SyncMaster 400DX / 460DX





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- Safety Instructions Notational Power Installation Clean Others Introduction Connections Using the Software Adjusting the LCD Display
- Troubleshooting Specifications Information
- Appendix



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

Safety Instructions

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

Warning / Caution

harm to the user.

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

Notational Conventions



Ground to prevent an electric shock

Disconnect the plug from the outlet

Important to read and understand at all times

Power



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

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

Shortout to Anti-Afterimage Instructions (E)



Do not use a damaged or loose plug.
 This may cause electric shock or fire.

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

• This may cause electric shock or fire.



Notational





Use only a properly grounded plug and receptacle.

• An improper ground may cause electric shock or equipment damage.(Class I Equipment only.)



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

A bad connection may cause fire.



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

This may cause electric shock or fire.



Do not connect too many extension cords or plugs to one outlet.
 This may cause fire.





Do not disconnect the power cord while using the LCD Display. A surge may be caused by the separation and may damage the LCD

 A surge may be caused by the separation and may damage the LCD Display.



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

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



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.

Installation

Be sure to contact an authorized the Service Center, when installing your LCD Display 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.





Place your LCD Display in a location with low humidity and a minimum of dust.

• Failure to do so may cause electric shock or fire inside the LCD Display.



Do not drop the LCD Display when moving it.

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



Install the LCD Display base in a showcase or shelf so that the end of the base does not protrude from the showcase or shelf.

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



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

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



Do not place the product on the floor.
Take care, as someone, specifically children may trip over it.



ID TO PREVENT THE SPREAD OF FIRE, KEEP CANDLES OR OTHER OPEN FLAMES AWAY FROM THIS PRODUCT AT ALL TIMES.

• Otherwise, this may cause fire.



Keep any heating devices away from the power cable.
 A melted coating may cause electric shock or fire.



- Do not install the product in places with poor ventilation, for instance, a bookshelf, closet, etc.
 - Any increase in the internal temperature may cause fire.



Put down the LCD Display carefully.

• Failing to do so may damage the LCD Display.



- Do not place the LCD Display face down.
 - This may damage the TFT-LCD surface.



- The installation of the bracket must be done by a qualified professional.
 - Installing the bracket by unqualified personnel may result in injury.
 - Always use the mounting device specified in the owner's manual.



- When installing the product, make sure to keep it away from the wall (more than 10 cm / 4 inches) for ventilation purposes.
 - Poor ventilation may cause an increase in the internal temperature of the product, resulting in a shortened component life and degraded performance.



- Keep the plastic packaging (bag) out of children's reach.
 - The plastic packaging (bag) may cause suffocation if children play with it.

Clean



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



Do not spray water or detergent directly onto the LCD Display.
 This may cause damage, electric shock or fire.



Use the recommended detergent with a smooth cloth.



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

• A dirty connector may cause electric shock or fire.



Make sure to unplug the power cord before cleaning the product.Otherwise, this may cause electric shock or fire.



- Unplug the power cord from the power outlet and wipe the product using a soft, dry cloth.
 - Do not use any chemicals such as wax, benzene, alcohol, thinners, insecticide, air freshener, lubricant or detergent.

Others



Do not remove the cover (or back).

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



If your LCD Display does not operate normally - in particular, if there is any unusual sound or smell coming from the LCD Display unplug it immediately and contact an authorized dealer or the Service Center.

• This may cause electric shock or fire.



- Keep the product away from places exposed to oil, smoke or moisture; do not install inside a vehicle.
 - This may cause a malfunction, electric shock or fire.
 - In particular, avoid operating the LCD Display near water or outdoors where the LCD Display could be exposed to snow or rain.



If the LCD Display is dropped or the casing is damaged, turn the LCD Display off and unplug the power cord. Then contact the Service Center.

• The LCD Display may malfunction, causing electric shock or fire.

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

• Failure to do so may cause electric shock or fire.





- Do not try to move the LCD Display by pulling only the wire or the signal cable.
 - This may cause a breakdown, electric shock or fire due to damage to the cable.



- Do not move the LCD Display right or left by pulling only the wire or the signal cable.
 - This may cause a breakdown, electric shock or fire due to damage to the cable.



Do not cover the vents on the LCD Display cabinet.
 Bad ventilation may cause a breakdown or fire.



- Do not place water containers, chemical products or small metal objects on the LCD Display.
 - This may cause a malfunction, electric shock or fire.
 - If a foreign substance enters the LCD Display , unplug the power cord and contact the Service Center.



- Keep the product away from combustible chemical sprays or inflammable substances.
 - This may cause an explosion or fire.



- Never insert anything metallic into the LCD Display openings.
 This may cause electric shock, fire or injury.
- Do not insert metal objects such as chopsticks, wire and tools or inflammable objects such as paper or matches into the vent, headphone port or AV ports or etc.
 - This may cause electric shock or fire. If an alien substances or water enters the product, turn the product off, unplug the power connector from the wall





- When viewing a fixed screen for an extended period of time, residual image or blurriness may appear.
 - Change the mode to energy saving mode or set a screensaver to a changing picture when away from the LCD Display for an extended period of time.



- Adjusts the resolution and frequency to the level appropriate for the model.
 - An inappropriate resolution may cause undesirable picture quality.
 - 40 inch (101 cm) 1360 X 768 46 inch (116 cm) - 1360 X 768



Viewing the LCD Display continuously at a too close angle may result in damage to your eyesight.



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



- Do not install the product on an unstable, uneven surface or a location prone to vibrations.
 - Dropping the product may cause damage to the product or the person carrying it. Using the product in a location prone to vibrations may shorten the lifetime of the product or may cause the product to catch fire.



- When moving the LCD Display, turn off and unplug the power cord. Make sure that all cables, including the antenna cable and cables connected to other devices, are disconnected before moving the LCD Display.
 - Failure to disconnect cables may damage it and cause fire or electric shock.
- Make sure there are more than two people when moving the product.
 - Dropping the product may cause a malfunction or injury to the person carrying it.





- Place the product out of children's reach, as they could damage by hanging onto it.
 - A falling product may cause injury to the person or even fatality.



- When not using the product for an extended period of time, keep the product unplugged.
 - Otherwise, this may cause heat emission from the accumulated dirt or degraded insulation, causing electric shock or fire.



- Do not place your children's favorite toys or any other objects of interest on the product.
 - Children may try to climb on the product to retrieve an object. The product could fall, causing injury or even fatality.



- When removing batteries from the remote control, be careful that they are not swallowed by children. keep the batteries out of children's reach.
 - If the batteries are swallowed, see a doctor immediately.



- When replacing batteries, place the batteries in the correct +/polarity position as indicated on the battery holder.
 - The incorrect polarity may cause a battery to break or leak and may cause fire, injury, or contamination (damage).



- Use only specified standard batteries. Do not use new and used batteries together.
 - This may cause a battery to break or leak and may cause fire, injury, or contamination (damage).

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

• The customer can return used or rechargeable batteries to a nearby public



recycling center or to a store selling the same type of the battery or rechargeable battery.

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Safety Instructions Introduction

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Connections

Using the Software

Adjusting the LCD Display

Troubleshooting

Specifications

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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.



LCD Display



Other





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

4) ENTER

Activates a highlighted menu item.

5) 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. $[PC] \rightarrow [BNC] \rightarrow [DVI] \rightarrow [AV] \rightarrow [S-Video] \rightarrow [Component] \rightarrow [HDMI]$ >> Click here to see an animation clip.

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.

٠PC

AV / S-Video / Component / HDMI Mode

- BNC
- AV / S-Video / HDMI Mode

۰DVI

AV / S-Video / Component Mode

·AV / S-Video

PC / BNC / DVI Mode

- Component
- PC / DVI Mode
- HDMI
- PC / BNC Mode

7) 🖒 Power button

Turns the LCD Display On/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.

10) Remote Control Sensor

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

🗹 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.

> 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 monitor.

