such as wax, benzene, alcohol, thinner, mosquito repellant, lubricant, or cleaner.) These may change the appearance of the product surface and peel off the indication labels on the product.
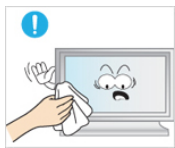
▶ Since the product housing is easily scratched, make sure to use the specified cloth only.

- Use the specified cloth adding only a little water. As the product may be scratched if there is any foreign material on the cloth, make sure to shake it thoroughly before using it.

▶ When cleaning the product, do not spray water directly onto the main body of the product.

- Ensure that water does not enter the product and that it is not wet.

- Otherwise, this may result in electric shock, fire or a malfunction.

Others
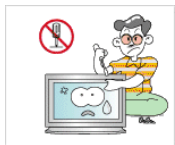
▶ The product is a high voltage product. Ensure that users do not disassemble, repair or modify the product themselves.

- Otherwise, this may result in electric shock or fire. If the product needs to be repaired, contact a Service Center.

▶ If there is a strange smell or a strange sound or smoke is coming from the product, disconnect the power plug immediately and contact a Service Center.

- Otherwise, this may result in electric shock or fire.

▶ Do not place this product in a location exposed to moisture, dust, smoke, water, or in a car.

- Otherwise, this may result in electric shock or fire.

▶ When you drop the product or the case is broken, turn the power off and disconnect the power cord. Contact a Service Center.

- Otherwise, this may result in electric shock or fire.

If thunder or lightening is occurring, do not touch the power cord or antenna cable.

- Otherwise, this may result in electric shock or fire.

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

- Otherwise, it may fall and result in electric shock, damage to the product or fire due to damage to the cable.

Do not lift or move the product back and forwards or right and left while only holding the power cord or signal cables.

- Otherwise, it may fall and result in electric shock, damage to the product or fire due to damage to the cable.
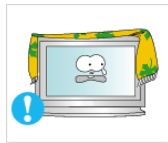
Make sure that the ventilating opening is not blocked by a table or curtain.
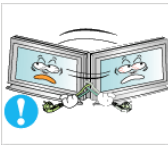
- Otherwise, it may result in fire due to an increase in the internal temperature.
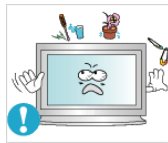
Do not place any containers containing water, vases, flower-pots, medicines as well as any metal on the product.

- If water or a foreign material enters the product, disconnect the power cord and contact a Service Center.

- This may result in a product malfunction, electric shock, or fire.
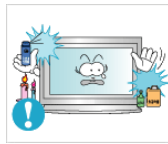
Do not use or keep combustible spray or flammable material near the product.

- Otherwise, this may result in an explosion or fire.

Do not insert any metal, such as chopsticks, coins, pins and steels, or inflammable objects, such as matches or paper, inside the product (through the ventilating openings, input and output terminals, etc).

- If water or foreign material enters the product, disconnect the power cord and contact a Service Center.

- Otherwise, this may result in electric shock or fire.

When using a fixed screen for a long time, an afterimage or stain may occur.

- If you are not using your product for a long period of time, put it into sleep mode or use a moving screen saver.

Set a resolution and frequency appropriate to the product.

- Otherwise, your eyesight may be damaged.

When using headphones or earphones, do not turn the volume too high.

- Having the sound too loud may damage your hearing.

▶ If you continually move closer to the product screen, your eyesight may be failing.

▶ Take a rest for at least five (5) minutes after using the monitor for one (1) hour.

This reduces the weariness of your eyes.

▶ Do not install it in an unstable location such as an unstable rack or uneven surface or a location exposed to vibrations.

- Otherwise, it may fall and cause personal injury and/or damage the product.

- If you use the product in a location exposed to vibrations, it may damage the product and result in fire.

▶ When moving the product, turn the power off and disconnect the power plug, antenna cable, and all the cables connected to the product.

- Otherwise, it may result in electric shock or fire.
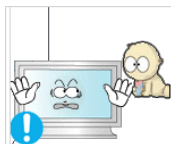
▶ Ensure that children do not hang onto the product or climb up onto the product.

- The product may fall and cause personal injury or death.

▶ If you do not use the product for a long period of time, disconnect the power cord from the power outlet.

- Otherwise, this may result in overheating or fire due to dust, and may result in fire due to electric shock or leakage.
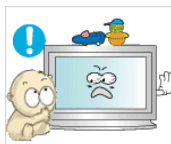
▶ Do not place any heavy items or toys or confectionery, such as cookies etc. that may attract the attentions of children onto the product.

- Your children may hang onto the product causing it to fall and this may result in personal injury or death.

▶ Be careful that children do not place the battery in their mouths when removed from the remote control. Place the battery in a location that children or infants cannot reach.

- If children have had the battery in their mouths, consult your doctor immediately.
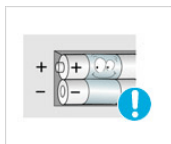
▶ When replacing the battery, insert it with right polarity (+, -).

- Otherwise, the battery may become damaged or it may cause fire, personal injury or damage due to leakage of the internal liquid.

▶ Use only the specified standardized batteries, and do not use a new battery and a used battery at the same time.

- Otherwise, the batteries may be damaged or cause fire, personal injury or damage due to a leakage of the internal liquid.
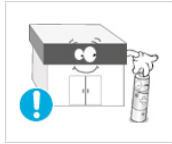
The batteries (and rechargeable batteries) is not ordinary refuse and must be returned for recycling purposes. The customer is responsible for returning the used or rechargeable batteries for recycling purposes as the consumer.

- 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.

Do not place the product in a location exposed to direct sunlight or near any heat such as a fire or heater.

- This may reduce the lifetime of the product, and may result in fire.

Do not drop any objects onto the product or cause any impact to the product.

- Otherwise, this may result in electric shock or fire.

Do not use a humidifier or kitchen table near the product.

- Otherwise, this may result in electric shock or fire.
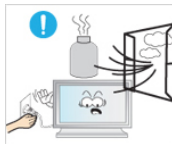
When there is a gas leak, do not touch the product or the power plug but ventilate immediately.

- If a spark occurs, it may cause an explosion or fire.
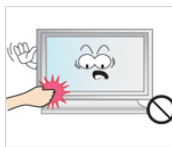
If the product has been turned on for a long time, the display panel becomes hot. Do not touch it.

- Keep the small accessories in a location out of the reach of children.
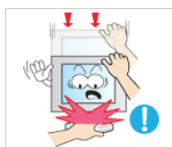
Be careful when adjusting the angle of the product or the height of the stand.

- This may result in personal injury as your hand or fingers may become caught.

- Also, if you tilt the product too far, it may fall and cause personal injury.
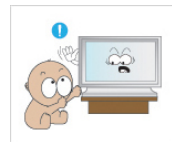
Do not install the product in a location low enough for children to reach.

- Otherwise, it may fall and result in personal injury.

- Since the front part of the product is heavy, install the product on a level and stable surface.
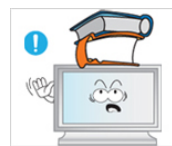
Do not put any heavy objects on the product.

- This may result in personal injury and/or damage to the product.

Introduction

Package Contents

Note

Please make sure the following items are included with your LCD Display.

If any items are missing, contact your dealer.

Contact a local dealer to buy optional items.

Note

This stand is not for the Floor Standing Type.

Unpacking

LCD Display

Manuals

Quick Setup Guide

Warranty Card

(Not available in all locations)

User's Guide

Cables

D-Sub Cable

Power Cord

Others

Others

Remote Control	Batteries (AAA X 2)	BNC to RCA Adaptor Jack
	(Not available in all locations)	

Sold separately
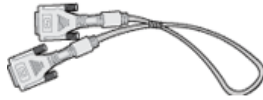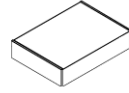
DVI Cable	Wall Mount KIT	Semi Stand KIT
		Calibrater

BNC Cable	LAN Cable	For more information on the use of the calibrater, see Natural Color Expert Help.
	(Applicable to the DRn model only)	

Your LCD Display

Front
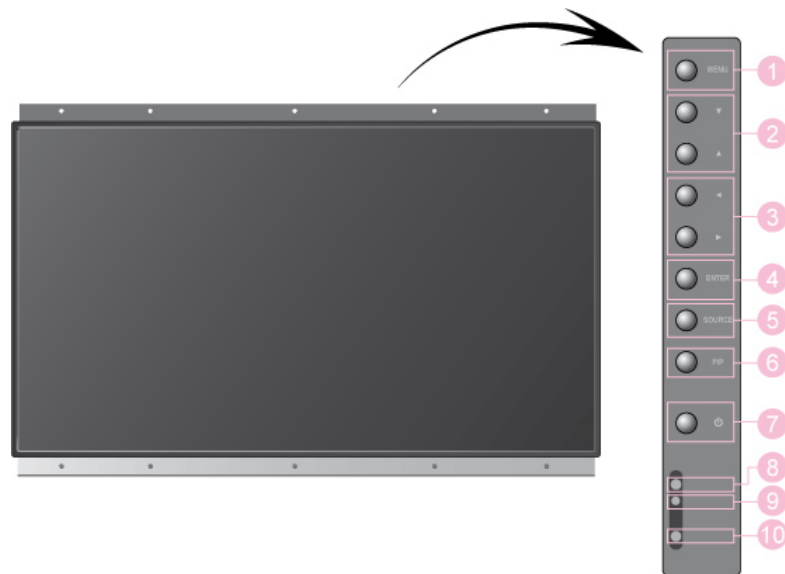
① *MENU button [MENU]*

Opens the on-screen menu and exits from the menu. Also use to exit the OSD menu or return to the previous menu.

② *Navigate buttons (Up-Down buttons)*

Moves from one menu item to another vertically or adjusts selected menu values.

③ *Adjust buttons (Left-Right buttons) / Volume buttons*

Moves from one menu item to another horizontally or adjusts selected menu values. When OSD is not on the screen, push the button to adjust volume.

4 *ENTER button [ENTER]*

Activates a highlighted menu item.

5 *SOURCE button [SOURCE]*

Switches from PC mode to Video mode. Changing the source is only allowed for external devices that are connected to the LCD Display at the time.

[**PC**] → [**BNC**] → [**DVI**] → [**AV**] → [**S-Video**] → [**Component**] → [**HDMI**] → [**MagicInfo**]

>> Click here to see an animation clip

Note

- The MagicInfo menu is available in DRn models.

6 *PIP*

Push the PIP button to turn the PIP screen On / Off.

More than one PIP cannot overlap on screen as BNC and the component use the same terminal.

>> Click here to see an animation clip

- **PC**

  AV / **S-Video** / **Component** / **HDMI** Mode

- **BNC**

  AV / **S-Video** / **HDMI** Mode

- **DVI**

  AV / **S-Video** / **Component** Mode

- **AV** / **S-Video**

  PC / **BNC** / **DVI** Mode

- **Component**

  PC / **DVI** Mode

- **HDMI**

  PC / **BNC** Mode

7 *Power button [ ]*

Use this button for turning the LCD Display on and off.

8 *Brightness Sensor*

The product's Brightness Sensor function automatically detects the surrounding brightness using a brightness sensor and adjusts its brightness accordingly.

⑨ *Power indicator*

Shows PowerSaver mode by blinking green

 Note

See PowerSaver described in the manual for further information regarding power saving functions. For energy conservation, turn your LCD Display OFF when it is not needed or when leaving it unattended for long periods.

⑩ *Remote Control Sensor*

Aim the remote control towards this spot on the LCD Display.

Rear

 Note

For detailed information concerning cable connections, refer to Connecting Cables under Setup. The LCD Display 's configuration at the back may vary slightly depending on the LCD Display model.

Ⓐ
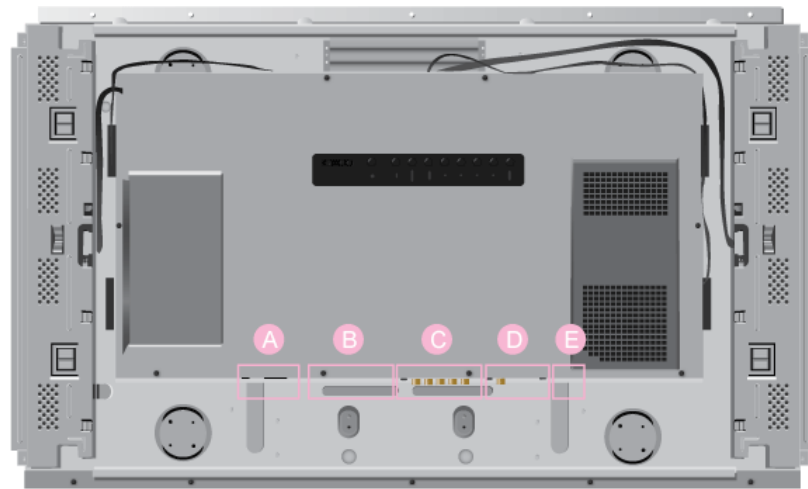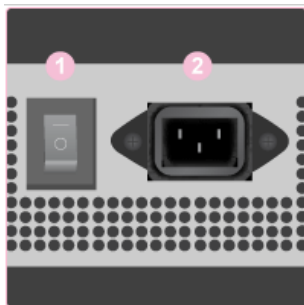
① *POWER S/W ON [│] / OFF [O]*

Switches the LCD Display On/Off.

② *POWER IN*

The power cord plugs into the LCD Display and the wall plug.

Ⓑ
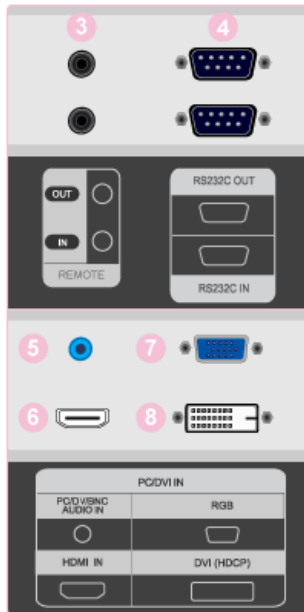
3 *REMOTE OUT/IN*

You can use a wired remote control by connecting it to your LCD Display.

4 *RS232C OUT/IN (RS232C Serial PORT)*

MDC(Multiple Display Control) Program Port

5 *DVI / PC / HDMI IN [PC/DVI/BNC AUDIO IN] (PC/DVI/BNC/HDMI Audio Connection Terminal (Input))*

6 *DVI / PC / HDMI IN [HDMI]*

Connect the HDMI terminal at the back of your LCD Display to the HDMI terminal of your digital output device using a HDMI cable.

7 *DVI / PC / HDMI IN [RGB](PC Video Connection Terminal)*

Using a D-Sub Cable (15 pin D-Sub) - PC mode (Analog PC)

8 *DVI / PC / HDMI IN [DVI(HDCP)] (PC Video Connection Terminal)*

Using a DVI Cable (DVI-D to DVI-D) - DVI mode (Digital PC)
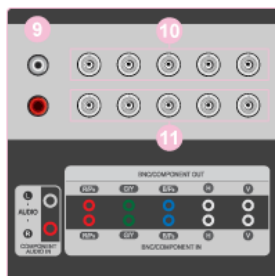
9 *COMPONENT AUDIO IN [L-AUDIO-R] (Component Audio Connection Terminal (Input))*

10 *BNC/COMPONENT OUT [R/PR, G/Y, B/PB, H, V] (BNC/Component Connection Terminal (Output))*

BNC (Analog PC) Connection: connecting the R, G, B, H, V ports

Component Connection: connecting the PR, Y, PB ports

11 *BNC/COMPONENT IN [R/PR, G/Y, B/PB, H, V](BNC/Component Connection Terminal (Input))*
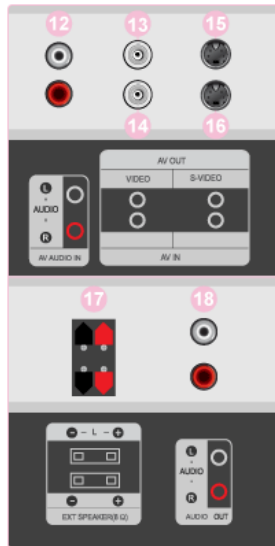
12 AV AUDIO IN [L-AUDIO-R] (LCD Display Audio Connection Terminal (Input))

13 AV OUT [VIDEO](VIDEO Connection Terminal)

AV mode (Output)

14 AV IN [VIDEO](VIDEO Connection Terminal) (Input)

15 AV OUT [S-VIDEO] (S-VIDEO Connection Terminal)

S-VIDEO mode (Output)

16 AV IN [S-VIDEO](S-VIDEO Connection Terminal) (Input)

17 EXT SPEAKER (8 Ω)[- - L - +, - - R - +] (EXT Speaker Connection Terminal)

18 AUDIO OUT [L-AUDIO-R] (LCD Display Audio Connection Terminal (Output))AUDIO OUT is the terminal for sound output of PC, DVI or BNC.

E
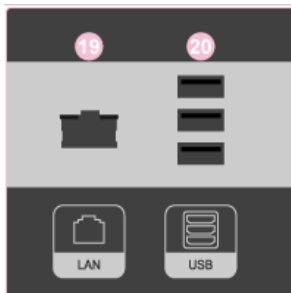
19 LAN (LAN Connection Terminal)

(Applicable to the DRn model only)

20 USB(USB Connection Terminal)

Keyboard / Mouse, Mass Storage Device Compatible.

(Applicable to the DRn model only)

 Note

The number of LCD Displays 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 LCD Displays can be connected.

 Note

See Connecting Cables for further information regarding cable connections.

Remote Control

☑ **Note**

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

①	ON / OFF
②	MagicInfo
③	MDC
④	LOCK
⑤	MagicInfo buttons
⑥	+100 DEL -/--
⑦	VOL
⑧	🔇 MUTE
⑨	▤/◨ TTX/MIX
⑩	▥ MENU
⑪	↵ ENTER
⑫	M/B P.MODE
⑬	AUTO
⑭	▤● ENTER/PRE-CH
⑮	∨ CH/P ∧
⑯	▤ SOURCE
⑰	▭ INFO
⑱	→▮ EXIT
⑲	Up-Down Left-Right buttons
⑳	╫ S.MODE
㉑	STILL
㉒	FM RADIO
㉓	P.SIZE
㉔	(●) SRS
㉕	▐ DUAL/MTS
㉖	▤ *PIP*
㉗	▤ *SOURCE*
㉘	*SWAP*
㉙	▤ *SIZE*
㉚	◀◀ REW
㉛	■ STOP

32. ▶II PLAY/PAUSE

33. ▶▶ FF

1. ON / OFF	Turns the LCD Display On/Off.
2. MagicInfo	MagicInfo Quick Launch Button. (Applicable to the DRn model only)
3. MDC	MDC Quick Launch Button.
4. LOCK	Activates or deactivates all function keys on both the remote control and the LCD Display except for the Power and LOCK buttons.
5. MagicInfo buttons	MagicInfo Quick Launch Button. (Applicable to the DRn model only) • Alphanumeric: Used to enter the Internet address. • DEL: Functions as the backspace. • SYMBOL: Used to enter the symbols. (.O_-) • ENTER: Used to enter values.
6. +100 DEL -/--	Press to select channels over 100. For example, to select channel 121, press "+100", then press "2" and "1". - This fuction does not work for this LCD Display.
7. VOL	Adjusts the audio volume.
8. ◁K 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. ≡I/◢ TTX/MIX	TV channels provide text information services via teletext. - This fuction does not work for this LCD Display.
10. ▥ MENU	Opens the on-screen menu and exits from the menu screen or closes the screen adjustment menu.
11. ↵ ENTER	Activates a highlighted menu item.
12. M/B P.MODE	When you press this button, current picture mode is displayed on the lower center of the screen. ***AV / S-Video / Component** : P.MODE* The LCD Display has four automatic picture settings that are preset at the factory. Then push button again to circle through available preconfigured modes. (**Dynamic** → **Standard** → **Movie** → **Custom**) ***PC / DVI / BNC** : M/B (**MagicBright**)*
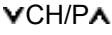
MagicBright is a new feature providing the optimum viewing environment depending on the contents of the image you are watching. Then push button again to circle through available preconfigured modes. (**Entertain** → **Internet** → **Text** → **Custom**)

13. AUTO	Adjusts the screen display automatically in **PC** mode. By changing the resolution in the control panel, auto function is performed.
14. ▤● ENTER/PRE-CH	Returns to the immediately previous channel. - This fuction does not work for this LCD Display.
15. ∨CH/P∧	In **TV** mode, selects TV channels. - This fuction does not work for this LCD Display.
16. ▤♦ SOURCE	Changes the video source.
17. ☐ INFO	The current picture information is displayed in the top left corner of the screen.
18. → ▮ EXIT	Exits from the menu screen.
19. Up-Down Left-Right buttons	Moves from one menu item to another horizontally, vertically or adjusts selected menu values.
20. ⊪ S.MODE	When pressing this button, the current mode is displayed at the bottom centre of the screen. The LCD Display has a built-in high fidelity stereo amplifier. Then press the button again to circle through available preconfigured modes. (**Standard** → **Music** → **Movie** → **Speech** → **Custom**)
21. STILL	Press the button once to freeze the screen. Press it again to unfreeze.
22. FM RADIO	Turns the FM Radio on/off. In **PC/DVI** mode, sets the SOUND to FM Radio. In general Video mode, selects FM Radio, and turns off the screen. In areas where the signal is weak, noise may occur during FM radio broadcasts. - This fuction does not work for this LCD Display.
23. P.SIZE	Press to change the screen size.
24. (●) SRS	SRS
25. Ⅰ-Ⅱ DUAL/MTS	*DUAL-* STEREO/MONO, DUAL Ⅰ / DUAL Ⅱ and MONO/NICAM MONO/NICAM STEREO can be operated depending on the broadcasting type by using the DUAL button on the remote control while watching TV. *MTS-* You can select MTS (Multichannel Television Stereo) mode. Audio Type MTS/S_Mode Default

FM Stereo	Mono	Mono	Manual Change
	Stereo	Mono ↔ Stereo	
	SAP	Mono ↔ SAP	Mono

- This fuction does not work for this LCD Display.

26. ⊞ *PIP* — Every time you press the button, a PIP screen appears.

27. ⊞ *SOURCE* — Changes the source of the PIP window signal.

28. *SWAP* — 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.

29. ⊞ *SIZE* — Switches the PIP Picture Size.

30. ◀◀ REW — Rewind

31. ■ STOP — Stop

32. ▶‖ PLAY / PAUSE — Play/Pause

33. ▶▶ FF — Fast forward

Connections

Connecting a Computer

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 in correctly, before connecting the AC power. When un-wiring the earth lead, make sure to disconnect the AC power in advance.

Note

AV input devices such as DVD players, VCRs or camcorders as well as your computer can be connected to the LCD Display. For detailed information on connecting AV input devices, refer to the User Controls under Adjusting Your LCD Display.
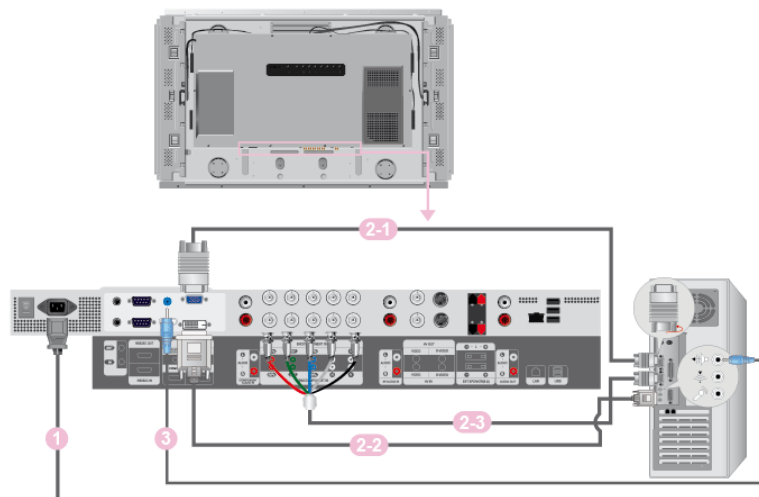
1 Connect the power cord for your LCD Display to the power port on the back of the LCD Display. Turn on the power switch.

