



LCD DISPLAY

quick start guide

320MX-3, 320MXN-3, 320MP-3, 320MPN-3

Introduction

Package Contents



- After unpacking the package, make sure to check the contents of the package.
- Store the packaging box in case you need to move the Product later.
- If any items are missing, contact your dealer.
- Contact a local dealer to purchase optional items.

Unpacking



LCD Display

Manuals



Quick Setup Guide



Warranty Card



User's Guide

(Not available in all locations)

Cables



Power Cord



D-Sub Cable

Others



Remote Control



Batteries (AAA X 2)

Others

(BP59-00138B)

(Not available in all locations)

Sold separately



Semi Stand KIT



LAN Cable



USB Cable

(Applicable to the MXn-3, MPN-3 model only)



RGB to BNC Cable



RGB to COMPONENT Cable



Network Box

(Applicable to the MX-3,MP-3 model only)



Wall Mount KIT



RS232C Cable



TV tuner box

Your LCD Display

The color and the appearance may differ depending on the product, and the specifications are subject to change without prior notice to improve the performance.

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, press 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. Selects the input source that an external device is connected to.

[PC] [DVI] [AV] [Component] [HDMI1] [HDMI2] [DisplayPort] [MagicInfo] [TV]



Note

- The [RGB/COMPONENT IN] port is compatible with RGB (PC) and Component signals.

However, the picture may display abnormally if the connected external input signal is different from the selected video signal.

- A TV tuner box (sold separately) must be connected to use the TV.



Note

Using MagicInfo

- To use MagicInfo with an MXN-3, MPN-3 model, connect the MagicInfo output on the already included network box to [HDMI IN 2 (MAGICINFO)] on the product.
- To use MagicInfo with an MX-3, MP-3 model, install inside the product a network box specified by Samsung and connect the MagicInfo output on the network box to [HDMI IN 2 (MAGICINFO)] on the product.

6 *D.MENU button*

Opens the on-screen D.MENU.



Note

The D.MENU button is activated when a TV tuner is connected and otherwise, the PIP button is enabled.

PIP button

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

7 *Power button [⏻]*

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

8 *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.

9 *Remote Control Sensor*

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

Rear

 **Note**

See the "Connections" section for details about cable connections. The LCD Display's configuration at the back may vary slightly depending on the model.



A



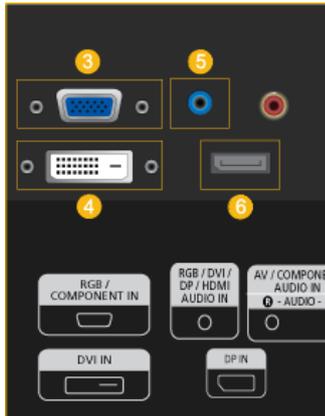
1 *POWER SW ON [I] / OFF*

Switches the LCD Display On/Off.

2 *POWER*

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

B



3 RGB/COMPONENT IN (PC/COMPONENT Connection Terminal (Input))

- Connect the [RGB/COMPONENT IN] port on the monitor to the RGB port on the PC using the D-SUB cable.
- Connect the [RGB/COMPONENT IN] port on the monitor to the COMPONENT port on the external device using the RGB to COMPONENT cable.
- Connect the [RGB/COMPONENT IN] port on the monitor to the BNC port on the PC using the RGB to BNC cable.

4 DVI IN (PC Video Connection Terminal)

Connect the [DVI IN] port on the monitor to the DVI port on the PC using the DVI cable.

5 RGB/DVI/DP/HDMI AUDIO IN (PC/DVI/DP/HDMI Audio Connection Terminal (Input))

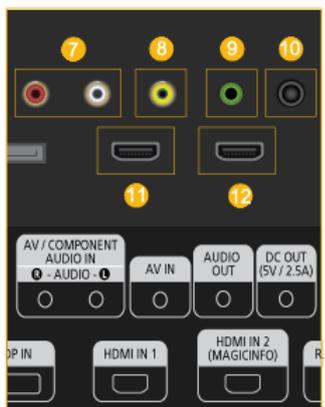
Connect the [RGB/DVI/DP/HDMI AUDIO IN] terminal of the monitor and the speaker output terminal of your computer's sound card using a stereo cable (sold separately).

6 DP IN

Receives a signal from the Display port.

Connect a DP cable to [DP IN] on the product and DP IN on another display.

