

User manual

S22D390H S22D393H S24D390HL S24D393HL S27D390H S27D393H

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

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An administration fee may be charged if either

(a) an engineer is called out at your request and there is no defect in the product (i.e. where you have failed to read this user manual).
(b) you bring the unit to a repair centre and there is no defect in the product (i.e. where you have failed to read this user manual).

The amount of such administration charge will be advised to you before any work or home visit is carried out.

Icons used in this manual



Cleaning

Exercise care when cleaning as the panel and exterior of advanced LCDs are easily scratched.

Take the following steps when cleaning.



- 1. Power off the monitor and computer.
- 2. Disconnect the power cable from the monitor.

3. Wipe the monitor screen using a clean, soft and dry cloth.



Hold the power cable by the plug and do not touch the cable with wet hands. Otherwise, an electric shock may result.



- Do not apply a cleaning agent that contains alcohol, solvent, or surfactant to the monitor.



Do not spray water or detergent directly on the product.



4. Wet a soft and dry cloth in water and wring thoroughly to clean the exterior of the monitor.



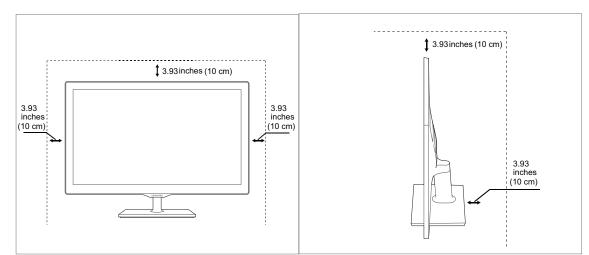
- 5. Connect the power cable to the product after cleaning the product.
- 6. Power on the monitor and computer.

Securing the Installation Space

• Ensure some space around the product for ventilation. An internal temperature rise may cause fire and damage the product. Be sure to allow the amount of space as shown below or greater when installing the product.



The exterior may differ depending on the product.



Precautions for storage

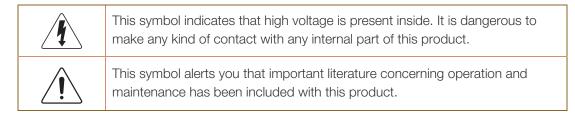
High-glossy models can develop white stains on the surface if an ultrasonic wave humidifier is used nearby.



Be sure to contact Samsung Customer Service Center (page 82) if the inside of the monitor needs cleaning. (A service fee will be charged.)

Safety Precautions

Caution RISK OF ELECTRIC SHOCK DO NOT OPEN Caution: TO REDUCE THE RISK OF ELECTRIC SHOCK, DO NOT REMOVE COVER (OR BACK). THERE ARE NO USER SERVICEABLE PARTS INSIDE. REFER ALL SERVICING TO QUALIFIED PERSONNEL.



Symbols

🔥 Warning	A serious or fatal injury may result if instructions are not followed.
Caution	Personal injury or damage to properties may result if instructions are not followed.
\otimes	Activities marked by this symbol are prohibited.
	Instructions marked by this symbol must be followed.

Electricity and Safety



The following images are for reference only. Real-life situations may differ from what is shown in the images.

🔔 Warning



Do not use a damaged power cable or plug, or a loose power socket.

An electric shock or fire may result.



Do not plug many products into the same power socket.

• Otherwise, the socket may overheat and cause a fire.



Do not touch the power plug with wet hands.

• Otherwise, an electric shock may result.



Insert the power plug all the way in so it is not loose.

• An unstable connection may cause a fire.



Ensure you connect the power plug to a grounded power socket (type 1 insulated devices only).

An electric shock or injury may result.



Do not bend or pull the power cable with force. Do not weigh the power cable down with a heavy object.

• A damaged power cable may cause an electric shock or fire.

Do not place the power cable or product near heat sources.



An electric shock or fire may result.



Remove foreign substances such as dust around the plug pins and power socket with a dry cloth.

Otherwise, a fire may result.

Caution



Do not unplug the power cable when the product is in use.

The product may become damaged by an electric shock.



Do not use the power cable for products other than authorized products supplied by Samsung.

• An electric shock or fire may result.



- Keep the power socket where the power cable is connected unobstructed.
- If any problem occurs in the product, unplug the power cable to completely cut the power to the product.

Power to the product cannot be completely cut off with the power button.

Hold the plug when disconnecting the power cable from the power socket.



An electric shock or fire may result.

Installation and Safety

🚹 Warning



DO NOT PLACE CANDLES, INSECT REPELLANTS OR CIGARETTES ON TOP OF THE PRODUCT. DO NOT INSTALL THE PRODUCT NEAR HEAT SOURCES.

• Otherwise, a fire may result.



Avoid installing the product in a narrow space with bad ventilation, such as a bookshelf or wall closet.

Otherwise, a fire may result due to an increased internal temperature.



Keep the plastic packaging bag for the product in a place that cannot be reached by children.

• Children may suffocate.



Do not install the product on an unstable or vibrating surface (insecure shelf, sloped surface, etc.).

- The product may fall and break or cause a personal injury.
- Using the product in an area with excess vibration may damage the product or cause a fire.



Do not install the product in a vehicle or a place exposed to dust, moisture (water drips, etc.), oil, or smoke.



An electric shock or fire may result.



Do not expose the product to direct sunlight, heat, or a hot object such as a stove.

Otherwise, the product lifespan may be reduced, or a fire may result.



The product may fall and injure children.

Do not install the product within the reach of young children.



Edible oil (such as soybean oil) may damage or distort the product. Keep the product away from oil pollution.

And do not install or use the product in the kitchen or near the kitchen stove.



Caution



Take care not to drop the product when moving it.

Otherwise, product failure or personal injury may result.



Do not set down the product on its front.

The screen may become damaged.



When installing the product on a cabinet or shelf, make sure that the bottom edge of the front of the product is not protruding.

- The product may fall and break or cause a personal injury.
- Install the product only on cabinets or shelves of the right size.



Put down the product carefully.

• The product may fall and break or cause a personal injury.



Installing the product in an unusual place (a place exposed to a lot of fine dust, chemical substances, extreme temperatures or a significant presence of moisture, or a place where the product will operate continuously for an extended period of time) may seriously affect its performance.

Be sure to consult Samsung Customer Service Center (page 82) before installation if you want to install the product at such a place.

Operation and Safety

Warning



High voltage runs through the product. Do not attempt to disassemble, repair, or modify the product on your own.

- An electric shock or fire may result.
- Contact Samsung Customer Service Center (page 82) for repair.



To move the product, first disconnect all the cables from it, including the power cable.

Otherwise, the power cable may be damaged and a fire or electric shock may result.



If the product generates a strange noise, a burning smell, or smoke, remove the power cable immediately and contact Samsung Customer Service Center (page 82).

An electric shock or fire may result.



Do not let children hang from the product or climb on top of it.

• The product may fall, and your child may become injured or seriously harmed.



If the product falls or the exterior is damaged, power off the product, remove the power cable, and contact Samsung Customer Service Center (page 82).

• Otherwise, an electric shock or fire may result.



Do not put a heavy object, toy, or sweets on top of the product.

• The product or heavy objects may fall as children try to reach for the toy or sweets resulting in a serious injury.



If there is a thunderstorm or lightning strike, turn off the power and disconnect the power cable.

An electric shock or fire may result.



Do not drop objects on the product or apply impact.

An electric shock or fire may result.



Do not move the product by pulling the power cable or any cable.

Otherwise, the cable may be damaged and product failure, an electric shock or fire may result.



If a gas leakage is found, do not touch the product or power plug. Also, ventilate the area immediately.



Sparks can cause an explosion or fire.



Do not lift or move the product by pulling the power cable or any cable.

Otherwise, the cable may be damaged and product failure, an electric shock or fire may result.



Do not use or keep combustible spray or an inflammable substance near the product.

An explosion or fire may result.



Ensure the vents are not blocked by tablecloths or curtains.

Otherwise, a fire may result from an increased internal temperature.



Do not insert a metallic object (a chopstick, coin, hair pin, etc.) or inflammable object (paper, match, etc.) into the vent or ports of the product.

- If water or any foreign substance enters the product, be sure to power off the product, remove the power cable, and contact Samsung Customer Service Center (page 82).
- Product failure, an electric shock or fire may result.



Do not place objects containing liquid (vases, pots, bottles, etc) or metallic objects on top of the product.

- If water or any foreign substance enters the product, be sure to power off the product, remove the power cable, and contact Samsung Customer Service Center (page 82).
- Product failure, an electric shock or fire may result.

Caution



Leaving the screen fixed on a stationary image for an extended period of time may cause afterimage burn-in or defective pixels.

If you are not going to use the product for an extended period of time, activate power-saving mode or a moving-picture screen saver.



Disconnect the power cable from the power socket if you do not plan on using the product for an extended period of time (vacation, etc.).

• Otherwise, a fire may result from accumulated dust, overheating, an electric shock, or electric leakage.

Otherwise, Your eyesight may deteriorate.



Otherwise, a fire may result.

Do not put DC power adapters together.

Remove the plastic bag from the DC power adapter before you use it.



Otherwise, a fire may result.

Do not let water enter the DC power device or get the device wet.

Use the product at the recommended resolution and frequency.

- An electric shock or fire may result.
- Avoid using the product outdoors where it can be exposed to rain or snow.
- Be careful not to get the DC power adapter wet when you wash the floor.

Do not put the DC power adapter near to any heating apparatus.



Otherwise, a fire may result.



Keep the DC power adapter in a well-ventilated area.



If you place the AC/DC power adapter so that it is hanging with the cord input facing upwards, water or other foreign substances could enter the Adapter and cause the Adapter to malfunction.

Make sure to rest the AC/DC power adapter flat on a table or the floor.



Looking at the screen too close for an extended period of time can deteriorate your eyesight.



Do not hold the monitor upside-down or move it by holding the stand.

The product may fall and break or cause a personal injury.



Do not use humidifiers or stoves around the product.

An electric shock or fire may result.

Rest your eyes for more than 5 minutes for every 1 hour of product use.



Eye fatigue will be relieved.



Do not touch the screen when the product has been turned on for an extended period of time as it will become hot.



Store the small accessories used with the product out of reach of children.



Exercise caution when adjusting the product angle or stand height.

- Otherwise, children's fingers or hands may become stuck and injured.
- Tilting the product excessively may cause it to fall and result in personal injury.

Do not place heavy objects on the product.



Product failure or personal injure may result.

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

Having the sound too loud may damage your hearing.

Correct posture to use the product



Use the product in the correct posture as follows:

- Straighten your back.
- Allow a distance of 45 to 50 cm between your eye and the screen, and look slightly downward at the screen.

Keep your eyes directly in front of the screen.

- Adjust the angle so light does not reflect on the screen.
- Keep your forearms perpendicular to your upper arms and level with the back of your hands.
- Keep your elbows at about a right angle.
- Adjust the height of the product so you can keep your knees bent at 90 degrees or more, your heels attached to the floor, and your arms lower than your heart.

Checking the Contents 1.1

Checking the Components 1.1.1

- Contact the dealer from whom you purchased the product if any item is missing.
 - The appearance of the components may differ from the images shown.

Components



Quick Setup Guide



HDMI cable (optional)



DC power adapter (Integrated) DC power adapter (Detachable) (optional)



Stand base (optional)



Stand neck (optional)

K

Components may vary depending on the country.