2 There are 3 ways to connect the D-sub to your LCD Display. Choose one of the following:

2-1 Using the D-sub (Analog) connector on the video card.

• Connect the D-sub to the 15-pin, RGB port on the back of your LCD Display and the 15 pin D-sub Port on the computer.
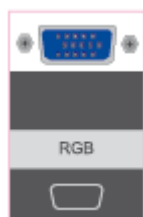
2-2 Using the DVI (Digital) connector on the video card.

• Connect the DVI Cable to the DVI(HDCP) port on the back of your LCD Display and the DVI port on the computer.
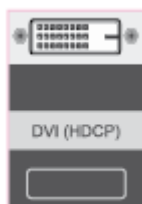
2-3 Using the BNC (Analog) connector on the video card.

- Connect the BNC Cable to the BNC/COMPONENT IN - R, G, B, H, V ports on the back of your LCD Display and the 15 pin D-sub Port on the computer.
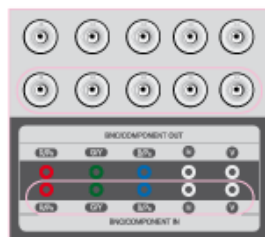
3 Connect the audio cable for your LCD Display to the audio port on the back of your computer.

Note

- Turn on both your computer and the LCD Display.

- The DVI cable or BNC cable is optional.

- Contact a local SAMSUNG Electronics Service Center to buy optional items.

Connecting to Other devices

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 in correctly, before connecting the AC power. When un-wiring the earth lead, make sure to disconnect the AC power in advance.

Note

AV input devices such as DVD players, VCRs or camcorders as well as your computer can be connected to the LCD Display. For detailed information on connecting AV input devices, refer to the User Controls under Adjusting Your LCD Display.

Connecting 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 LCD Display using an S-VHS or BNC cable.

② Connect the Audio (L) and Audio (R) terminals of a VCR or Camcorders to the LCD Display 's AV AUDIO IN [L-AUDIO-R] using audio cables.

Note

- Select **AV** or **S-Video** for a connected VCR or Camcorder using the SOURCE button on the front of the LCD Display or on the remote control.

- Then, start the VCR or Camcorders with a tape inserted.

- The S-VHS or BNC cable is optional.

Connecting a DVD Player
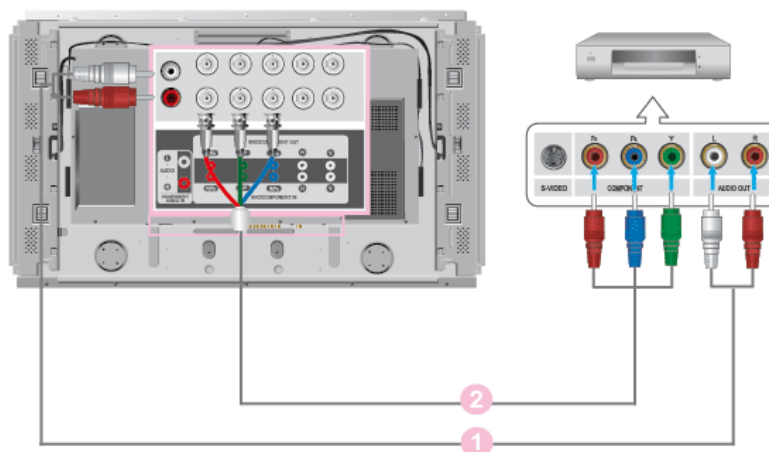
① Connect a set of audio cables between the COMPONENT AUDIO IN [L-AUDIO-R] on the LCD Display and the AUDIO OUT jacks on the DVD player.

② Connect a Component cable between the BNC/COMPONENT IN - PR, Y, PB port on the LCD Display and the PR, Y, PB jacks on the DVD player.

Note

- Select **Component** for the connection to a DVD player using the SOURCE button on the front of the LCD Display or on the remote control.

- Then, start the DVD Player with a DVD disc inserted.

- A component cable is optional.

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

Connecting a Camcorder
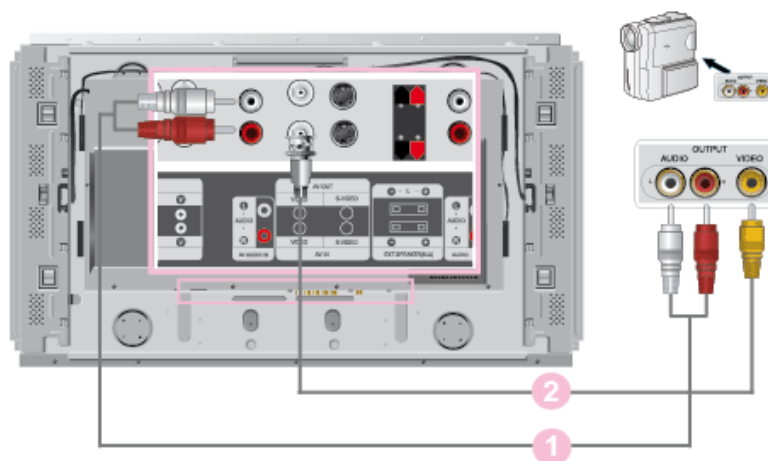
① Locate the AV output jacks on the camcorder. They are usually found on the side or back of the camcorder. Connect a set of audio cables between the AUDIO OUTPUT jacks on the camcorder and the AV AUDIO IN [L-AUDIO-R] on the LCD Display.

② Connect a video cable between the VIDEO OUTPUT jack on the camcorder and the AV IN [VIDEO] on the LCD Display.

Note

- Select **AV** for the Camcorder connection using the SOURCE button on the front of the LCD Display or on the remote control.

- 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.

Connecting a DTV Set Top Box
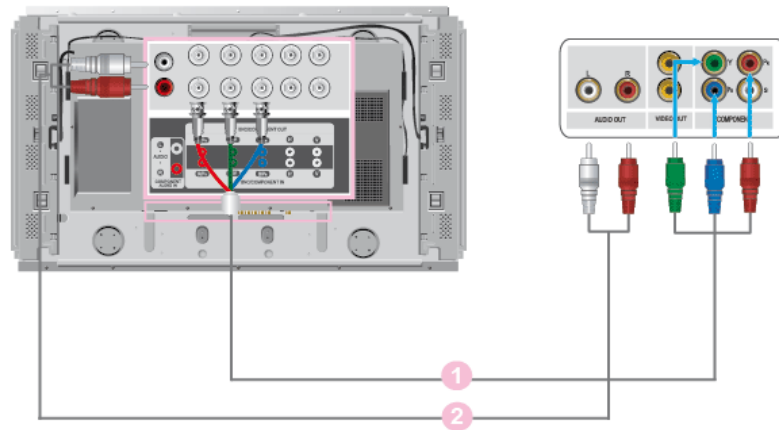
- **1** Connect a Component cable between the BNC / COMPONENT IN - PR, Y, PB port on the LCD Display and the PR, Y, PB jacks on the Set Top Box.

- **2** Connect a set of audio cables between the COMPONENT AUDIO IN [L-AUDIO-R] on the LCD Display and the AUDIO OUT jacks on the Set Top Box.

Note

- Select Component for the connection to a DTV Set Top Box using the SOURCE button on the front of the LCD Display or on the remote control.

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

Connecting to an Audio System
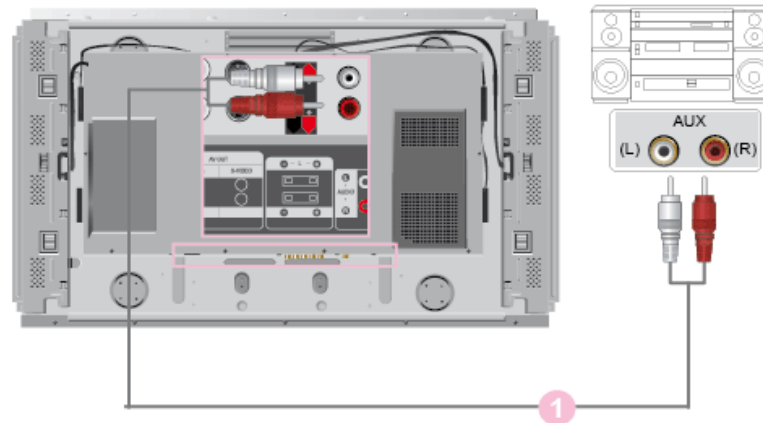
Note

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

Connecting to a Wired Remote Control
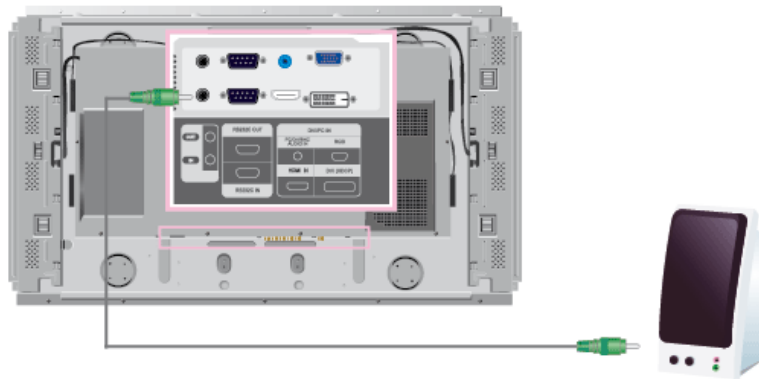
📝 Note

- You can control your LCD Display by allowing it to receive the remote control signals of other devices through the REMOTE OUT terminal.

- You can control a device by allowing it to receive remote control signals from other devices through the REMOTE IN terminal.

- Restrictions: Available only if other devices support the wired remote control I/O terminals.

Connecting Using a HDMI Cable
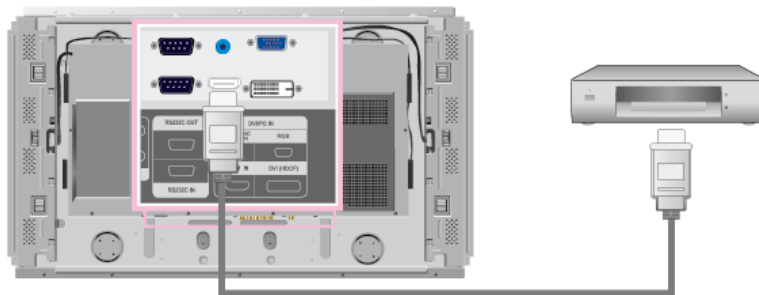
📝 Note

- Input devices such as digital DVD are connected to the HDMI IN terminal of the LCD Display using the HDMI cable.

- You cannot connect a PC to the HDMI IN terminal.

Connecting Using a DVI to HDMI Cable
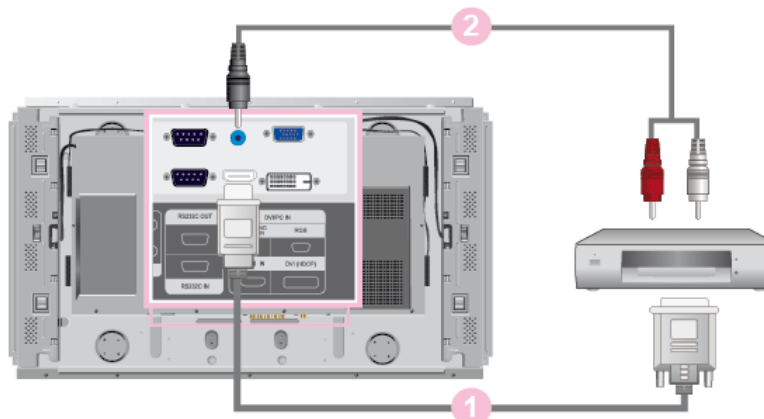
Note

- Connect the DVI output terminal of a digital output device to the HDMI IN terminal of the LCD Display using a DVI to HDMI cable.

- Connect the red and white jacks of an RCA to stereo (for PC) cable to the same colored audio output terminals of the digital output device, and connect the opposite jack to the HDMI / PC / DVI-D AUDIO IN terminal of the LCD Display.

Connecting a LAN Cable

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 in correctly, before connecting the AC power. When un-wiring the earth lead, make sure to disconnect the AC power in advance.

Note

AV input devices such as DVD players, VCRs or camcorders as well as your computer can be connected to the LCD Display. For detailed information on connecting AV input devices, refer to the User Controls under Adjusting Your LCD Display.

Note

(Applicable to the DRn model only)
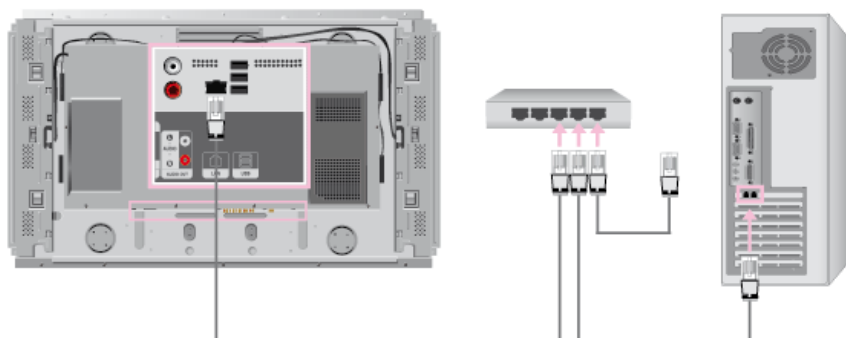
Note

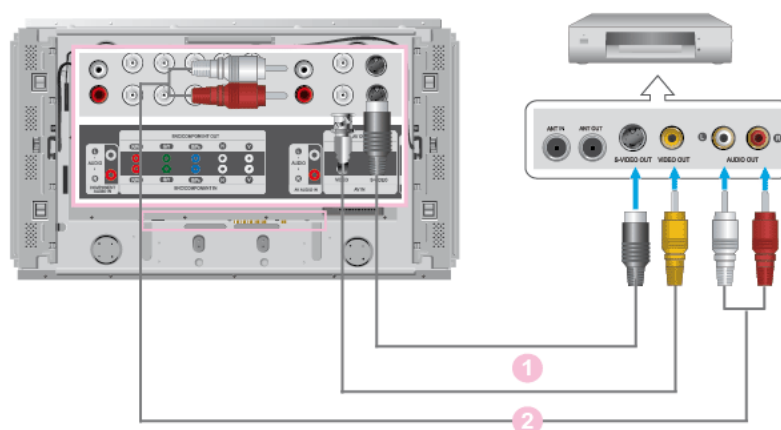Connect the LAN cable.

Connecting a USB device

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 in correctly, before connecting the AC power. When un-wiring the earth lead, make sure to disconnect the AC power in advance.

Note

AV input devices such as DVD players, VCRs or camcorders as well as your computer can be connected to the LCD Display. For detailed information on connecting AV input devices, refer to the User Controls under Adjusting Your LCD Display.

Note

(Applicable to the DRn model only)
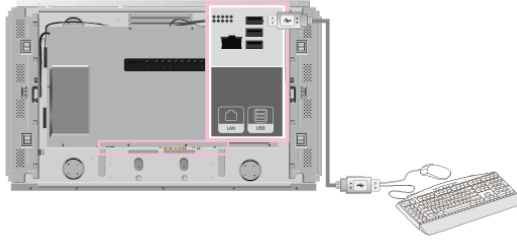
Note

You can connect USB devices such as a mouse or keyboard.

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.

Main Screen

Click Start > Program > Samsung > MDC System to start the program.

Select a set to see the volume of the selected set within the slider.
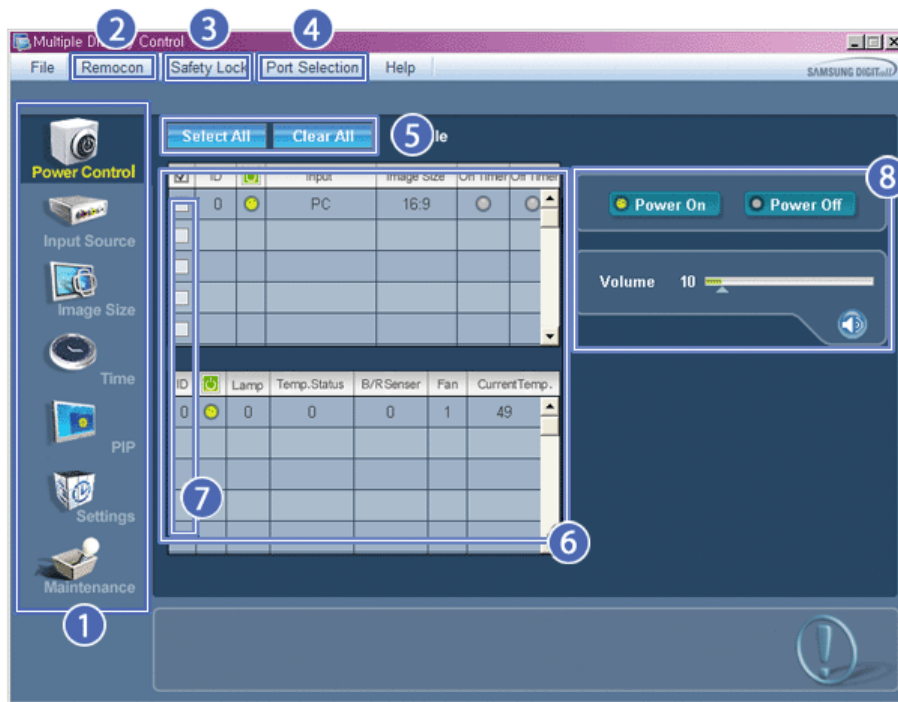
❶ Main Icons	❺ Select Button
❷ Remocon	❻ Info Grid
❸ Safety Lock	❼ Display Selection
❹ Port Selection	❽ Control Tools

1. Use the main icons to switch into each screen.

2. Allows you to enable or disable the remote control signal receiving function of the display unit.

3. Set the Safety Lock function.
   When setting the Lock function, you can only operate power and lock buttons on the remote control and set.

4. The setting for the PC Serial Port can change. The original value is COM1.

5. Click Select all or Clear to select or clear all displays.

6. Use Grid to view brief information on selected display.

7. Select a display from Display Selection.

8. Use Control Tools to control displays.

   <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 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.

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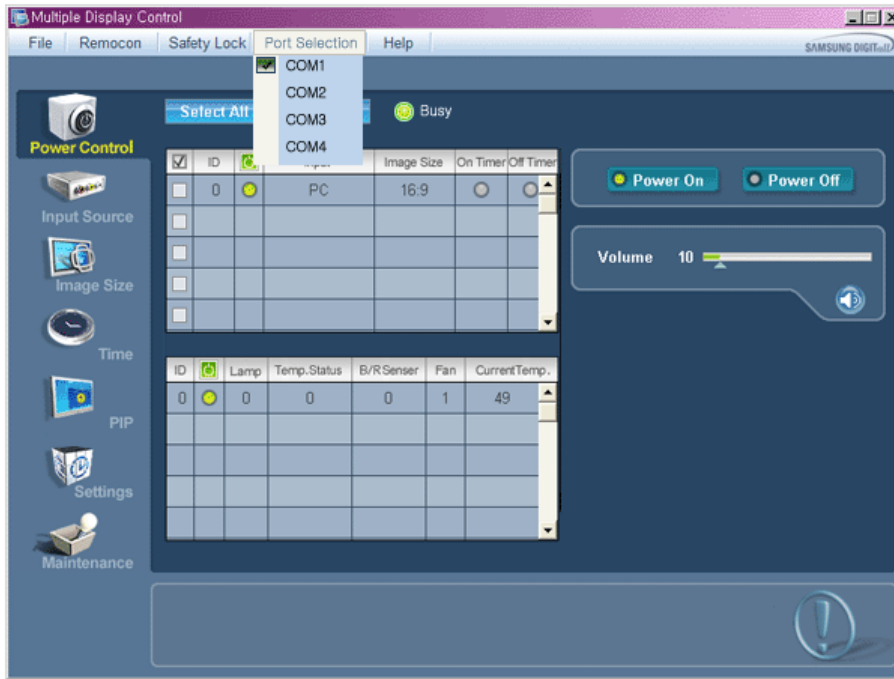
1. The Multiple Display Control is originally set to COM1.
2. If any port other than COM1 is used, COM1 through COM4 can be selected in the Port Selection Menu.
3. If the exact port name that is connected to the LCD Display using a serial cable is not selected, communication will be unavailable.
4. The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

Power Control

1. Click Power Control of the main icons and the Power Control screen appears.
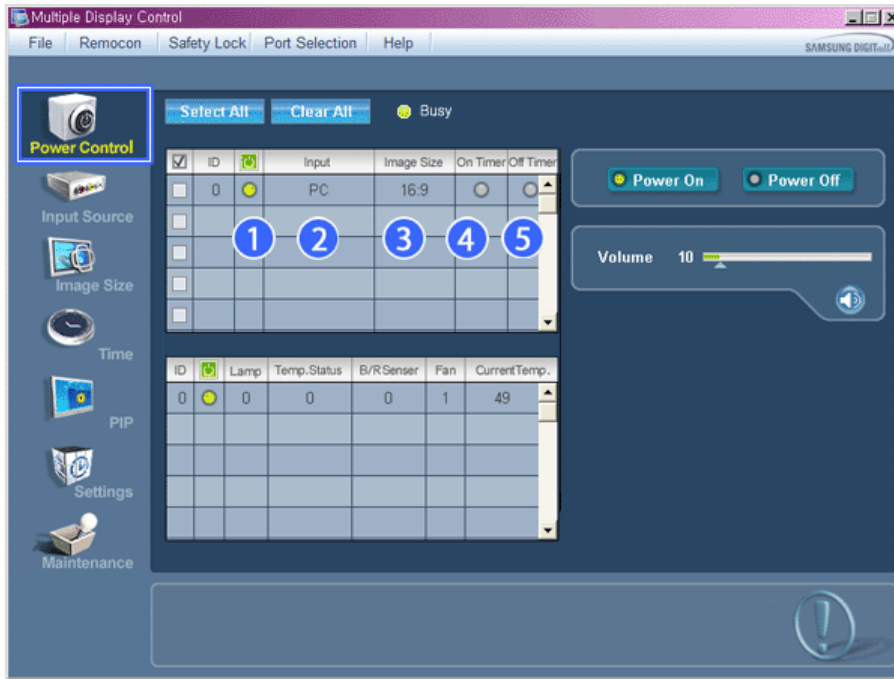
* Info Grid shows some basic information necessary to Power Control.
    1) ⏻ (Power Status)
    2) Input
    3) Image Size
    4) On Timer
    5) Off Timer

2. Use the Select All button or Check Box to choose a display to control.
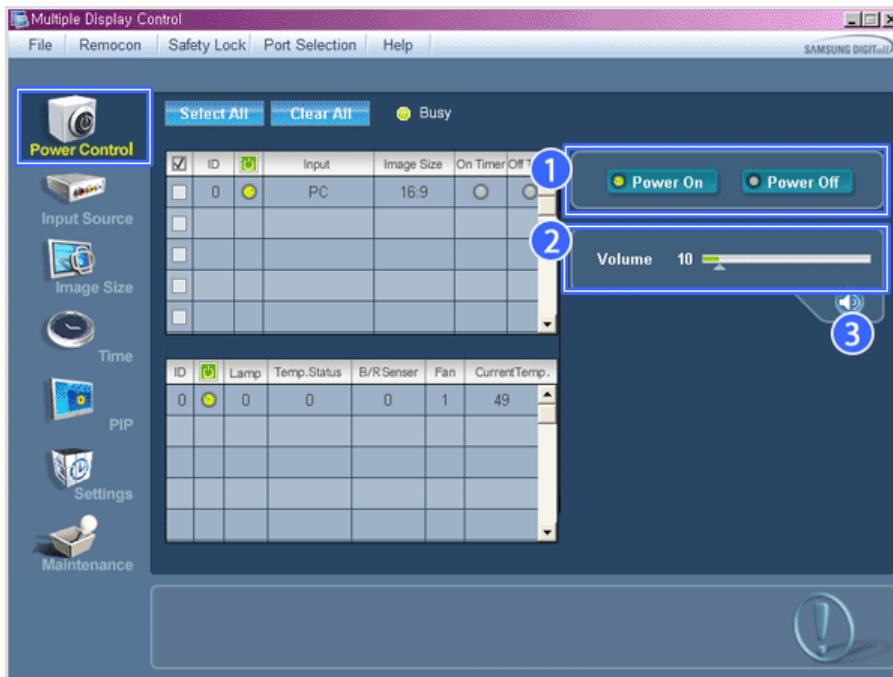
* ☑ Power Control allows controlling some of the functions of the selected display.
1) Power On/Off

- Turns the power of the selected display On/Off.