C



7 AV/COMPONENT AUDIO IN (R-AUDIO-L)

Connect the [AV/COMPONENT AUDIO IN (R-AUDIO-L)] port on the monitor to the audio output port on the PC or on the external device using an audio cable.

8 AV IN

Connect the [AV IN] terminal of your monitor to the video output terminal of the external device using a VIDEO cable.

9 AUDIO OUT

Connect a headphone or an External speaker.

10 *DC OUT*

Make sure to use connecting *[DC OUT]* terminal to the authorized TV-Tuner Box *[SBB_DTC/ZA]*.



Otherwise, this may result in damage to the product.

11 *HDMI IN 1*

- Connect the *[HDMI IN 1]* terminal at the back of your LCD Display to the HDMI terminal of your digital output device using a HDMI cable.
- Up to HDMI 1.3 can be supported.



Note

- A normal external device (DVD player or camcorder, etc.) or a TV tuner box can be connected to the *[HDMI IN 1]* terminal.
- To use a TV tuner box, make sure to connect it to the *[HDMI IN 1]* terminal.

12 *HDMI IN 2 (MAGICINFO)*

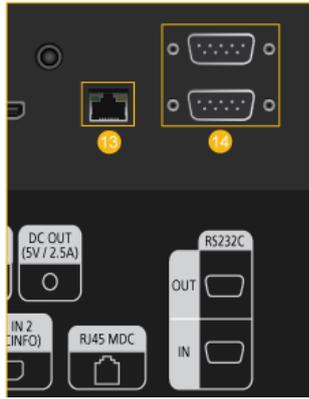
- Connect the *[HDMI IN 2 (MAGICINFO)]* terminal at the back of your LCD Display to the HDMI terminal of your digital output device using a HDMI cable.
- Up to HDMI 1.3 can be supported.



Note

Using MagicInfo

- To use MagicInfo with an MXN-3, MPN-3 model, connect the MagicInfo output on the already included network box to *[HDMI IN 2 (MAGICINFO)]* on the product.
- To use MagicInfo with an MX-3,MP-3 model, install inside the product a network box specified by Samsung and connect the MagicInfo output on the network box to *[HDMI IN 2 (MAGICINFO)]* on the product.



13 RJ 45 MDC (MDC PORT)

MDC(Multiple Display Control) Program Port

Connect the LAN cable to [RJ45 MDC] on the product and LAN on the PC. To use an MDC, the MDC Program must be installed on the PC.



Note

Go to **Multi Control** and select **RJ45 MDC** as the **MDC Connection**.

14 RS232C OUT/IN (RS232C Serial PORT)

MDC(Multiple Display Control) Program Port

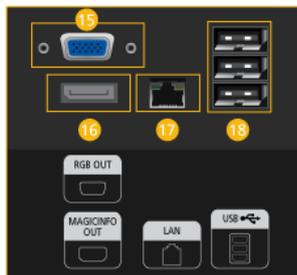
Connect a serial cable (cross type) to [RS232C] on the product and RS232C on the PC. To use an MDC, the MDC Program must be installed on the PC.



Note

Go to **Multi Control** and select **RS232C MDC** as the **MDC Connection**.

E Applicable to the MXn-3, MPN-3 model only



15 RGB OUT

MagicInfo video output port

16 MAGICINFO OUT

This is the output terminal for the video, audio, and control signals of **MagicInfo**.

It can be used by connecting it to the [HDMI IN 2 (MAGICINFO)] terminal using a DP to HDMI cable.

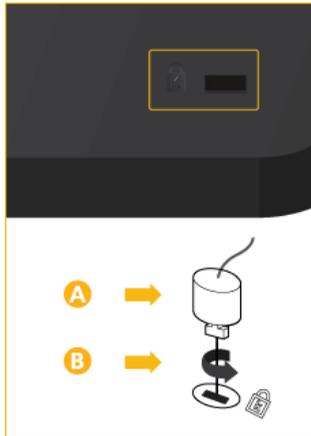
17 LAN (LAN Connection Terminal)

Connects to a LAN cable to allow Internet or network access in **MagicInfo** mode.

18 USB (USB Connection Terminal)

Keyboard / Mouse, Mass Storage Device Compatible.

F



Kensington Lock slot

A Kensington Lock is an anti-theft device that enables users to lock the product so that they can safely use it in public locations. Since the shape and usage of the locking device may differ depending on the model and the manufacturer, for more information, refer to the User Manual supplied with the locking device for more information.