4) RS232C OUT/IN (RS232C Serial PORT)

MDC(Multiple Display Control) Program Port

- DVI / PC IN [PC/DVI/BNC/HDMI AUDIO IN] (PC/DVI/BNC/HDMI Audio Connection Terminal (Input))
- 6) HDMI IN

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

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

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

8) DVI / PC 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))
- 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

C



D



Component Connection: connecting the PR, Y, PB ports

 BNC/COMPONENT IN [R/P_R, G/Y, B/P_B, 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)
- 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.

🗹 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.



19) Kensington Lock

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

For using a locking device, contact the place of purchase.

🗹 Note

• See Connecting the LCD Display 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.



2. MAGICNET

- 3. MDC
- 4. LOCK
- 5. MagicNet buttons
- 6.+100 -/--
- 7. VOL
- 8. ^ФМИТЕ 9. <u>11/</u> ТТХ/МІХ
- 10. III MENU
- 11. **EVENTER** 12. M/B P.MODE
- 13. AUTO
- 14. E ENTER/PRE-CH
- 14. ENTER/P 15. ▼ CH/P ▲ 16. SOURCE 17. INFO

- 18. 🖬 EXIT
- 19. Up-Down Left-Right buttons
- 20. III S.MODE
- 21. STILL
- 22. FM RADIO 23. P.SIZE
- 24. (•) SRS 25. ^III DUAL/MTS
- ≣¥ PIP 26
- 27. E SOURCE
- 28. SWAP
- 29. Ξ⁰SIZE
- 30. ◀ REW
- 31. STOP
- 32. M PLAY/PAUSE 33. DE FF

1) ON / OFF

Turns the LCD Display On/Off.

- 2) MAGICNET
 - MagicNet Quick Launch Button.
- 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) MagicNet buttons

Used for MagicNet.

- · Alphanumeric: Used to enter the Internet address.
- DEL: Functions as the backspace.
- SYMBOL: Used to enter the symbols. (.O_-)
- ENTER: Used to enter values.
- 6) +100 -/--

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 monitor.

7) VOL

Adjusts the audio volume.

🖏 МИТЕ 8)

> 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) =/ TTX/MIX

TV channels provide text information services via teletext.

- This fuction does not work for this monitor.

10) III MENU

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

11) CHENTER

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 Monitor has four automatic picture settings that are preset at the factory. Then push button again to circle through available preconfigured modes. (Dynamic \rightarrow Standard \rightarrow Movie \rightarrow 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 monitor.

15) V CH/P A

In TV mode, selects TV channels. - This fuction does not work for this monitor.

16) E 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) HIS.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 \rightarrow Music \rightarrow Movie \rightarrow Speech \rightarrow 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 monitor.

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 | $Mono \leftrightarrow SAP$ | Mono |

- This fuction does not work for this monitor.

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) HIPLAY / PAUSE
- Play/Pause
- 33) 🍽 FF

Fast forward

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SyncMaster 400DX

Mechanical Layout | Monitor Head | Stand | Speaker | Installation VESA Bracket | Wall Bracket Installation

1. Mechanical Layout



PROTECTION GLASS + NETWORK MODEL SIZE





Weight

- Set

 - 25.0 kg (with Basic Stand)
 30.5 kg (with Basic Stand / option protection glass)
- Package

28.5 kg (with Basic Stand)
34.0 kg (with Basic Stand / option protection glass)

▲ Up

2. Monitor Head

NETWORK MODEL SIZE



PROTECTION GLASS + NETWORK MODEL SIZE



3. Stand



4. Speaker



▲ Up

5. Installation VESA Bracket

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







🔺 Up

6. Wall Bracket Installation

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

Components

Only use the components and accessories shipped with the product.







There are two hinges(left and right). Use the correct one.

2

Insert and tighten the Captive Screw in the direction of the arrow. When done, mount the wall bracket on the wall.

- A. Captive Screw
- B. Wall Bracket
- C. Hinge (Left)
- D. Hinge (Right)

Before drilling into the wall, check if the length between the two locking holes at the back of the product is correct.

product is correct. If the length is too short or long, loosen all or some of the 4screws on the wall bracket to adjust the length.

A. Length between the two locking holes





Match each of the brackets and hinge holes to the corresponding anchor holes and insert and tighten the 11 screws **A**.

To mount the product on the wall bracket

The shape of the product may vary depending on the model. (The assemblies of the plastic hanger and the screw are the same)



Remove the 4 screws on the back of the product.

Insert the screw ${\bf B}$ into the plastic hanger.



1. Mount the product on the wall bracket and make sure it is properly fixed to the left and right plastic hangers.

- Be careful when installing the product on the bracket as fingers can be caught in the holes. 2.
- 3. Make sure the wall bracket is securely fixed to the wall, or the product may not stay in place after installation.



Tighten the 4 screws in step 2 (plastic hanger + screw B)to the rear holes of the product.



Remove safety pin (3) and insert the 4 product holders into the corresponding bracket holes (1). Then place the product(2) so that it is firmly fixed to the bracket. Make sure to re-insert and tighten the safety pin (3) to securely hold the product to the bracket.

A. Monitor B. Wall Bracket C. Wall



Wall Bracket Angle Adjustment

Adjust the bracket angle to -2° before installing it on the wall.



- 1. Fix the product to the wall bracket.
- 2. Hold the product at the top in the center and pull it forward (direction of the arrow) to adjust the angle. You can adjust the bracket angle between -2° and 15° .
- 3.



Make sure to use the top center, and not the leftor the right side of the product to adjust the angle.

SyncMaster 460DX

Mechanical Layout | Monitor Head | Stand | Speaker | Installation VESA Bracket | Wall Bracket Installation

1. Mechanical Layout



PROTECTION GLASS + NETWORK MODEL SIZE



Weight

- Set

 - 31.30 kg (with Basic Stand)
 36.1 kg (with Basic Stand / option protection glass)
- Package

37.6 kg (with Basic Stand)
42.4 kg (with Basic Stand / option protection glass)

▲ Up

2. Monitor Head

NETWORK MODEL SIZE



PROTECTION GLASS + NETWORK MODEL SIZE



3. Stand



4. Speaker



▲ Up

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- 3.



Make sure to use the top center, and not the leftor the right side of the product to adjust the angle.



Safety Instructions Introduction Connections Installing the Stand KIT Connecting the LCD Display Using the Software

Adjusting the LCD Display

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Connections

Installing the Stand KIT

🗹 Note

• Only the supplied bolts should be used.

A Caution

> Installing the Semi Stand

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

Left stand Caution

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



- To protect your product, a Cover Hole is included as an accessory. This protects the hole at the bottom of the monitor where the stand is inserted. If you install a wall mount kit for your monitor, please place the Cover Hole over it.
- Insert it into the hole at the bottom of the monitor. Insert the screw provided with the Cover Hole into the marked place and fasten it firmly.

A Caution

The resolution may differ for each product model. For information on the optimal resolution, refer to the user manual.



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, VCR's 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 Computer



- Connect the power cord for your LCD Display to the power port on the back of the LCD Display. Trun 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-**



- 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.

🗹 Note

The DVI cable or BNC cable is optional.
 Contact a local Samsung Electronics Service Center to buy optional items.

Connecting a VCR



- 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.
- 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.

🗹 Note

- 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.

🗹 Note

A component cable is optional.
 For an explanation of Component video, consult your DVD manual.

> Connecting a Camcorder



 Locate the A/V output jacks on the camcorder. They are usually found on the side or back of the camcorder.

Connect a set of audio cables between the AUDIO OUTPUT jacks on the camcorder and the AV AUDIO IN [L-AUDIO-R] on the 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.

🗹 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 a DTV Set Top Box

🗹 Note

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



- 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.
- 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.

🗹 Note

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

> Connecting Speakers



🗹 Note

• Fasten the SET and the speaker using the screws. * Mount the speaker set without the speaker stand.



🗹 Note

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

🗹 Note

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

> 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 monitor 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.

🗹 Note

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

Connecting HDMI



🗹 Note

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

🗹 Note

- You cannot connect a PC to the HDMI IN terminal.
- > Connecting Using a DVI to HDMI Cable



- Connect the DVI output terminal of a digital output device to the HDMI IN terminal of the monitor 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 monitor.



🗹 Note

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

🗹 Note

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

> Connecting Using a DVI to HDMI Cable



- Connect the DVI output terminal of a digital output device to the HDMI IN terminal of the monitor 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 monitor.