2) Volume
   - 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 on/off the Mute function of the selected display.
     When selecting one set at a time, turn on the Mute function for the selected set.
     The Mute function is disabled automatically when you adjust the volume level.
     (The values return to the default settings when you undo the selections or choose "Select All".)

✱ The Power Control feature is available for all displays.

✱ The Volume Control and Mute features are available only for the displays whose power status is ON.

Input Source

1. Click Input Source of the main icons and the Input Source control screen appears.
   Click Select All or use Check Box to select a display to control.

• TV Mode
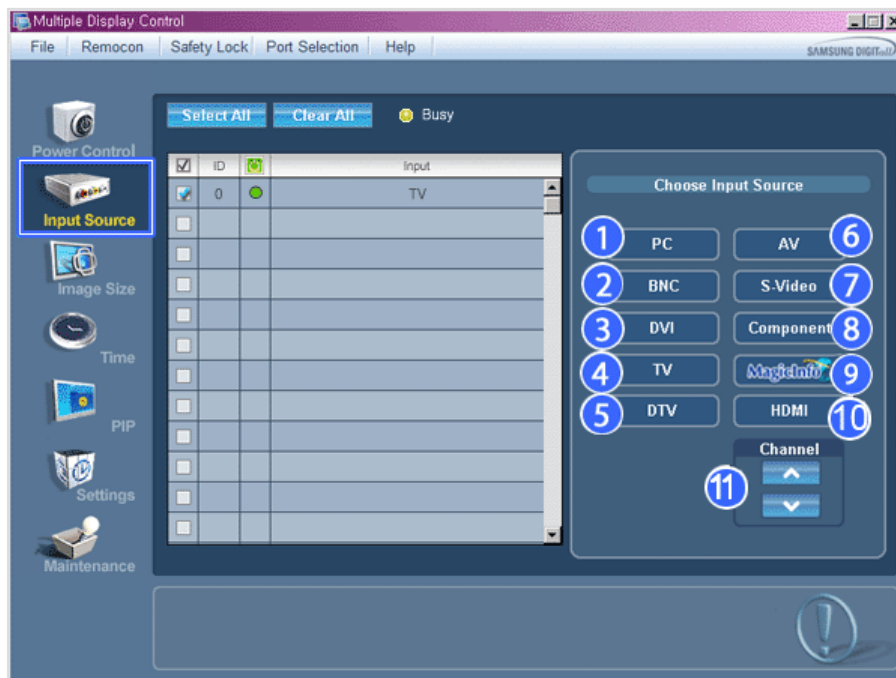
• PC Mode

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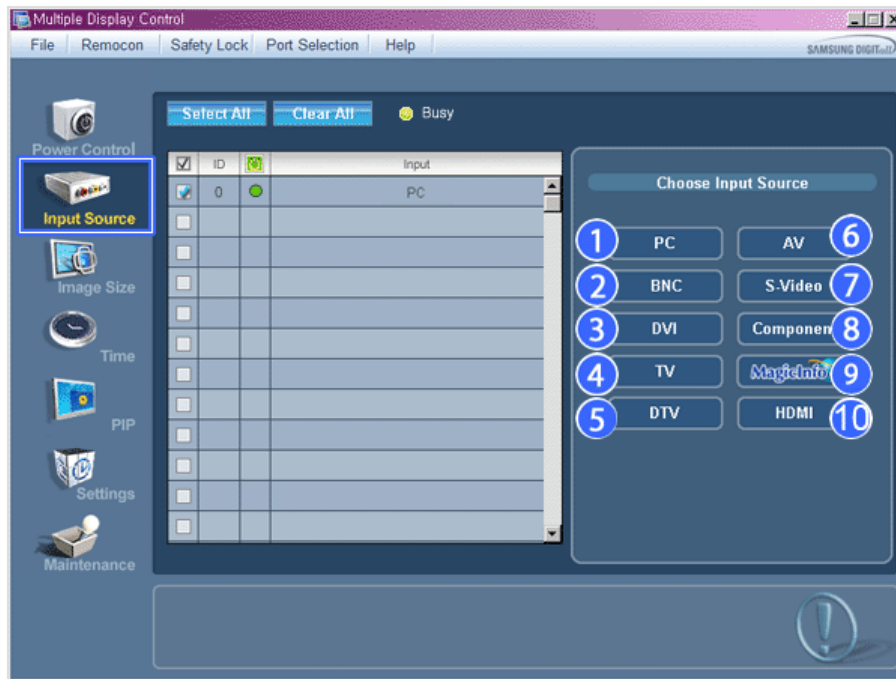
* Info Grid shows some basic information necessary to Input Source Control.

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)   TV
        - Changes the Input Source of the selected display to TV.

5)   DTV
        - Changes the Input Source of the selected display to DTV.

6)   AV
        - Changes the Input Source of the selected display to AV.

7)   S-Video
        - Changes the Input Source of the selected display to S-Video.

8)   Component
        - Changes the Input Source of the selected display to Component.

9)   MagicInfo
        - The Input source of MagicInfo works only on MagicInfo model.

10)   HDMI
        - Changes the Input Source of the selected display to HDMI.

11)   Channel
        - Channel arrow appears when the Input Source is TV.

* **TV Source can be selected only in products with TV and controlling channels is allowed only when Input Source is TV.**

* **The Input Source Control feature is available only for the displays whose power status is ON.**

Image Size

PC, BNC, DVI

1. Click Image Size of the main icons and the Image Size control screen appears.
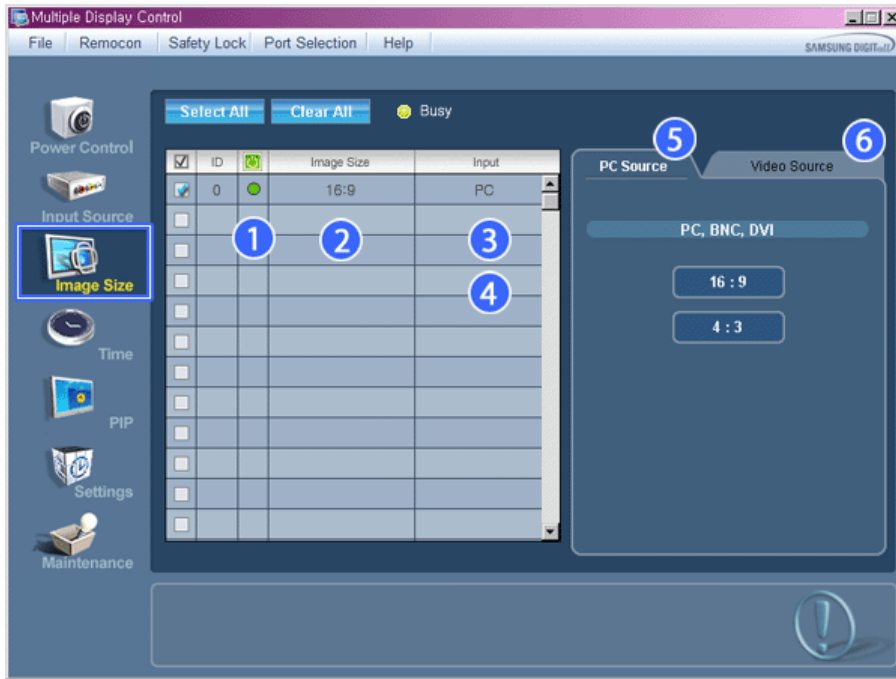
* Info Grid shows some basic information necessary to Image Size Control.

1) ⏻ (Power Status)
   - Shows the power status of the current display.

2) Image Size
   - Shows the current Image Size of the display in use.

3) Input
   - Shows the current Input Source of the display in use.

4) Info Grid displays only the displays whose Input Source is PC, BNC, DVI.

5) PC Source - When you click Image Size, the PC Source tab first appear.
   - The Image Size Control button controls Image Size available for PC, BNC, DVI.

6) Video Source
   - Click the Video Source tab to control Image Size for respective Input Source.

* **The Input source of MagicInfo works only on MagicInfo model.**
* **The Input source of TV works only on TV model.**
* **Image Size Control is available only for the displays for which power status is ON.**

Image Size

TV, AV, S-Video, Component, DVI(HDCP), HDMI, DTV

1. Click Image Size of the main icons and the Image Size control screen appears.
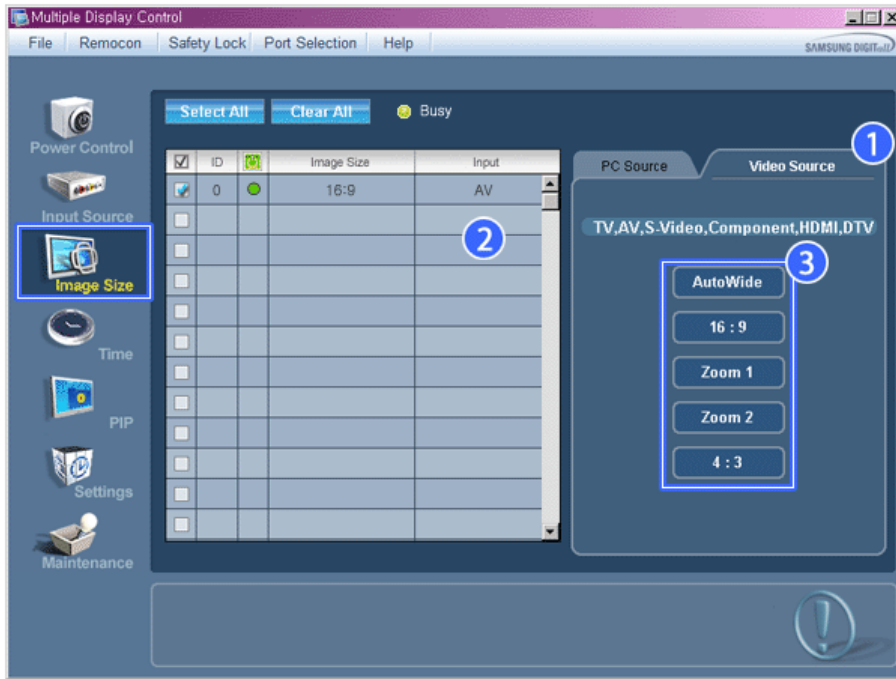
✱ Info Grid shows some basic information necessary to Image Size Control.

1) Click the Video Source tab to adjust Image Size for TV, AV, S-Video, Component, DVI(HDCP), HDMI, DTV.
   Click Select All or use Check Box to select a display to control.

2) Info Grid displays only the display having TV, AV, S-Video, Component or DVI(HDCP) as input source.

3) Switch Image Size of the selected display randomly.

   Note: Auto Wide, Zoom1 and Zoom2 are not available for selection when the input signal type for Component and DVI (HDCP) is 720p or 1080i.
   (The Auto Wide mode is available only for TV, AV, and S-Video.)

✱ **The Input source of MagicInfo works only on MagicInfo model.**

✱ **The Input source of TV works only on TV model.**

✱ **The Image Size Control feature is available only for the displays whose power status is ON.**

 Time

1. Click Time of the main icons and the Time Control screen appears.
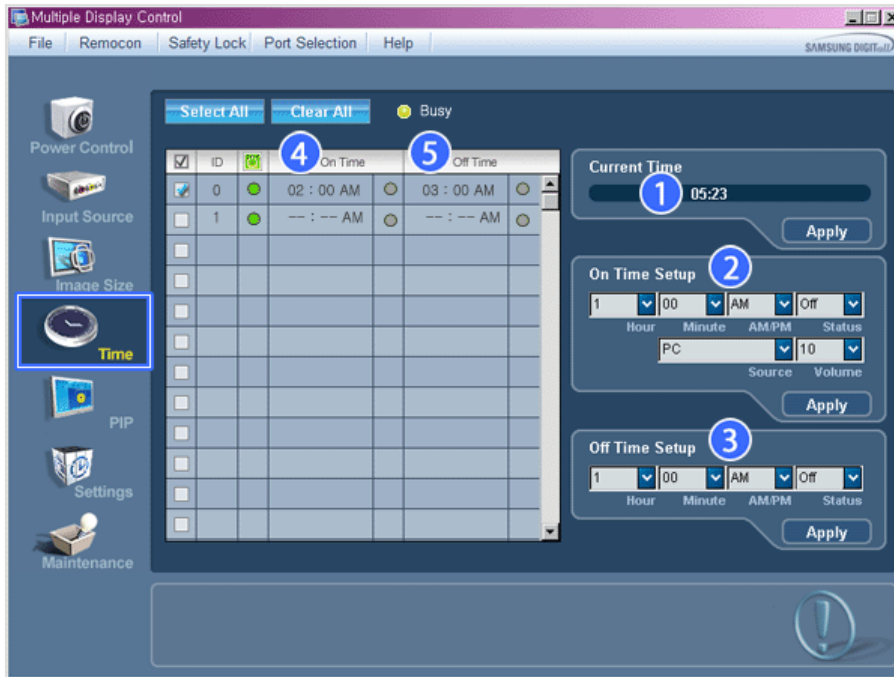
⁎ Info Grid shows some basic information necessary to Time Control.

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 Setup, Status, Source, Volume of the selected display.

3) Off Time Setup
   - Set the Hour, Minute, and AM/PM, Status for Off Time Setup of the selected display.

4) Shows the On Time settings.

5) Shows the Off Time settings.

⁎ **The Input source of MagicInfo works only on MagicInfo model.**

⁎ **The Input source of TV works only on TV model.**

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

⁎ **At On Time Setup, TV Source functions only for TV Model.**

⁎ **At On Time Setup, MagicInfo Source functions only for MagicInfo Model.**

 PIP

PIP Size

1. Click PIP of the main icons and the PIP control screen appears.
   Click Select All or use Check Box to select a display to control.
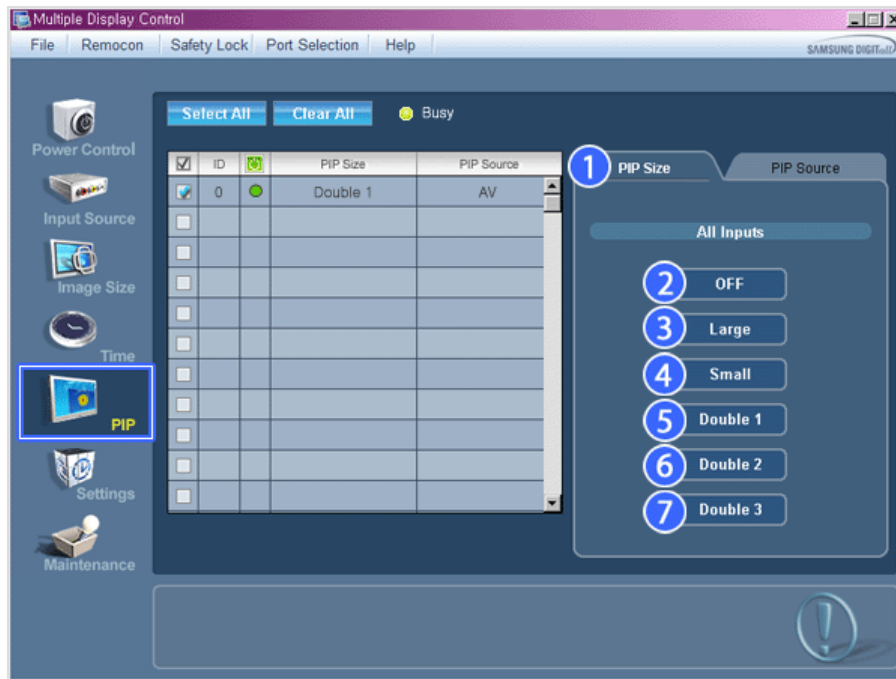
✱ Info Grid shows some basic information necessary to PIP Size Control.

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) Double 1
   - Turns on the PIP of the selected display and changes the size to Double 1.

6) Double 2
   - Turns on the PIP of the selected display and changes the size to Double 2.

7) Double 3 (Picture By Picture)
   - Turns on the PBP of the selected display and changes the size to Double 3.

✱ **The Input source of MagicInfo works only on MagicInfo model.**

✱ **The Input source of TV works only on TV model.**

✱ **PIP Size can be controlled with turning on the LCD Display power.**

 PIP

PIP Source

1. Click PIP of the main icons and the PIP control screen appears.
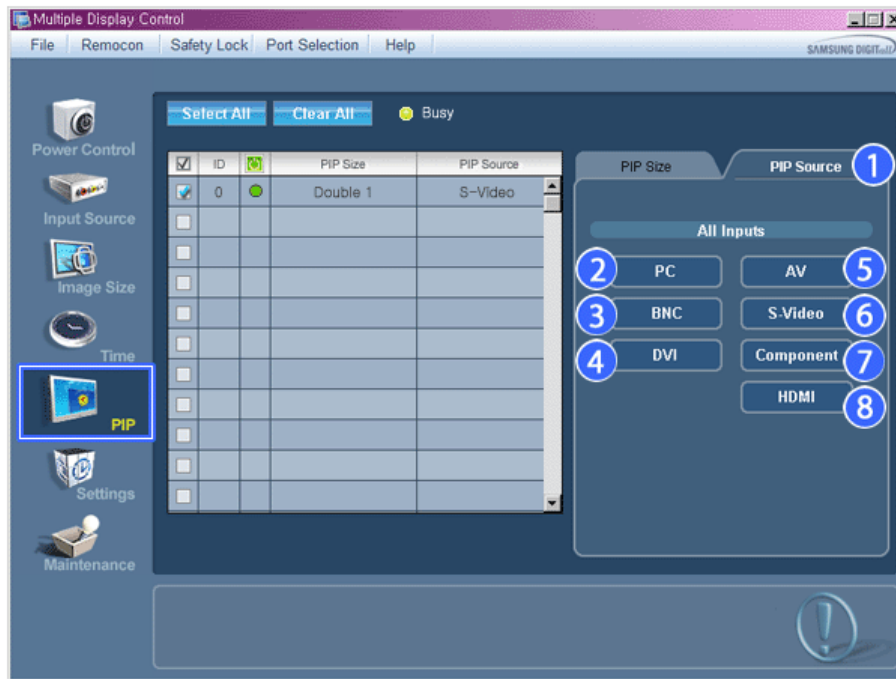
⁂ Info Grid shows some basic information necessary to PIP Source Control.

1) PIP Source
   - PIP Source can be controlled with turning on the LCD Display 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.

8) HDMI
   - Changes the source of the PIP of the selected display to HDMI.

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

⁂ **The Input source of MagicInfo works only on MagicInfo model.**

⁂ **The PIP Control feature is available only for the displays whose power status is ON and the PIP function is set to ON.**

Settings

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 selected, each
  function fetches the value for the set and displays it on the slide bar. When "Select All" is chosen, the default value
  is displayed. Changing a value in this screen will automatically change the mode to "CUSTOM."

1) Picture
   - Available only for TV, AV, S-Video, Component, HDMI, 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.
   - Available only for NT.

7) Color Tone
   - Adjusts the Color Tone for the selected display.

8) Color Temp
   - Adjusts the Color Temp for the selected display.

9) Brightness Sensor
   - Adjusts the Brightness Sensor for the selected display.

10) Dynamic Contrast
   - Adjusts the Dynamic Contrast for the selected display.

* **The Input source of MagicInfo works only on MagicInfo model.**
* **Color Temp is only enabled if the Color Tone is set to Off.**
* **The Input source of TV works only on TV model.**
* **This feature is available only for the displays whose power status is ON and if no selection is made, the
  factory default is displayed.**

Settings

Picture PC

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 selected, each function fetches the value for the set and displays it on the slide bar. When "Select All" is chosen, the default value is displayed. Changing a value in this screen will automatically change the mode to "CUSTOM."

1) Picture PC
    - Available only for PC, BNC, DVI.

2) Contrast
    - Adjusts Contrast of the selected display.

3) Brightness
    - Adjusts Brightness for the selected display.

4) Red
    - Adjusts red Color of the selected display.
    - Available only for NT.

5) Green
    - Adjusts green Color of the selected display.
    - Available only for NT.

6) Blue
    - Adjusts blue Color of the selected display.
    - Available only for NT.

7) Color Tone
    - Adjusts the Color Tone for the selected display.

8) Color Temp
    - Adjusts the Color Temp for the selected display.

9) Brightness Sensor
    - Adjusts the Brightness Sensor for the selected display.

* **The Input source of MagicInfo works only on MagicInfo model.**
* **The Input source of TV works only on TV model.**
* **Color Temp is only enabled if the Color Tone is set to Off.**
* **This feature is available only for the displays whose power status is ON and if no selection is made, the factory default is displayed.**

Settings

Audio

1. Click Settings of the main icons and the Settings Control screen appears.
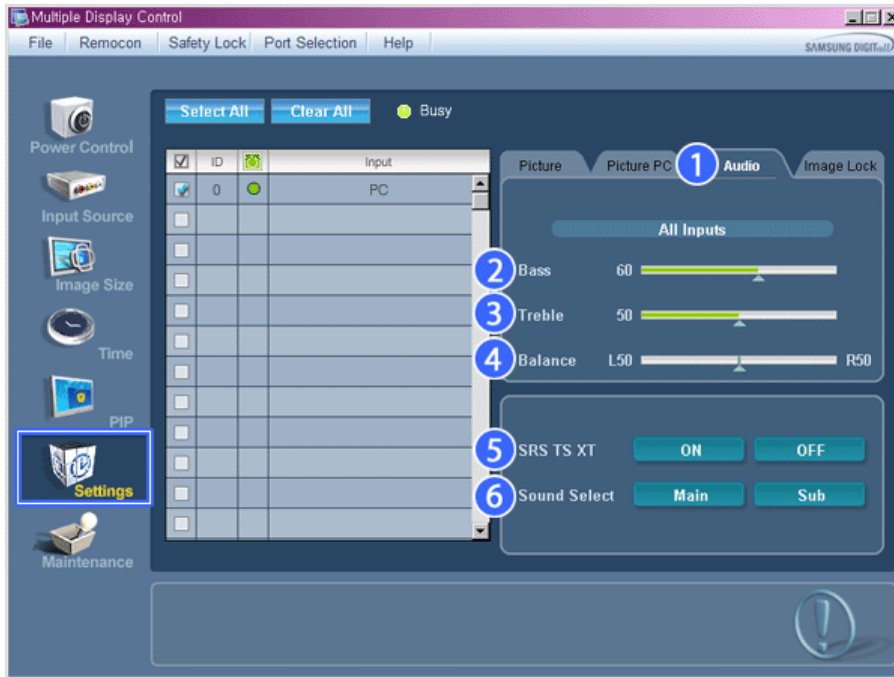
⁎ Info Grid shows some basic information necessary to Settings Control. When each function is selected, the set value of the selected function is displayed in the slide. When selected, each function fetches the value for the set and displays it on the slide bar. When "Select All" is chosen, the default value is displayed. Changing a value in this screen will automatically change the mode to "CUSTOM."

1) Audio
   - Controls audio settings for all input sources.
2) Bass
   - Adjusts Bass of the selected display.
3) Treble
   - Adjusts Treble of the selected display.
4) Balance
   - Adjusts Balance of the selected display.
5) SRS TS XT
   - SRS TS XT Sound ON/OFF of the selected display.
6) Sound Select
   - Select either Main or Sub when PIP is On.