 **Note**

You must purchase the Kensington Lock separately.

To lock the product, follow these steps:

1. Wrap the Kensington lock cable around a large, stationary object such as a desk or chair.
2. Slide the end of the cable with the lock attached through the looped end of the Kensington lock cable.
3. Insert the Kensington Lock into the security slot (**B**) on the back of the display.
4. Lock the lock (**A**).

 **Note**

- These are general instructions. For exact instructions, see the User Manual supplied with the locking device.
- You can purchase the locking device from an electronics store, an online shop, or our service Center.

 **Note**

The power switches of both of the monitor and the network box must be turned on for the network box to operate normally.

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 POWER
- 2 OFF
- 3 Number Buttons
- 4 DEL /- / GUIDE button
- 5 + VOL -
- 6 SOURCE
- 7 D.MENU
- 8 TOOLS
- 9 Up-Down Left-Right buttons
- 10 INFO
- 11 The Color button and the PC/DVI/HDMI/DP selection button.
- 12 TTX/MIX
- 13 MTS/DUAL
- 14 ENTER/PRE-CH
- 15 MUTE
- 16 CH/P
- 17 TV
- 18 MENU
- 19 RETURN
- 20 EXIT
- 21 MagicInfo

1 POWER

Turns the product On.

2 OFF

Turns the product Off.

3 Number Buttons

Used to enter the password during the OSD adjustment or to use MagicInfo.

Press to change the channel.

4 DEL /- / GUIDE button

The "-" button is used to select Digital channels.

Electronic Program Guide (EPG) display.

Note

This button can only be used in TV mode while a TV tuner box (sold separately) is connected.

5 + VOL -

Adjusts the audio volume.

6  SOURCE

Selects a connected external input source or **MagicInfo** mode.

Press the button to change the input signal SOURCE.

Changing the SOURCE is only allowed for external devices that are connected to the LCD Display at the time.

7  D.MENU

DTV menu display

 **Note**

This button can only be used in TV mode while a TV tuner box (sold separately) is connected.

8  TOOLS

Use to quickly select frequently used functions.

 **Note**

This function does not work for this LCD Display.

9 Up-Down Left-Right buttons

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

10  INFO

Current picture information is displayed on the upper left corner of the screen.

11 The Color button and the PC/DVI/HDMI/DP selection button.

In TV mode, these buttons can be used to configure a list of channels.

You can select the **PC**, **DVI**, **HDMI** or **DP(DisplayPort)** external input directly in a mode other than TV mode.

12  TTX/MIX

TV channels provide written information services via teletext.

- Teletext Buttons

 **Note**

This function does not work for this LCD Display.

13 MTS/DUAL

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	

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.



Enabled when a TV tuner box is connected.

14  ENTER/PRE-CH

This button is used to return to the immediately previous channel.



Enabled when a TV tuner box is connected.

15  MUTE

Pauses (mutes) the audio output temporarily. This is displayed on the lower left corner of the screen. The audio comes back on if MUTE or - VOL + is pressed in the Mute mode.

16  CH/P

In **TV** mode, selects TV channels.



Enabled when a TV tuner box is connected.

17  TV

Allows you to watch an analogue or digital TV.



Enabled when a TV tuner box is connected.

18  MENU

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

19  RETURN

Returns to the previous menu.

20  EXIT

Exits from the menu screen.

21  MagicInfo

MagicInfo Quick Launch button.