Warranty card (Not available in some locations)



HDMI-DVI cable (optional)



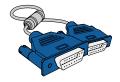
(optional)



Stand base (optional)



User manual (optional)



D-SUB cable (optional)



Power cable (Only provided with the detachable DC power adapter.)



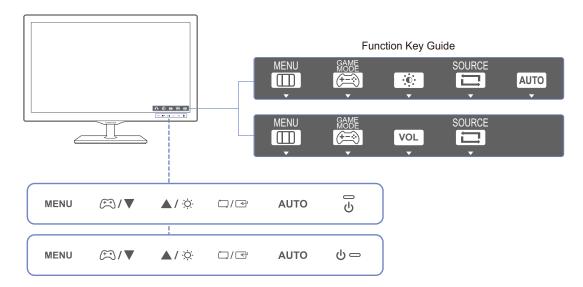
Stand neck (optional)

1.2 Parts

1.2.1 Frontal Buttons



The color and shape of parts may differ from what is shown. Specifications are subject to change without notice to improve quality.



Icons	Description
MENU	 Open or close the onscreen display (OSD) menu, or return to the parent menu. OSD control lock: Maintain the current settings, or lock the OSD control to prevent unintended changes to settings. Enable: To lock the OSD control, press and hold the [MENU] button for 10 seconds. Disable: To unlock the OSD control, press and hold the [MENU] button for more than 10 seconds. If the OSD control is locked, Brightness and Contrast can be adjusted. Game Mode is available. INFORMATION can be viewed.

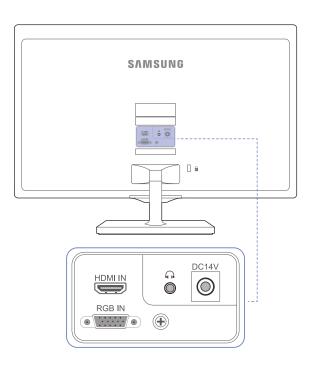
Icons	Description		
	Press to enable or disable Game Mode.		
	The items below are not available if the Game Mode function is enable.		
	S22D390H / S22D393H		
	 PICTURE → Contrast, <u>Sharpness</u>, ^{SAMSUNG}Bright, ^{SAMSUNG}Angle, MAGIC MAGIC MAGIC 		
Æ	• COLOR		
	• SETUP&RESET \rightarrow Eco Saving		
	S24D390HL / S24D393HL / S27D390H / S27D393H		
	• PICTURE → Contrast, <u>Sharpness</u> , <u>SAMSUNG</u> Bright, <u>MAGIC</u> Upscale		
	COLOR		
	SETUP&RESET → <u>Eco Saving</u>		
▲/▼	Move to the upper or lower menu or adjust the value for an option on the OSD menu.		
÷Ċ:	Analog-Use this button to control the brightness and contrast of the screen.		
	HDMI-Use this button to control the volume of the set.		
	Confirm a menu selection.		
Ĺ./œ	Pressing the [☐/급] button when the OSD menu is not displayed will change the input source (Analog/HDMI). If you power on the product or		
	change the input source by pressing the [口/⊡] button, a message that shows the changed input source will appear at the top left corner of the screen.		
	Press the [AUTO] button to automatically adjust the screen settings.		
AUTO	Changing the resolution in Display Properties will activate the Auto Adjustment function.		
	Available only in Analog mode.		

Icons	Description	
Ċ	Turn the screen on or off.	
	When a control button on the product is pressed, the Function Key Guide will be displayed before the onscreen menu opens. (The guide shows the function of the button pressed.)	
	To access the onscreen menu when the guide is displayed, press the corresponding button again.	
Function Key Guide	Function Key Guide may vary depending on the function or product model. Refer to the actual product.	
	 The function buttons page shows if Game Mode is enabled. [(=:)]: Off [(=:)]: On 	

1.2.2 Reverse Side



The color and shape of parts may differ from what is shown. Specifications are subject to change without notice to improve quality.

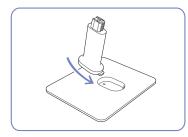


Port	Description	
DC14V	Connects to the DC power adapter.	
HDMI IN	Connect to a source device using an HDMI cable.	
RGB IN	Connect to a PC using the D-SUB cable.	
	 Connect to an audio output device such as headphones. This function is only available in HDMI mode. The sound could only be heard when using the HDMI-to-HDMI cable. 	

1.3 Installation

1.3.1 Attaching the Stand

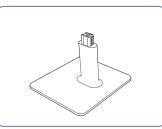
- Before assembling the product, place the product down on a flat and stable surface so that the screen is facing downwards.
 - The exterior may differ depending on the product.



Insert the stand neck into the stand base in the direction shown in the figure.



Place a soft cloth over the table to protect the product and place the product onto the cloth so that the front of the product is facing downwards.

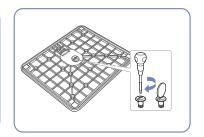


Check that the stand neck is firmly connected.



Hold the main body of the product with your hand as shown by the figure.

Push the assembled stand into the main body in the direction of the arrow as shown in the figure.



Tightly fasten the connecting screw at the bottom of the stand base.



- Caution

Do not hold the product upside down only by the stand.

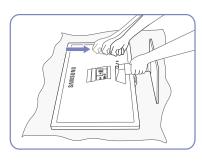
1.3.2 Removing the Stand



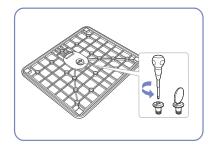
The exterior may differ depending on the product.



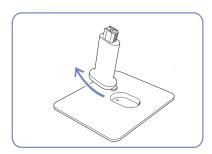
Place a soft cloth over the table to protect the product and place the product onto the cloth so that the front of the product faces downwards.



While holding the stand neck with one hand, pound the other fisted hand down onto the top of the stand base in the direction of the arrow to detach the stand base.



Turn the connecting screw at the bottom of the stand base to separate it.

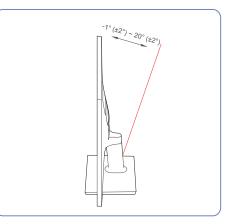


Remove the stand neck from the stand base by pulling it in the direction of the arrow as shown in the figure.

1.3.3 Adjusting the Product Tilt



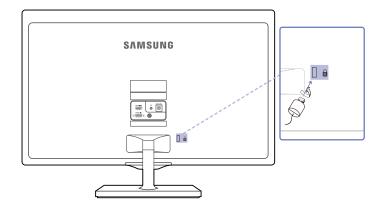
The color and shape of parts may differ from what is shown. Specifications are subject to change without notice to improve quality.



- You can adjust the tilt of your monitor.
- Hold the lower part of the product and adjust the tilt carefully.

1.3.4 Anti-theft Lock

An anti-theft lock allows you to use the product securely even in public places. The locking device shape and locking method depend on the manufacturer. Refer to the user guide provided with your anti-theft locking device for details. The lock device is sold separately.



The color and shape of parts may differ from what is shown. Specifications are subject to change without notice to improve quality.

To lock an anti-theft locking device:

- 1 Fix the cable of your anti-theft locking device to a heavy object such as a desk.
- 2 Put one end of the cable through the loop on the other end.
- 3 Insert the Kensington Lock into the security slot on the back of the display.
- 4 Lock the locking device.
- An anti-theft locking device can be purchased separately.
 - Refer to the user guide provided with your anti-theft locking device for details.
 - Anti-theft locking devices can be purchased at electronics retailers or online.

2.1 Before Connecting

2.1.1 Pre-connection Checkpoints

- Before connecting a source device, read the user manual provided with it.
 The number and locations of ports on source devices may differ from device to device.
- Do not connect the power cable until all connections are completed.
 Connecting the power cable during connection may damage the product.
- Check the types of ports at the back of the product you want to connect.

2.2 Connecting and Using a PC

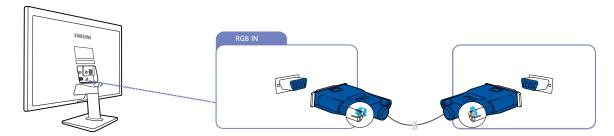
2.2.1 Connecting to a PC

- Select a connection method suitable for your PC.
 - Connecting parts may differ in different products.
 - The exterior may differ depending on the product.

Connection Using the D-SUB Cable (Analogue Type)



Do not connect the power cable before connecting all other cables. Ensure you connect a source device first before connecting the power cable.



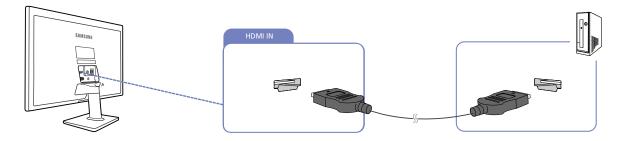
- 1 Connect the D-SUB cable to the [RGB IN] port on the back of the product and the RGB port on the PC.
- 2 Connect the DC power adapter to the product and a power socket. Next, turn on the power switch on the PC. (For details, refer to "2.2.3 Connecting the Power".)
- 3 Press [□/⊡] to change the input source to Analog.



Connection Using the HDMI Cable

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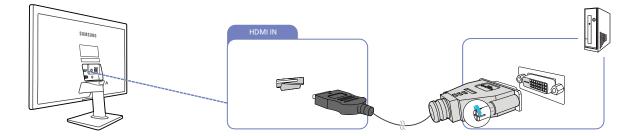
Do not connect the power cable before connecting all other cables. Ensure you connect a source device first before connecting the power cable.



- 1 Connect the HDMI cable to the [HDMI IN] port on the back of the product and the HDMI port on the PC.
- 2 Connect the DC power adapter to the product and a power socket. Next, turn on the power switch on the PC. (For details, refer to "2.2.3 Connecting the Power".)
- 3 Press [□/□] to change the input source to HDMI.

Connection Using an HDMI-DVI Cable

Do not connect the power cable before connecting all other cables. Ensure you connect a source device first before connecting the power cable.



- 1 Connect the HDMI-DVI cable to the [HDMI IN] port on the back of the product and the DVI port on the PC.
- 2 Connect the DC power adapter to the product and a power socket. Next, turn on the power switch on the PC. (For details, refer to "2.2.3 Connecting the Power".)
- Press [☐/⊡] to change the input source to HDMI.

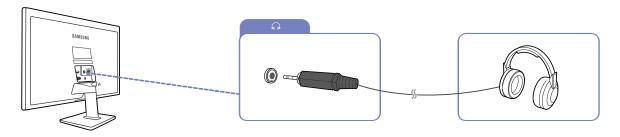
Connecting and Using a Source Device

2.2.2 Connecting to Headphones

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K

Do not connect the power cable before connecting all other cables. Ensure you connect a source device first before connecting the power cable.



1 Connect an audio output device such as headphones to $[\bigcap]$ port on the product.

- This function is only available in **HDMI** mode.
 - The sound could only be heard when using the HDMI-to-HDMI cable.

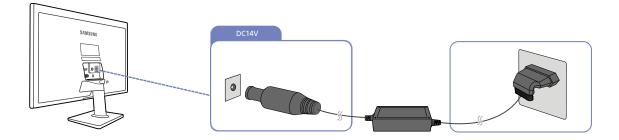


2.2.3 Connecting the Power

- Connecting parts may differ in different products.
 - The exterior may differ depending on the product.

Power connection using integrated DC power adapter

 Connect the DC power adapter to the [DC14V] port on the back of the product and to the power outlet.