⁎ **The Input source of MagicInfo works only on MagicInfo model.**

⁎ **The Input source of TV works only on TV model.**

⁎ **This feature is available only for the displays whose power status is ON and if no selection is made, the factory default is displayed.**

Settings

Image Lock

1. Click Settings of the main icons and the Settings Control screen appears.
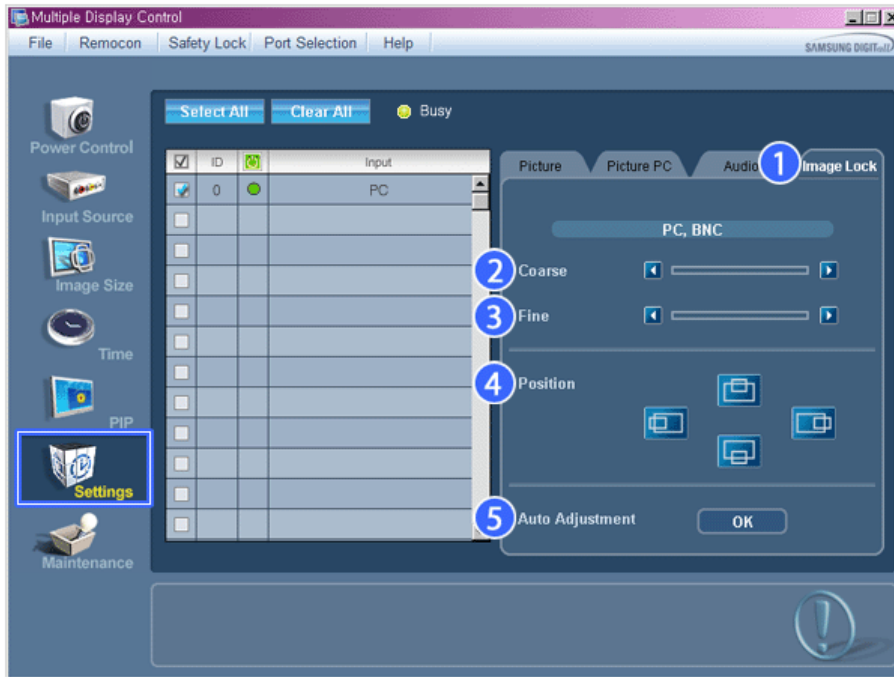
⁎ Info Grid shows some basic information necessary to Settings Control.

1) Image Lock
   - Available only for PC, BNC.

2) Coarse
   - Adjusts Coarse of the selected display.

3) Fine
   - Adjusts Fine of the selected display.

4) Position
   - Adjusts Position of the selected display.

5) Auto Adjustment
   - Self-Adjust to the incoming PC signal.

⁎ **The Input source of MagicInfo works only on MagicInfo model.**

⁎ **The Input source of TV works only on TV model.**

⁎ **Settings Control is available only for the displays for which the power status is ON.**

Maintenance

Lamp Control

1. Click on the "Maintenance" icon in the Main Icon column to display the Maintenance screen.
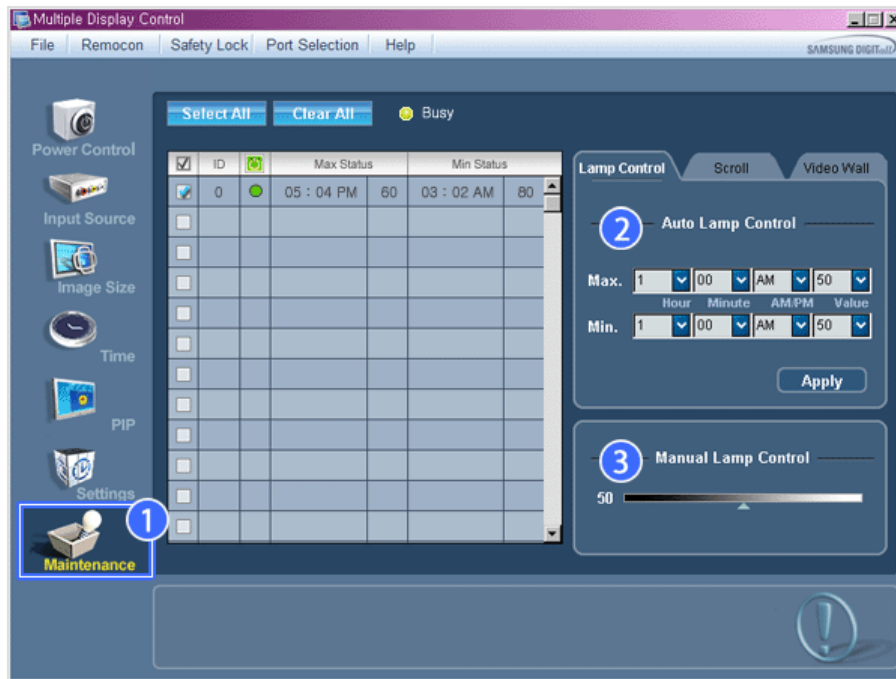
* An "Info Grid" showing several basic data items appears.

1) Maintenance
   - Allows the Maintenance Control function for all input sources.

2) Auto Lamp Control
   - Automatically adjusts the backlight of the selected display at a specified time.
     The Manual Lamp Control automatically turns off if you adjust using the Auto 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.

* **The Maintenance Control feature is available only for the displays whose power status is ON.**
* **The Input source of MagicInfo works only on MagicInfo model.**
* **The Input source of TV works only on TV model.**

Maintenance

Scroll

1. Click on the "Maintenance" icon in the Main Icon column to display the Maintenance screen.
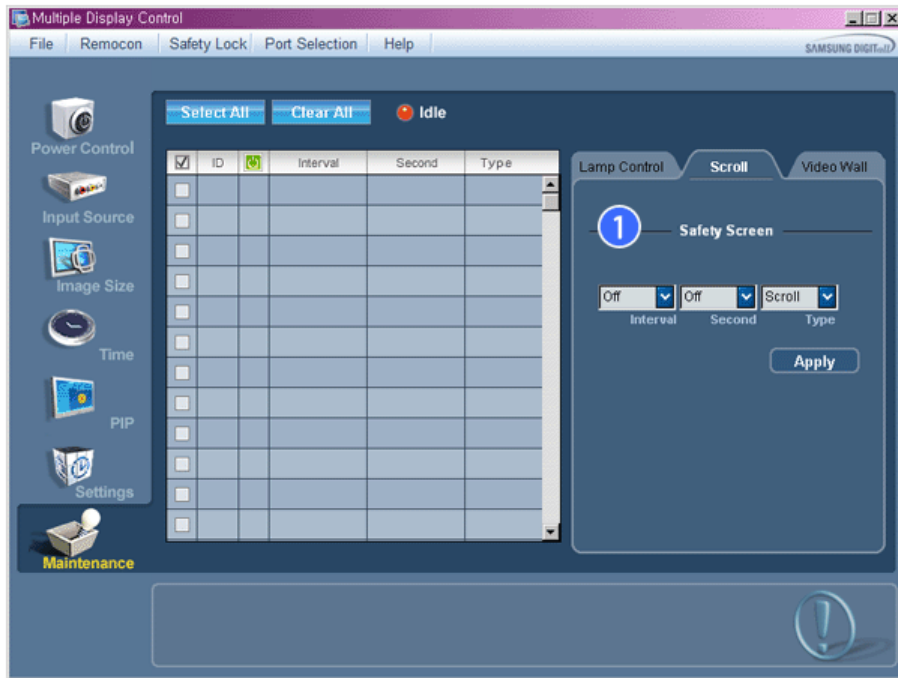
1) Safety Screen
   - Eliminates the afterimages that can result when the selected display stays in Pause mode for an extended period of time. You can set the repeat cycle timer by selecting the "Interval" by hour and "Second" by second.
     It can be set to Scroll, Pixel, Bar and Eraser by Screen Type.

✱ **The Input source of MagicInfo works only on MagicInfo model.**

✱ **The Input source of TV works only on TV model.**

✱ **Setting Second, you can set to 1, 2, 3, 4, 5 for Scroll Type and to 10, 20, 30, 40, 50 for Pixel, Bar, and Eraser Type.**

✱ **The Maintenance Control feature is available only for the displays whose power status is ON.**

Maintenance

Video Wall

1. Click on the "Maintenance" icon in the Main Icon column to display the Maintenance screen.
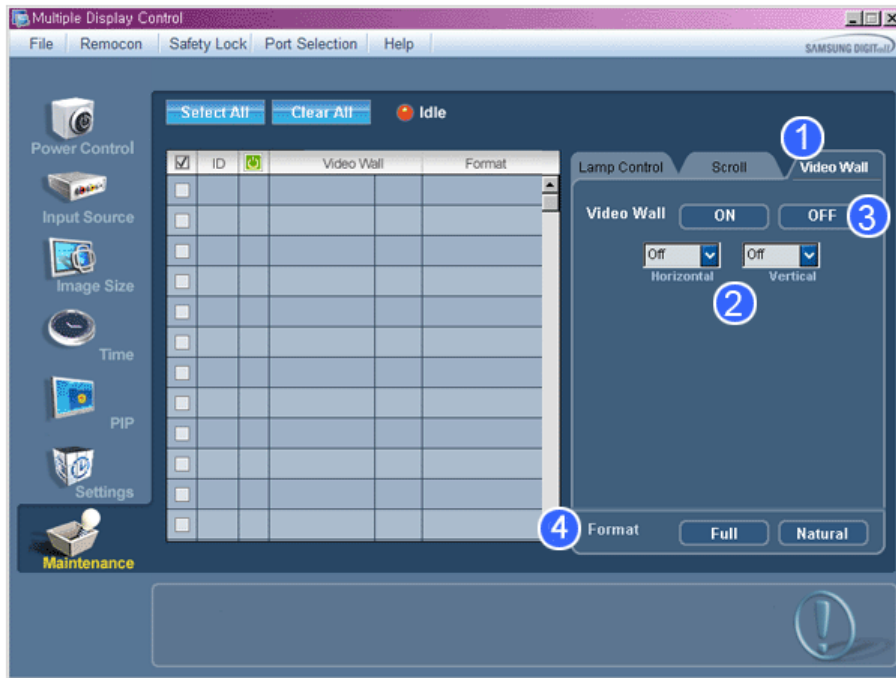
1) Video Wall
   - A Video Wall is a set of video screens that are connected together, so that each screen shows a part of the whole picture or so that the same picture is repeated on each screen.

2) Video Wall (Screen divider)
   - The screen can be divided into.
     You can select a number of screens with a different layout when dividing.
     ● Select a mode from Screen divider.
     ● Select a display from Display Selection.
     ● The place will be set up by pressing a number in the selected mode.
     ● The MDC program supplied by Samsung supports up to 5x5 LCD Displayes.

3) On / Off
   - Turns on/off the Video Wall function of the selected display.

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

   ● Full

   ● Natural
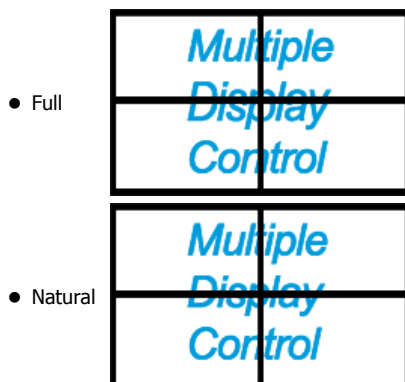
✱ **You may not operate this function in MagicInfo.**
✱ **The Input source of TV works only on TV model.**
✱ **The Maintenance Control function is available only for the displays where the power status is ON.**

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 0 and **25**. (Adjust using the Display menu)

   Note :   A Display Set ID must be a value between 0 and **25** .

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 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.

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

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.

Adjusting the LCD Display

Direct Functions

Available Modes

- **P** **PC / BNC / DVI**

- **A** **AV**

- **S** **S-Video**

- **C** **Component**

- **H** **HDMI**

- **M** **MagicInfo**

Note

- The MagicInfo menu is available in DRn models.

MagicInfo PASCHM

Note

- The MagicInfo menu is available in DRn models.
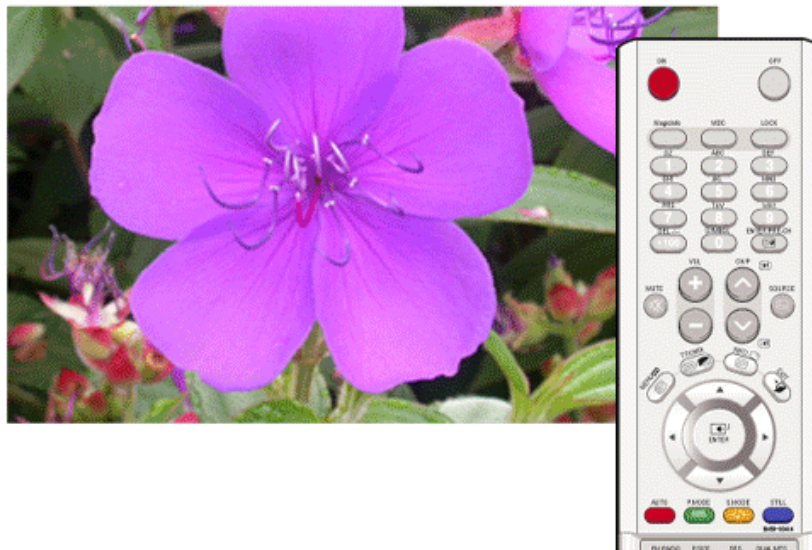
Moves to the MagicInfo OSD screen.

MDC PASCHM
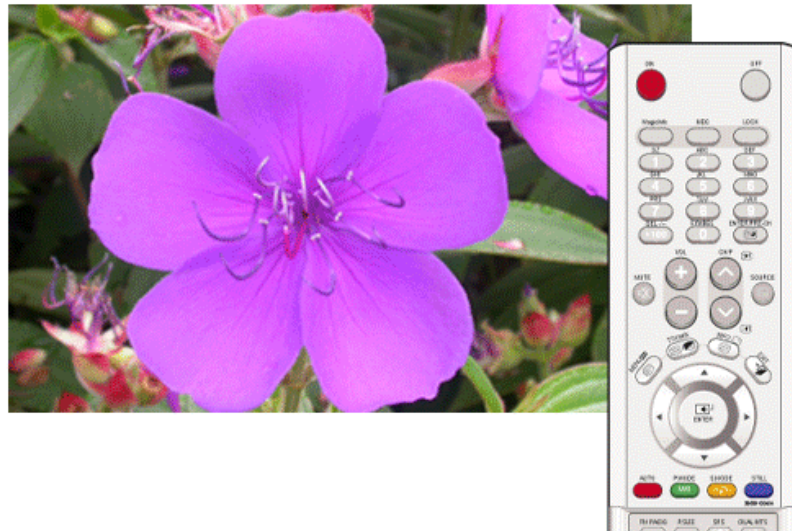
Moves to the Multi Control OSD screen.

LOCK PASCHM

This is the function that locks the OSD in order to keep the current states of settings or prevent others from adjusting the current settings.

Note

- When setting the Lock function, you can only operate the power and lock buttons on the remote control and set.

- Resetting the password for the function key lock. Press MUTE → 1 → 8 → 6 → On. The password will be reset to '0000'. The remote control is required for resetting the password.

Lock On
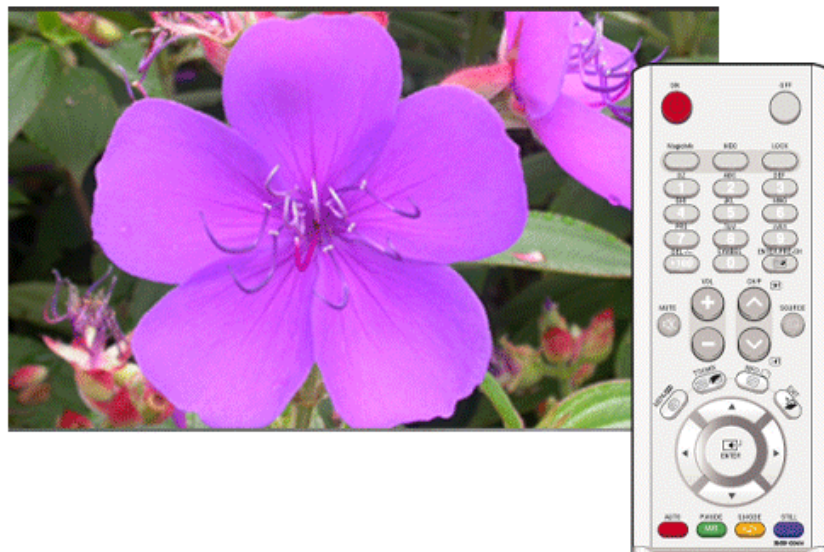
Hold down the MENU button for more than five (5) seconds to activate the OSD adjustment lock function.

Lock Off
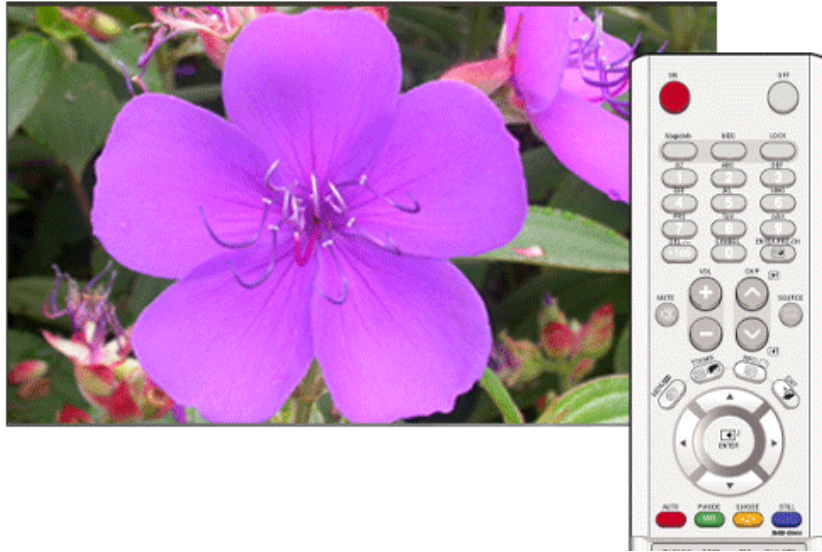
Hold down the MENU button for more than five (5) seconds to deactivate the OSD adjustment lock function.

Input

Available Modes

· **P** **PC / BNC / DVI**

· **A** **AV**

· **S** **S-Video**

· **C** **Component**

· **H** **HDMI**

· **M** **MagicInfo**

Note

· The MagicInfo menu is available in DRn models.

Source List 🅿️🅰️🆂🅲🅷🅼

Use to select **PC**, **BNC**, or other external input sources connected to the LCD Display. Use to select the screen of your choice.

1. **PC**

2. **BNC**

3. **DVI**

4. **AV**

5. **S-Video**

6. **Component**

7. **HDMI**

8. **MagicInfo**

📝 **Note**

- The direct button on the remote control is the 'SOURCE' button.

- **PIP** turns off when the LCD Display is switched to an external source.

- For **PC** and **DVI**, this is deactivated if the cable is disconnected.

MENU → ENTER → ENTER → ▲ , ▼ → ENTER

PIP 🅿️🅰️🆂🅲🅷

📝 **Note**

Available Modes: **PIP ON**

When external AV devices such as VCRs or DVDs are connected to the LCD Display , **PIP** allows you to watch video from those devices in a small window super-imposed on the PC Video signal. (**Off/On**)

Note

- More than one **PIP** cannot be overlapped on screen as **BNC** and the **Component** use the same terminal.

- If you select ▣, ▣ , ▣ in **Size**, **Position** and **Transparency** will not be activated.

PIP

Turns the **PIP** Screen **Off**/**On**.

- **Off**

- **On**

Note

The direct button on the remote control is the 'PIP' button.

MENU → ENTER → ▲ , ▼ → ENTER → ENTER → ▲ , ▼ → ENTER

Source
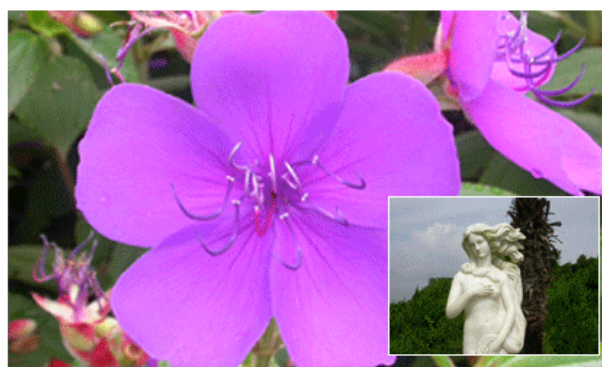
Selects the input source for the PIP.

- **PC** : **AV** / **S-Video** / **Component** / **HDMI** Mode

- **BNC** : **AV** / **S-Video** / **HDMI** Mode

- **DVI** : **AV** / **S-Video** / **Component** Mode

- **AV** / **S-Video** : **PC** / **BNC** / **DVI** Mode

- **Component** : **PC** / **DVI** Mode

- **HDMI** : **PC** / **BNC** Mode

![Note icon] **Note**

The direct button on the remote control is the 'SOURCE' button.

MENU → ENTER → ▲ , ▼ → ENTER → ▲ , ▼ → ENTER → ▲ , ▼ → ENTER

Swap

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.

![Note icon] **Note**

The direct button on the remote control is the 'SWAP' button.

MENU → ENTER → ▲ , ▼ → ENTER → ▲ , ▼ → ENTER

Size

Changes the Size of the PIP window.

![Note icon] **Note**

The direct button on the remote control is the 'SIZE' button.

MENU → ENTER → ▲ , ▼ → ENTER → ▲ , ▼ → ENTER → ▲ , ▼ → ENTER
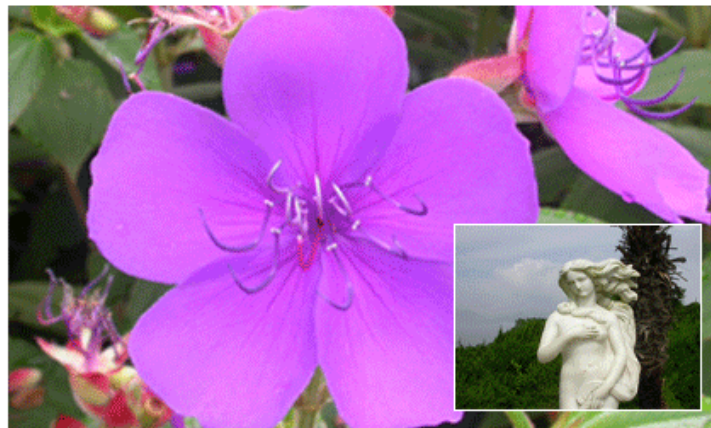
Position

Changes the Position of the PIP window.

MENU → ENTER → ▲ , ▼ → ENTER → ▲ , ▼ → ENTER → ▲ , ▼ → ENTER

Transparency

Adjusts the Transparency of PIP windows.

- **High**

- **Medium**

- **Low**

- **Opaque**

MENU → ENTER → ▲ , ▼ → ENTER → ▲ , ▼ → ENTER → ▲ , ▼ → ENTER

Edit Name PASCH

Name the input device connected to the input jacks to make your input source selection easier.

1. **PC**

2. **BNC**

3. **DVI**

4. **AV**

5. **S-Video**

6. **Component**

7. **HDMI**

MENU → ENTER → ▲ , ▼ → ENTER → ▲ , ▼ → ENTER → ▲ , ▼ → ENTER

Picture [PC / BNC / DVI / MagicInfo Mode]

Available Modes

- **P** **PC / BNC / DVI**

- **A** **AV**

- **S** **S-Video**

- **C** **Component**

- **H** **HDMI**

- **M** **MagicInfo**

Note

- The MagicInfo menu is available in DRn models.

MagicBright **P M**

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.

1. **Entertain**

   High brightness

   For documentations or works involving heavy text.

2. **Internet**

   Medium brightness

   For working with a mixture of images such as texts and graphics.

3. **Text**

   Normal brightness

   For documentations or works involving heavy text.

4. **Custom**

   Although the values are carefully chosen by our engineers, the pre-configured values may not be comfortable to your eyes depending on your taste.

   If this is the case, adjust the brightness and contrast by using the OSD menu.

 Note

The direct button on the remote control is the 'M/B' button.