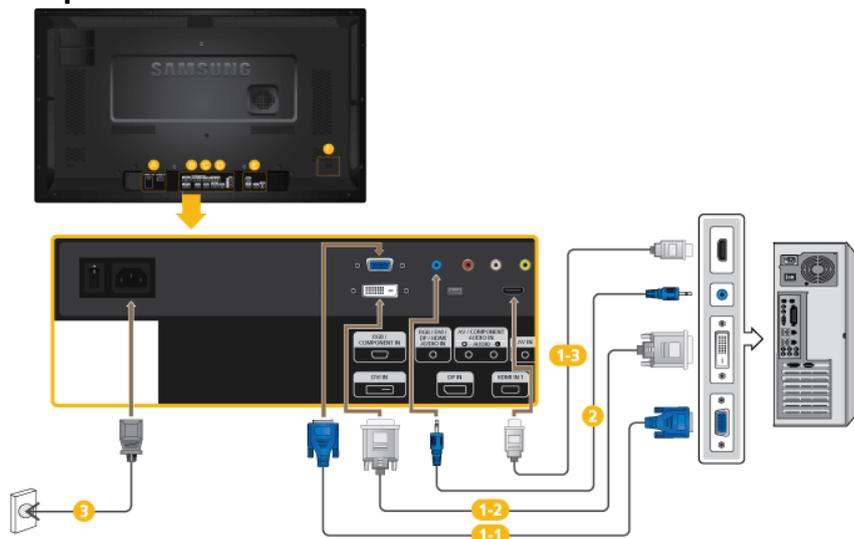


Using MagicInfo

- To use MagicInfo with an MXN-3, MPN-3 model, connect the MagicInfo output on the already included network box to [HDMI IN 2 (MAGICINFO)] on the product.
 - To use MagicInfo with an MX-3, MP-3 model, install inside the product a network box specified by Samsung and connect the MagicInfo output on the network box to [HDMI IN 2 (MAGICINFO)] on the product.
-

Connections

Connecting a Computer



- 1 There are several ways to connect the computer to the monitor. Choose one from the following options.

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

- Connect the D-sub to the 15-pin, *[RGB/COMPONENT IN]* port on the back of your LCD Display and the 15 pin D-sub Port on the computer.



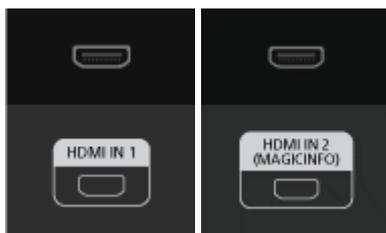
1-2 Using the DVI (Digital) connector on the video card.

- Connect the DVI Cable to the *[DVI IN]* port on the back of your LCD Display and the DVI port on the computer.



1-3 Using the D-sub (Digital) connector on the video card.

- Connect the *[HDMI IN 1] / [HDMI IN 2]* port on the LCD Display to the HDMI port on the PC using the HDMI cable.
-



 **Note**

Select **HDMI2** or **HDMI1** as an input source when connected to the PC via an HDMI cable.

To obtain normal picture and audio from the PC, **HDMI2** or **HDMI1** must be selected before **PC** is selected in **Edit Name**.

To enable audio when **DVI Device** is selected, be sure to establish the connection using step (2).

- 2 Connect the Audio cable for your LCD Display to the AUDIO port on the back of the LCD Display.
- 3 Connect the power cord for your LCD Display to the POWER port on the back of the LCD Display. Turn on the power switch.

 **Note**

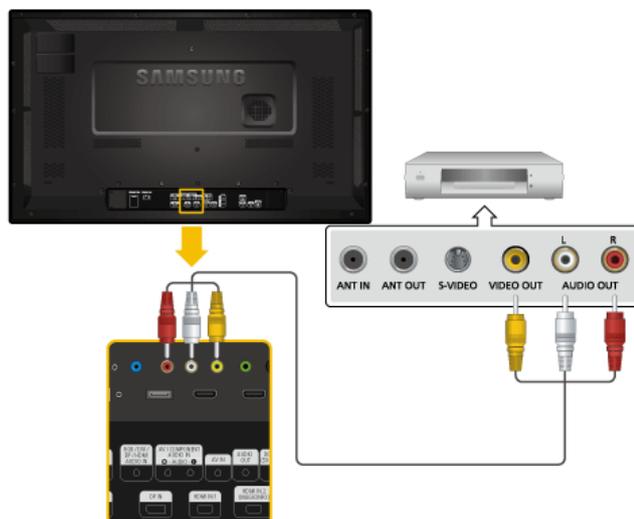
Contact a local SAMSUNG Electronics Service Center to buy optional items.