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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.

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| File Remocon | Safety Lock Port Selection Help | |
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| | mouers are not approven. | |
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| 0 | | |
| | Icons 6 | Select Button |
| Remo | | Info Grid |
| - | y Lock 🛛 🚺 | Display Selection |
| 🔮 Port S | Selection | 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

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| Maintenance | | | | | | | | |
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| | Med | lets a | re no | t approved. | | | | |
| | | | | | | | | |
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- 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.



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.



 \star I Power Control allows controlling some of the functions of the selected display.

- 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.



- 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

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|-------------------------------------|---|
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| | The input source of Magichlet works enly on Magichlet model. The input source of TV works only on TV model. |

* 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) AV
 - Changes the Input Source of the selected display to AV.
- 6) S-Video
- Changes the Input Source of the selected display to S-Video.
- 7) Component
 - Changes the Input Source of the selected display to Component.
- 8) MagicNet
 - The Input source of MagicNet works only on MagicNet model.
- 9) 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.



PC, BNC, DVI

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

| Halliple Display Co File Remocan | Port Selection Help | | | KEE |
|-------------------------------------|---------------------|----|---|----------|
| Power Control | Crear All | RC | PC Source Vice PC, BHC, DVI 16 : 9 4 : 3 | e Bourre |
| Settings Maintenance | | _ | | 0 |

- * 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 MagicNet works only on MagicNet 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.



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

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). 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 MagicNet works only on MagicNet 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.



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

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|---|------------------|--|--|
| Power Control Input Source Dence Stree Dence Stree Pro- Pro- Settings Settings | | Dusy Software O | Appy On Time Setap Proce Minute AMSM States PC 10 00 See to Valuets Apply Off Time Setap 100 AM 0 Off V Apply Off Time Setap 100 AM 0 Off V See to Valuets Apply Off Time Setap |
| | | | t time is not correct set the PC time. pressing Apply betton. |

* 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 MagicNet works only on MagicNet 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, MagicNet Source functions only for MagicNet Model.



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.

| Multiple Display Co File Remocon | vtol Safety Leck Port Se | lection Help | | |
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| Settings | | | | |
| - | | | | 7 Double 3 |
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| Maintenance | | | | |
| | | | | 0 |
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- ***** 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 MagicNet works only on MagicNet model.
- ***** The Input source of TV works only on TV model.
- * PIP Size can be controlled with turning on the LCD Display power.



PIP Source

- 1. Click PIP of the main icons and the PIP control screen appears.
- PIP TV Mode

| File Remocon | Safety Lock Port Selecti Select Alt Clear A | | Case person |
|---|---|--------------|----------------------------------|
| Power Control | 🗹 IO 🐹 - PIP | | PP Son PP Source 🚺 |
| Input Source | 2 0 • Dout | le 1 8-Video | |
| The second se | | | All Inputs |
| image Size | | | 2 PC AV (6) |
| 0 | | | 3 BNC S.Video (7) |
| Tarre | | | 4 DVI Component (8) |
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| চার | | | Channel |
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| | Some Sources of PIP ca The PIP source of TV we | | ding to the type of Main Source. |

• PIP S-Video Mode

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| Settings | | | | | | |
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| Maintenance | | | | | | |
| | Same | Sources | d PIP can not ope | rate properly according | ng to the type of Main S | auros. |
| | | | of TV works only i | | | (1) |
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* 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) TV
 - -Changes the source of the PIP of the selected display to TV.

- 6) AV
 - Changes the source of the PIP of the selected display to AV.
- 7) S-Video
- Changes the source of the PIP of the selected display to S-Video.
- 8) Component
- Changes the source of the PIP of the selected display to Component.
- 9) Channel
 - Channel arrow appears when the PIP Source is TV.

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 MagicNet works only on MagicNet model.
- 苯 The Input source of TV works only on TV model.
- TV Source can be selected only in products with TV and controlling channels is allowed only when PIP Source is TV.
- The PIP Control feature is available only for the displays whose power status is ON and the PIP function is set to ON.



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 calented the set value of the calented function is displayed.

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, DVI(HDCP).
- 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 MagicNet works only on MagicNet 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.



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) BrightnessAdjusts 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 MagicNet works only on MagicNet model.
- 苯 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.



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 MagicNet works only on MagicNet 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.



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 MagicNet works only on MagicNet 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.



Lamp Control

1. Click on the "Maintenance" icon in the Main Icon column to display the Maintenance screen.

| Multiple Display Co | nteol | | | | | | | xitix |
|---------------------|-------|--------|------|-----------------------|----|-------------------|------|--|
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| Power Control | 5 | lra/ | | Clear All Wax Stru | | Busy Min State | | Lamp Central Borst Video Wat |
| | | 0 | • | 05:04 PM | 60 | 03:02 AM | 80 * | |
| Input Source | | | | | | | | Auto Lang Control |
| image Size | | | | | | | | |
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| 1 | | | | | | | | |
| VØ | | | | | | | | 3 Manual Lamp Control |
| Maintenance | | | | | | | | |
| | | | | | | | | antrol function. ap control or Manual lamp control of a time. |

* 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 MagicNet works only on MagicNet model.
- ***** The Input source of TV works only on TV model.



Scroll

1. Click on the "Maintenance" icon in the Main Icon column to display the Maintenance screen.

| Multiple Display Ca File Remocan | ort Selection | Help | | Kila Longe period |
|-------------------------------------|---------------|------------------|------|--|
| Power Control | Orar All | e idle Second | Туре | Larre Control Server Video Wall |
| Drage Stre O Tree PP | | | | Of Con |
| Settings Settings | | | | |
| | | | | \bigcirc |

- 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 MagicNet works only on MagicNet 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.



Video Wall

1. Click on the "Maintenance" icon in the Main Icon column to display the Maintenance screen.

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|---------------|------------|-------------------|-------------------|-------------------|--------------------|----------------|
| Power Control | Select A | II Clear All | 🤐 idle | | | |
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| Input Source | | | | - Vi4 | lea Wall 📃 🕻 | N OFF (3) |
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| Image Size | | | | | Horizontal | Vertical |
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| PIP | | | | | | |
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| 19 | | _ | | | | |
| Settings | | | | | | |
| | | | | 4) Fo | nnat 🛛 🖡 | ul Natural |
| Maintenance | | | | | | |
| | PIP On, In | nage Sice and Aut | a Adjustment fun: | ction are not ava | illable in Video I | Wall mode. |

- 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.



- ***** You may not operate this function in MagicNet.
- ***** The Input source of TV works only on TV model.
- \star 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 16 . (Adjust using the Display menu)
- Note : A Display Set ID must be a value between 0 and ${\bf 16}$.
- 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.

| 7 Netice | × |
|---|-------------------------|
| Please make selection in the information grid before controlling. | example D 10 1 |

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.

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Model

SyncMaster 400DX



Safety Instructions Introduction Connections

Using the Software

Adjusting the LCD Display Input Picture [PC / BNC /DVI Mode] Picture [AV / S-Video / Component / HDMI Mode] Sound Setup Multi Control Direct Functions

Troubleshooting

Specifications

Information

Appendix



a www.samsung.com

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

Adjusting the LCD Display

Input

Available Modes
PC / BNC / DVI

🛕 AV

S-Video

Component

Source List

 \odot

 $[\mathsf{MENU}] \rightarrow [\mathsf{ENTER}] \rightarrow [\mathsf{ENTER}] \rightarrow [\land / \lor] \rightarrow [\mathsf{ENTER}]$

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

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

🗹 Note

- 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.

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.

1) PIP

```
(MENU) → [ENTER] → [^ / ^] → [ENTER] → [ENTER] → [^ / ^] → [ENTER]
Turns the PIP Screen Off/On.
Off
On
[The direct button on the remote control is the 'PIP' button.]
2) Source
```

 $[\mathsf{MENU}] \rightarrow [\mathsf{ENTER}] \rightarrow [\land / \lor] \rightarrow [\mathsf{ENTER}] \rightarrow [\land / \lor] \rightarrow [\mathsf{ENTER}] \rightarrow [\land / \lor] \rightarrow [\mathsf{ENTER}]$

Selects the input source for the PIP.