MENU → ▲ , ▼ → ENTER → ENTER → ▲ , ▼ → ENTER
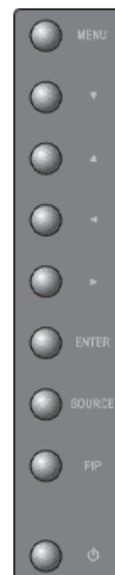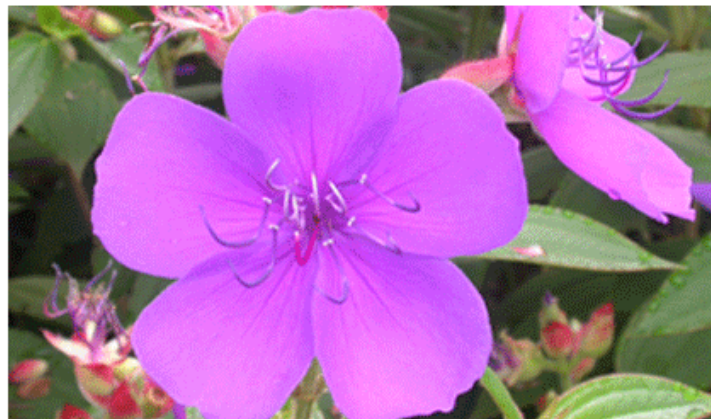
Custom P M

By using the on-screen menus, the contrast and brightness can be changed to your personal preference.

1. **Contrast**

Adjusts the Contrast.

2. **Brightness**

Adjusts the Brightness.

 Note

By adjusting the picture using the **Custom** function, **MagicBright** will change to **Custom** mode.

MENU → ▲ , ▼ → ENTER → ▲ , ▼ → ENTER → ENTER → ▲ , ▼ / ◄ , ► → ENTER

Color Tone P M

The color tones can be changed.

1. **Off**

2. **Cool**

3. **Normal**

4. **Warm**

5. **Custom**

   (Available in **PC**, **BNC** mode only)

 Note

If you set the **Color Tone** to **Cool**, **Normal**, **Warm**, or **Custom**, the **Color Temp** function is disabled.

If you set the **Color Tone** to **Off**, the **Color Control** function is disabled

MENU → ▲ , ▼ → ENTER → ▲ , ▼ → ENTER → ▲ , ▼ → ENTER

Color Control P M

Adjusts individual Red, Green, Blue color balance.

(Available in **PC**, **BNC** mode only)

1.   **Red**

2.   **Green**

3.   **Blue**

Note

If you adjust the picture by using the **Color Control** function, **Color Tone** will turn to the **Custom** mode.

MENU → ▲ , ▼ → ENTER → ▲ , ▼ → ENTER → ENTER →▲ , ▼ / ◄, ►→ENTER

Color Temp P M

Color Temp is a measure of the 'warmth' of the image colors.

 Note

This function is only enabled if the **Color Tone** is set to **Off**.

MENU → ▲ , ▼ → ENTER → ▲ , ▼ → ENTER → ◄, ► → ENTER

Image Lock 🅿

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.

(Available in **PC**, **BNC** mode only)

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.

MENU → ▲ , ▼ → ENTER → ▲ , ▼ → ENTER → ENTER → ◄, ► → ENTER

Fine

Removes noise such as horizontal stripes. If the noise persists even after Fine tuning, repeat it after adjusting the frequency (clock speed).

MENU → ▲ , ▼ → ENTER → ▲ , ▼ → ENTER → ▲ , ▼ → ENTER → ◄ , ► → ENTER

Position

Adjusts the screen location horizontally and vertically.

MENU → ▲ , ▼ → ENTER → ▲ , ▼ → ENTER → ▲ , ▼ → ENTER → ▲ , ▼ / ◄ , ► → ENTER

Auto Adjustment P

The values of **Fine**, **Coarse**, **Position** are adjusted automatically. By changing the resolution in the control panel, the auto function is performed.

(Available in **PC**, **BNC** mode only)

 Note

The direct button on the remote control is the 'AUTO' button.

MENU → ▲ , ▼ → ENTER → ▲ , ▼ → ENTER

Signal Balance P

This is used to make up for the weak RGB signal transmitted by a long signal cable.

(Available in **PC**, **BNC** mode only)

Signal Balance
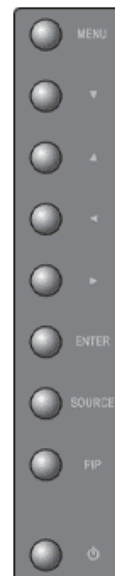
Selects either **On** or **Off** with the signal control.

MENU → ▲ , ▼ → ENTER → ▲ , ▼ → ENTER → ENTER → ▲ , ▼ → ENTER

Signal Control

Adjusts the **Gain** and **Sharpness** manually.

MENU → ▲ , ▼ → ENTER → ▲ , ▼ → ENTER → ▲ , ▼ → ENTER → ENTER → ▲ , ▼ / ◄ , ► → ENTER

Size P

The **Size** can be switched.

1. **16:9**

2. **4:3**

MENU → ▲ , ▼ → ENTER → ▲ , ▼ → ENTER → ▲ , ▼ → ENTER

PIP Picture P
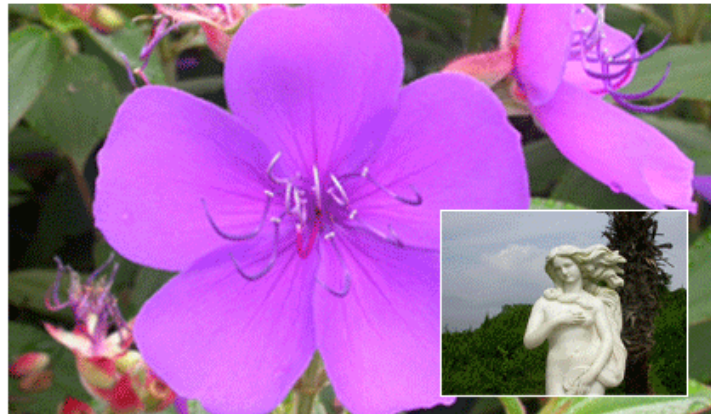
Adjusts the PIP Screen Settings.

Note

Available Modes: **PIP ON**

1. **Contrast**

   Adjusts the Contrast of the PIP window on the screen.

2. **Brightness**

   Adjusts the Brightness of the PIP window on the screen.

3. **Sharpness**

   Adjusts the difference between the lightest and darkest areas of the PIP window.

4. **Color**

   Adjusts the Color of the PIP window on the screen.

5. **Tint**

   Adds a natural tone to the PIP window.

   Note

   You can view a picture from AV, S-Video through the PIP screen in **PC**, **BNC** and **DVI** mode. Operates only if the video signal is NTSC.

   MENU → ▲ , ▼ → ENTER → ▲ , ▼ → ENTER → ▲ , ▼ → ENTER → ◄, ► → ENTER

Picture [AV / S-Video / Component / HDMI Mode]
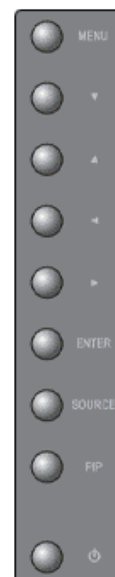
Available Modes

• P PC / BNC / DVI

- **A** AV

- **S** S-Video

- **C** Component

- **H** HDMI

- **M** MagicInfo

Note

- The MagicInfo menu is available in DRn models.

Mode **ASCH**

The LCD Display has four automatic picture settings ("**Dynamic**", "**Standard**", "**Movie**" and "**Custom**") that are preset at the factory.

Dynamic, **Standard**, **Movie**, or **Custom** can be activated.

1. **Dynamic**

2. **Standard**

3. **Movie**

4. **Custom**

Note

The direct button on the remote control is the 'P.MODE' button.

MENU → ▲ , ▼ → ENTER → ENTER → ▲ , ▼ → ENTER

Custom A S C H

By using the on-screen menus, the contrast and brightness can be changed to your personal preference.

1. **Contrast**

   Adds a natural tone to the PIP window.

2. **Brightness**

   Adjusts the Brightness.

3. **Sharpness**

   Adjusts the picture Sharpness.

4. **Color**

   Adjusts the picture Color.

5. **Tint**

   Adds a natural tone to the display.

   ![Note icon] **Note**

   Operates only for **AV** and **S-Video** mode. Operates only if the video signal is NTSC.

MENU → ▲ , ▼ → ENTER → ▲ , ▼ → ENTER → ENTER → ▲ , ▼ → ◄ , ► → ENTER

Color Tone ASCH

The color tones can be changed. The individual Color components are also user adjustable.

1. **Off**

2. **Cool2**

3. **Cool1**

4. **Normal**

5. **Warm1**

6. **Warm2**

📝 **Note**

If you set the **Color Tone** to **Cool1**, **Cool2**, **Normal**, **Warm1**, or **Warm2**, the **Color Temp** function is disabled.

MENU → ▲ , ▼ → ENTER → ▲ , ▼ → ENTER → ▲ , ▼ → ENTER

Color Temp ASCH
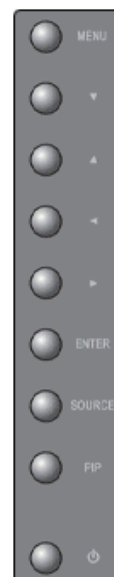
Color temp is a measure of the 'warmth' of the image colors.

![Note icon] **Note**

This function is only enabled if the **Color Tone** is set to **Off**.

MENU → ▲ , ▼ → ENTER → ▲ , ▼ → ENTER → ◄, ► → ENTER

Size A S C H

The **Size** can be switched.

1. **16:9**

2. **Zoom 1**

3. **Zoom 2**

4. **4:3**

![Note icon] **Note**

The **Zoom1**, **Zoom2** are not available in 1080i (or over 720p) of **Component** and **HDMI**.

MENU → ▲ , ▼ → ENTER → ▲ , ▼ → ENTER → ▲ , ▼ → ENTER

Dynamic Contrast ASCH

Dynamic Contrast is to automatically detect distribution of inputted visual signal and adjust to create optimum contrast.

1. **Off**

2. **On**

MENU → ▲ , ▼ → ENTER → ▲ , ▼ → ENTER → ▲ , ▼ → ENTER

Digital NR (Digital Noise Reduction) ASCH

Turns the Digital Noise Reduction feature **Off/On**. The Digital Noise Reduction feature allows you to enjoy clearer and crisper images.

1. **Off**

2. **On**

MENU → ▲ , ▼ → ENTER → ▲ , ▼ → ENTER → ▲ , ▼ → ENTER

Film Mode ASC

The **Film Mode** feature offers you a theater-quality viewing experience.

(Not available in **HDMI** Mode)

1. **Off**

2. **On**

MENU → ▲ , ▼ → ENTER → ▲ , ▼ → ENTER → ▲ , ▼ → ENTER

PIP Picture ASCH
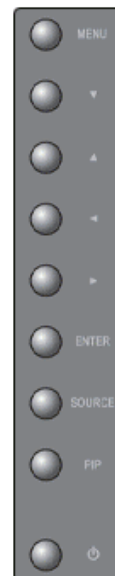
Adjusts the PIP Screen Settings.

📝 **Note**

Available Modes: **PIP ON**

1. **Contrast**

Adjusts the Contrast of the PIP window on the screen.

2. **Brightness**

Adjusts the Brightness of the PIP window on the screen.

MENU → ▲ , ▼ → ENTER → ▲ , ▼ → ENTER → ▲ , ▼ → ENTER → ◄, ► → ENTER

Sound

Available Modes

- P **PC / BNC / DVI**

- A **AV**

- S **S-Video**

- C **Component**

- H **HDMI**

- M **MagicInfo**

Note

- The MagicInfo menu is available in DRn models.

Mode P A S C H M

The LCD Display has a built-in high fidelity stereo amplifier.

1. **Standard**

Selects **Standard** for the standard factory settings.

2. **Music**

Selects **Music** when watching music videos or concerts.

3. **Movie**

   Selects **Movie** when viewing movies.

4. **Speech**

   Selects **Speech** when watching a show that is mostly dialogue (i.e., news).

5. **Custom**

   Selects **Custom** if you want to Adjusts the settings according to your personal prefer-
   ences.

MENU → ▲ , ▼ → ENTER → ENTER → ▲ , ▼ → ENTER

Custom PASCHM
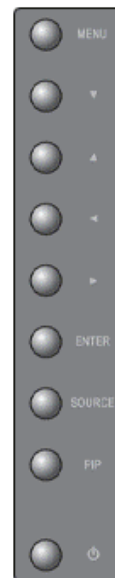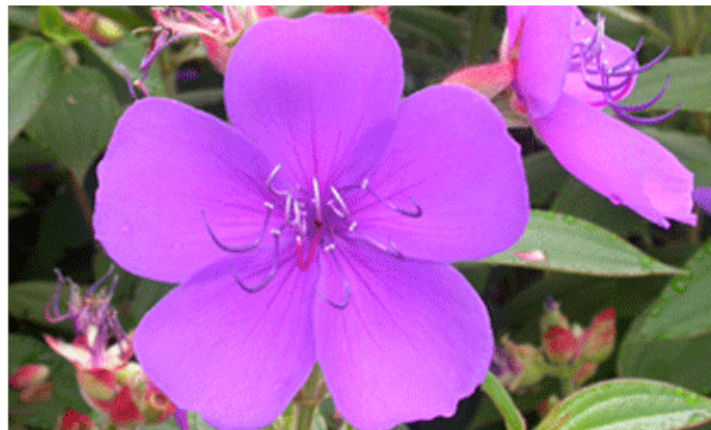
The sound settings can be adjusted to suit your your personal preferences.

1. **Bass**

   Emphasizes low frequency audio.

2. **Treble**

   Emphasizes high frequency audio.

3. **Balance**

   Allows you to Adjusts the sound balance between the left and right speakers.

Note

• You can hear the sound even when sound value is set to 0.

• If you adjust sound using **Custom** function, **Mode** will turn to **Custom** mode.

MENU → ▲ , ▼ → ENTER → ▲ , ▼ → ENTER → ▲ , ▼ → ENTER → ◄, ► → ENTER

Auto Volume P A S C H M

Reduces the difference in volume control between broadcasters.

1. **Off**

2. **On**

MENU → ▲ , ▼ → ENTER → ▲ , ▼ → ENTER → ▲ , ▼ → ENTER

SRS TS XT P A S C H M

SRS TS XT is a patented SRS technology that solves the problem of playing 5.1 multichannel content over two speakers. TruSurround delivers a compelling, virtual surround sound experience through any two-speaker playback system, including internal television speakers. It is fully compatible with all multichannel formats.

1. **Off**

2. **On**

Note

The direct button on the remote control is the 'SRS' button.

MENU → ▲ , ▼ → ENTER → ▲ , ▼ → ENTER → ▲ , ▼ → ENTER

Sound Select P A S C H M
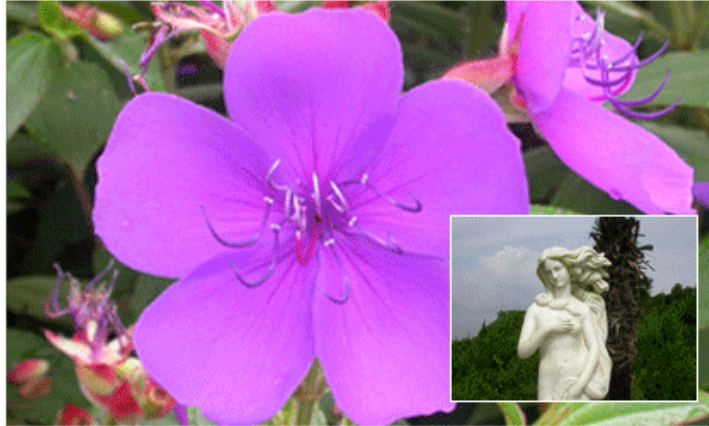
Selects either Main or Sub when **PIP** is **On**.

Note

Available Modes: **PIP ON**

1. **Main**

2. **Sub**

MENU → ▲ , ▼ → ENTER → ▲ , ▼ → ENTER → ▲ , ▼ → ENTER

Setup

Available Modes

- P **PC / BNC / DVI**

- A **AV**

- S **S-Video**

- C **Component**

- H **HDMI**

- M **MagicInfo**

Note

- The MagicInfo menu is available in DRn models.

Language PASCHM

You can choose one of 11 languages.

• Deutsch, English, Español, Français, Italiano, Português
Русский, Svenska, 中国语, 日本語, 한국어

Note

The language chosen affects only the language of the OSD. It has no effect on any software running on the computer.

MENU → ▲ , ▼ → ENTER → ENTER → ▲ , ▼ → ENTER

Time PASCHM

Selects from one of 4 time settings, **Clock Set**, **Sleep Timer**, **On Timer**, and **Off Timer**.

Note

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.**".

Clock Set

Current Time Setting.

MENU → ▲ , ▼ → ENTER→▲ , ▼→ENTER→ENTER→▲ , ▼ / ◄, ►→ENTER

Sleep Timer

Turns the LCD Display off automatically at certain times. (**Off**, **30**, **60**, **90**, **120**, **150**, **180**)

MENU → ▲ , ▼ → ENTER → ▲ , ▼ → ENTER → ▲ , ▼ → ENTER → ▲ , ▼ → ENTER

On Timer
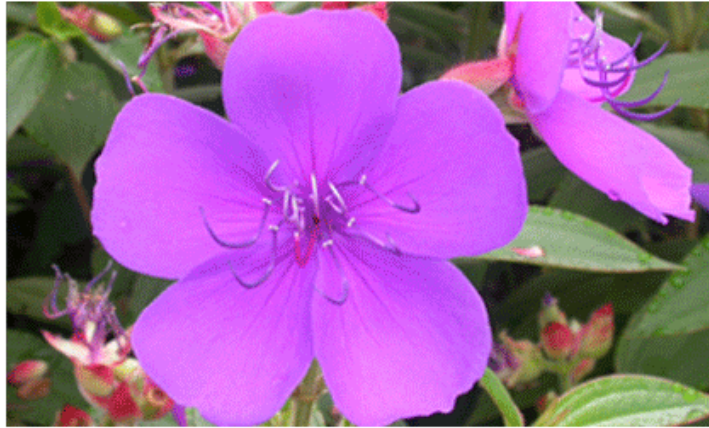
Turns the LCD Display on automatically at a preset time. Controls the mode and the volume level at the time the LCD Display turns on automatically.

MENU → ▲ , ▼ → ENTER → ▲ , ▼ → ENTER → ▲ , ▼ → ENTER → ◄ , ► → ▲ , ▼ → ENTER

Off Timer

Turns the LCD Display off automatically at a preset time.

MENU → ▲ , ▼ → ENTER → ▲ , ▼ → ENTER → ▲ , ▼ → ENTER → ◄ , ► → ▲ , ▼ → ENTER

Menu Transparency PASCHM

Change the transparency of the background of the OSD.

1. **High**

2. **Medium**

3. **Low**

4. **Opaque**

MENU → ▲ , ▼ → ENTER → ▲ , ▼ → ENTER → ▲ , ▼ → ENTER

Safety Lock PIN PASCHM
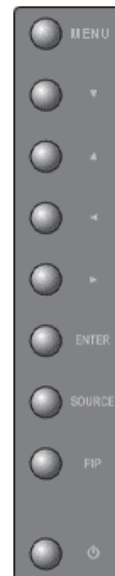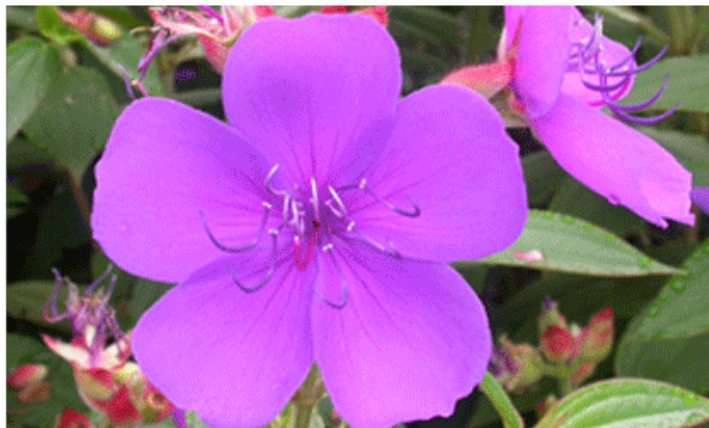
The password can be changed.

MENU → ▲ , ▼ → ENTER → ▲ , ▼ → ENTER → [0〜9] → [0〜9] → [0〜9]

Energy Saving P A S C H M

This feature adjusts the power consumption of the unit in order to save energy.

1. **Off**

2. **On**

Note

If you want to reduce the standby power consumption, set **Energy Saving** to **On**. However, when **Energy Saving** is **On**, you cannot use the remote Power On function of the MDC and the WOL (Wake On LAN) function of MagicInfo.

MENU → ▲ , ▼ → ENTER → ▲ , ▼ → ENTER → ▲ , ▼ → ENTER → MENU

HDMI Black Level H
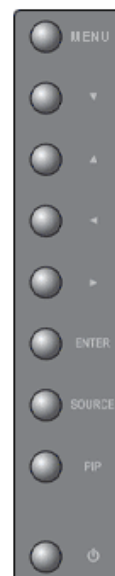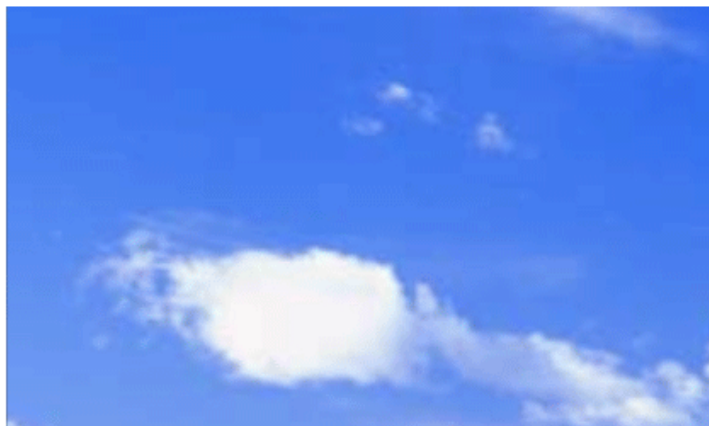
When a DVD or set-top box is connected to your TV via HDMI, it may cause a degradation in the screen quality, such as an increase in the black level, a low contrast, or discoloration,

etc., depending on the external device connected. In this case, adjust the screen quality of your TV by configuring the **HDMI black level**.

1. **Normal**

2. **Low**

MENU → ▲ , ▼ → ENTER → ▲ , ▼ →ENTER→ ▲ , ▼ → ENTER → MENU

Video Wall PASCHM

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

When the **Video Wall** is **on**, you can adjust the **Video Wall** screen setting.

Note

When **Video Wall** is running, the **PIP**, **Auto Adjustment**, **Image Lock**, and **Size** functions are not available. Launching **Video Wall** while **PIP** is running, will switch **PIP Off**. **Video Wall** does not operate in **MagicInfo** mode.

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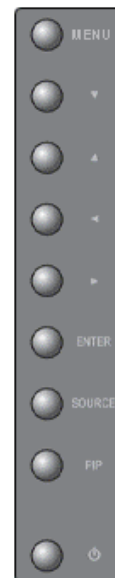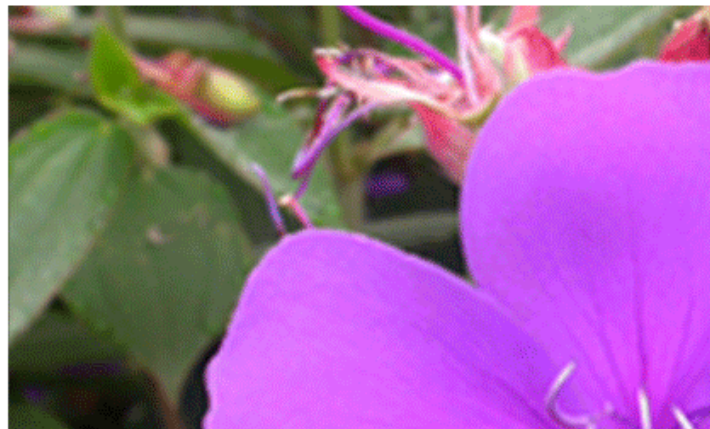
Turns Off/On the **Video Wall** function of the selected display Off/On.