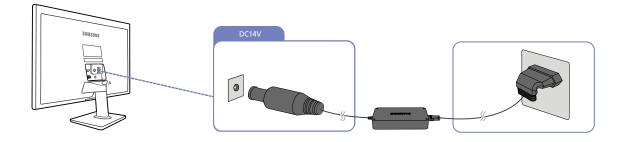




The input voltage is switched automatically.

Power connection using detachable DC power adapter

Connect the power cable to the DC power adapter.
 Then, connect the DC power adapter to the [DC14V] port on the back of the product.
 Next, connect the power cable to the power outlet.





The input voltage is switched automatically.



2.2.4 Driver Installation

- You can set the optimum resolution and frequency for this product by installing the corresponding drivers.
 - An installation driver is contained on the CD supplied with the product.
 - If the file provided is faulty, visit the Samsung homepage (http://www.samsung.com/) and download the file.
- 1 Insert the user manual CD provided with the product into the CD-ROM drive.
- 2 Click "Windows Driver".
- 3 Follow the instructions given on the screen to proceed with installation.
- 4 Select your product model from the list of models.

. RADEON	0550 Dt					_
PADEON					in stall	
	Selec	t the monito	ar which y	ou want to	Inistell	
lamsung lamsung						
-					_	

5 Go to Display Properties and check that the resolution and refresh rate are appropriate. Refer to your Windows OS manual for further details.

Connecting and Using a Source Device

2.2.5 Setting Optimum Resolution

An information message about setting optimum resolution will appear if you power on the product for the first time after purchase.

Select a language on the product and change the resolution on your PC to the optimum setting.



- 1 Press $[\blacktriangle/ \nabla]$ to move to the language you want and press $[\Box/ \boxdot]$.
- 2 To hide the information message, press [MENU] or [□/☞].
- If the optimum resolution is not selected, the message will appear up to three times for a specified time even when the product is turned off and on again.
 - The optimum resolution can also be selected in **Control Panel** on your PC.



Screen Setup

Configure the screen settings such as brightness.

A detailed description of each function is provided. Refer to your product for details.

3.1 Brightness

You can adjust the general brightness of the picture. (Range: 0~100)

A higher value will make the picture appear brighter.

- This menu is not available when MAGICBright is set to Dynamic Contrast mode.
 - This menu is not available when **<u>Eco Saving</u>** is enabled.
 - The functions available on the monitor may vary depending on the model. Refer to the actual product.

3.1.1 Configuring Brightness

- **1** Press any button on the front of the product to display the Key guide. Next, press [**MENU**] to display the corresponding menu screen.
- 2 Press [▲/▼] to move to **PICTURE** and press [☐/] on the product.
- 3 Press [▲/▼] to move to Brightness and press [□/⊡] on the product. The following screen will appear.



- 4 Adjust the **Brightness** using the $[\blacktriangle/ \forall]$ buttons.
- 5 The selected option will be applied.

3.2 Contrast

Adjust the contrast between the objects and background. (Range: 0~100)

A higher value will increase the contrast to make the object appear clearer.

- This option is not available when MAGICBright is in Cinema or Dynamic Contrast mode.
 - This menu is not available when <u>Game Mode</u> is enabled.
 - The functions available on the monitor may vary depending on the model. Refer to the actual product.

3.2.1 Configuring Contrast

- **1** Press any button on the front of the product to display the Key guide. Next, press [**MENU**] to display the corresponding menu screen.
- 2 Press $[\blacktriangle/]$ to move to **PICTURE** and press $[\Box/]$ on the product.
- 3 Press [▲/▼] to move to **Contrast** and press [□/⊡] on the product.

The following screen will appear.



- 4 Adjust the **Contrast** using the $[\land / \lor]$ buttons.
- 5 The selected option will be applied.

3.3 Sharpness

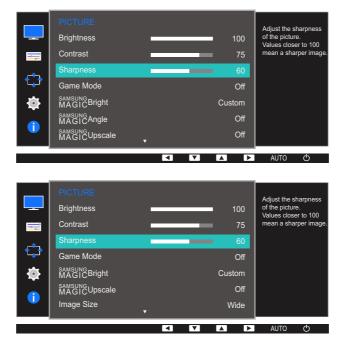
Make the outline of objects more clear or blurry. (Range: 0~100)

A higher value will make the outline of objects clearer.

- This option is not available when MAGICBright is in Cinema or Dynamic Contrast mode.
 - This menu is not available when MAGICUpscale is in Mode1 or Mode2.
 - This menu is not available when <u>Game Mode</u> is enabled.
 - The functions available on the monitor may vary depending on the model. Refer to the actual product.

3.3.1 Configuring Sharpness

- **1** Press any button on the front of the product to display the Key guide. Next, press [**MENU**] to display the corresponding menu screen.
- 2 Press $[\blacktriangle/ \nabla]$ to move to **PICTURE** and press $[\Box/\Box]$ on the product.
- Press [▲/▼] to move to Sharpness and press [□/] an the product.
 The following screen will appear.



- 4 Adjust the **Sharpness** using the $[\blacktriangle / \nabla]$ buttons.
- 5 The selected option will be applied.

3.4 Game Mode

Configure the product screen settings for game mode.

Use this feature when playing games on a PC or when a game console such as PlayStation[™] or Xbox[™] is connected.



The functions available on the monitor may vary depending on the model. Refer to the actual product.

3.4.1 Configuring Game Mode

- **1** Press any button on the front of the product to display the Key guide. Next, press [**MENU**] to display the corresponding menu screen.
- 2 Press [▲/▼] to move to PICTURE and press [☐/@] on the product.
- 3 Press $[\blacktriangle/ \forall]$ to move to **Game Mode** and press $[\Box/ \textcircled]$ on the product.



- 4 Press [▲/▼] to move to the option you want and press [□/⊡].
- 5 The selected option will be applied.
 - When the monitor turns off, enters power-saving mode or changes input sources, Game Mode turns Off even if it is set to On.
 - If you want to keep Game Mode enabled all the time, select Always On.

3.5 SAMSUNG MAGIC Bright

This menu provides an optimum picture quality suitable for the environment where the product will be used.

- This menu is not available when <u>Eco Saving</u> is enabled.
 - This menu is not available when MAGICAngle is enabled.
 - This menu is not available when **<u>Game Mode</u>** is enabled.
 - The functions available on the monitor may vary depending on the model. Refer to the actual product.

You can customize the brightness to suit your preferences.

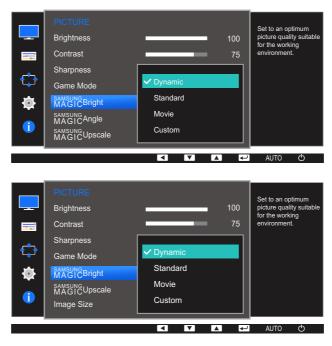
3.5.1 Configuring SAMSUNG MAGIC Bright

- 1 Press any button on the front of the product to display the Key guide. Next, press [MENU] to display the corresponding menu screen.
- 2 Press [▲/▼] to move to PICTURE and press [☐/@] on the product.
- 3 Press $[\blacktriangle/ \nabla]$ to move to **SAMSUNG Bright** and press $[\Box/ \odot]$ on the product.



- Custom: Customize the contrast and brightness as required.
- Standard: Obtain a picture quality suitable for editing documents or using Internet.
- **Cinema**: Obtain the brightness and sharpness of TVs suitable for enjoying video and DVD content.
- **Dynamic Contrast**: Obtain balanced brightness through automatic contrast adjustment.

Screen Setup



When the external input is connected through HDMI and <u>PC/AV Mode</u> is set to AV, <u>MAGICBright</u> has four automatic picture settings (Dynamic, Standard, Movie and Custom) that are preset at the factory. You can activate either Dynamic, Standard, Movie or Custom. You can select Custom which automatically recalls your personalized picture settings.

- **Dynamic**: Select this mode to view a sharper image than in **Standard** mode.
- **Standard**: Select this mode when the surroundings are bright. This also provides a sharp image.
- Movie: Select this mode when the surroundings are dark. This will save power and reduce eye fatigue.
- Custom: Select this mode when you want to adjust the image according to your preferences.
- 4 Press $[\blacktriangle/ \nabla]$ to move to the option you want and press $[\Box/\Box]$.
- 5 The selected option will be applied.

3.6 SAMSUNG MAGIC Angle (S22D390H / S22D393H)

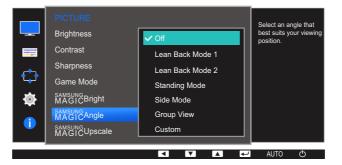
MAGICAngle allows you to configure the settings to obtain the optimum picture quality according to your viewing angle.

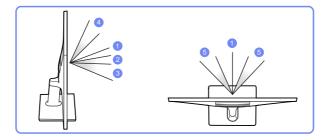
- This option is not available when **SAMSUNG Bright** is in **Cinema** or **Dynamic Contrast** mode.
 - This menu is not available when <u>Game Mode</u> is enabled.
 - The functions available on the monitor may vary depending on the model. Refer to the actual product.

This feature provides the viewing angle, brightness, and tint to suit your preferences.

3.6.1 Configuring SAMSUNG MAGIC Angle

- Press any button on the front of the product to display the Key guide. Next, press [MENU] to display the corresponding menu screen.
- 2 Press [▲/▼] to move to PICTURE and press [□/@] on the product.
- 3 Press $[\blacktriangle/]$ to move to **SAMSUNG Angle** and press $[\Box/]$ on the product.





- Off (1): Select this option to view directly in front of the product.
- Lean Back Mode 1 (2): Select this option to view from a place slightly lower than the product.
- Lean Back Mode 2 ③: Select this option to view from a place lower than Lean Back Mode 1.
- Standing Mode (4): Select this option to view from a place higher than the product.
- Side Mode (5): Select this option to view from either side of the product.

Screen Setup

- Group View: Select this option for more than one viewer to view from places 1, 4 and 5.
- Custom: Lean Back Mode 1 will be applied by default if Custom is selected.
- 4 Press $[\blacktriangle/ \forall]$ to move to the option you want and press $[\Box/ \boxdot]$.
- 5 The selected option will be applied.

3.7 SAMSUNG MAGIC Upscale

MAGICUpscale function can enhance the layers of the picture details and the vividness of the picture.

- The function has more obvious effects on low-resolution pictures.
 - This menu is not available when <u>MAGICBright</u> is in Cinema or Dynamic Contrast mode.
 - This menu is not available when Game Mode is enabled.
 - The functions available on the monitor may vary depending on the model. Refer to the actual product.

3.7.1 Configuring SAMSUNG MAGIC Upscale

- **1** Press any button on the front of the product to display the Key guide. Next, press [**MENU**] to display the corresponding menu screen.
- 2 Press [▲/▼] to move to PICTURE and press [□/□] on the product.
- 3 Press [▲/▼] to move to SAMSUNG Upscale and press [□/□] on the product. The following screen will appear.

PICTURE Brightness Contrast Sharpness Game Mode SAMSUNG Bright SAMSUNG Changle SAMSUNG CAngle SAMSUNG Cupscale	✓ Off Mode1 Mode2	100 75 60	Enhance picture detail and vividness.
PICTURE Brightness Contrast Sharpness Game Mode		100 75 60	AUTO O
SAMSUNG MAGICBright SAMSUNG MAGICUpscale Image Size	✓ Off Mode1 Mode2		AUTO (*)

Comparing with Mode1, Mode2 has a stronger effect.