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

- DVI : AV / S-Video / Component Mode - AV / S-Video : PC / BNC / DVI Mode - Component : PC / DVI Mode - HDMI : PC / BNC Mode

Swaps the contents of the PIP and main image.

Changes the Size of the PIP window.

Changes the Position of the PIP window.

Adjusts the Transparency of PIP windows.

3) Swap \odot

4) Size

PIP window.

 (\mathbf{b})

5) Position (\mathbf{b})

6) Transparency \odot

- High - Medium - Low - Opaque Note

Available Modes: PIP ON

Edit Name

 \odot

1) PC 2) BNC 3) DVI 4) AV 5) S-Video 6) Component 7) HDMI

Available Modes PC / BNC / DVI

MagicBright™ 믿 \odot

🔔 AV <u>§</u> S-Video Component 🔣 HDMI

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

The image in the PIP window will appear on the main screen, and the main screen image will appear in the

 $[\mathsf{MENU}] \rightarrow [\mathsf{ENTER}] \rightarrow [\land / \lor] \rightarrow [\mathsf{ENTER}] \rightarrow [\land / \lor] \rightarrow [\mathsf{ENTER}] \rightarrow [\land / \lor] \rightarrow [\mathsf{ENTER}]$

 $[\mathsf{MENU}] \rightarrow [\mathsf{ENTER}] \rightarrow [\land / \lor] \rightarrow [\mathsf{ENTER}] \rightarrow [\land / \lor] \rightarrow [\mathsf{ENTER}] \rightarrow [\land / \lor] \rightarrow [\mathsf{ENTER}]$

 $[\mathsf{MENU}] \rightarrow [\mathsf{ENTER}] \rightarrow [\land / \lor] \rightarrow [\mathsf{ENTER}] \rightarrow [\land / \lor] \rightarrow [\mathsf{ENTER}] \rightarrow [\land / \lor] \rightarrow [\mathsf{ENTER}]$

 $[\mathsf{MENU}] \rightarrow [\mathsf{ENTER}] \rightarrow [\land / \lor] \rightarrow [\mathsf{ENTER}] \rightarrow [\land / \lor] \rightarrow [\mathsf{ENTER}] \rightarrow [\land / \lor] \rightarrow [\mathsf{ENTER}]$ Name the input device connected to the input jacks to make your input source selection easier.

Picture [PC / BNC /DVI Mode]

 $[\mathsf{MENU}] \rightarrow [\mathsf{ENTER}] \rightarrow [\land / \lor] \rightarrow [\mathsf{ENTER}] \rightarrow [\land / \lor] \rightarrow [\mathsf{ENTER}]$

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

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

- BNC : AV / S-Video / HDMI Mode

$[\mathsf{MENU}] \rightarrow [\land / \lor] \rightarrow [\mathsf{ENTER}] \rightarrow [\mathsf{ENTER}] \rightarrow [\land / \lor] \rightarrow [\mathsf{ENTER}]$

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.

- Entertain
 High brightness
 For watching motion pictures such as a DVD or VCD.

 Internet
- Medium brightness

For working with a mixture of images such as the text with graphics added.

- 3) Text
 - Normal brightness
 - For documentations or work involving a lot of text.
- 4) Custom

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

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

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

Custom 밀



 $[\mathsf{MENU}] \rightarrow [\land / \lor] \rightarrow [\mathsf{ENTER}] \rightarrow [\land / \lor] \rightarrow [\mathsf{ENTER}] \rightarrow [\mathsf{ENTER}] \rightarrow [\land / \lor] / [</ >] \rightarrow [\mathsf{ENTER}]$

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.

Color Tone P

 \odot

 $[\mathsf{MENU}] \rightarrow [\land / \lor] \rightarrow [\mathsf{ENTER}] \rightarrow [\land / \lor] \rightarrow [\mathsf{ENTER}] \rightarrow [\land / \lor] \rightarrow [\mathsf{ENTER}]$

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

Color Control P



 $[\mathsf{MENU}] \rightarrow [\land / \lor] \rightarrow [\mathsf{ENTER}] \rightarrow [\land / \lor] \rightarrow [\mathsf{ENTER}] \rightarrow [\mathsf{ENTER}] \rightarrow [\mathsf{<}/\mathsf{>}] \rightarrow [\mathsf{ENTER}]$

Adjusts the individual R, G, B color controls. (Available in PC, BNC mode only)

- 1) Red
- 2) Green
- 3) Blue

Note

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

Color Temp P

 \odot

 $[\mathsf{MENU}] \rightarrow [\land / \lor] \rightarrow [\mathsf{ENTER}] \rightarrow [\land / \lor] \rightarrow [\mathsf{ENTER}] \rightarrow [</ >] \rightarrow [\mathsf{ENTER}]$

Color Temp is a measure of the 'warmth' of the image colors. (This function is only enabled if the Color Tone is set to Off.)

Brightness Sensor 🗜

 \odot

 $[\mathsf{MENU}] \rightarrow [\land / \lor] \rightarrow [\mathsf{ENTER}] \rightarrow [\land / \lor] \rightarrow [\mathsf{ENTER}] \rightarrow [</ >] \rightarrow [\mathsf{ENTER}]$

Brightness Sensor is to automatically detect distribution of inputted visual signal and adjust to create optimum brightness.

1) On 2) Off

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)

1) Coarse

 \odot

 $[MENU] \rightarrow [\land / \lor] \rightarrow [ENTER] \rightarrow [\land / \lor] \rightarrow [ENTER] \rightarrow [ENTER] \rightarrow [</ >] \rightarrow [ENTER]$ 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.

2) Fine

 $\bigcirc \bigcirc \bigcirc$

 $[MENU] \rightarrow [\land / \lor] \rightarrow [ENTER] \rightarrow [\land / \lor] \rightarrow [ENTER] \rightarrow [\land / \lor] \rightarrow [ENTER] \rightarrow [</ >] \rightarrow [ENTER]$ Removes noise such as horizontal stripes. If the noise persists even after fine tuning, repeat it after adjusting the frequency (clock speed).

3) Position

 \odot

 $[\mathsf{MENU}] \rightarrow [\land / \lor] \rightarrow [\mathsf{ENTER}] \rightarrow [\land / \lor] \rightarrow [\mathsf{ENTER}] \rightarrow [\land / \lor] \rightarrow [\mathsf{ENTER}] \rightarrow [</>] / [\land / \lor] \rightarrow [\mathsf{ENTER}]$

Adjusts the screen location horizontally and vertically.

Auto Adjustment 🖳



 $[\mathsf{MENU}] \rightarrow [\land \ / \ \lor] \rightarrow [\mathsf{ENTER}] \rightarrow [\land \ / \ \lor] \rightarrow [\mathsf{ENTER}]$

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)

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

Signal Balance 🕒

This is used to make up for the weak RGB signal transmitted by a long signal cable. (Available in PC, BNC mode only)

1) Signal Balance

```
\textcircled{MENU} \rightarrow [\land / \lor] \rightarrow [ENTER] \rightarrow [\land / \lor] \rightarrow [ENTER] \rightarrow [\land / \lor] \rightarrow [ENTER]
Selects either On or Off with the signal control.
```

2) Signal Control

 $(MENU] \rightarrow [\land / \lor] \rightarrow [ENTER] \rightarrow [\land / \lor] \rightarrow [ENTER]$ Adjusts the Gain and Sharpness manually.

Size P



 $[\mathsf{MENU}] \rightarrow [\land / \lor] \rightarrow [\mathsf{ENTER}] \rightarrow [\land / \lor] \rightarrow [\mathsf{ENTER}] \rightarrow [\land / \lor] \rightarrow [\mathsf{ENTER}]$

The Size can be switched.

1) 16:9 2) 4:3

PIP Picture 밀



 $[\mathsf{MENU}] \rightarrow [\land / \lor] \rightarrow [\mathsf{ENTER}] \rightarrow [</ >] \rightarrow [\mathsf{ENTER}]$

Adjusts the PIP Screen Settings.

1) Contrast

Adjusts the Contrast of the PIP window on the screen.

- 2) Brightness Adjusts the Brightness of the PIP window on the screen.
- 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.