1. **Off**

2. **On**

MENU → ▲ , ▼ → ENTER → ▲ , ▼ → ENTER → ENTER → ▲ , ▼ → ENTER

Format
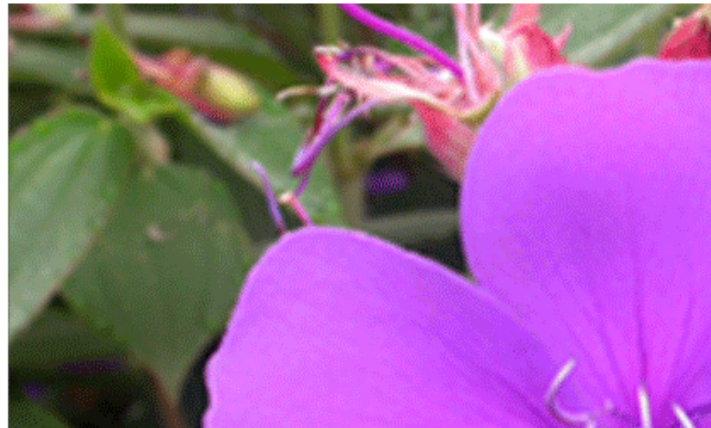
The **Format** can be selected to see a divided screen.

1. **Full**

    Provides a full screen without any margins.

2. **Natural**

    Displays a natural image with the original aspect ratio intact.

    MENU → ▲ , ▼ → ENTER → ▲ , ▼ → ENTER → ▲ , ▼ → ENTER → ▲ , ▼ → ENTER

Horizontal

Sets how many parts the screen should be divided horizontally.

Five adjustment levels: 1, 2, 3, 4, and 5.

MENU → ▲ , ▼ → ENTER → ▲ , ▼ → ENTER → ▲ , ▼ → ENTER → ▲ , ▼ → ENTER

Vertical

Sets how many parts the screen should be divided vertically.

Five adjustment levels: 1, 2, 3, 4, and 5.

MENU → ▲ , ▼ → ENTER → ▲ , ▼ → ENTER → ▲ , ▼ → ENTER → ▲ , ▼ → ENTER

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.

MENU → ▲ , ▼ → ENTER → ▲ , ▼ → ENTER → ▲ , ▼ → ENTER → ▲ , ▼ → ENTER

Safety Screen PASCHM

The **Safety Screen** function is used to prevent afterimages that may appear when a still picture is displayed on the screen over a long time.

- The **Safety Screen** function scrolls the screen for the specified period of time.

- This function is not available when the power is turned off.

Safety Screen

Determines whether to turn the **Safety Screen** function Off or On.

1. **Off**

2. **On**

MENU → ▲ , ▼ → ENTER → ▲ , ▼ → ENTER → ENTER → ▲ , ▼ → ENTER

Interval
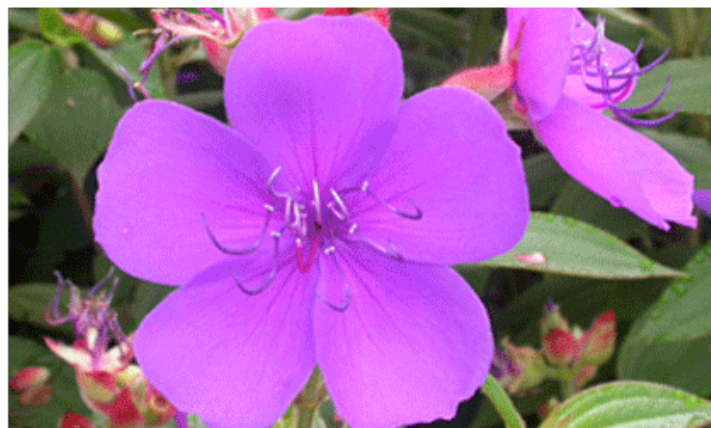
Determines the time interval to run the **Safety Screen** operation. (1~10 Hour)

The time is calculated on the basis of the power on time.

By default, the time is set to 10 hours.

1.   1~10 **Hour**

MENU → ▲ , ▼ → ENTER → ▲ , ▼ → ENTER → ▲ , ▼ → ENTER → ▲ , ▼ → ENTER

Second

Determines the time period to run the **Safety Screen** operation. (1~5 Second)

By default, the time is set to 5 seconds.

*   **Type**-**Scroll** : 1~5 **Second**

*   **Type**-**Pixel**, **Bar**, **Eraser** : 10~50 **Second**

MENU → ▲ , ▼ → ENTER → ▲ , ▼ → ENTER → ▲ , ▼ → ENTER → ▲ , ▼ → ENTER

Type

You can change the **Safety Screen** Type.

1. **Scroll**

2. **Pixel**

3. **Bar**

4. **Eraser**

MENU → ▲ , ▼ → ENTER → ▲ , ▼ → ENTER → ▲ , ▼ → ENTER → ▲ , ▼ → ENTER

Resolution Select PASCHM

When the picture is not displayed properly on the screen when setting the graphics card resolution of the computer to 1024 x 768 @ 60Hz, 1280 x 768 @ 60Hz, 1360 x 768@ 60Hz, 1366 x768 @ 60Hz or 2728 x768 @ 60Hz, by using this function(Resolution Select), you can have the picture displayed on the screen in the specified resolution.

 Note

Available in **PC**/**BNC** mode only

1. **Off**

2. **1024 X 768**

3. **1280 X 768**

4. **1360 x 768**

5. **1366 X 768**

6. **2728 X 768**

 Note

Selecting the menu is only allowed when the graphics resolution is set to 1024 x 768 @ 60Hz, 1280 x 768 @ 60Hz, 1360 x 768@ 60Hz, 1366 x 768 @ 60Hz or 2728 x 768 @ 60Hz.

MENU → ▲ , ▼ → ENTER → ▲ , ▼ → ENTER → ▲ , ▼ → ENTER

Lamp Control PASCHM

Adjusts the inverter lamp in order to reduce energy consumption.

📖 **Note**

This function does not operate when **Dynamic Contrast** is set to **On** in **AV**, **S-Video**, **Component**, **HDMI** modes.

MENU → ▲ , ▼ → ENTER → ▲ , ▼ → ENTER → ENTER → ◄, ► → ENTER

Power On Adjustment PASCHM
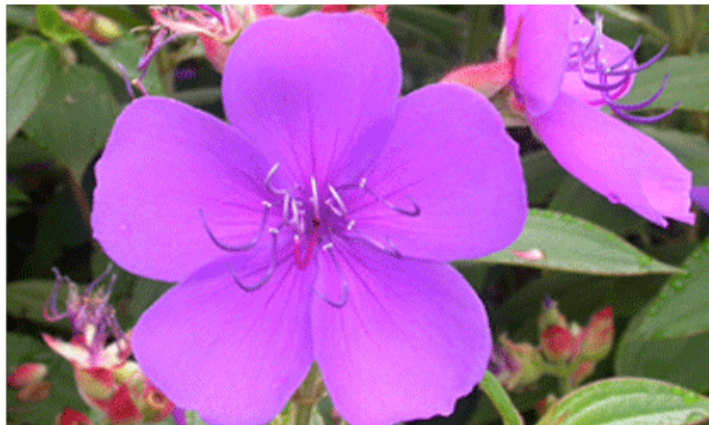
Adjusts the Power On time for the screen.

⚠️

Caution: Set the Power On time to be longer to avoid overvoltage.

MENU → ▲ , ▼ → ENTER → ▲ , ▼ → ENTER → ENTER → ▲ , ▼ → ENTER

Reset

Reverts the product settings to factory defaults. **DVI** source, the Reset function is only available when **PC** / **DVI** is being used.

![Note icon]**Note**

The Reset function is not available when **Video Wall** is **On**.

Image Reset ![P]

![Note icon]**Note**

Available in **PC**/**BNC** mode only

MENU → ▲ , ▼ → ENTER → ▲ , ▼ → ENTER → ENTER → ◄, ►→ ENTER

Color Reset ![P][M]
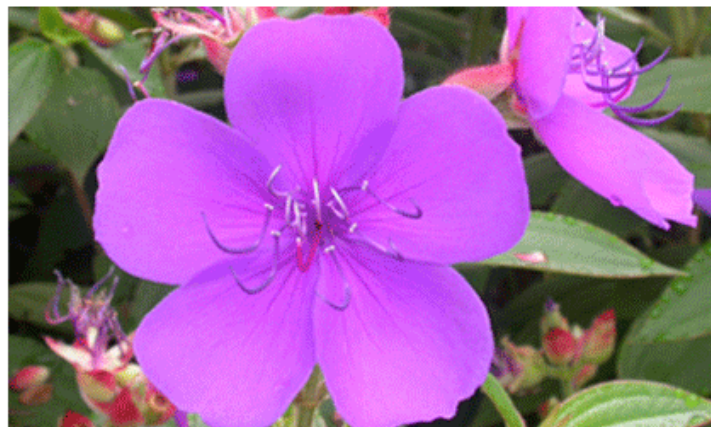
MENU → ▲ , ▼ → ENTER → ▲ , ▼ → ENTER → ▲ , ▼ → ENTER → ◄, ►→ ENTER

Multi Control

Available Modes

- **P** **PC / BNC / DVI**

- **A** **AV**

- **S** **S-Video**

- **C** **Component**

- **H** **HDMI**

- **M** **MagicInfo**

Note

- The MagicInfo menu is available in DRn models.

Multi Control

Assigns an individual ID to the SET.

ID Setup

Assigns distinctive IDs to the SET.

MENU → ▲ , ▼ → ENTER → ENTER → [0~9]

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.

MENU → ▲ , ▼ → ENTER → ▲ , ▼ → ENTER → [0~9]

MagicInfo

Available Modes

- **P** **PC / BNC / DVI**

- **A** **AV**

- **S** **S-Video**

- **C** **Component**

- **H** **HDMI**

- **M** **MagicInfo**

Note

- The MagicInfo menu is available in DRn models.

Note

- The operating system for this set only supports English so the other languages might be corrupted on the screen.

- For **MagicInfo**, a remote control is available for **MagicInfo**. However, it is recommended using a separate USB keyboard.

- For **MagicInfo** in Device mode, moving external devices while booting may cause errors. Set up external devices only if the LCD Display turns on.

- Do not unplug the LAN cable used for the network (ex: video display). Otherwise, the program (MagicInfo) may stop. If you do unplug the cable, restart the system.

- Do not unplug the LAN cable used by an USB device (ex: video display). Otherwise, the program (MagicInfo) may stop.

- To access other sources, press the SOURCE button in **MagicInfo**.

- The preset password for the LCD Display is "000000".

- The server program's Power-On option works only if the LCD Display's power is completely shut off.

  Please make sure not to use the Power-On option when the LCD Display is in the process of shutting down since this may cause system errors on the LCD Display.

- In the OSD image of **MagicInfo**, Network mode is the same as Device.

- When using **MagicInfo** with the MagicInfo Pro Server Program: perform Network mode.

- When using **MagicInfo** with the device directly connected to LCD Display : execute Device mode.

- Press ALT + F12 to directly go to the **MagicInfo** Window screen.

- To setup **MagicInfo** on a Windows screen, a keyboard and mouse are required.

- To setup **MagicInfo** on a Windows screen, refer to the MagicInfo Server Help.

  It is highly recommended not to turn off the AC power during an operation.

- For pivoted LCD Displays, ticker transparency is not supported.

- For pivoted LCD Displays, a screen resolution of up to 720*480(SD) is supported for movies.

- For drive D:, **EWF** is not applied.

- When the contents of Setup have been changed when **EWF** is in the **Enable** state, to save the changes in the disk, you must **Commit** them.

- By selecting **Disable**, **Enable** or **Commit**, the system is restarted.

MagicInfo
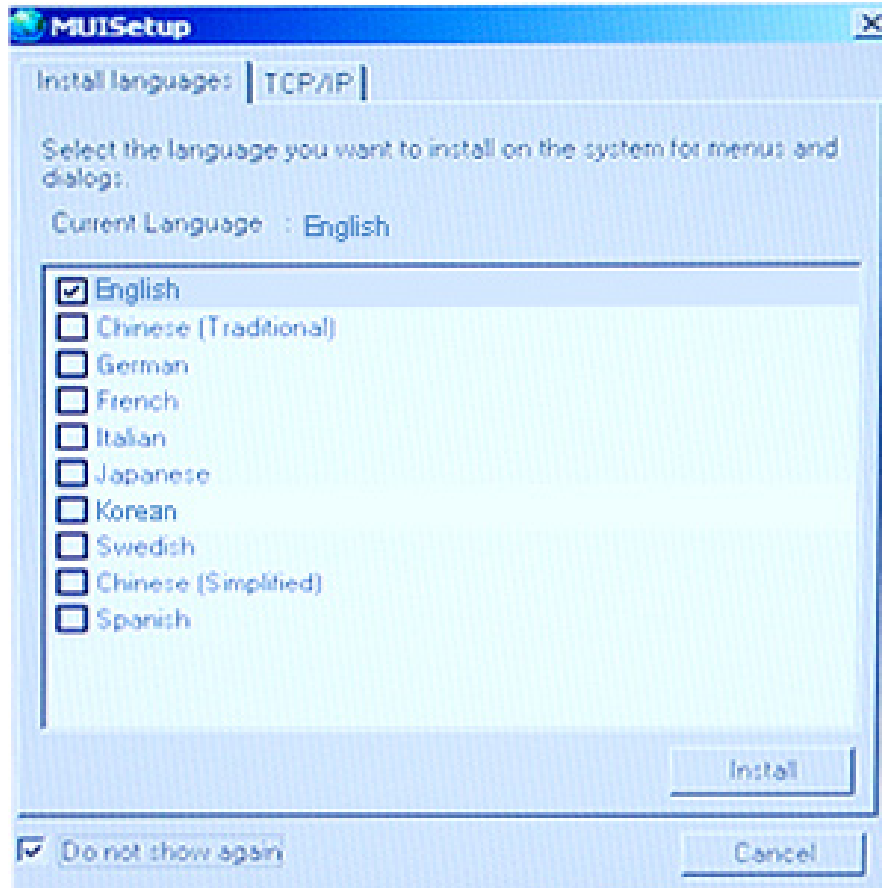
1. Select **MagicInfo** in the **Source List** menu.

2. The MUISetup screen appears. Select the language you want to use.

3. Press the Install button.

If you select Do not show again and click the Install button, the Scheduler screen is displayed after rebooting.

4. Connect your keyboard and mouse and press the "ALT + F12" keys on your keyboard.

5. The Windows Desktop is displayed and the MagicInfo Pro icon (the image will be inserted) appears. Move the cursor over the icon.

![Note icon] **Note**

If the **MagicInfo** icon is not displayed on the notification area, double click the **MagicInfo** icon on the window desktop. The icon will appear.
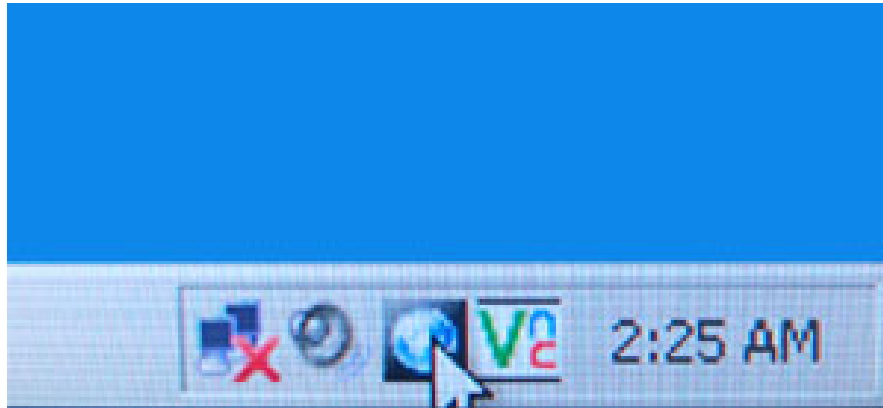
6. Right-click on the MagicInfo Pro icon (the image will be inserted) and select 'Program' --> 'Player' from the displayed menu.
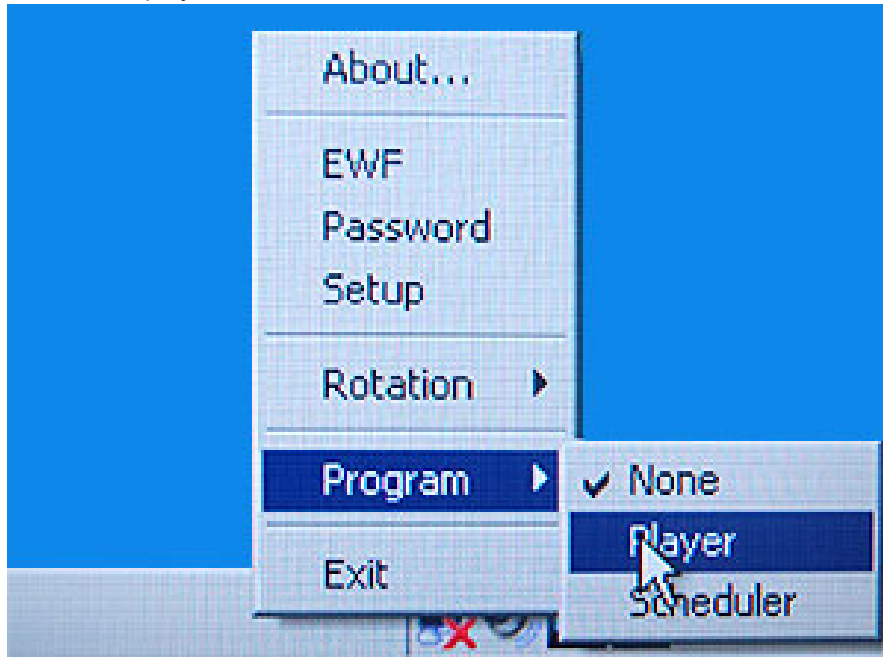
7. The Player screen of MagicInfo Pro is displayed.
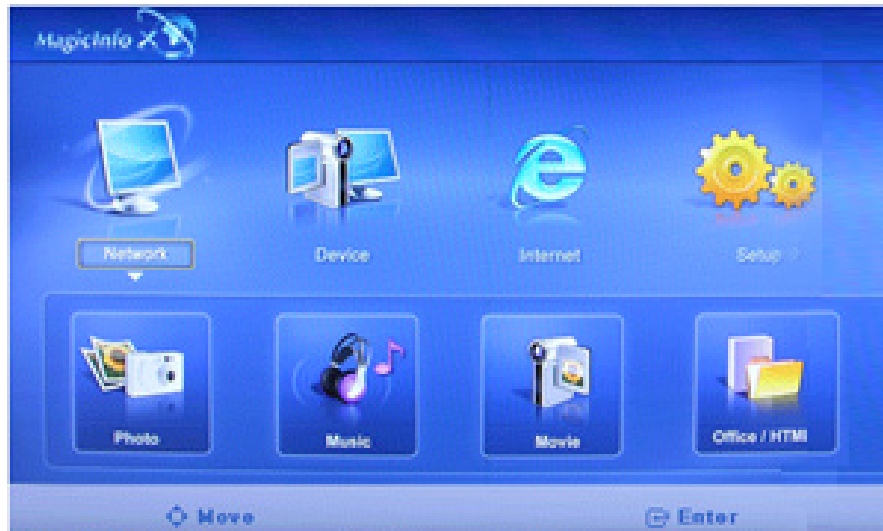
Note

To finish the MagicInfo, press ALT + F12.

Photo M

The JPEG, BMP file format are supported.

Auto
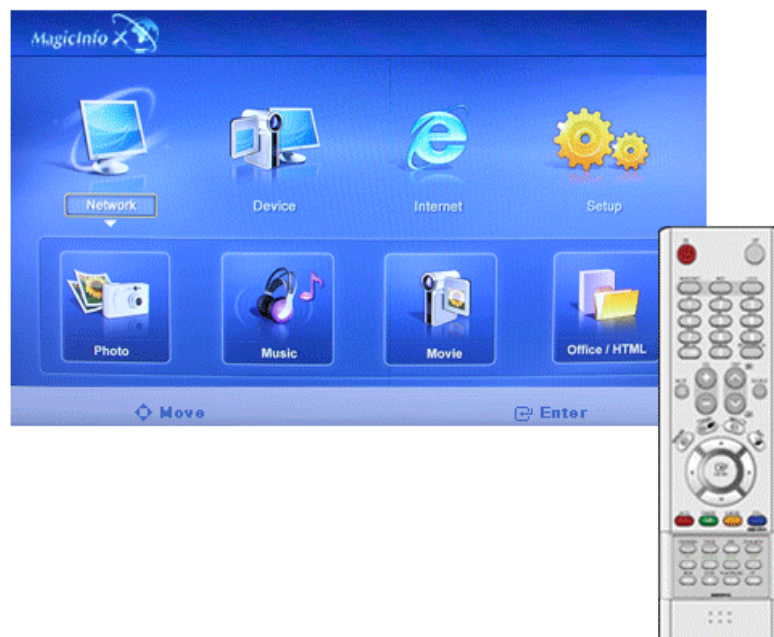
Automatically fits the image to the window.

Original

Shows the properties of the original file.

Slide Show
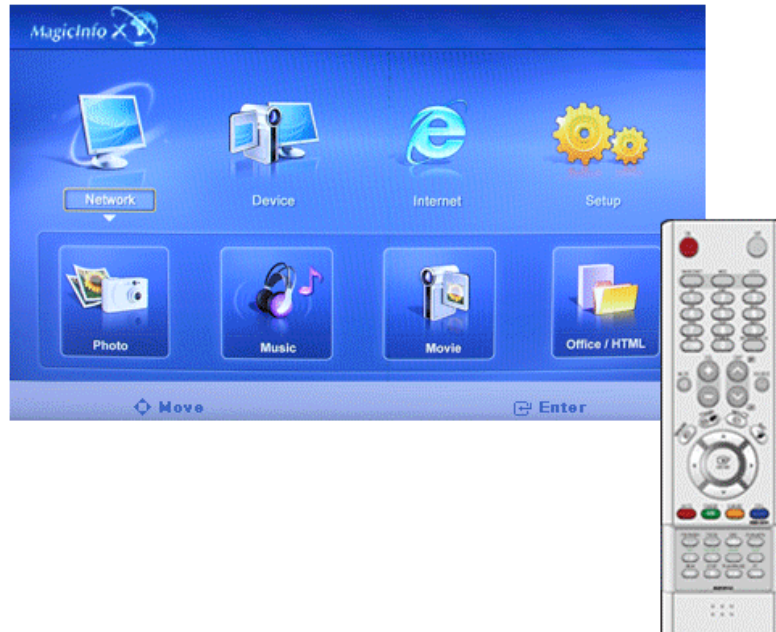
Displays the properties of the original file as they are.