- 4 Press [▲/▼] to move to the option you want and press [□/⊡].
- 5 The selected option will be applied.

3.8 Image Size

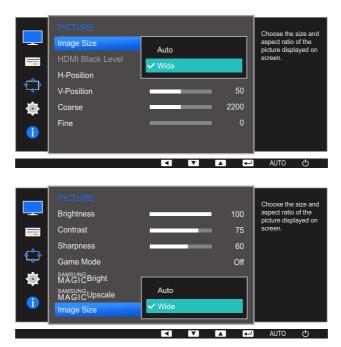
Change the picture size.

ß

The functions available on the monitor may vary depending on the model. Refer to the actual product.

3.8.1 Changing the Image Size

- 1 Press any button on the front of the product to display the Key guide. Next, press [MENU] to display the corresponding menu screen.
- 2 Press $[\blacktriangle/]$ to move to **PICTURE** and press $[\Box/]$ on the product.
- 3 Press [▲/▼] to move to Image Size and press [□/⊡] on the product. The following screen will appear.

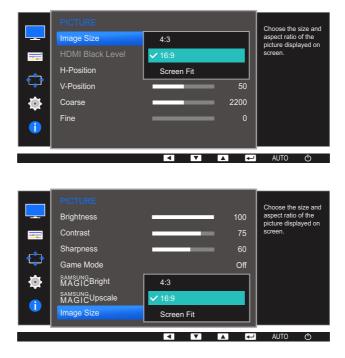


In PC mode

- Auto: Display the picture according to the aspect ratio of the input source.
- Wide: Display the picture in full screen regardless of the aspect ratio of the input source.

Screen Setup

In AV mode



- 4:3: Display the picture with an aspect ratio of 4:3. Suitable for videos and standard broadcasts.
- **16:9**: Display the picture with an aspect ratio of 16:9.
- Screen Fit: Display the picture with the original aspect ratio without cutting off.
- Changing the screen size is available when the following conditions are satisfied.
 - The function may not be supported depending on the ports provided with the product.
 - A digital output device is connected using the HDMI cable.
 - The input signal is 480p, 576p, 720p, or 1080p and monitor can display normally (Not every model can support all of these signals.).
 - This can only be set when the external input is connected through HDMI and <u>PC/AV Mode</u> is set to AV.
- 4 Press [▲/▼] to move to the option you want and press [□/⊡].
- 5 The selected option will be applied.

3.9 HDMI Black Level

If a DVD player or set-top box is connected to the product via HDMI, image quality degradation (contrast/ color degradation, black level, etc.) may occur, depending on the connected source device. In such case, **HDMI Black Level** can be used to adjust the image quality. If this is the case, correct the degraded picture quality using **HDMI Black Level**.

- This function is only available in HDMI mode.
 - The functions available on the monitor may vary depending on the model. Refer to the actual product.

3.9.1 Configuring the HDMI Black Level Settings

- **1** Press any button on the front of the product to display the Key guide. Next, press [**MENU**] to display the corresponding menu screen.
- 2 Press [▲/▼] to move to **PICTURE** and press [☐/⊡] on the product.
- 3 Press [▲/▼] to move to HDMI Black Level and press [□/⊡] on the product. The following screen will appear.



- Normal: Select this mode when there is no contrast ratio degradation.
- Low: Select this mode to reduce the black level and increase the white level when there is a contrast ratio degradation.
- 4 Press [▲/▼] to move to the option you want and press [□/□].
- 5 The selected option will be applied.
- **HDMI Black Level** may not be compatible with some source devices.

3.10 Response Time (S24D390HL / S24D393HL / S27D390H / S27D393H)

Accelerate the panel response rate to make video appear more vivid and natural.

- It is best to set **Response Time** to **Standard** or **Faster** when you are not viewing a movie.
 - The functions available on the monitor may vary depending on the model. Refer to the actual product.

3.10.1 Configuring the Response Time

- **1** Press any button on the front of the product to display the Key guide. Next, press [**MENU**] to display the corresponding menu screen.
- 2 Press $[\blacktriangle/]$ to move to **PICTURE** and press $[\Box/]$ on the product.
- 3 Press [▲/▼] to move to Response Time and press [□/□] on the product. The following screen will appear.



- 4 Press $[\blacktriangle/ \nabla]$ to move to the option you want and press $[\Box/ \bigcirc]$.
- 5 The selected option will be applied.

3.11 H-Position & V-Position

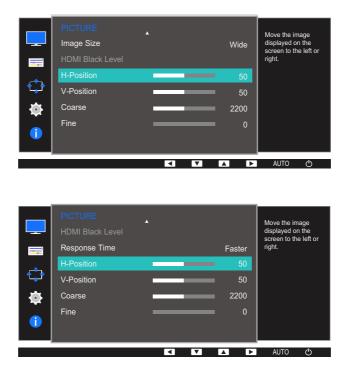
H-Position: Move the screen to the left or right.

V-Position: Move the screen up or down.

- This menu is available in **Analog** mode only.
 - This menu is only available when Image Size is set to Screen Fit in AV Mode. When a 480P or 576P or 720P or 1080P signal is input in AV mode and the monitor can display normally, select Screen Fit to adjust horizontal position in 0-6 levels.
 - The functions available on the monitor may vary depending on the model. Refer to the actual product.

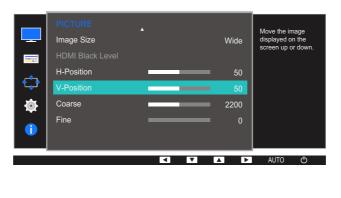
3.11.1 Configuring H-Position & V-Position

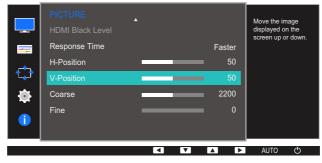
- 1 Press any button on the front of the product to display the Key guide. Next, press [MENU] to display the corresponding menu screen.
- 2 Press $[\blacktriangle/]$ to move to **PICTURE** and press $[\Box/]$ on the product.
- 3 Press [▲/▼] to move to H-Position or V-Position, and press [□/☞].





Screen Setup





- 4 Press $[\blacktriangle/ \nabla]$ to configure **H-Position** or **V-Position**.
- 5 The selected option will be applied.

3.12 Coarse

Adjust the screen frequency.

- This menu is available in **Analog** mode only.
 - The functions available on the monitor may vary depending on the model. Refer to the actual product.

3.12.1 Adjusting Coarse

- 1 Press any button on the front of the product to display the Key guide. Next, press [MENU] to display the corresponding menu screen.
- 2 Press $[\blacktriangle/ \forall]$ to move to **PICTURE** and press $[\Box/ \boxdot]$ on the product.
- 3 Press $[\blacktriangle/ \forall]$ to move to **Coarse** and press $[\Box/ \boxdot]$ on the product.

	PICTURE Image Size HDMI Black Level	▲ Wide	Adjust the screen frequency.
_	H-Position	50	
	V-Position	50	
- (Coarse	2200	
•	Fine	0	
			AUTO 🖒
			_
	PICTURE	•	Adjust the screen
_	PICTURE HDMI Black Level		Adjust the screen frequency.
		▲ Faster	
	HDMI Black Level		
	HDMI Black Level Response Time	Faster	
¢	HDMI Black Level Response Time H-Position	Faster 50	
	HDMI Black Level Response Time H-Position V-Position	Faster 50 50	

- 4 Adjust the Coarse using the $[\blacktriangle/\nabla]$ buttons.
- 5 The selected option will be applied.

3.13 Fine

Fine-adjust the screen to obtain a vivid picture.

- This menu is available in **Analog** mode only.
 - The functions available on the monitor may vary depending on the model. Refer to the actual product.

3.13.1 Adjusting Fine

- 1 Press any button on the front of the product to display the Key guide. Next, press [MENU] to display the corresponding menu screen.
- 2 Press $[\blacktriangle/]$ to move to **PICTURE** and press $[\Box/]$ on the product.
- 3 Press $[\blacktriangle/ \forall]$ to move to Fine and press $[\Box/ \bullet]$ on the product.

	PICTURE Image Size HDMI Black Level		Wide	Fine-tune the screen to get a vivid picture.
	H-Position		50	
	V-Position		50	
O	Coarse		2200	
	Fine		0	
1				
				AUTO 🖒
	PICTURE			
	PICTURE HDMI Black Level	•		Fine-tune the screen to get a vivid picture.
		*	Faster	
	HDMI Black Level	۰ 	Faster 50	
	HDMI Black Level Response Time	^ 		
¢	HDMI Black Level Response Time H-Position		50	
₽	HDMI Black Level Response Time H-Position V-Position	^ 	50 50	
¢	HDMI Black Level Response Time H-Position V-Position Coarse	Ξ	50 50 2200	

- 4 Adjust the Fine using the $[\land / \lor]$ buttons.
- 5 The selected option will be applied.

Configuring Tint

A detailed description of each function is provided. Refer to your product for details. Adjust the tint of the screen. This menu is not available when <u>MAGIC</u>Bright is set to Cinema or Dynamic Contrast mode. This menu is not available when <u>Game Mode</u> is enabled.

4.1 Red

Adjust the value of the color red in the picture. (Range: 0~100)

A higher value will increase the intensity of the color.

4.1.1 Configuring Red

- **1** Press any button on the front of the product to display the Key guide. Next, press [**MENU**] to display the corresponding menu screen.
- 2 Press $[\blacktriangle/ \forall]$ to move to **COLOR** and press $[\Box/ \textcircled]$ on the product.
- 3 Press $[\blacktriangle/ \forall]$ to move to **Red** and press $[\Box/ \textcircled]$ on the product.



- 4 Adjust the **Red** using the $[\blacktriangle / \nabla]$ buttons.
- 5 The selected option will be applied.



4.2 Green

Adjust the value of the color green in the picture. (Range: 0~100)

A higher value will increase the intensity of the color.

4.2.1 Configuring Green

- 1 Press any button on the front of the product to display the Key guide. Next, press [MENU] to display the corresponding menu screen.
- 2 Press $[\blacktriangle/ \forall]$ to move to **COLOR** and press $[\Box/ \boxdot]$ on the product.
- 3 Press $[\blacktriangle/ \nabla]$ to move to **Green** and press $[\Box/\Box]$ on the product.



- 4 Adjust the Green using the $[\blacktriangle/ \nabla]$ buttons.
- 5 The selected option will be applied.



4.3 Blue

Adjust the value of the color blue in the picture. (Range: 0~100)

A higher value will increase the intensity of the color.

4.3.1 Configuring Blue

- 1 Press any button on the front of the product to display the Key guide. Next, press [MENU] to display the corresponding menu screen.
- 2 Press $[\blacktriangle/ \forall]$ to move to **COLOR** and press $[\Box/ \boxdot]$ on the product.
- 3 Press $[\blacktriangle/ \nabla]$ to move to **Blue** and press $[\Box/\Box]$ on the product.



- 4 Adjust the **Blue** using the $[\blacktriangle / \nabla]$ buttons.
- 5 The selected option will be applied.

4.4 Color Tone

Adjust the general color tone of the picture.

- This menu is not available when MAGICAngle is enabled.
 - This option is not available when MAGICBright is in Cinema or Dynamic Contrast mode.
 - This menu is not available when <u>Game Mode</u> is enabled.
 - The functions available on the monitor may vary depending on the model. Refer to the actual product.