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.

Available Modes: PIP ON

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

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

Mode 🔼 S 🕻 Ħ



 $[\mathsf{MENU}] \rightarrow [\land / \lor] \rightarrow [\mathsf{ENTER}] \rightarrow [\mathsf{ENTER}] \rightarrow [\land / \lor] \rightarrow [\mathsf{ENTER}]$

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

Custom



 $[\mathsf{MENU}] \rightarrow [\land / \lor] \rightarrow [\mathsf{ENTER}] \rightarrow [\land / \lor] \rightarrow [\mathsf{ENTER}] \rightarrow [\land / \lor] \rightarrow [\mathsf{ENTER}] \rightarrow [</\mathsf{F}] \rightarrow [\mathsf{ENTER}]$

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.

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

Color Tone



 $[\mathsf{MENU}] \rightarrow [\land / \lor] \rightarrow [\mathsf{ENTER}] \rightarrow [\land / \lor] \rightarrow [\mathsf{ENTER}] \rightarrow [\land / \lor] \rightarrow [\mathsf{ENTER}]$

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.

Color Temp



 $[\mathsf{MENU}] \rightarrow [\land / \lor] \rightarrow [\mathsf{ENTER}] \rightarrow [\land / \lor] \rightarrow [\mathsf{ENTER}] \rightarrow [</ >] \rightarrow [\mathsf{ENTER}]$

Color temp is a measure of the 'warmth' of the image colors. (This function is only enabled if the Color Tone is set to Off.)

Size ASCH

 $[\mathsf{MENU}] \rightarrow [\land / \lor] \rightarrow [\mathsf{ENTER}] \rightarrow [\land / \lor] \rightarrow [\mathsf{ENTER}] \rightarrow [\land / \lor] \rightarrow [\mathsf{ENTER}]$

The Size can be switched.

- 1) 16:9
- 2) Zoom 1
- 3) Zoom 2
- 4) 4:3

[The ZOOM1, ZOOM2 are not available in 1080i (or over 720p) of Component and HDMI.]

Brightness Sensor



Brightness Sensor is to automatically detect distribution of inputted visual signal and adjust to create optimum brightness.

1) Off

2) On

Dynamic Contrast 🔼 S C H



 $[\mathsf{MENU}] \rightarrow [\land / \lor] \rightarrow [\mathsf{ENTER}] \rightarrow [\land / \lor] \rightarrow [\mathsf{ENTER}] \rightarrow [\land / \lor] \rightarrow [\mathsf{ENTER}]$

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

1) Off 2) On

Digital NR (Digital Noise Reduction)



 $[\mathsf{MENU}] \rightarrow [\land / \lor] \rightarrow [\mathsf{ENTER}] \rightarrow [\land / \lor] \rightarrow [\mathsf{ENTER}] \rightarrow [\land / \lor] \rightarrow [\mathsf{ENTER}]$

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

Film Mode 🔼 S 🕻



 $[\mathsf{MENU}] \rightarrow [\land / \lor] \rightarrow [\mathsf{ENTER}] \rightarrow [\land / \lor] \rightarrow [\mathsf{ENTER}] \rightarrow [\land / \lor] \rightarrow [\mathsf{ENTER}]$

Turns Film Mode Off/On. The Film Mode feature offers you a theater-quality viewing experience. (Not available in DVI-Video / HDMI Mode)

1) Off

2) On

PIP Picture



 $[\mathsf{MENU}] \rightarrow [\land / \lor] \rightarrow [\mathsf{ENTER}] \rightarrow [\land / \lor] \rightarrow [\mathsf{ENTER}]$

Adjusts the PIP Screen Settings.

1) Contrast

Adjusts the Contrast of the PIP window on the screen.

2) Brightness Adjusts the Brightness of the PIP window on the screen.

Available Modes: PIP ON

Sound

Available Modes
PC / BNC / DVI
A AV
S S-Video
C Component
HDMI

Mode PASCH

\odot

 $[\mathsf{MENU}] \rightarrow [\land / \lor] \rightarrow [\mathsf{ENTER}] \rightarrow [\mathsf{ENTER}] \rightarrow [\land / \lor] \rightarrow [\mathsf{ENTER}]$

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.

- 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 preferences.

Custom



 $[\mathsf{MENU}] \rightarrow [\land / \lor] \rightarrow [\mathsf{ENTER}] \rightarrow [\land / \lor] \rightarrow [\mathsf{ENTER}] \rightarrow [\land / \lor] \rightarrow [\mathsf{ENTER}] \rightarrow [</ >] \rightarrow [\mathsf{ENTER}]$

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.

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

Note

· If you adjust picture using Sound Custom function, Sound Mode will turn to Custom mode.

Auto Volume PASCH



 $[\mathsf{MENU}] \rightarrow [\land / \lor] \rightarrow [\mathsf{ENTER}] \rightarrow [\land / \lor] \rightarrow [\mathsf{ENTER}] \rightarrow [\land / \lor] \rightarrow [\mathsf{ENTER}]$

Reduces the difference in volume control between broadcasters.

1) Off 2) On

SRS TS XT PASCH



 $[\mathsf{MENU}] \rightarrow [\land / \lor] \rightarrow [\mathsf{ENTER}] \rightarrow [\land / \lor] \rightarrow [\mathsf{ENTER}] \rightarrow [\land / \lor] \rightarrow [\mathsf{ENTER}]$

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

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

Sound Select

 $[MENU] \rightarrow [\land / \lor] \rightarrow [ENTER] \rightarrow [\land / \lor] \rightarrow [ENTER] \rightarrow [\land / \lor] \rightarrow [ENTER]$ Selects either Main or Sub when PIP is On.

1) Main

 \bigcirc

2) Sub [Available Modes: PIP ON]

Setup

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

Language 🗜 🔼 S C Ħ

 \odot

 $[\mathsf{MENU}] \rightarrow [\land / \lor] \rightarrow [\mathsf{ENTER}] \rightarrow [\mathsf{ENTER}] \rightarrow [\land / \lor] \rightarrow [\mathsf{ENTER}]$

You can choose from 11 languages.

Note

The language chosen affects only the language of the OSD.

It has no effect on any software running on the computer.

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

Time PASCH

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

1) Clock Set

 $[MENU] \rightarrow [\land / \lor] \rightarrow [ENTER] \rightarrow [\land / \lor] \rightarrow [ENTER] \rightarrow [eNTER] \rightarrow [eNTER]$ Current Time Setting.

2) Sleep Timer

 \odot

 $[MENU] \rightarrow [\land / \lor] \rightarrow [ENTER] \rightarrow [\land / \lor] \rightarrow [ENTER] \rightarrow [\land / \lor] \rightarrow [ENTER] \rightarrow [</ >) \rightarrow [\land / \lor] \rightarrow [ENTER] \rightarrow [</ >) \rightarrow [\land / \lor] \rightarrow [ENTER]$

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

3) On Timer

 $(MENU] \rightarrow [\land / \lor] \rightarrow [ENTER] \rightarrow [\land / \lor] \rightarrow [ENTER] \rightarrow [\land / \lor] \rightarrow [ENTER] \rightarrow [</ >] \rightarrow [\land / \lor] \rightarrow [ENTER]$ (</ /) (ENTER]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.

4) Off Timer

 $(MENU] \rightarrow [\land / \lor] \rightarrow [ENTER] \rightarrow [\land / \lor] \rightarrow [ENTER] \rightarrow [\land / \lor] \rightarrow [ENTER] \rightarrow [\land / \lor] \rightarrow [ENTER]$ (ENTER]

Turns the LCD Display off automatically at a preset time.

🗹 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.".

Menu Transparency 📕 🗛 🕸 🕼 Ħ



 $[\mathsf{MENU}] \rightarrow [\land / \lor] \rightarrow [\mathsf{ENTER}] \rightarrow [\land / \lor] \rightarrow [\mathsf{ENTER}] \rightarrow [\land / \lor] \rightarrow [\mathsf{ENTER}]$

Changes the opaqueness of the OSD background.