Connecting to Other devices

 **Note**

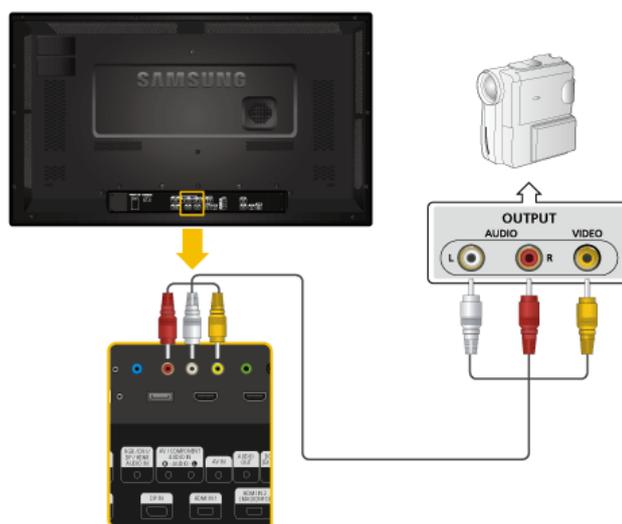
- AV input devices such as DVD players, VCRs or camcorders as well as your computer can be connected to the LCD Display. For detailed information on connecting AV input devices, refer to the contents under Adjusting Your LCD Display.
- The LCD Display 's configuration at the back may vary slightly depending on the LCD Display model.

Connecting AV Devices



1. Connect an audio cable to *[AV/COMPONENT AUDIO IN (R-AUDIO-L)]* on the product and the audio port on an external device such as a VCR or DVD player.
2. Connect a video cable to *[AV IN]* on the product and the video output port on the external device.
3. Then, start the DVD, VCR or Camcorders with a DVD disc or tape inserted.
4. Press *SOURCE* on the product or remote control and select "**AV**".

Connecting to 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 video cable between the VIDEO OUTPUT jack on the camcorder and the *[AV IN]* on the LCD Display .
2. Connect a set of audio cables between the AUDIO OUTPUT jacks on the camcorder and the *[AV /COMPONENT AUDIO IN (R-AUDIO-L)]* on the LCD Display .
3. Press *SOURCE* on the product or remote control and select "**AV**".
4. Then, start the Camcorders with a tape inserted.

 **Note**

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 Using a HDMI Cable

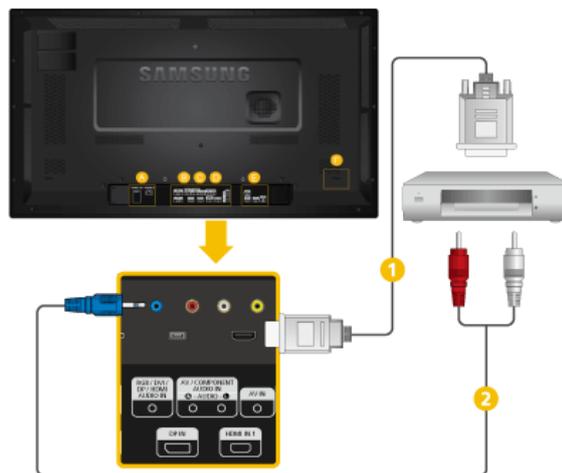


1. Connect an HDMI cable to [HDMI IN 2 (MAGICINFO)] or [HDMI IN 1] on the product and the HDMI output port on a digital device.
2. Press *SOURCE* on the product or remote control and select "**HDMI1 / HDMI2**"

 **Note**

In **HDMI** mode, only PCM format audio is supported.

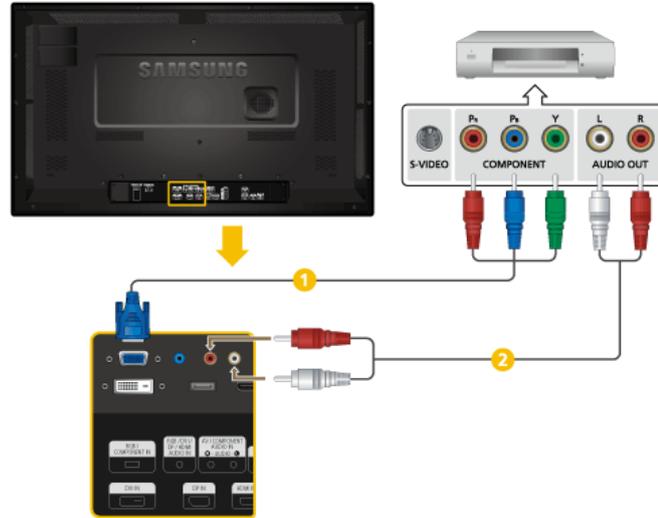
Connecting Using a DVI to HDMI Cable



- 1 Connect a DVI-HDMI cable to [HDMI IN 2 (MAGICINFO)] or [HDMI IN 1] and the DVI output port on the digital device.
- 2 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 [RGB/DVI/DP/HDMI AUDIO IN] terminal of the LCD Display.