4.4.1 Configuring the Color Tone Settings

- **1** Press any button on the front of the product to display the Key guide. Next, press [**MENU**] to display the corresponding menu screen.
- 2 Press $[\blacktriangle/ \nabla]$ to move to **COLOR** and press $[\Box/ \odot]$ on the product.
- 3 Press [▲/▼] to move to Color Tone and press [□/□] on the product.

			Select a color tone
	Red Green	Cool 2	that best suits your viewing needs.
	Blue	Cool 1	
•	Color Tone Gamma	Warm 1	
1		Warm 2 Custom	
			AUTO (ウ

- Cool 2: Set the color temperature to be cooler than Cool 1.
- Cool 1: Set the color temperature to be cooler than Normal mode.
- Normal: Display the standard color tone.
- Warm 1: Set the color temperature to be warmer than Normal mode.
- Warm 2: Set the color temperature to be warmer than Warm 1.
- **Custom**: Customize the color tone.
- When the external input is connected through HDMI and <u>PC/AV Mode</u> is set to AV, Color Tone has four color temperature settings (Cool, Normal, Warm and Custom).
- 4 Press $[\blacktriangle/\nabla]$ to move to the option you want and press $[\Box/\Box]$.
- 5 The selected option will be applied.

4.5 Gamma

Adjust the mid-range brightness (Gamma) of the picture.

- This menu is not available when MAGICAngle is enabled.
 - This option is not available when **MAGICBright** is in **Cinema** or **Dynamic Contrast** mode.
 - This menu is not available when Game Mode is enabled.
 - The functions available on the monitor may vary depending on the model. Refer to the actual product.

4.5.1 Configuring Gamma

- 1 Press any button on the front of the product to display the Key guide. Next, press [MENU] to display the corresponding menu screen.
- 2 Press $[\blacktriangle/ \forall]$ to move to **COLOR** and press $[\Box/ \boxdot]$ on the product.
- 3 Press [▲/▼] to move to Gamma and press [□/□] on the product.

				Adjust the middle level
	Red			of luminance.
	Green			
	Blue			
* +*	Color Tone			
- OF	Gamma	✓ Mode1	_ 1	
		Mode2	- 1	
1		Mode3	- 1	
		L		
			₽	AUTO 🖒

- 4 Press $[\blacktriangle/ \forall]$ to move to the option you want and press $[\Box/ \boxdot]$.
- 5 The selected option will be applied.



A detailed description of each function is provided. Refer to your product for details.

5.1 Language

Set the menu language.

- A change to the language setting will only be applied to the onscreen menu display.
 - It will not be applied to other functions on your PC.

5.1.1 Configuring Language

- **1** Press any button on the front of the product to display the Key guide. Next, press [**MENU**] to display the corresponding menu screen.
- 2 Press $[\blacktriangle/ \nabla]$ to move to **MENU SETTINGS** and press $[\Box/ \Box]$ on the product.
- 3 Press [▲/▼] to move to Language and press [□/□] on the product.

	MENU SETTINGS		Set the menu
	Language	Deutsch	language.
==	Menu H-Position	✓ English	
	Menu V-Position	Español	
€ *	Display Time	Français	
- to-	Transparency	Italiano	
		Magyar	
		· · · · · · · · · · · · · · · · · · ·	
			i auto ()

- 4 Press [▲/▼] to move to the language you want and press [□/□].
- 5 The selected option will be applied.

5.2 Menu H-Position & Menu V-Position

Menu H-Position: Move the menu position to the left or right.

Menu V-Position: Move the menu position up or down.

5.2.1 Configuring Menu H-Position & Menu V-Position

- **1** Press any button on the front of the product to display the Key guide. Next, press [**MENU**] to display the corresponding menu screen.
- 2 Press [▲/▼] to move to MENU SETTINGS and press [□/⊡] on the product.
- 3 Press [▲/▼] to move to Menu H-Position or Menu V-Position, and press [□/⊡] on the product.

	MENU SETTINGS Language	English	Move the menu position to the left or right.
	Menu H-Position	100	ngnt.
	Menu V-Position	 2	
╏┲┷┱	Display Time	20 sec	
O	Transparency	On	
1			
			AUTO 🖒

	MENU SETTINGS Language Menu H-Position	 English 100	Move the menu position up or down.
	Menu V-Position	 2	
╵┖┿┚	Display Time	20 sec	
•	Transparency	On	
			auto 🖒

- 4 Press [▲/▼] to configure Menu H-Position or Menu V-Position.
- 5 The selected option will be applied.

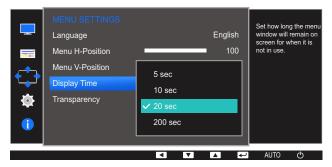
5.3 Display Time

Set the on-screen display (OSD) menu to automatically disappear if the menu is not used for a specified period of time.

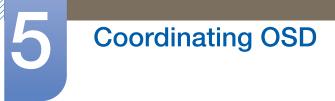
Display Time can be used to specify the time after which you want the OSD menu to disappear.

5.3.1 Configuring Display Time

- **1** Press any button on the front of the product to display the Key guide. Next, press [**MENU**] to display the corresponding menu screen.
- 2 Press [▲/▼] to move to MENU SETTINGS and press [□/⊡] on the product.
- 3 Press [▲/▼] to move to Display Time and press [□/-] on the product.



- 4 Press $[\blacktriangle/ \forall]$ to move to the option you want and press $[\Box/ \boxdot]$.
- 5 The selected option will be applied.



5.4 Transparency

Set the transparency for the menu windows.

5.4.1 Changing Transparency

- **1** Press any button on the front of the product to display the Key guide. Next, press [**MENU**] to display the corresponding menu screen.
- 2 Press [▲/▼] to move to MENU SETTINGS and press [□/⊡] on the product.
- 3 Press $[\blacktriangle/]$ to move to **Transparency** and press $[\Box/]$ on the product.

	MENU SETTINGS Language Menu H-Position Menu V-Position Display Time		English 100 2 20 sec	Configure the transparency of the menu windows.
₩ ()	Transparency	Off ✔ On		
			▲ 	AUTO 🖒

- 4 Press $[\blacktriangle/ \nabla]$ to move to the option you want and press $[\Box/\Box]$.
- 5 The selected option will be applied.

Setup and Reset

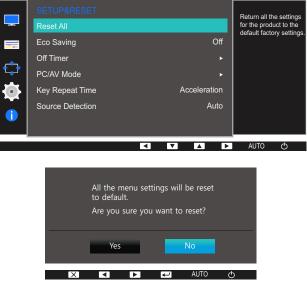
A detailed description of each function is provided. Refer to your product for details.

6.1 Reset All

Return all the settings for the product to the default factory settings.

6.1.1 Initializing Settings (Reset All)

- **1** Press any button on the front of the product to display the Key guide. Next, press [**MENU**] to display the corresponding menu screen.
- 2 Press [▲/▼] to move to SETUP&RESET and press [□/⊡] on the product.
- 3 Press $[\blacktriangle/ \nabla]$ to move to **Reset All** and press $[\Box/ \Box]$ on the product.



- 4 Press [▲/▼] to move to the option you want and press [□/⊡].
- 5 The selected option will be applied.

6.2 Eco Saving

The **Eco Saving** function reduces power consumption by controlling the electric current used by the monitor panel.

- This menu is not available when MAGICBright is in Dynamic Contrast mode.
 - This menu is not available when <u>Game Mode</u> is enabled.

6.2.1 Configuring Eco Saving

- 1 Press any button on the front of the product to display the Key guide. Next, press [MENU] to display the corresponding menu screen.
- 2 Press [▲/▼] to move to SETUP&RESET and press [□/⊡] on the product.
- 3 Press [▲/▼] to move to Eco Saving and press [□/□] on the product.

	SETUP&RESET Reset All			Adjust the power consumption of the product to save energy.
■	Eco Saving Off Timer PC/AV Mode Key Repeat Time	75% 50% ✔ Off		product to save energy.
•	Source Detection	A	uto T	AUTO 🔿

- 75%: Change the monitor power consumption to 75% of the default level.
- **50%**: Change the monitor power consumption to 50% of the default level.
- Off: Deactivate the Eco Saving function.
- 4 Press $[\blacktriangle/\nabla]$ to move to the option you want and press $[\Box/\Box]$.
- 5 The selected option will be applied.

6.3 Off Timer

You can set the product to automatically turn off.

6.3.1 Configuring Off Timer

- **1** Press any button on the front of the product to display the Key guide. Next, press [**MENU**] to display the corresponding menu screen.
- 2 Press $[\blacktriangle/ \forall]$ to move to SETUP&RESET and press $[\Box/ \boxdot]$ on the product.
- 3 Press $[\blacktriangle/]$ to move to **Off Timer** and press $[\Box/]$ on the product.
- 4 Press [▲/▼] to move to Off Timer and press [□/] on the product.

Off Timer Off Off Timer.		SETUP&RESET Reset All Eco Saving Off Timer PC/AV Mode Key Repeat Time Source Detection	Off Acceleration Auto	Enable or disable the Off Timer.
	■	Off Timer	Off	Enable or disable the

- Off: Deactivate the off timer so that the product does not power off automatically.
- On: Activate the off timer so that the product powers off automatically.
- 5 Press $[\blacktriangle/ \nabla]$ to move to the option you want and press $[\Box / \Box]$.
- 6 The selected option will be applied.

6.3.2 Configuring Turn Off After

- 1 Press any button on the front of the product to display the Key guide. Next, press [MENU] to display the corresponding menu screen.
- 2 Press [▲/▼] to move to SETUP&RESET and press [□/⊡] on the product.
- 3 Press $[\blacktriangle/ \nabla]$ to move to **Off Timer** and press $[\Box/ \Box]$ on the product.
- 4 Press [▲/▼] to move to Turn Off After and press [□/□] on the product. The following screen will appear.

	Off Timer Off Timer Turn Off After	_	On 4h	Set the monitor to automatically turn off after a certain time period.
•				AUTO ()

- 5 Press $[\blacktriangle / \lor]$ to configure Turn Off After.
- 6 The selected option will be applied.
- The off timer can be set within a range of 1 to 23 hours. The product will automatically power off after the specified number of hours.
 - This option is only available when Off Timer is set to On.
 - For products for the market in some regions, the Off Timer is set to automatically activate 4 hours after the product powers on. This is done in accordance with power supply regulations. If you do not want the timer to activate, go to MENU → SETUP&RESET and set Off Timer to Off.

6.4 PC/AV Mode

Set **PC/AV Mode** to **AV**. The picture size will be enlarged. This option is useful when you view a movie.

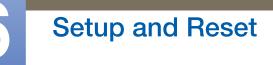
- This function does not support **Analog** mode.
 - Supplied for the wide models only such as 16:9 or 16:10.
 - If the monitor (when set to HDMI) is in power saving mode or is displaying the message Check Signal Cable, press the MENU button to display the On Screen Display(OSD). You can select PC or AV.

6.4.1 Configuring PC/AV Mode

- 1 Press any button on the front of the product to display the Key guide. Next, press [MENU] to display the corresponding menu screen.
- 2 Press [▲/▼] to move to SETUP&RESET and press [□/⊡] on the product.
- 3 Press [▲/▼] to move to PC/AV Mode and press [□/-] on the product.
- Press [▲/▼] to move to HDMI and press [□/□] on the product. And press [□/□] again.
 The following screen will appear.