Interval
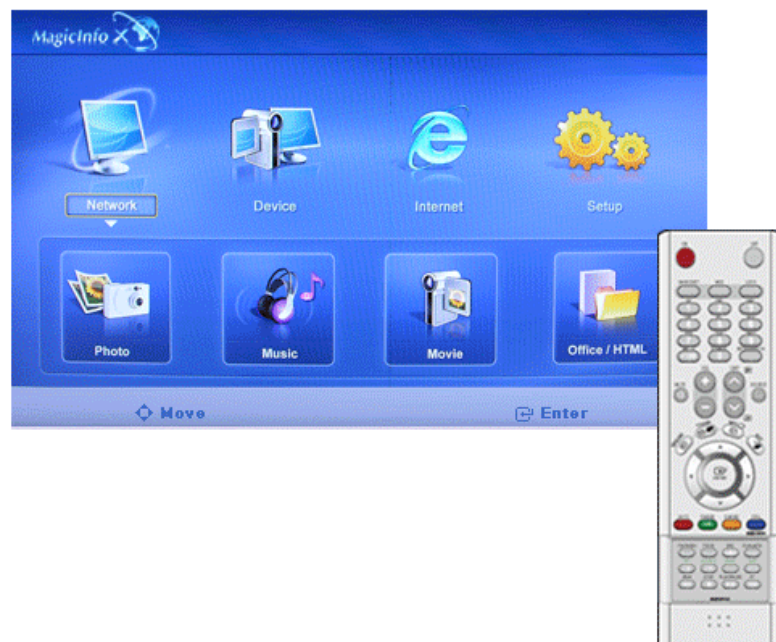
Controls the time intervals between image files for a slide show. (5 **Sec**, 10 **Sec**, 20 **Sec**, 30 **Sec**, 60 **Sec**)

Rotation
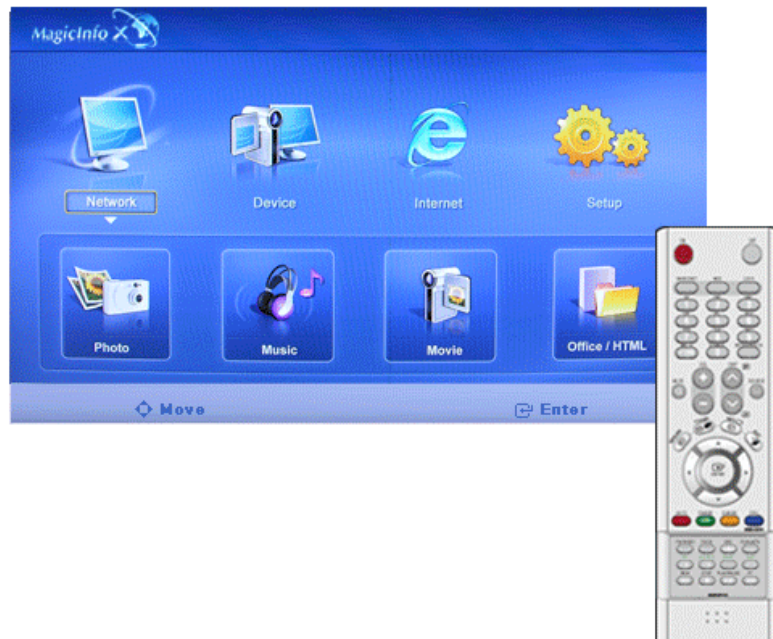
Displays an image file by turning it clockwise by 90 degrees.

Zoom
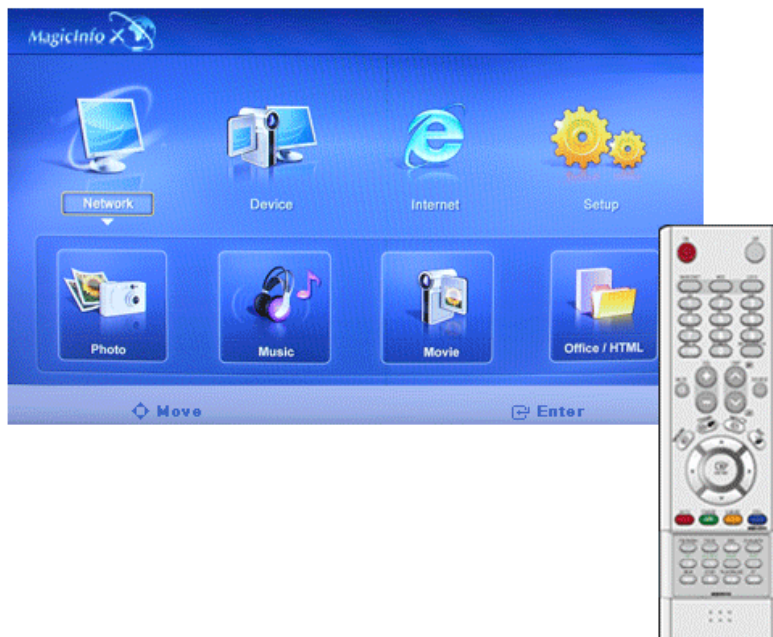
Displays a reduced picture.

Close
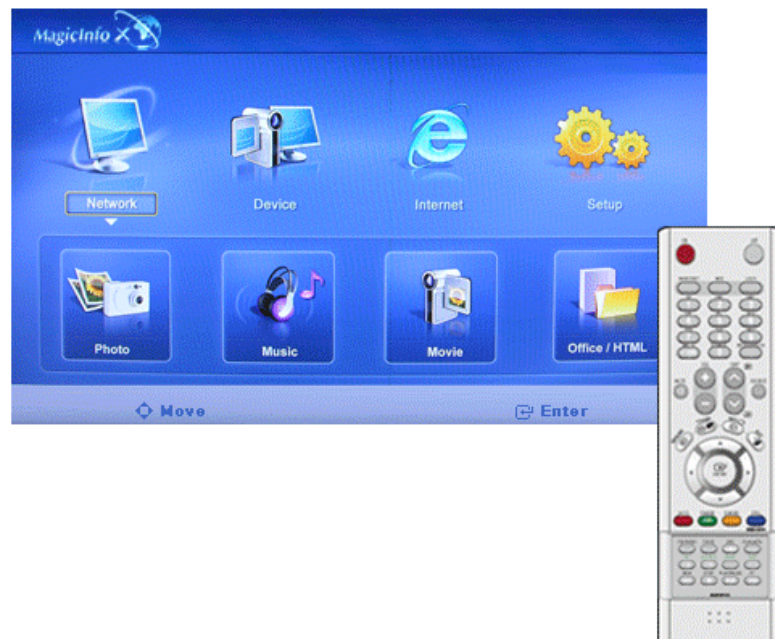
Closes the image control Menu.

Music M
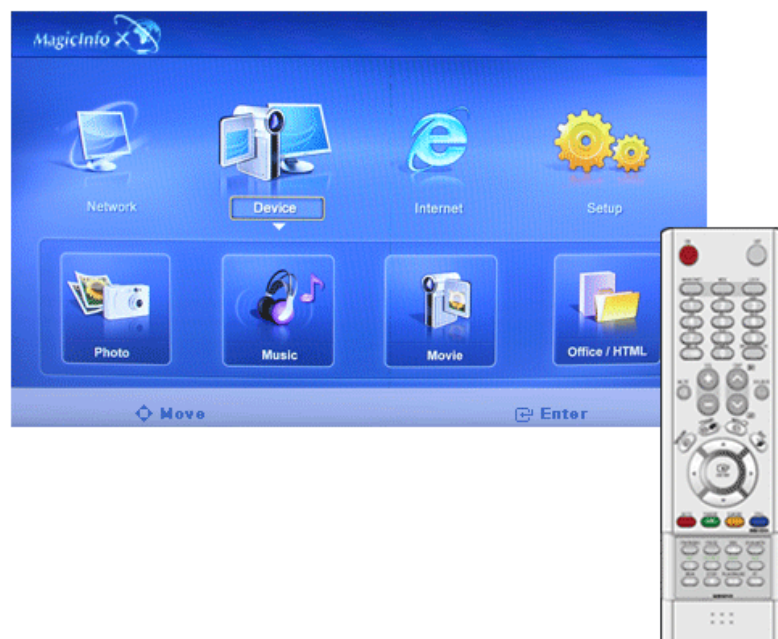
The MP3 file format is supported.

Movie M

The MPEG1, WMV file format are supported.

Play
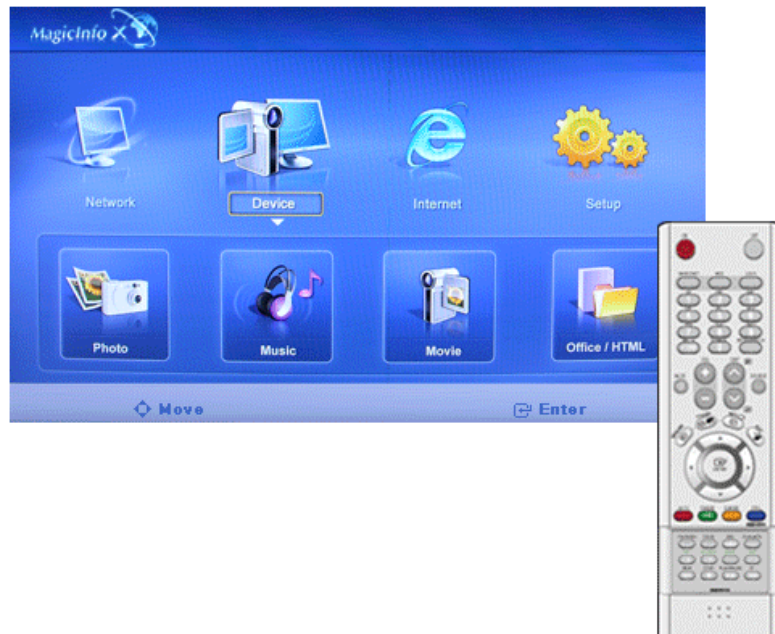
Plays a movie file.

Full Size
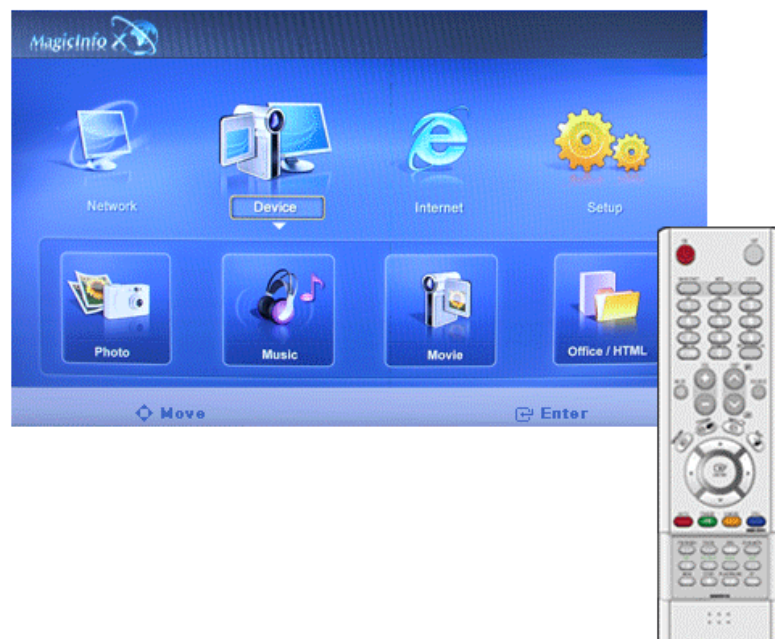
Plays a movie file in full screen.

OFFICE / HTML
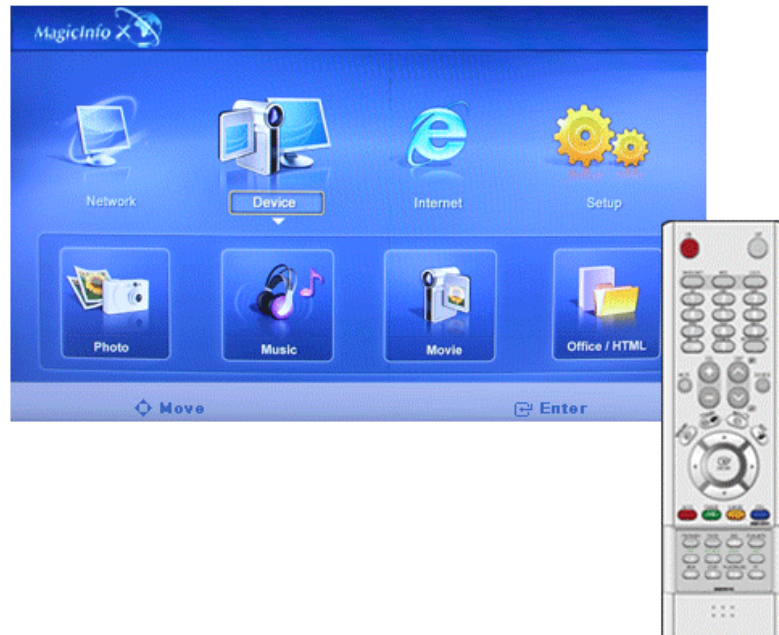
PPT(Power Point), DOC(MS Word), XLS(MS Excel), PDF, HTML, HTM files are displayed.

Note

- Install the proper viewer(freeware) program to see the MS Office(Word, Excel, Power Point) or PDF doucuments.
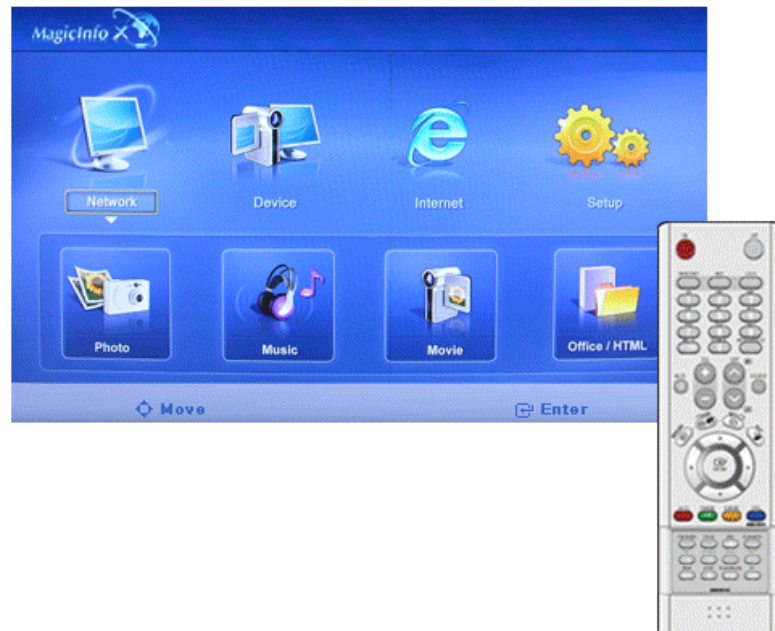
Internet

Connects to the Internet

Setup

Sets various functions in **MagicInfo** mode. A password must be entered to access **Setup** mode.

Schedule View
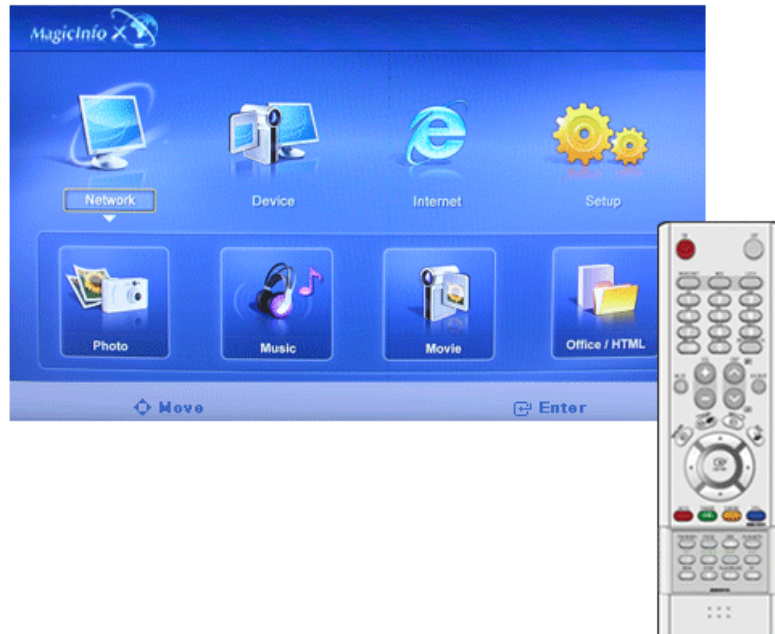
Displays a schedule.

TCP/IP
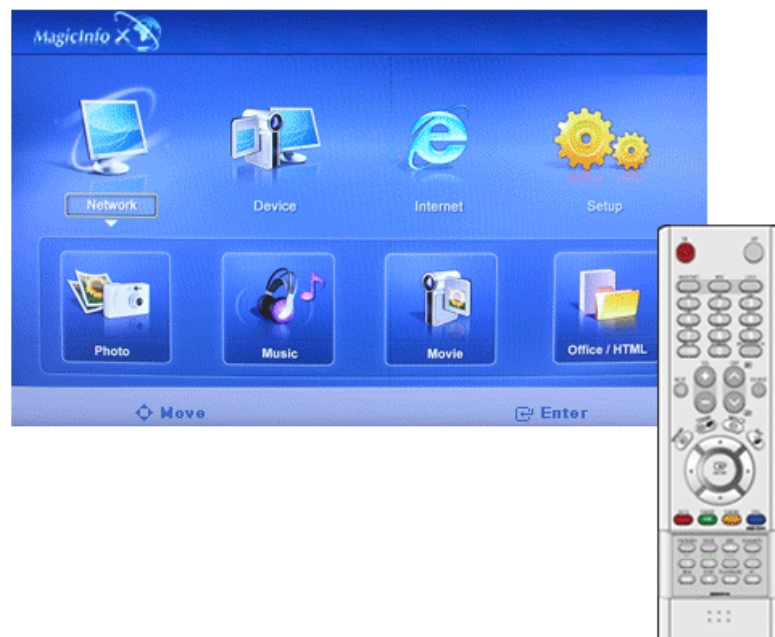
Changes the TCP/IP settings.

Connection
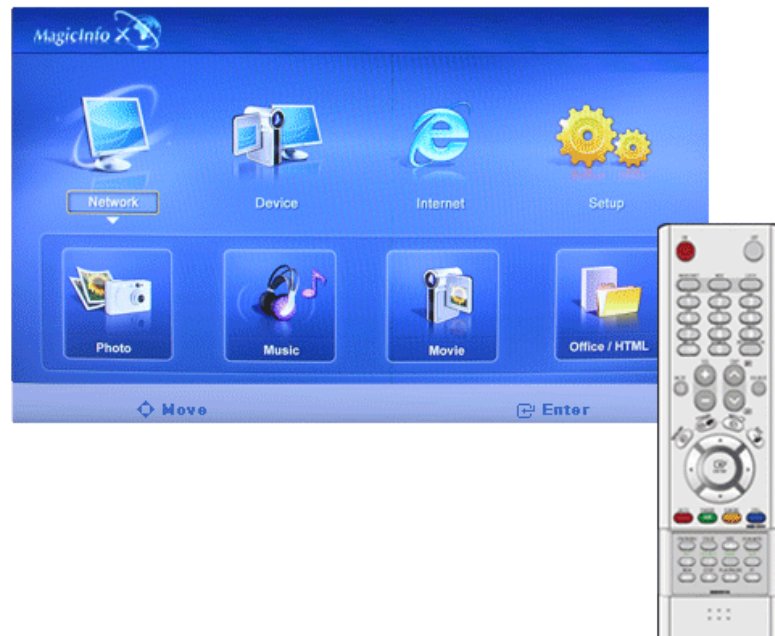
Modifies the network settings.

Password
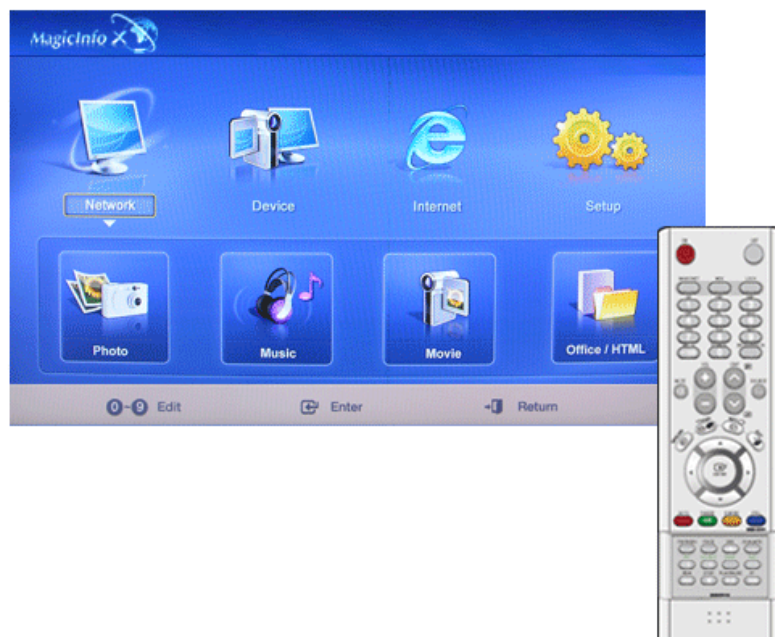
The password can be changed.

- The password should be between 6 and 12 characters in numeric format.

  (You should enter a password between 6 and 12 characters in numeric format)

- If you enter the wrong password three times, the setup configuration is reset and a warning message appears from the server.

- If you forget the password, enter Info, 8, 2 and 4 on the remote control to initialize the password. This will reset the previous settings of Setup mode.

File
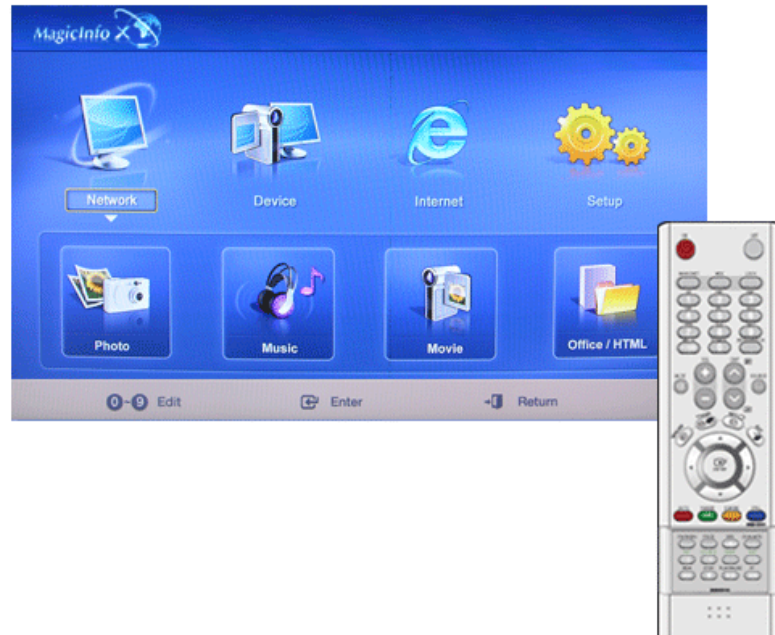
Local : You can delete or copy files on both local and removable disks.

Play Option
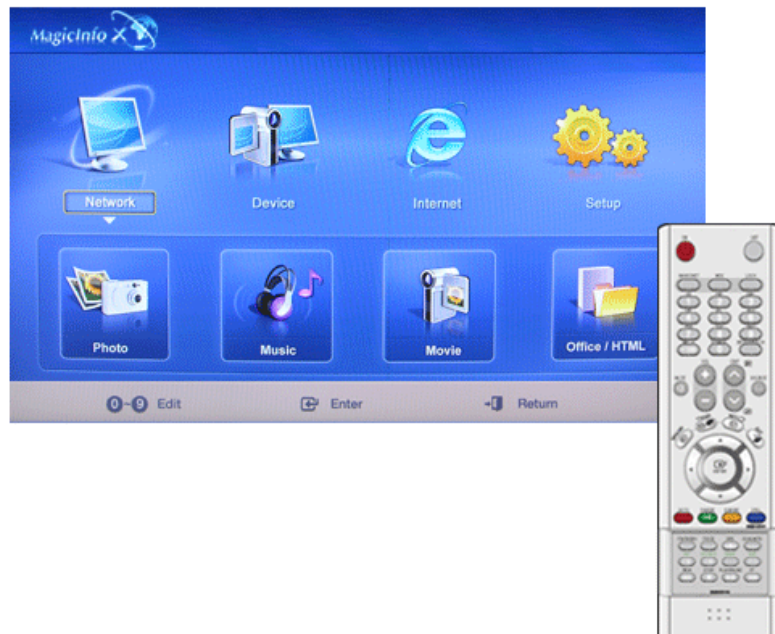
You can set the repeat play and screen settings.

Repeat : Determines the repeat option for playing movies and music.

- **None** - Select No Repeat to play a movie or tune in the list only once.

- **File Repeat** - Select Repeat File to play a movie or tune in the list repeatedly.

- **List Repeat** - Select Repeat List to play movies or tunes in the list in sequence repeatedly.

Rotation - Sets the picture orientation.

- **Landscape** - Sets the screen resolution to 1366x768 pixels.

- **Portrait** - Sets the screen resolution to 1366x768 pixels.