3. Press *SOURCE* on the product or remote control and select "**HDMI1 / HDMI2**"

Connecting a DVD Player

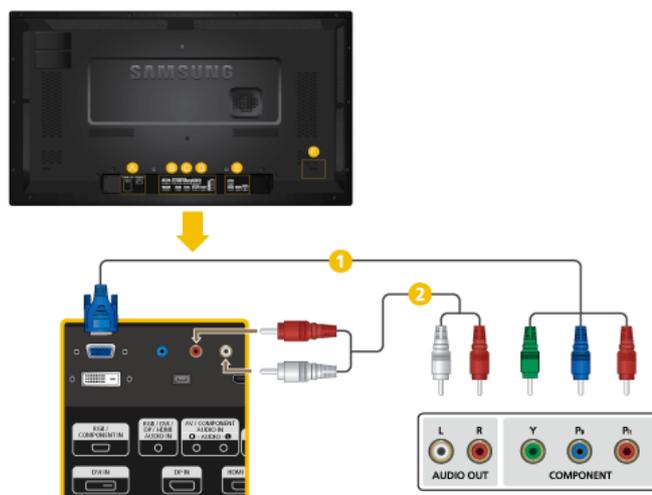


- 1 Connect a RGB to Component cable between the *[RGB/COMPONENT IN]* port on the LCD Display and the *P_R*, *Y*, *P_B* jacks on the DVD player.
- 2 Connect a set of audio cables between the *[AV/COMPONENT AUDIO IN (R-AUDIO-L)]* on the LCD Display and the *AUDIO OUT* jacks on the DVD player.

Note

- Press *SOURCE* on the product or remote control and select "**Component**".
 - Then, start the DVD Player with a DVD disc inserted.
 - A RGB to component cable is optional.
 - For an explanation of Component video, consult your DVD manual.
-

Connecting a DTV Set Top (Cable/Satellite) Box

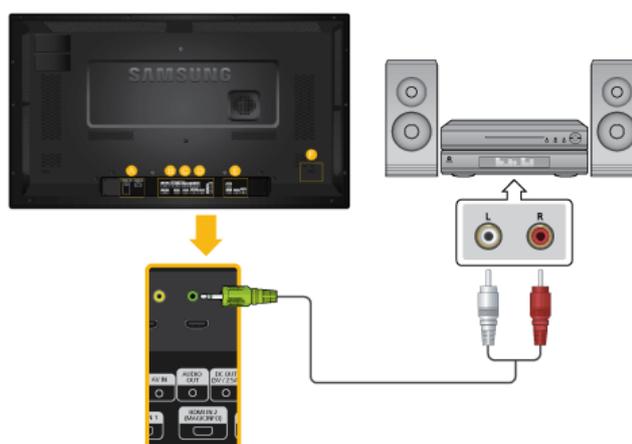


- 1 Connect a RGB to Component cable between the [RGB/COMPONENT IN] port on the LCD Display and the P_R, Y, P_B jacks on the Set Top Box.
- 2 Connect a set of audio cables between the [AV/COMPONENT AUDIO IN (R-AUDIO-L)] on the LCD Display and the AUDIO OUT jacks on the Set Top Box.

Note

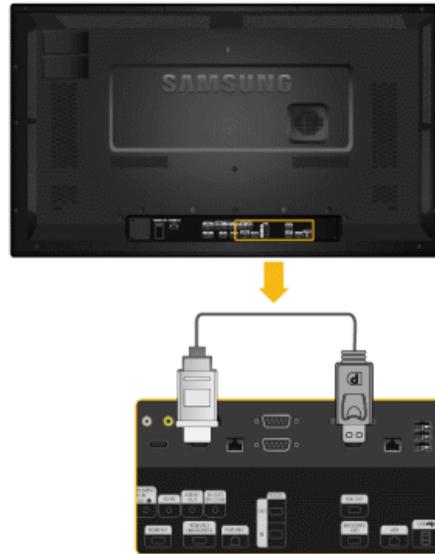
- Press *SOURCE* on the product or remote control and select "**Component**".
- For an explanation of Component video, see your Set Top Box owner's manual.