- 5 Press $[\blacktriangle/\nabla]$ to move to the option you want and press $[\Box/\Box]$.
- 6 The selected option will be applied.

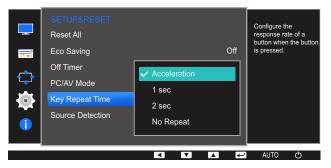


6.5 Key Repeat Time

Control the response rate of a button when the button is pressed.

6.5.1 Configuring Key Repeat Time

- **1** Press any button on the front of the product to display the Key guide. Next, press [**MENU**] to display the corresponding menu screen.
- 2 Press $[\blacktriangle/ \forall]$ to move to SETUP&RESET and press $[\Box/ \boxdot]$ on the product.
- 3 Press $[\blacktriangle/ \nabla]$ to move to Key Repeat Time and press $[\Box/ \Box]$ on the product.



- Acceleration, 1 sec, or 2 sec can be selected. If No Repeat is selected, a command responds only once when a button is pressed.
- 4 Press [▲/▼] to move to the option you want and press [□/⊡].
- 5 The selected option will be applied.



You can activate Source Detection.

6.6.1 Configuring Source Detection

- **1** Press any button on the front of the product to display the Key guide. Next, press [**MENU**] to display the corresponding menu screen.
- 2 Press $[\blacktriangle/ \forall]$ to move to **SETUP&RESET** and press $[\Box/ \boxdot]$ on the product.
- 3 Press $[\blacktriangle/ \nabla]$ to move to **Source Detection** and press $[\Box/ \Box]$ on the product.

	SETUP&RESET Reset All		Decide how input sources will be detected.
=	Eco Saving	Off	delected.
<u> </u>	Off Timer		
* +*	PC/AV Mode		
	Key Repeat Time		
_	Source Detection	✓ Auto	
1		Manual	
			auto (5

- Auto: The input source is automatically recognized.
- Manual: Manually select an input source.
- 4 Press [▲/▼] to move to the option you want and press [□/□].
- 5 The selected option will be applied.



A detailed description of each function is provided. Refer to your product for details.

7.1 INFORMATION

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View the current input source, frequency and resolution.

7.1.1 Displaying INFORMATION

- **1** Press any button on the front of the product to display the Key guide. Next, press [**MENU**] to display the corresponding menu screen.
- 2 Press [▲/▼] to move to INFORMATION. The current input source, frequency and resolution will appear.



The displayed menu items may vary depending on the model.

7.2 Configuring Brightness and Contrast in the Initial Screen

Adjust the **Brightness**, **Contrast** using the [$\dot{\mathcal{Q}}$] buttons when the initial screen (that displays no menu screen) is displayed.

Brightness :

- This menu is not available when MAGICBright is set to Dynamic Contrast mode.
- This menu is not available when **<u>Eco Saving</u>** is enabled.

Contrast :

- This option is not available when MAGICBright is in Cinema or Dynamic Contrast mode.
- This menu is not available when <u>Game Mode</u> is enabled.
- 1 Press any button on the front of the product (when no menu screen is displayed) to display the Key guide. Next, press [☆]. The following screen will appear.



- 2 Press the []/] button to alternate between the Brightness and Contrast settings.
- 3 Adjust the **Brightness**, **Contrast** using the $[\blacktriangle/ \forall]$ buttons.

7.3 Configuring Volume in the Initial Screen

Adjust the Volume by pressing the [\dot{Q}] button when the Key Guide is displayed.

1 Press any button on the front of the product (when no menu screen is displayed) to display the Key guide. Next, press [☆]. The following screen will appear.

Volume	•	 •	50
	-		

2 Adjust the Volume setting using the $[\blacktriangle/ \forall]$ buttons.

- This function is only available in **HDMI** mode.
 - The sound could only be heard when using the HDMI-to-HDMI cable.



8.1 Easy Setting Box



"Easy Setting Box" enables users to use the monitor by partitioning multiple sections.

8.1.1 Installing the Software

- 1 Insert the installation CD into the CD-ROM drive.
- 2 Select the "Easy Setting Box" setup program.
 - If the pop-up screen for the software installation does not appear on the main screen, find and double-click the "Easy Setting Box" setup file on the CD-ROM.
- 3 When the Installation Wizard appears, click **Next**.
- 4 Follow the instructions given on the screen to proceed with installation.
 - The software may not work properly if you do not restart the computer after the installation.
 - The "Easy Setting Box" icon may not appear depending on the computer system and the product specifications.
 - If the shortcut icon does not appear, press the F5 key.

Restrictions and Problems with the Installation ("Easy Setting Box")

The "Easy Setting Box" installation may be affected by the Graphics Card, Motherboard and the Networking Environment.

System Requirements

OS

- Windows XP 32Bit/64Bit
- Windows Vista 32Bit/64Bit
- Windows 7 32Bit/64Bit
- Windows 8 32Bit/64Bit

Hardware

- At least 32MB of memory
- At least 60MB of free space on the hard disk drive



8.1.2 Removing the Software

Click Start, select Settings/Control Panel, and then double-click Add or Remove Programs.

Select "Easy Setting Box" from the program list and click the Add/Delete button.

9.1 Requirements Before Contacting Samsung Customer Service Center

9.1.1 Testing the Product



Before calling Samsung Customer Service Center, test your product as follows. If the problem persists, contact Samsung Customer Service Center.

Check if your product is operating normally by using the product test function.

If the screen is turned off and the power indicator blinks even though the product is properly connected to a PC, perform a self-diagnosis test.

- 1 Power off both the PC and product.
- 2 Disconnect the cables from the product.
- 3 Power on the product.
- 4 If the message **Check Signal Cable** appears, the product is working normally.



If the screen remains blank, check the PC system, video controller and cable.

9.1.2 Checking the Resolution and Frequency

For a mode that exceeds the supported resolution (refer to "10.3 Standard Signal Mode Table"), the message **Not Optimum Mode** will appear for a short time.

9.1.3 Check the following.

Installation issue (PC mode)

Issues	Solutions
The screen keeps switching on and off.	Check the cable connection between the product and PC, and ensure the connectors are locked. (Refer to "2.2 Connecting and Using a PC")



Troubleshooting Guide

Screen issue

Issues	Solutions	
The power LED is off. The screen will not switch on.	Check that the power cable is connected properly.	
	(Refer to "2.2 Connecting and Using a PC")	
The message Check Signal Cable appears.	Check that the cable is properly connected to the product.	
	(Refer to "2.2 Connecting and Using a PC")	
	Check that the device connected to the product is powered on.	
Not Optimum Mode is displayed.	This message appears when the signal from the graphics card exceeds the maximum resolution or frequency for the product.	
	Change the maximum resolution and frequency to suit the product performance, referring to Standard Signal Mode Table (page 80).	
The images on the screen look distorted.	Check the cable connection to the product.	
	(Refer to "2.2 Connecting and Using a PC")	
The screen is not clear. The screen is blurry.	Adjust Coarse and Fine.	
	Remove any accessories (video extension cable, etc.) and try again.	
	Set the resolution and frequency to the recommended level. (Refer to "10.1 General")	
The screen appears unstable and shaky.	Check that the resolution and frequency for the	
There are shadows or ghost images left on the screen.	PC are within the range of resolution and frequency compatible with the product. Next, if required, change the settings, referring to Standard Signal Mode Table (page 80) in this manual and the INFORMATION menu on the product.	
The screen is too bright. The screen is too dark.	Adjust Brightness and Contrast.	
Screen color is inconsistent.	Change the COLOR settings.	
The colors on the screen have a shadow and are distorted.	Change the COLOR settings.	
White does not really look white.	Change the COLOR settings.	
There is no image on the screen and the power	The product is operating in power-saving mode.	
LED blinks every 0.5 to 1 second.	Press any key on the keyboard or move the mouse to return to normal operating mode.	



Troubleshooting Guide

Sound issue

Issues	Solutions
There is no sound.	Check the connection of the audio cable or adjust the volume.
	Check the volume.
The volume is too low.	Adjust the volume.
	If the volume is still low after turning it up to the maximum level, adjust the volume on your PC sound card or software program.

Source device issue

Issues	Solutions
A beeping sound is heard when my PC is booting.	If a beeping sound is heard when your PC is booting, have your PC serviced.

The LED lights on the frame of the product may be seen depending on the user's viewing angle. The light is harmless to people and has no bearing on product features and performance. The product is safe to use.

9.2 Q & A

Question	Answer
How can I change the frequency?	 Set the frequency on your graphics card. Windows XP: Go to Control Panel → Appearance and Themes → Display → Settings → Advanced → Monitor, and adjust Pafrach rate under Maniter actings
	 and adjust Refresh rate under Monitor settings. Windows ME/2000: Go to Control Panel → Display → Settings → Advanced → Monitor, and adjust Refresh rate under Monitor settings.
	 Windows Vista: Go to Control Panel → Appearance and Personalization → Personalization → Display Settings → Advanced Settings → Monitor, and adjust Refresh rate under Monitor settings.
	 Windows 7: Go to Control Panel → Appearance and Personalization → Display → Screen Resolution → Advanced settings → Monitor, and adjust Refresh rate under Monitor settings.
	 Windows 8: Go to Settings → Control Panel → Appearance and Personalization → Display → Screen Resolution → Advanced settings → Monitor, and adjust Refresh rate under Monitor settings.

Troubleshooting Guide

Question	Answer
How can I change the resolution?	 Windows XP: Go to Control Panel → Appearance and Themes → Display → Settings, and adjust the resolution.
	 Windows ME/2000: Go to Control Panel → Display → Settings, and adjust the resolution.
	 Windows Vista: Go to Control Panel → Appearance and Personalization → Personalize → Display Settings, and adjust the resolution.
	 Windows 7: Go to Control Panel → Appearance and Personalization → Display → Adjust Resolution, and adjust the resolution.
	 Windows 8: Go to Settings → Control Panel → Appearance and Personalization → Display → Adjust Resolution, and adjust the resolution.
How do I set power-saving mode?	 Windows XP: Set power-saving mode in Control Panel → Appearance and Themes → Display → Screen Saver Settings or BIOS SETUP on the PC.
	 Windows ME/2000: Set power-saving mode in Control Panel → Display → Screen Saver Settings or BIOS SETUP on the PC.
	 Windows Vista: Set power-saving mode in Control Panel → Appearance and Personalization → Personalize → Screen Saver Settings or BIOS SETUP on the PC.
	 Windows 7: Set power-saving mode in Control Panel → Appearance and Personalization → Personalize → Screen Saver Settings or BIOS SETUP on the PC.
	 Windows 8: Set power-saving mode in Settings → Control Panel → Appearance and Personalization → Personalize → Screen Saver Settings or BIOS SETUP on the PC.



9

Refer to the user manual for your PC or graphics card for further instructions on adjustment.