EWF(Enhanced Write Filter) : Prevents change to and loss of the data saved on the disk.

- **Disable** - Disables **EWF** to allow saved data to be changed data on the protected disk (drive C:). When switching from the **Enable** to the **Disable** state, you can select **Commit**.

- **Enable** - Enables **EWF** to prevent saved data to be changed on the protected disk (drive C:).

- **Commit** - **Commit** the changed data to the protected disk (drive C:) when **EWF** is in the **Enable** state. **Commit** is not available when **EWF** is in the **Disable** state.

Troubleshooting

Self-Test Feature Check

Note

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

1. Turn off both your computer and the LCD Display.

2. Unplug the video cable from the back of the computer.

3. Turn on the LCD Display.

   The figure shown below ("**Check Signal Cable**") appears on a black background when the LCD Display 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 LCD Display and reconnect the video cable; then turn on both your computer and the LCD Display

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

Warning Messages

You can even view the screen at a resolution of 1360 x 768. 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 LCD Display does not support over 85Hz.

Note
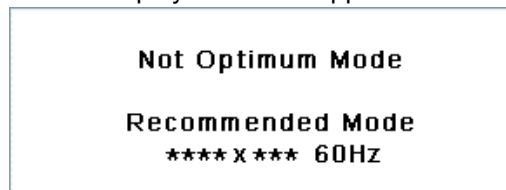
Refer to Specifications > Preset Timing Modes for the resolutions or frequencies supported by the LCD Display.

Maintenance and Cleaning

1) Maintaining the LCD Display 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 that 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 repairing damages caused.

Symptoms and Recommended Actions

Note

A LCD Display recreates visual signals received from the computer. Therefore, if there is a problem with the computer or the video card, this can cause the LCD Display to become blank, have poor coloring, become noisy, and video mode not supported, etc. In this case, first check the source of the problem, and then contact a Service Center or your dealer.

1. Check if the power cord and the video cables are properly connected to the computer.

2. Check if the computer beeps more than 3 times when booting.

   (If it does, request an a service for the main board of the computer.)

3. If you installed a new video card or if you assembled the PC, check if you installed the Adaptor(video).

4. Check if the scanning ratio of the video screen is set to between 50 Hz ~ 85 Hz.

   (Do not exceed 60Hz when using the maximum resolution.)

5. If you have problems in installing the Adaptor (video) driver, boot the computer in Safe Mode, remove the Display Adaptor in the "Control Panel -> System -> Device Administrator" and then reboot the computer to reinstall the Adaptor (video) driver.

Check List

Note

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

- For more network-related information, refer to the MagicInfo Troubleshooting section.

Problems related to the Installation (PC Mode)

Note

Problems related to the LCD Display installation and their solutions are listed.

Q: The LCD Display screen flickers.

A: Check if the signal cable between the computer and the LCD Display is securely connected.

(Refer to Connecting a Computer)

Problems related to the Screen

 Note

Problems related to the LCD Display screen and their solutions are listed.

Q: The screen is blank and the power indicator is off.

A: Ensure that the power cord is firmly connected and the LCD Display is on.

(Refer to the Connecting a Computer)

Q: "**Check Signal Cable**" message.

A: Ensure that the signal cable is firmly connected to the PC or video sources.

(Refer to the Connecting a Computer)

A: Ensure that the PC or video sources are turned on.

Q: "**Not Optimum Mode**" message.

A: Check the maximum resolution and the frequency of the video adaptor.

A: Compare these values with the data in the Preset Timing Modes Chart.

Q: The picture rolls vertically.

A: Check if the signal cable is securely connected. Re-connect it, if necessary.

(Refer to Connecting a Computer)

Q: The image is not clear; picture is blurred.

A: Run Frequency **Coarse** and **Fine** tuning.

A: Turn on again after removing all accessories (video extension cable, etc.)

A: Set the resolution and frequency to the recommended ranges.

Q: The picture image is unstable and shakes.

A: Check if the resolution and frequency set for the computer video card falls in the range supported by the LCD Display. If not, reset them referring to the current Information under the LCD Display menu and Preset Timing Modes.

Q: Ghost images are shown in the picture.

A: Check if the resolution and frequency set for the computer video card falls in the range supported by the LCD Display. If not, reset them referring to the current Information under the LCD Display menu and Preset Timing Modes.

Q: The image is too light or too dark.

A: Adjusts the **brightness** and **contrast**.

(Refer to the **Brightness**, **Contrast**)

Q: The screen color is inconsistent.

A: Adjust color using **Custom** under OSD Color Adjustment menu.

Q: The color image is distorted by dark shadows.

A: Adjust color using **Custom** under OSD Color Adjustment menu.

Q: The color white is poor.

A: Adjust color using **Custom** under OSD Color Adjustment menu.

Q: The power Indicator blinks green.

A: The LCD Display is currently saving the changes made to the settings to the OSD memory.

Q: The screen is blank and the power indicator light is steady green or blinks every 0.5 or 1 seconds.

A: The LCD Display is using its power management system.

A: Press a key on the keyboard.

Q: The screen is blank and it is blinking.

A: If you see the "**TEST GOOD**" message on the screen when you pressing the MENU button, check the cable connection between the LCD Display and the computer to ensure that the connector is properly connected.

Problems related to Audio

Note

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

Q: No sound.

A: Ensure that the audio cable is firmly connected to both the audio-in port on your LCD Display and the audio-out port on your sound card.

(Refer to the Connecting a Computer)

A: Check the volume level.

Q: The sound level is too low.

A: Check the volume level.

A: 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.

Q: The sound is too high or too low.

A: Adjusts the **Treble** and **Bass** to the appropriate levels.

Problems related to the Remote Control

Note

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

Q: The remote control buttons do not respond.

A: Check the polarities (+/-) of the batteries.

A: Check if the batteries are empty.

A: Check if the power is on.

A: Check if the power cord is securely connected.

A: Check if a special fluorescent or neon lamp is on in the vicinity.

Problems related to MagicInfo

 Note

Making a Bootable USB Flash Disk.

Q: Making a Bootable USB Flash Disk

A: 1) You can turn a common 512-MB or bigger USB storage media into a bootable disk using a USB bootable disk creation tool. (For example, the HP USB Disk Storage Format Tool)

A: 2) Copies the OS ghost image and executables to your USB disk.

A: 3) Enter the BIOS menu of your set by pressing the F2 key in the BIOS logo screen. Then, enable the USB Boot First option by selecting that option and pressing the Enter key in the Boot menu.

A: 4) Switch your set on while your USB disk is connected and boot up in DOS mode.

A: 5) Run C:\ghost.exe and choose Local → Partition → From Image from the menu. Choose the ghost image to update your USB disk with and choose the target disk.

A: 6) When the ghost image update finishes, the set will be rebooted automatically.

Q & A

Q: How can I change the frequency?

A: The frequency can be changed by reconfiguring the video card.

 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.)

Q: How can I Adjusts the resolution?

A: Windows XP:

Set the resolution in the Control Panel → Appearance and Themes → Display → Settings.

A: Windows ME/2000:

Set the resolution in the Control Panel → Display → Settings.

* Contact the video card manufacturer for details.

Q: How can I set the Power Saving function?

A: Windows XP:

Set the resolution in the Control Panel → Appearance and Themes → Display → Screen Saver.

Set the function in the BIOS-SETUP of the computer. (Refer to the Windows / Computer Manual).

A: 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 the Windows / Computer Manual).

Q: How can I clean the outer case/LCD Panel?

A: Disconnect the power cord and then clean the LCD Display with a soft cloth, using either a cleaning solution or plain water.

Do not leave any detergent or scratches on the case. Do not let any water enter the LCD Display.

Q: How can I play the video?

A: The video supports the MPEG1 and WMV codecs only. Install the corresponding codec to play the video. Note that some of the codecs can be incompatible.

Note

Before calling for assistance, 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 Information section or contact your dealer.

Specifications

General

General

Model Name	SyncMaster 460DRn	SyncMaster 460DR

LCD Panel

Size	46 " Diagonal (116 cm)
Display area	1018.35 mm (H) x 572.54 mm (V)
Pixel Pitch	0.7455 mm (H) x 0.7455 mm (V)

Synchronization

Horizontal	30 ~ 81 kHz
Vertical	56 ~ 85 Hz

Display Color

16.7 M

Resolution

Optimum resolution	1360 x 768 @ 60 Hz / 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 ±5 %

Separate H/V sync, Composite, SOG

TTL level (V high ≥ 2.0 V, V low ≤ 0.8 V)

Maximum Pixel Clock

145MHz (Analog,Digital)

Power Supply

AC 100 - 240 V~ (+/- 10 %), 50/60 Hz ± 3 Hz

Signal Cable

15pin-to-15pin D-sub cable, Detachable

DVI-D to DVI-D connector, Detachable

Dimensions (W x H x D) / Weight

Dimensions (W x H x D)	1047.4 x 116.7 x 650.6 mm / 41.2 x 4.6 x 25.6 inch (Without Stand)	
Weight	26.2 kg / 57.8 lbs(Without Stand)	24.7 kg / 54.5 lbs(Without Stand)

Environmental considerations

Operating	Temperature : 50°F ~ 95°F (10°C ~ 35°C)
	Humidity : 10 % ~ 80 %, non-condensing
The surface tempera- ture of Panel	Temperature : 122°F (50°C)
Storage	Temperature : -4°F ~ 113°F (-20°C ~ 45°C)
	Humidity : 5 % ~ 95 %, non-condensing

Plug and Play Capability

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

Dot Acceptable

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.

Note

Design and specifications are subject to change without prior notice.

Class A Equipment

MagicInfo - Client

Note

• The MagicInfo is available DRn.

Item		Specification	Remarks
LAN		1 Gbps	
USB		Keyboard/Mouse, Mass Storage Device Compatible	USB removable storage can be supported.
Contents	Photo	Supported File Format : BMP/JPEG	2274x1704 or less
	Music	Supported File Format : MP3	Sound bandwidth : 50 Hz to 15 kHz
	Movie	- MPEG1, WMV - Max 1280 x 720 30 fps	
	File	MS Office(Word, Excel, Power Point), HTML, PDF	- Some files may not be supported depending on the format or the version.

Item	Specification	Remarks
		- Install the proper viewing (freeware) program to see MS Office (Word, Excel, Power Point) or PDF documents.
Internet Browser	MS Internet Explorer	Not Support Flash, Java Applet, Security Site
Language	English	
OS	Windows XP Embedded	

MagicInfo Pro - Server Requirement

 Note

• The MagicInfo is available DRn.

	CPU	RAM	Ethernet	OS	Application
Minimum	P1.8 Ghz	256 M	100 M / 1 G	Windows XP	WMP 9 or later
Recommended	P3.0 Ghz	512 M	100 M / 1 G	Windows XP	WMP 9 or later

PowerSaver

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

PowerSaver (When used as a Network monitor)

State	Normal Operation	Power saving mode	Power off (Switch)
Power Indicator	Green	Green, Blinking	Off
Power Consumption	Less than400 W	Less than1 W	0 W

PowerSaver (When used as a normal monitor)

State	Normal Operation	Power saving mode	Power off (Switch)
Power Indicator	Green	Green, Blinking	Off
Power Consumption	Less than340 W	Less than1 W	0 W

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 adjusts the screen as follows.

Display Mode	Horizontal Frequency (kHz)	Vertical Frequency (Hz)	Pixel Clock (MHz)	Sync Polarity (H/V)
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	-/+
MAC, 640 x 480	35.000	66.667	30.240	-/-
MAC, 832 x 624	49.726	74.551	57.284	-/-
MAC, 1152 x 870	68.681	75.062	100.000	-/-
VESA, 640 x 480	37.861	72.809	31.500	-/-
VESA, 640 x 480	37.500	75.000	31.500	-/-
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, 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, 1152 x 864	67.500	75.000	108.000	+/+
VESA, 1280 X 960	60.000	60.000	108.000	+/+
VESA, 1280 X 1024	63.981	60.020	108.000	+/+
VESA, 1280 X 1024	79.976	75.025	135.000	+/+
VESA, 1360 x 768	47.712	60.015	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

Information

For Better Display

Adjust the computer resolution and screen injection rate (refresh rate) on the computer as described below to enjoy the best picture quality. You can have an uneven picture quality on screen if the best picture quality is not provided for TFT-LCD.

- Resolution: 1360 x 768

- Vertical frequency (refresh rate): 60 Hz

TFT-LCD panels manufactured by using advanced semiconductor technology with a precision of 1ppm (one millionth) and 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 any problems.

- For example, the number of TFT-LCD sub pixels contained in this product are 3,133,440.

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.

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.

When viewing a fixed screen for an extended period of time, a residual image or blurriness may appear. Change the mode to energy save or set a screensaver to move the picture when you need to be away from the monitor for an extended period of time.

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.
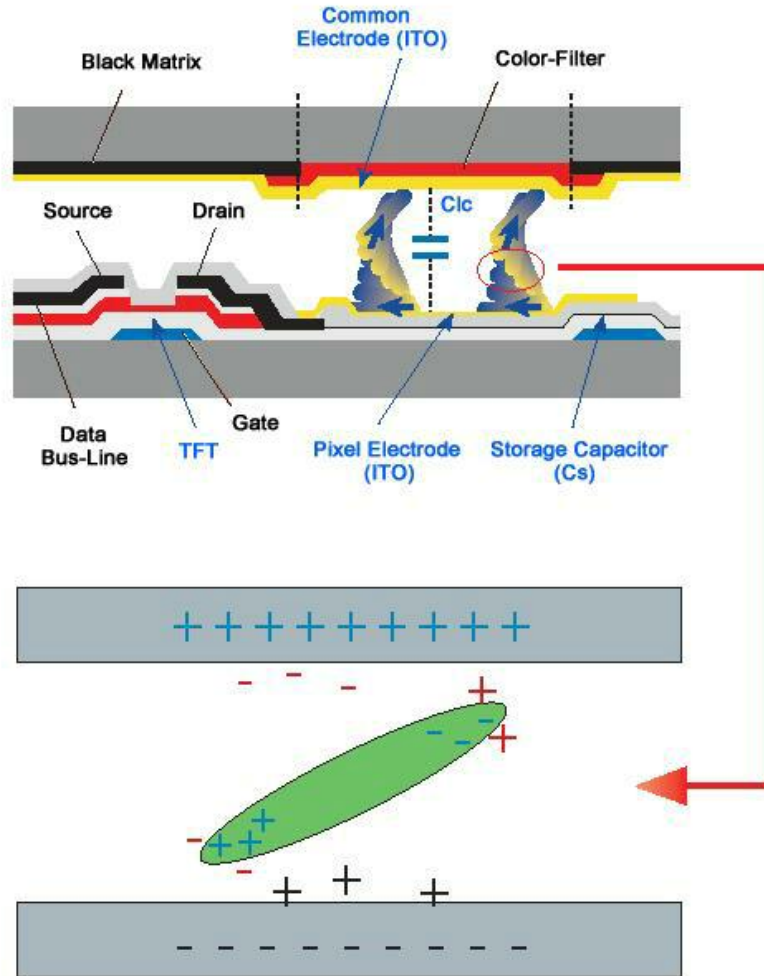
🔵 *Power Off, Screen Saver, or Power Save Mode*

- 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*
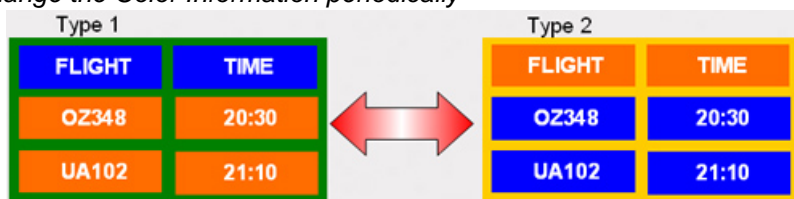
📝 **Note**

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)

Note

(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
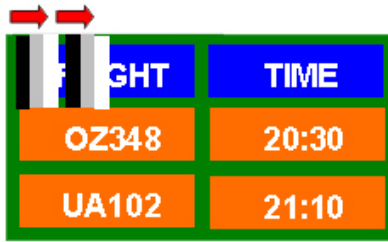
• Instruction Guide : OSD Menu -> Set Up -> Safety Screen -> Bar

• Time Interval : 1 ~ 10 hours (Recommend : 1)

• Time Period : 10 ~ 50 second (Recommend : 50)

Note

(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)

Note

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

Appendix

Contact SAMSUNG WORLDWIDE

✐ **Note**

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(726-7864)	http://www.samsung.com/us
CANADA	1-800-SAMSUNG(726-7864)	http://www.samsung.com/ca
MEXICO	01-800-SAMSUNG (726-7864)	http://www.samsung.com/mx

Latin America

ARGENTINE	0800-333-3733	http://www.samsung.com/ar
BRAZIL	0800-124-421 4004-0000	http://www.samsung.com/br
CHILE	800-SAMSUNG(726-7864)	http://www.samsung.com/cl
COLOMBIA	01-8000112112	http://www.samsung.com/co
COSTA RICA	0-800-507-7267	http://www.samsung.com/lat-in
ECUADOR	1-800-10-7267	http://www.samsung.com/lat-in
EL SALVADOR	800-6225	http://www.samsung.com/lat-in
GUATEMALA	1-800-299-0013	http://www.samsung.com/lat-in
HONDURAS	800-7919267	http://www.samsung.com/lat-in
JAMAICA	1-800-234-7267	http://www.samsung.com/lat-in
NICARAGUA	00-1800-5077267	http://www.samsung.com/lat-in
PANAMA	800-7267	http://www.samsung.com/lat-in
PUERTO RICO	1-800-682-3180	http://www.samsung.com/lat-in
REP. DOMINICA	1-800-751-2676	http://www.samsung.com/lat-in
TRINIDAD & TO-BAGO	1-800-SAMSUNG(726-7864)	http://www.samsung.com/lat-in
VENEZUELA	0-800-100-5303	http://www.samsung.com/lat-in

Europe

AUSTRIA	0810 - SAMSUNG(7267864, € 0.07/min)	http://www.samsung.com/at

Europe

BELGIUM	02 201 2418	http://www.samsung.com/be
CZECH REPUBLIC	800 - SAMSUNG (800-726786)	http://www.samsung.com/cz

Distributor pro Českou republiku:
Samsung Zrt., česká organizační složka, Oasis Florenc, Sokolovská394/17, 180 00, Praha 8

DENMARK	8 - SAMSUNG (7267864)	http://www.samsung.com/dk
EIRE	0818 717 100	http://www.samsung.com/ie
FINLAND	30 - 6227 515	http://www.samsung.com/fi
FRANCE	3260 'dites' SAMSUNG (€ 0,15/Min)	http://www.samsung.com/fr
	0825 08 65 65 (€ 0.15/Min)	
GERMANY	01805 - SAMSUNG (7267864, € 0.14/Min)	http://www.samsung.de
HUNGARY	06-80-SAMSUNG(726-7864)	http://www.samsung.com/hu
ITALIA	800-SAMSUNG(726-7864)	http://www.samsung.com/it
LUXEMBURG	02 261 03 710	http://www.samsung.com/lu
NETHERLANDS	0900 - SAMSUNG (7267864, € 0.10/Min)	http://www.samsung.com/nl
NORWAY	3 - SAMSUNG (7267864)	http://www.samsung.com/no
POLAND	0 - 801 - 1SAMSUNG (172678)	http://www.samsung.com/pl
	022 - 607 - 93 - 33	
PORTUGAL	808 20 - SAMSUNG (7267864)	http://www.samsung.com/pt
SLOVAKIA	0800-SAMSUNG(726-7864)	http://www.samsung.com/sk
SPAIN	902 - 1 - SAMSUNG (902 172 678)	http://www.samsung.com/es
SWEDEN	075 - SAMSUNG (726 78 64)	http://www.samsung.com/se
SWITZERLAND	0848-SAMSUNG(7267864, CHF 0.08/min)	http://www.samsung.com/ch
U.K	0845 SAMSUNG (7267864)	http://www.samsung.com/uk

CIS

ESTONIA	800-7267	http://www.samsung.ee
LATVIA	8000-7267	http://www.samsung.com/lv
LITHUANIA	8-800-77777	http://www.samsung.lt
KAZAKHSTAN	8-10-800-500-55-500	http://www.samsung.com/kz_ru
KYRGYZSTAN	00-800-500-55-500	
RUSSIA	8-800-555-55-55	http://www.samsung.ru
TADJIKISTAN	8-10-800-500-55-500	
UKRAINE	8-800-502-0000	http://www.samsung.ua
UZBEKISTAN	8-10-800-500-55-500	http://www.samsung.com/kz_ru

Asia Pacific

AUSTRALIA	1300 362 603	http://www.samsung.com/au
CHINA	800-810-5858	http://www.samsung.com/cn
	400-810-5858	
	010-6475 1880	
	HONG KONG:3698 - 4698	http://www.samsung.com/hk
INDIA	3030 8282	http://www.samsung.com/in
	1800 110011	
	1-800-3000-8282	
INDONESIA	0800-112-8888	http://www.samsung.com/id
JAPAN	0120-327-527	http://www.samsung.com/jp
MALAYSIA	1800-88-9999	http://www.samsung.com/my
NEW ZEALAND	0800 SAMSUNG (0800 726 786)	http://www.samsung.com/nz
PHILIPPINES	1800-10-SAMSUNG (726-7864)	http://www.samsung.com/ph
SINGAPORE	1800-SAMSUNG(726-7864)	http://www.samsung.com/sg
THAILAND	1800-29-3232	http://www.samsung.com/th
	02-689-3232	
TAIWAN	0800-329-999	http://www.samsung.com/tw
VIETNAM	1 800 588 889	http://www.samsung.com/vn

Middle East & Africa

SOUTH AFRICA	0860-SAMSUNG(726-7864)	http://www.samsung.com/za
TURKEY	444 77 11	http://www.samsung.com/tr
U.A.E	800-SAMSUNG(726-7864)	http://www.samsung.com/ae
	8000-4726	

Terms

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 the Vertical Frequency or Refresh Rate. Unit: Hz

Example: If the same light repeats itself 60 times per second, this is regarded as 60 Hz. |
| 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. 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 sequentially 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 the 'resolution'. This number shows the accuracy of the display. A high resolution is good for performing multiple tasks as more image information can be shown on the screen.

Example: If the resolution is 1360 x 768, this means the screen is composed of 1360 horizontal dots (horizontal resolution) and 768 vertical lines (vertical resolution). |

Correct Disposal

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.

Correct disposal of batteries in this product - Europe only

(Applicable in the European Union and other European countries with separate battery return systems.)

This marking on the battery, manual or packaging indicates that the batteries in this product should not be disposed of with other household waste at the end of their working life. Where marked, the chemical symbols Hg, Cd or Pb indicate that the battery contains mercury, cadmium or lead above the reference levels in EC Directive 2006/66. If batteries are not properly disposed of, these substances can cause harm to human health or the environment.

To protect natural resources and to promote material reuse, please separate batteries from other types of waste and recycle them through your local, free battery return system.

Note

The rechargeable battery incorporated in this product is not user replaceable. For information on its replacement, please contact your service provider.

Authority

Information in this document is subject to change without notice.

© 2008 Samsung Electronics Co., Ltd. All rights reserved.

Reproduction in any manner whatsoever without the written permission of Samsung Electronics Co., Ltd. is strictly forbidden.

Samsung Electronics Co., Ltd. shall not be liable for errors contained herein or for incidental or consequential damages in connection with the furnishing, performance, or use of this material.

Samsung is the registered trademark of Samsung Electronics Co., Ltd.; Microsoft, Windows and Windows NT are registered trademarks of Microsoft Corporation; VESA, DPM and DDC are registered trademarks of Video Electronics Standard Association; the ENERGY STAR® name and logo are registered trademarks of the U.S. Environmental Protection Agency (EPA). All other product names mentioned herein may be the trademarks or registered trademarks of their respective owners.

SRS ( ) TruSurround XT, SRS and ( ) Symbol are trademarks of SRS Labs, Inc.
SRS TruSurround XT TruSurround XT technology is incorporated under license from SRS Labs, Inc.

CALIFORNIA USA ONLY (Applicable for networking models only.)

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

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