Connecting to an Audio System



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

Connecting to MAGICINFO OUT

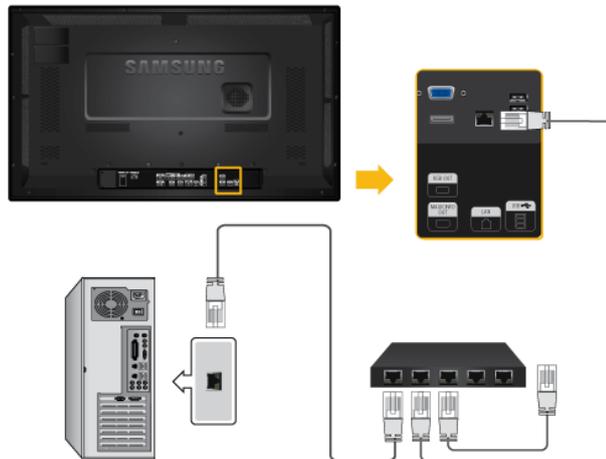


Connect the [MAGICINFO OUT] terminal and the [HDMI IN 2 (MAGICINFO)] terminal on the product using the DP to HDMI cable.

 **Note**

Applicable to the MXn-3, MPN-3 model only.

Connecting a LAN Cable

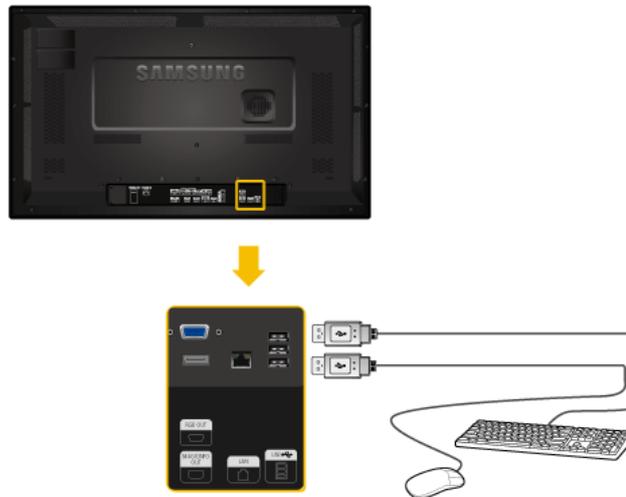


Connect the LAN cable between the [LAN] port on the product and the [LAN] port on your PC.

 **Note**

Applicable to the MXn-3, MPN-3 model only.

Connecting a USB devices



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

 **Note**

Applicable to the MXn-3, MPn-3 model only.

Troubleshooting

Self-Test Feature Check



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

Self-Test Feature Check

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 ("**No Signal**") 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.

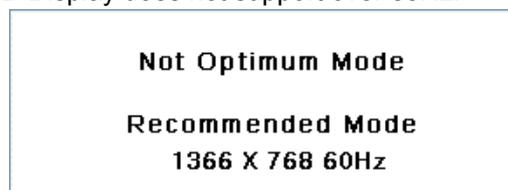


If your LCD Display screen remains blank after using the previous procedure, check your video controller and computer system; your LCD Display is functioning properly.

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

Warning Messages

You can even view the screen at a resolution of 1366 x 786. 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. If the resolution is more than 85Hz, you will see the black screen because the LCD Display does not support over 85Hz.



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.

2) Maintaining the Flat Panel Display Screen.

Clean with a soft cloth (cotton flannel).



- Never use acetone, benzene or thinner.
(They may cause flaws or deformation of the screen surface.)
- The user is responsible for any damage caused by using these substances.

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, 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 service.)
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



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



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: **"No signal"** 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: Adjust the **brightness** and **contrast**.

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

- Q: The screen Color is inconsistent.
- A: Adjust the **Color Control** option in the OSD adjustment menu.
- Q: The Color image is distorted by dark shadows.
- A: Adjust the **Color Control** option in the OSD adjustment menu.
- Q: The Color white is poor.
- A: Adjust the **Color Control** option in the OSD adjustment menu.
- Q: The Power Indicator blinks.
- A: The LCD Display is currently saving the changes made in the settings to the OSD memory.
- Q: The screen is blank and the power indicator light blinks every 0.5 or 1 seconds.
- A: The LCD Display is using its power management system. Press any key on the keyboard.

Problems related to Audio



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



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.

Q & A

Q: How can I change the frequency?

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



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 adjust 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:

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:

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.



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.