10.1 General

Мос	del Name	S22D390H / S22D393H	S24D390HL / S24D393HL	S27D390H / S27D393H
Panel	Size	21.5 Inches (54 cm)	23.6 Inches (59 cm)	27 Inches (68 cm)
	Display area	476.64 mm (H) x 268.11 mm (V)	521.28 mm (H) x 293.22 mm (V)	597.9 mm (H) x 336.3 mm (V)
		18.77 Inches (H) x 10.56 Inches (V)	20.52 Inches (H) x 11.54 Inches (V)	23.54 Inches (H) x 13.24 Inches (V)
	Pixel Pitch	0.24825 mm (H) x 0.24825 mm (V)	0.2715 mm (H) x 0.2715 mm (V)	0.3114 mm (H) x 0.3114 mm (V)
		0.00977 Inches (H) x 0.00977 Inches (V)	0.0107 Inches (H) x 0.0107 Inches (V)	0.0123 Inches (H) x 0.0123 Inches (V)
Power Supply	·		5 100-240 V. Since the s country, please check	• .
Dimensions (W x H x D) /	Without Stand	514.2 x 323.3 x 81.7 mm	547.8 x 332.5 x 80.1 mm	625.2 x 376.3 x 79.6 mm
Weight		20.2 x 12.7 x 3.2 Inches	21.6 x 13.1 x 3.2 Inches	24.6 x 14.8 x 3.1 Inches
	With Stand	514.2 x 401.4 x 184.9 mm / 3.2 kg (Square Stand Base)	547.8 x 409.2 x 209.8 mm / 3.7 kg (Square Stand Base)	625.2 x 453 x 209.8 mm / 4.7 kg (Square Stand Base)
		20.2 x 15.8 x 7.3 Inches / 7.1 lbs (Square Stand Base)	21.6 x 16.1 x 8.3 Inches / 8.2 lbs (Square Stand Base)	24.6 x 17.8 x 8.3 Inches / 10.4 lbs (Square Stand Base)
		514.2 x 389.4 x 209.0 mm / 3.2 kg (Round Stand Base)	547.8 x 401.2 x 243.4 mm / 3.7 kg (Round Stand Base)	625.2 x 445 x 243.4 mm / 4.7 kg (Round Stand Base)
		20.2 x 15.3 x 8.2 Inches / 7.1 lbs (Round Stand Base)	21.6 x 15.8 x 9.6 Inches / 8.2 lbs (Round Stand Base)	24.6 x 17.5 x 9.6 Inches / 10.4 lbs (Round Stand Base)
Environmental	Operating	Temperature : 50 °F – 104 °F (10 °C – 40 °C)		
Consideration		Humidity : 10 % – 80 %, non-condensing		
	Storage	Temperature : -4 °F – 113 °F (-20 °C – 45 °C)		
		Humidity : 5 % – 95 %, non-condensing		



Plug-and-Play

K

This monitor can be installed and used with any Plug-and-Play compatible systems. Two-way data exchange between the monitor and PC system optimizes the monitor settings. Monitor installation takes place automatically. However, you can customize the installation settings if desired.

Panel Dots (Pixels)

Due to the nature of the manufacturing of this product, approximately 1 pixel per million (1ppm) may be brighter or darker on the LCD panel. This does not affect product performance.

The above specifications are subject to change without notice to improve quality.

This device is a Class B digital apparatus.

(USA only)

Dispose unwanted electronics through an approved recycler.

To find the nearest recycling location, go to our website:

www.samsung.com/recyclingdirect or call, (877) 278 - 0799

10.2 PowerSaver

The power-saving function of this product reduces power consumption by switching off the screen and controlling the power LED status if the product is not used for a specified period of time. The power is not turned off in power-saving mode. To switch the screen back on, press any key on the keyboard or move the mouse. Power-saving mode functions only when the product is connected to a PC that has a power-saving function.

PowerSaver	Energy Star Test Condition	Power saving mode	Power off (Power button)
Power Indicator	On	Blinking	Off
Power Consumption (S22D390H / S22D393H)	Typical 21 W	Typical 0.3 W	Less than 0.3 W
Power Consumption (S24D390HL / S24D393HL)	Typical 21 W	Typical 0.3 W	Less than 0.3 W
Power Consumption (S27D390H / S27D393H)	Typical 22 W	Typical 0.3 W	Less than 0.3 W

- The power consumption level can vary in different operating conditions or when settings are changed. (S**D390/S**D393 Model Power saving mode : Max 0.45 W)
 - ENERGY STAR[®] is a US registered mark of the United States Environmental Protection Agency.
 Energy Star power is measured with the test method in the current Energy Star[®] Standard.
 - To reduce the power consumption to 0, disconnect the power cord. Be sure to disconnect the power cable when you will not be using the product for an extended period of time. To reduce the power consumption to 0 watts when the power switch is not available, disconnect the power cable.

10.3 Standard Signal Mode Table

- This product can be set to only one resolution for each screen size to obtain the optimum picture quality due to the nature of the panel. Therefore, a resolution other than the specified resolution may degrade the picture quality. To avoid this, it is recommended that you select the optimum resolution specified for the screen size of your product.
 - Check the frequency when you exchange a CDT monitor (connected to a PC) for an LCD monitor. If the LCD monitor does not support 85Hz, change the vertical frequency to 60Hz using the CDT monitor before you exchange it with the LCD monitor.

Synchronization	Horizontal Frequency	30 – 81 kHz
	Vertical Frequency	56 – 75 Hz
Resolution	Optimum Resolution	1920 x 1080 @ 60 Hz
	Maximum Resolution	1920 x 1080 @ 60 Hz

If a signal that belongs to the following standard signal modes is transmitted from your PC, the screen will automatically be adjusted. If the signal transmitted from the PC does not belong to the standard signal modes, the screen may be blank even though the power LED turns on. In such a case, change the settings according to the following table by referring to the graphics card user manual.

Resolution	Horizontal Frequency (kHz)	Vertical Frequency (Hz)	Pixel Clock (MHz)	Sync Polarity (H/V)
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	31.469	59.940	25.175	-/-
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	+/+

Resolution	Horizontal Frequency (kHz)	Vertical Frequency (Hz)	Pixel Clock (MHz)	Sync Polarity (H/V)
VESA, 1280 x 720	45.000	60.000	74.250	+/+
VESA, 1280 x 800	49.702	59.810	83.500	-/+
VESA, 1280 x 1024	63.981	60.020	108.000	+/+
VESA, 1280 x 1024	79.976	75.025	135.000	+/+
VESA, 1440 x 900	55.935	59.887	106.500	-/+
VESA, 1600 x 900RB	60.000	60.000	108.000	+/+
VESA, 1680 x 1050	65.290	59.954	146.250	-/+
VESA, 1920 x 1080	67.500	60.000	148.500	+/+

- Horizontal Frequency

The time required to scan a single line from the left to the right side of the screen is called a horizontal cycle. The reciprocal number of a horizontal cycle is called horizontal frequency. Horizontal frequency is measured in kHz.

• Vertical Frequency

Repeating the same picture dozens of times per second allows you to view natural pictures. The repeat frequency is called "vertical frequency" or "refresh rate" and is indicated in Hz.

Contact SAMSUNG WORLD WIDE



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

NORTH AMERICA			
U.S.A	1-800-SAMSUNG (726-7864)	http://www.samsung.com/us/ support	
CANADA	1-800-SAMSUNG (726-7864)	http://www.samsung.com/ca/ support (English) http://www.samsung.com/ca_fr/	
		support (French)	

LATIN AMERICA			
ARGENTINE	0800-555-SAMSUNG (0800-555-7267)	http://www.samsung.com/ar/ support	
BOLIVIA	800-10-7260	http://www.samsung.com/cl/ support	
BRAZIL	0800-124-421 (Demais cidades e regiões) 4004-0000 (Capitais e grandes centros)	http://www.samsung.com/br/ support	
CHILE	800-SAMSUNG (726-7864)	http://www.samsung.com/cl/ support	
COLOMBIA	Bogotá 600 12 72 Gratis desde cualquier parte del país 01 8000 112 112 ó desde su celular #SAM(726)	http://www.samsung.com/co/ support	
COSTA RICA	0-800-507-7267 00-800-1-SAMSUNG (726-7864)	http://www.samsung.com/latin/ support (Spanish)	
		http://www.samsung.com/latin_en/ support (English)	
DOMINICAN REPUBLIC	1-800-751-2676	http://www.samsung.com/latin/ support (Spanish)	
		http://www.samsung.com/latin_en/ support (English)	

LATIN AMERICA		
ECUADOR	1-800-10-7267 1-800-SAMSUNG (72-6786)	http://www.samsung.com/latin/ support (Spanish) http://www.samsung.com/latin_en/ support (English)
EL SALVADOR	800-6225 800-0726-7864	http://www.samsung.com/latin/ support (Spanish) http://www.samsung.com/latin_en/ support (English)
GUATEMALA	1-800-299-0013 1-800-299-0033	http://www.samsung.com/latin/ support (Spanish) http://www.samsung.com/latin_en/ support (English)
HONDURAS	800-2791-9267 800-2791-9111	http://www.samsung.com/latin/ support (Spanish) http://www.samsung.com/latin_en/ support (English)
JAMAICA	1-800-234-7267 1-800-SAMSUNG (726-7864)	http://www.samsung.com/latin_en/ support (English)
MEXICO	01-800-SAMSUNG (726-7864)	http://www.samsung.com/mx/ support
NICARAGUA	001-800-5077267	http://www.samsung.com/latin/ support (Spanish) http://www.samsung.com/latin_en/ support (English)
PANAMA	800-7267 800-0101	http://www.samsung.com/latin/ support (Spanish) http://www.samsung.com/latin_en/ support (English)
PARAGUAY	009-800-542-0001	http://www.samsung.com/latin/ support (Spanish) http://www.samsung.com/latin_en/ support (English)
PERU	0800-777-08	http://www.samsung.com/pe/ support
PUERTO RICO	1-800-682-3180	http://www.samsung.com/latin/ support (Spanish) http://www.samsung.com/latin_en/ support (English)

LATIN AMERICA		
TRINIDAD & TOBAGO	1-800-SAMSUNG (726-7864)	http://www.samsung.com/latin/ support (Spanish)
		http://www.samsung.com/latin_en/ support (English)
URUGUAY	000-405-437-33	http://www.samsung.com/latin/ support (Spanish)
		http://www.samsung.com/latin_en/ support (English)
VENEZUELA	0-800-SAMSUNG (726-7864)	http://www.samsung.com/ve/ support

EUROPE		
AUSTRIA	0800-SAMSUNG (0800-7267864)	http://www.samsung.com/at/ support
BELGIUM	02-201-24-18	http://www.samsung.com/be/ support (Dutch) http://www.samsung.com/be_fr/ support (French)
BOSNIA	055 233 999	http://www.samsung.com/support
BULGARIA	800 111 31, Безплатна телефонна линия	http://www.samsung.com/bg/ support
CROATIA	072 726 786	http://www.samsung.com/hr/ support
CYPRUS	8009 4000 only from landline, toll free	http://www.samsung.com/gr/ support
CZECH	800 - SAMSUNG (800-726786)	http://www.samsung.com/cz/ support
	Samsung Electronics Czech and Slovak, s.r.o. V Parku 2343/24, 148 00 Praha 4	
DENMARK	70 70 19 70	http://www.samsung.com/dk/ support
EIRE	0818 717100	http://www.samsung.com/ie/ support
ESTONIA	800-7267	http://www.samsung.com/ee/ support
FINLAND	030-6227 515	http://www.samsung.com/fi/ support