- 1) High
- 2) Medium

Low
 Opaque

Safety Lock PIN PASCH

 \odot

 $[\mathsf{MENU}] \rightarrow [\land / \lor] \rightarrow [\mathsf{ENTER}] \rightarrow [\land / \lor] \rightarrow [\mathsf{ENTER}] \rightarrow [\mathsf{0}\text{-9}] \rightarrow [\mathsf{0}\text{-9}] \rightarrow [\mathsf{0}\text{-9}]$

The password can be changed.

Energy Saving PASCH



 $[\mathsf{MENU}] \rightarrow [\land / \lor] \rightarrow [\mathsf{ENTER}] \rightarrow [\land / \lor] \rightarrow [\mathsf{ENTER}] \rightarrow [\land / \lor] \rightarrow [\mathsf{ENTER}] \rightarrow [\mathsf{MENU}]$

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.

HDMI Black Level

 \odot

 $[\mathsf{MENU}] \rightarrow [\land / \lor] \rightarrow [\mathsf{ENTER}] \rightarrow [\land / \lor] \rightarrow [\mathsf{ENTER}] \rightarrow [\land / \lor] \rightarrow [\mathsf{ENTER}] \rightarrow [\mathsf{MENU}]$

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

Video Wall PASCH

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.

1) Video Wall

 \odot

$$\begin{split} [\mathsf{MENU}] \to [\land / \lor] \to [\mathsf{ENTER}] \to [\land / \lor] \to [\mathsf{ENTER}] \to [\land / \lor] \to [\mathsf{ENTER}] \\ \mathsf{Turns} \ \mathsf{Off}/\mathsf{On} \ \mathsf{the} \ \mathsf{Video} \ \mathsf{Wall} \ \mathsf{function} \ \mathsf{of} \ \mathsf{the} \ \mathsf{selected} \ \mathsf{display} \ \mathsf{Off}/\mathsf{On}. \end{split}$$

- Off

- On

2) Format

 \odot

 $[\mathsf{MENU}] \rightarrow [\land / \lor] \rightarrow [\mathsf{ENTER}] \rightarrow [\land / \lor] \rightarrow [\mathsf{ENTER}] \rightarrow [\land / \lor] \rightarrow [\mathsf{ENTER}] \rightarrow [\land / \lor] \rightarrow [\mathsf{ENTER}]$ The format can be selected to see a divided screen.

- Full
 - Provides a full screen without any margins.

- Natural

Displays a natural image with the original aspect ratio intact.

- 3) Horizontal
 - \odot

 $[MENU] \rightarrow [\land / \lor] \rightarrow [ENTER] \rightarrow [\land / \lor] \rightarrow [ENTER] \rightarrow [\land / \lor] \rightarrow [ENTER] \rightarrow [\land / \lor] \rightarrow [ENTER]$

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

4) Vertical

 $\textcircled{MENU} \rightarrow [\land / \lor] \rightarrow [ENTER] \rightarrow [\land / \lor] \rightarrow [ENTER] \rightarrow [\land / \lor] \rightarrow [ENTER]$ Sets how many parts the screen should be divided vertically. - Five adjustment levels: 1, 2, 3, 4, and 5.

5) Screen Divider

```
\odot
```

 $[\mathsf{MENU}] \rightarrow [\land / \lor] \rightarrow [\mathsf{ENTER}] \rightarrow [\land / \lor] \rightarrow [\mathsf{ENTER}] \rightarrow [\land / \lor] \rightarrow [\mathsf{ENTER}] \rightarrow [\land / \lor] \rightarrow [\mathsf{ENTER}]$ 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.

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 MagicNet mode.

Safety Screen PASCH

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 Screen Scroll function scrolls the screen for the specified period of time.
- This function is not available when the power is turned off.
- 1) Safety Screen

 \odot $[\mathsf{MENU}] \rightarrow [\land / \lor] \rightarrow [\mathsf{ENTER}] \rightarrow [\land / \lor] \rightarrow [\mathsf{ENTER}] \rightarrow [\land / \lor] \rightarrow [\mathsf{ENTER}]$ Determines whether to turn the Screen Scroll function Off or On. - Off - On 2) Interval \odot $[\mathsf{MENU}] \rightarrow [\land / \lor] \rightarrow [\mathsf{ENTER}] \rightarrow [\land / \lor] \rightarrow [\mathsf{ENTER}] \rightarrow [\land / \lor] \rightarrow [\mathsf{ENTER}] \rightarrow [\land / \lor] \rightarrow [\mathsf{ENTER}]$ Determines the time interval to run the Screen Scroll 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. - 1~10 Hour 3) Second • $[\mathsf{MENU}] \rightarrow [\land / \lor] \rightarrow [\mathsf{ENTER}] \rightarrow [\land / \lor] \rightarrow [\mathsf{ENTER}] \rightarrow [\land / \lor] \rightarrow [\mathsf{ENTER}] \rightarrow [\land / \lor] \rightarrow [\mathsf{ENTER}]$ Determines the time period to run the Screen Scroll 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 4) Type \bigcirc $[\mathsf{MENU}] \rightarrow [\land / \lor] \rightarrow [\mathsf{ENTER}] \rightarrow [\land / \lor] \rightarrow [\mathsf{ENTER}] \rightarrow [\land / \lor] \rightarrow [\mathsf{ENTER}] \rightarrow [\land / \lor] \rightarrow [\mathsf{ENTER}]$ You can change the Safety Screen Type. - Scroll - Pixel - Bar

- Fraser

Resolution Select 🕒



 $[\mathsf{MENU}] \rightarrow [\land / \lor] \rightarrow [\mathsf{ENTER}] \rightarrow [\land / \lor] \rightarrow [\mathsf{ENTER}] \rightarrow [\land / \lor] \rightarrow [\mathsf{ENTER}]$

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 or 1366 x 768 @ 60Hz, by using this function(Resolution Select), you can have the picture displayed on the screen in the specified resolution. **Available in PC/BNC mode only**

Off
 1024 X 768
 1280 X 768
 1360 x 768

5) 1366 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 or 1366 x768 @ 60Hz.

Lamp Control PASCH



 $[\mathsf{MENU}] \rightarrow [\land / \lor] \rightarrow [\mathsf{ENTER}] \rightarrow [\land / \lor] \rightarrow [\mathsf{ENTER}] \rightarrow [\mathsf{ENTER}] \rightarrow [\mathsf{<}/\mathsf{>}] \rightarrow [\mathsf{ENTER}]$

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, and Component modes.

Power On Adjustment PASCH



 $[\mathsf{MENU}] \rightarrow [\land / \lor] \rightarrow [\mathsf{ENTER}] \rightarrow [\land / \lor] \rightarrow [\mathsf{ENTER}] \rightarrow [\land / \lor] \rightarrow [\mathsf{ENTER}]$

Adjusts the Power On time for the screen.

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

FAN PASCH



 $[\mathsf{MENU}] \rightarrow [\land / \lor] \rightarrow [\mathsf{ENTER}] \rightarrow [\land / \lor] \rightarrow [\mathsf{ENTER}] \rightarrow [\land / \lor] \rightarrow [\mathsf{ENTER}]$

Adjusts the FAN.

- 1) Normal
- 2) Pivot
- Note
- · When pivoting your monitor, make sure to select PIVOT for the FAN.

Reset

The picture parameters are replaced with the factory default values. For the DVI source, the Reset function is only available when PC DVI is being used.

1) Image Reset P

 $[\mathsf{MENU}] \to [\land / \lor] \to [\mathsf{ENTER}] \to [\land / \lor] \to [\mathsf{ENTER}] \to [\mathsf{ENTER}] \to [</>] \to [\mathsf{ENTER}]$ Available in PC/BNC mode only

2) Color Reset 🖳

 $(MENU] \rightarrow [\land / \lor] \rightarrow [ENTER] \rightarrow [\land / \lor] \rightarrow [ENTER] \rightarrow [\land / \lor] \rightarrow [ENTER] \rightarrow [</ >] \rightarrow [ENTER]$ Available in PC/BNC mode only

Note

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

Multi Control

Available Modes
PC / BNC / DVI
AV

S-Video

Multi Control

Assigns an individual ID to the SET.

1) ID Setup

 $[MENU] \rightarrow [\land / \lor] \rightarrow [ENTER] \rightarrow [\land / \lor] \rightarrow [ENTER] \rightarrow [eNTER] \rightarrow [0~9]$ Assigns distinctive IDs to the SET.

2) ID Input

 \odot

 $[MENU] \rightarrow [\land / \lor] \rightarrow [ENTER] \rightarrow [\land / \lor] \rightarrow [ENTER] \rightarrow [ENTER] \rightarrow [0~9]$ Use to select the transmitter functions of the individual SET. Only a SET where the ID corresponds to the transmitter setting becomes activated.

Direct Functions

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

MDC PASCH



Moves to the Multi Control OSD screen.

LOCK PASCII

Sets the Safety Lock function.

1) Lock On It will be locked.

2) Lock Off

It will be unlocked.

Note

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

The preset password on the LCD Display is "0000".

🗹 Note

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.

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Safety Instructions Introduction Connections Using the Software Adjusting the LCD Display Troubleshooting Self-Test Feature Check Check List Q & A Specifications Information Appendix

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

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

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

- 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.



 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.

> Not Optimum Mode

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

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.
- 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.
- 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).
- 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.

> Problems related to the Installation (PC Mode)

🗹 Note

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

Problems

Solutions

The LCD Display screen flickers.

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

> Problems related to the Screen

🗹 Note

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

| Problems | Solutions |
|---|---|
| The screen is blank and the power indicator is off. | Ensure that the power cord is firmly connected and the LCD LCD Display is on. (Refer to the Connecting the LCD Display) |
| "Check Signal Cable" message. | Ensure that the signal cable is firmly connected to the PC or video sources. (Refer to the Connecting the LCD Display) Ensure that the PC or video sources are turned on. |
| "Not Optimum Mode " message. | Check the maximum resolution and the frequency of the video Adaptor. Compare these values with the data in the Preset Timing Modes Chart. |
| The picture rolls vertically. | Check if the signal cable is securely connected. Re-connect it, if necessary. (Refer to Connecting a Computer) |
| The image is not clear; picture is blurred. | Run Frequency Coarse and Fine tuning. Turn on again after removing all accessories (video extension cable, etc.) Set the resolution and frequency to the recommended ranges. |
| The picture image is unstable and shakes. Ghost images are shown in the picture. | • 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. |
| The image is too light or too dark. | Adjusts the brightness and contrast. (Refer to the Brightness, Contrast) |
| The screen color is inconsistent. The color image is distorted by dark shadows. The color white is poor. | Adjust color using Custom under OSD Color Adjustment menu. |
| The power Indicator blinks green. | The LCD Display is currently saving the changes made to the settings to the OSD memory. |
| The screen is blank and the power indicator light is steady green or blinks every 0.5 or 1 seconds. | The LCD Display is using its power management system.Press a key on the keyboard. |
| The screen is blank and it is blinking. | 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

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

| Problems | Solutions |
|-----------------------------------|---|
| No sound. | 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 the LCD Display) Check the volume level. |
| The sound level is too low. | Check the volume level. 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. |
| The sound is too high or too low. | • 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.

Problems

Solutions

- The remote control buttons do not Check the polarities (+/-) of the batteries.
- respond. Check if the batteries are empty.
 - Check if the power is on.
 - Check if the power cord is securely connected.
 - Check if a special fluorescent or neon lamp is on in the vicinity.

Q & A

| Question | Answer |
|---|---|
| How can I change the frequency? | 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.) |
| How can I Adjusts the resolution? | Windows XP: Set the resolution in the Control Panel → Appearance and Themes → Display → Settings. Windows ME/2000: Set the resolution in the Control Panel → Display → Settings. * Contact the video card manufacturer for details. |
| How can I set the Power Saving function? | 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). 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). |
| How can I clean the outer case/LCD Panel? | 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 |

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

General



Safety Instructions Introduction Connections Using the Software Adjusting the Monitor Troubleshooting Specifications General PowerSaver Preset Timing Modes Information

Appendix



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

Specifications

| 5 | General | |
|----------------|--|-------------------------------|
| | | |
| | General | |
| | Model Name | SyncMaster 400DX |
| | LCD Panel | |
| | Size | 40 " Diagonal (101 cm) |
| | Display area | 885.168 mm(H) x 497.664 mm(V) |
| | Pixel Pitch | 0.648 mm (H) x 0.648 mm (V) |
| | Synchronization | |
| | Horizontal | 30 ~ 81 kHz |
| | Vertical | 56 ~ 85 Hz |
| | Display Color | |
| | Display Color | 16.7 M |
| | Resolution | |
| | Optimum resolution | 1360 x 768 @ 60 Hz |
| | Maximum resolution | 1360 x 768 @ 60 Hz |
| | Input Signal, Terminated | |
| | RGB Analog, DVI Compliant Digital RGB | |
| 0.7 Vp-p ± 5 % | | |
| | separate H/V sync, Composite, SOG(Option) TTL level (V high ≥ 2.0 V, V low ≤ 0.8 V) | |
| | Maximum Pixel Clock | |
| | 140 MH- | |

140 MHz

Power Supply

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

Signal Cable

15pin to 15pin D-sub cable, Detachable DVI-D to DVI-D connector, Detachable (Sold separately)

Dimensions (WxHxD)/ Weight

1132.0 x 604.0 x 311.0 mm / 44.6 x 23.8 x 12.2 inch (With Speaker & With Stand) 932.0 x 548.0 x 130.0 mm / 36.7 x 21.6 x 5.1 inch (Without Speaker) 932.0 x 604.0 x 311.0 mm / 36.7 x 23.8 x 12.2 inch, 25.0 kg / 55.1 lbs(With Stand) 932.0 x 604.0 x 317.0 mm / 36.7 x 23.8 x 12.5 inch, 28.5 kg / 62.8 lbs(With Glass & With Stand)

VESA Mounting Interface

600 mm x 400 mm

Environmental considerations

| Operating | Temperature: 50°F ~ 104°F (10°C ~ 40°C) |
|-----------------------|--|
| | Humidity: 10 % ~ 80 %, non-condensing |
| Storage | Temperature: -4°F ~ 113°F (-20°C ~ 45°C) |
| | Humidity: 5 % ~ 95 %, non-condensing |
| Audio Characteristics | |

Audio Input 1 RCA Jack Red(R) White(L), 0.5 Vrms (-9 dB)

| Audio Input 2 | RCA Jack Red(R) White(L), 0.5 Vrms (-9 dB) |
|----------------|--|
| PC Audio Input | 3.5 Ø Stereo Jack, 0.5 Vrms (-9 dB) |
| Frequency | RF: 80 Hz ~ 15 kHz (at -3 dB) |
| Response | A/V: 80 Hz ~ 20 kHz (at -3 dB) |

Plug and Play Capability

This monitor can be installed on any Plug & Play compatible system. The interaction of the monitor and the computer systems will provide the best operating conditions and monitor settings. In most cases, the monitor 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 B Equipment (Information Communication equipment for residential use)

 This product complies with the Electromagnetic Compatibility Directives for residential use and can be used in all areas including common residential areas. (Class B equipment emits less electromagnetic waves than Class A equipment.)

PowerSaver

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

PowerSaver

| State | Normal Operation | Power saving mode | Power off EPA/ENERGY 2000 |
|-------------------|--------------------|-----------------------------|---------------------------------|
| Power Indicator | Green | Green, Blinking | Amber |
| Power Consumption | Less than 220 W | Less than 1 W (Off-mode) | Less than 1 W (Power button) |



This monitor is EPA ENERGY STAR [®] compliant and ENERGY2000 compliant when used with a computer equipped with VESA DPM functionality.

As an ENERGY STAR [®] Partner, SAMSUNG has determined that this product meets the ENERGY STAR [®] guidelines for energy efficiency.

Preset Timing Modes

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 | Vertical | Pixel Clock | Sync Polarity |
|--------------|------------|-----------|-------------|---------------|
| | Frequency | Frequency | (MHz) | (H/V) |
| | (kHz) | (Hz) | | |

| 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

General



Safety Instructions Introduction Connections Using the Software Adjusting the Monitor Troubleshooting Specifications General PowerSaver Preset Timing Modes Information

Appendix



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

Specifications

| 5 | General | |
|---|--|----------------------------------|
| | General | |
| | Model Name | SyncMaster 460DX |
| | LCD Panel | |
| | Size | 46" Diagonal (116 cm) |
| | Display area | 1018.353 mm (H) x 572.544 mm (V) |
| | Pixel Pitch | 0.7455 mm (H) x 0.7455 mm (W) |
| | Synchronization | |
| | Horizontal | 30 ~ 81 kHz |
| | Vertical | 56 ~ 85 Hz |
| | Display Color | |
| | Display Color | 16.7 M |
| | Resolution | |
| | Optimum resolution | 1360 x 768 @ 60 Hz |
| | Maximum resolution | 1360 x 768 @ 60 Hz |
| | Input Signal, Terminated RGB Analog, DVI Compliant Digital RGB $0.7 Vp-p \pm 5 \%$ separate H/V sync, Composite, SOG(Option) TTL level (V high $\ge 2.0 V$, V low $\le 0.8 V$) | |
| | Maximum Pixel Clock | |
| | 140 MHz (Analog, Digital) | |
| | Power Supply | |
| | AC 100 - 240 V~ (+/- 10 %), 50/60 I | Hz |
| | Signal Cable 15pin to 15pin D-sub cable, Detach DVI-D to DVI-D connector, Detacha | |
| | | |

Dimensions (WxHxD)/ Weight

```
1268.0 x 681.0 x 311.0 mm / 49.9 x 26.8 x 12.2 inch (With Speaker & With Stand)
1068.0 x 624.0 x 130.0 mm / 42.0 x 24.6 x 5.1 inch (Without Speaker)
1068.0 x 681.0 x 311.0 mm / 42.0 x 26.8 x 12.2 inch / 31.30 Kg / 69.0 lbs(With Stand)
1068.0 x 681.0 x 317.0 mm / 42.0 x 26.8 x 12.5 inch, 35.70 Kg / 78.7 lbs(With Glass & With Stand)
```

VESA Mounting Interface

600 mm x 400 mm

Environmental considerations

| Operating | Temperature: 50°F ~ 104°F (10°C ~ 40°C) |
|-----------------------|--|
| Operating | Humidity: 10 % ~ 80 %, non-condensing |
| Storage | Temperature: $-4^{\circ}F \sim 113^{\circ}F$ ($-20^{\circ}C \sim 45^{\circ}C$) |
| | Humidity: 5 % ~ 95 %, non-condensing |
| Audio Characteristics | |

Audio Input 1 RCA Jack Red(R) White(L), 0.5 Vrms (-9 dB)

| Audio Input 2 | RCA Jack Red(R) White(L), 0.5 Vrms (-9 dB) |
|----------------|--|
| PC Audio Input | 3.5 Ø Stereo Jack, 0.5 Vrms (-9 dB) |
| Frequency | RF: 80 Hz ~ 15 kHz (at -3 dB) |
| Response | A/V: 80 Hz ~ 20 kHz (at -3 dB) |

Plug and Play Capability

This monitor can be installed on any Plug & Play compatible system. The interaction of the monitor and the computer systems will provide the best operating conditions and monitor settings. In most cases, the monitor 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 B Equipment (Information Communication equipment for residential use)

 This product complies with the Electromagnetic Compatibility Directives for residential use and can be used in all areas including common residential areas. (Class B equipment emits less electromagnetic waves than Class A equipment.)

PowerSaver

This monitor has a built-in power management system called PowerSaver. This system saves energy by switching your monitor to low-power mode when it has not been used for a certain amount of time. The monitor automatically returns to normal operation when you press a key on the keyboard. For energy conservation, turn your monitor OFF when it is not needed, or when leaving it unattended for long periods. The PowerSaver system operates with a VESA 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 normal monitor)

| State | Normal Operation | Power saving mode | Power off EPA/ENERGY 2000 |
|-------------------|--------------------|-----------------------------|---------------------------------|
| Power Indicator | Green | Green, Blinking | Amber |
| Power Consumption | Less than 270 W | Less than 1 W (Off-mode) | Less than 1 W (Power button) |



This monitor is EPA ENERGY STAR [®] compliant and ENERGY2000 compliant when used with a computer equipped with VESA DPM functionality.

As an ENERGY STAR [®] Partner, SAMSUNG has determined that this product meets the ENERGY STAR [®] guidelines for energy efficiency.

Preset Timing Modes

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 | Vertical | Pixel Clock | Sync Polarity |
|--------------|------------|-----------|-------------|---------------|
| | Frequency | Frequency | (MHz) | (H/V) |
| | (kHz) | (Hz) | | |

| 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



Safety Instructions Introduction Connections Using the Software Adjusting the LCD Display Troubleshooting Specifications Information

For Better Display PRODUCT INFORMATION (Image Retention Free)

Appendix

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

Information

For Better Display

- Adjust the computer resolution and screen inection 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 LCD Display 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

| FLIGHT : TIME | FLIGHT : TIME | FLIGHT : TIME | FLIGHT : TIME |
|---------------|---------------|---------------|---------------|
| OZ348 : 20:30 | FLIGHT : TIME | OZ348 : 20:30 | OZ348 : 20:30 |

• Every 30 minutes, change the characters with movement.

| FLIGHT : TIME | - | NAT/10 : 12:00 440025 · 12:35 | | FLIGHT : TIME |
|---------------|---|----------------------------------|-----|---------------|
| OZ348 : 20:30 | | KI 0125 - 13-50 | 1 - | OZ348 : 20:30 |
| [Step 1] | | [Step 2] | | [Step 3] |

- 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.

| Horizontal Bar with Black color | | |
|---------------------------------|-------|---|
| | | |
| OZ348 | 20:30 | ľ |
| 115.400 | | |
| UA102 | 21:10 | |

- 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.

| | TIME | L |
|--------|-------|---|
| FLIGHT | | |
| OZ348 | 20:30 | - |
| UA102 | 21:10 | |

- 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

| GHT | TIME |
|-------|-------|
| OZ348 | 20:30 |
| UA102 | 21:10 |

- 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)

1



Safety Instructions Introduction Connections Using the Software Adjusting the LCD Display Troubleshooting Specifications Information Appendix Contact SAMSUNG WORLDWIDE Terms Correct Disposal Authority

SyncMaster

a www.samsung.com

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

Appendix

Contact SAMSUNG WORLDWIDE

Note

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

| 1 | North America | 1 |
|---------------------------------------|--------------------------|---------------------------|
| 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 |
| · · · · · · · · · · · · · · · · · · · | | |

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

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| CZECH REPUBLIC | Distributor pro Českou republ Samsung Zrt., česka organiza 14000 Praha 4 | |
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| FINLAND | 030-6227 515 | http://www.samsung.com/fi |
| FRANCE | 3260 SAMSUNG(726-7864) 08 25 08 65 65 (€ 0,15/min) | http://www.samsung.com/fr |
| GERMANY | 01805-SAMSUNG(726-7864) (€ 0,14/Min) | http://www.samsung.de |
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| NORWAY | 815-56 480 | http://www.samsung.com/no |
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| INDIA | 3030 8282, 1800 110011 | http://www.samsung.com/in/ |
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| NEW ZEALAND | 0800SAMSUNG(726-7864) | http://www.samsung.com/nz |
| PHILIPPINES | 1800-10-SAMSUNG(726-7864) | http://www.samsung.com/ph |
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| 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) 8000-4726 | http://www.samsung.com/mea | | |

Terms

Sync Signal

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

Types of Sync Signals

| Separate | This is a scheme of transmitting individual vertical sync signals to the LCD Display. |
|-----------|--|
| Composite | This is a scheme of combining vertical sync signals into one composite signal and transmitting it to the LCD Display. The LCD Display displays the color signals by separating the composite signal into original color signals. |

Dot Pitch

The image on a LCD Display 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 LCD Display s 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 LCD Display to exchange information automatically. This LCD Display 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). |

Multiple Display Control (MDC)

A Multiple Display Control (MDC) is an application allowing various displays to be easily and simultaneously operated on a PC. RS-232C, a standard of serial communication, is used for communicating between a PC and a display.

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



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