EUROPE		
FRANCE	01 48 63 00 00	http://www.samsung.com/fr/ support
GERMANY	0180 6 SAMSUNG bzw. 0180 6 7267864* (*0,20 €/Anruf aus dem dt. Festnetz, aus dem Mobilfunk max. 0,60 €/Anruf)	http://www.samsung.com/de/ support
GREECE	80111-SAMSUNG (80111 726 7864) only from land line (+30) 210 6897691 from mobile and land line	http://www.samsung.com/gr/ support
HUNGARY	0680SAMSUNG (0680-726-786) 0680PREMIUM (0680-773-648)	http://www.samsung.com/hu/ support
ITALIA	800-SAMSUNG (800.7267864)	http://www.samsung.com/it/ support
LATVIA	8000-7267	http://www.samsung.com/lv/ support
LITHUANIA	8-800-77777	http://www.samsung.com/lt/ support
LUXEMBURG	261 03 710	http://www.samsung.com/support
MONTENEGRO	020 405 888	http://www.samsung.com/support
NETHERLANDS	0900-SAMSUNG (0900-7267864) (€ 0,10/Min)	http://www.samsung.com/nl/ support
NORWAY	815 56480	http://www.samsung.com/no/ support
POLAND	801-172-678* lub +48 22 607-93-33 * * (koszt połączenia według taryfy operatora)	http://www.samsung.com/pl/ support
PORTUGAL	808 20 7267	http://www.samsung.com/pt/ support
ROMANIA	08008 726 78 64 (08008 SAMSUNG) Apel GRATUIT	http://www.samsung.com/ro/ support
SERBIA	011 321 6899	http://www.samsung.com/rs/ support

EUROPE		
SLOVAKIA	0800 - SAMSUNG (0800-726 786)	http://www.samsung.com/sk/ support
SLOVENIA	080 697 267 (brezplačna številka) 090 726 786 (0,39 EUR/min) klicni center vam je na voljo od ponedeljka do petka od 9. do 18. ure.	http://www.samsung.com/si
SPAIN	0034902172678	http://www.samsung.com/es/ support
SWEDEN	0771 726 7864 (0771-SAMSUNG)	http://www.samsung.com/se/ support
SWITZERLAND	0800 726 78 64 (0800-SAMSUNG)	http://www.samsung.com/ch/ support (German) http://www.samsung.com/ch_fr/ support (French)
UK	0330 SAMSUNG (7267864)	http://www.samsung.com/uk/ support

CIS		
ARMENIA	0-800-05-555	http://www.samsung.com/support
AZERBAIJAN	0-88-555-55-55	http://www.samsung.com/support
BELARUS	810-800-500-55-500	http://www.samsung.com/support
GEORGIA	0-800-555-555	http://www.samsung.com/support
KAZAKHSTAN	8-10-800-500-55-500 (GSM: 7799, VIP care 7700)	http://www.samsung.com/support
KYRGYZSTAN	00-800-500-55-500	http://www.samsung.com/kz_ru/ support
MOLDOVA	0-800-614-40	http://www.samsung.com/support
MONGOLIA	+7-495-363-17-00	http://www.samsung.com/support
RUSSIA	8-800-555-55-55	http://www.samsung.com/ru/
	(VIP care 8-800-555-55-88)	support
TAJIKISTAN	8-10-800-500-55-500	http://www.samsung.com/support

	CIS	
UKRAINE	0-800-502-000	http://www.samsung.com/ua/ support (Ukrainian) http://www.samsung.com/ua_ru/ support (Russian)
UZBEKISTAN	8-10-800-500-55-500 (GSM: 7799)	http://www.samsung.com/support

	CHINA	
CHINA	400-810-5858	http://www.samsung.com/cn/ support
HONG KONG	(852) 3698 4698	http://www.samsung.com/hk/ support (Chinese) http://www.samsung.com/hk_en/ support (English)
MACAU	0800 333	http://www.samsung.com/support

S.E.A		
AUSTRALIA	1300 362 603	http://www.samsung.com/au/ support
INDONESIA	021-56997777	http://www.samsung.com/id/
	08001128888	support
JAPAN	0120-363-905	http://www.samsung.com/jp/ support
MALAYSIA	1800-88-9999	http://www.samsung.com/my/
	603-77137477 (Overseas contact)	support
MYANMAR	+95-01-2399-888	http://www.samsung.com/support
NEW ZEALAND	0800 726 786	http://www.samsung.com/nz/ support
PHILIPPINES	1-800-10-7267864 [PLDT]	http://www.samsung.com/ph/
	1-800-8-7267864 [Globe landline and Mobile]	support
	02-4222111 [Other landline]	
SINGAPORE	1800-SAMSUNG (726-7864)	http://www.samsung.com/sg/ support
TAIWAN	0800-329999	http://www.samsung.com/tw/ support

S.E.A		
THAILAND	0-2689-3232, 1800-29-3232	http://www.samsung.com/th/ support
VIETNAM	1800 588 889	http://www.samsung.com/vn/ support

S.W.A		
BANGLADESH	09612300300	http://www.samsung.com/in/ support
INDIA	1800 3000 8282 - Toll Free 1800 266 8282 - Toll Free	http://www.samsung.com/in/ support
SRI LANKA	94117540540	http://www.samsung.com/support

MENA		
ALGERIA	021 36 11 00	http://www.samsung.com/n_africa/ support
BAHRAIN	8000-GSAM (8000-4726)	http://www.samsung.com/ae/ support (English)
		http://www.samsung.com/ae_ar/ support (Arabic)
EGYPT	08000-7267864	http://www.samsung.com/eg/
	16580	support
IRAN	021-8255 [CE]	http://www.samsung.com/iran/ support
JORDAN	0800-22273	http://www.samsung.com/Levant/
	06 5777444	support (English)
KUWAIT	183-CALL (183-2255)	http://www.samsung.com/ae/ support (English)
		http://www.samsung.com/ae_ar/ support (Arabic)
MOROCCO	080 100 22 55	http://www.samsung.com/n_africa/ support
OMAN	800-SAMSUNG (800 - 726 7864)	http://www.samsung.com/ae/ support (English)
		http://www.samsung.com/ae_ar/ support (Arabic)
PAKISTAN	0800-Samsung (72678)	http://www.samsung.com/pk/ support

MENA			
QATAR	800-CALL (800-2255)	http://www.samsung.com/ae/ support (English)	
		http://www.samsung.com/ae_ar/ support (Arabic)	
SAUDI ARABIA	8002474357	http://www.samsung.com/sa/ support	
		http://www.samsung.com/sa_en/ support (English)	
SYRIA	18252273	http://www.samsung.com/Levant/ support (English)	
TUNISIA	80-1000-12	http://www.samsung.com/n_africa/ support	
TURKEY	444 77 11	http://www.samsung.com/tr/ support	
U.A.E	800-SAMSUNG (800 - 726 7864)	http://www.samsung.com/ae/ support (English)	
		http://www.samsung.com/ae_ar/ support (Arabic)	

AFRICA		
BOTSWANA	8007260000	http://www.samsung.com/support
BURUNDI	200	http://www.samsung.com/support
CAMEROON	7095-0077	http://www.samsung.com/africa_fr/ support
COTE D' IVOIRE	8000 0077	http://www.samsung.com/africa_fr/ support
DRC	499999	http://www.samsung.com/support
GHANA	0800-10077 0302-200077	http://www.samsung.com/ africa_en/support
KENYA	0800 545 545	http://www.samsung.com/support
MAURITIUS	23052574020	http://www.samsung.com/support
MOZAMBIQUE	847267864 / 827267864	http://www.samsung.com/support
NAMIBIA	08 197 267 864	http://www.samsung.com/support
NIGERIA	0800-726-7864	http://www.samsung.com/ africa_en/support
REUNION	262508869	http://www.samsung.com/support

AFRICA			
RWANDA	9999	http://www.samsung.com/support	
SENEGAL	800-00-0077	http://www.samsung.com/africa_fr/ support	
SOUTH AFRICA	0860 SAMSUNG (726 7864)	http://www.samsung.com/support	
SUDAN	1969	http://www.samsung.com/support	
TANZANIA	0800 755 755 / 0685 889 900	http://www.samsung.com/support	
UGANDA	0800 300 300	http://www.samsung.com/support	
ZAMBIA	0211 350370	http://www.samsung.com/support	

Responsibility for the Pay Service (Cost to Customers)



When the service is requested, in spite of in warranty, we may charge you for a visit from a service technician in the following cases.

Not a product defect

Cleaning of the product, Adjustment, Explanation, Re-installation and etc.

- If a service technician gives instructions on how to use product or simply adjusts options without disassembling product.
- If a defect is caused by external environmental factors. (Internet, Antenna, Wired Signal, etc.)
- If a product is reinstalled or devices are connected additionally after installing the purchased product for the first time.
- If a product is reinstalled to move to a different spot or to move to a different house.
- If customer requests instructions on how to use because of another company's product.
- If customer requests instructions on how to use the network or another company's program.
- If customer requests software installation and setup for the product.
- If a service technician removes/cleans dusts or foreign materials inside of the product.
- If customer requests an installation additionally after purchasing a product through home-shopping or online.

A Product damage caused by customer's fault

Product damage caused by customer's mishandling or wrong repair

If a product damage is caused by;

- external impact or drop.
- use of supplies or separately sold product unspecified by Samsung.
- repair from a person besides an engineer of outsourcing service company or partner of Samsung Electronics Co., Ltd.
- remodeling or repairing the product by customer.
- using it with incorrect voltage or non-authorised electrical connections.
- not following the "cautions" in User Manual.

Others

- If product fails by natural disaster. (lightning, fire, earthquake, flood damage, etc)
- If consumable components are all used up. (Battery, Toner, Fluorescent lights, Head, Vibrator, Lamp, Filter, Ribbon, etc.)

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If customer requests a service in case the product has no defect, service fee may be charged. So please read User Manual first.

Correct Disposal

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



(Applicable in countries with separate collection systems)

This marking on the product, accessories or literature indicates that the product and its electronic accessories (e.g. charger, headset, USB cable) should not be disposed of with other household waste at the end of their working life. To prevent possible harm to the environment or human health from uncontrolled waste disposal, please separate these items from other types of waste and recycle them responsibly to promote the sustainable reuse of material resources.

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

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

Terminology

OSD (On Screen Display)

On screen display (OSD) allows you to customize on-screen settings to optimize the picture quality as required. You can change the screen brightness, tint, size and many other settings using menus displayed on the screen.

Gamma

The Gamma menu adjusts the grey scale that represents middle tones on the screen. Adjusting the brightness brightens the whole screen, but adjusting Gamma only brightens the medium brightness.

Grey scale

Scale refers to levels of color intensity that show variations of color change from darker areas to brighter areas on the screen. Changes to the screen brightness are expressed with black and white variation, and grey scale refers to the medium area between black and white. Changing the grey scale through Gamma adjustment will change the medium brightness on the screen.

Scanning rate

Scanning rate, or refresh rate, refers to the frequency of screen refreshes. Screen data is transmitted as it refreshes to display an image, although the refreshing is invisible to the naked eye. The number of screen refreshes is called scanning rate and is measured in Hz. A scanning rate of 60Hz means that the screen refreshes 60 times per second. The screen scanning rate depends on the performance of the graphics cards in your PC and monitor.

Horizontal Frequency

Characters or images displayed on the monitor screen consist of numerous dots (pixels). Pixels are transmitted in horizontal lines, which are then arranged vertically to create an image. The horizontal frequency is measured in kHz and represents how many times horizontal lines per second are transmitted and displayed on the monitor screen. A horizontal frequency of 85 means that the horizontal lines that make up an image are transmitted 85000 times per second. The horizontal frequency is indicated in 85kHz.

Vertical Frequency

One image is made of numerous horizontal lines. The vertical frequency is measured in Hz and represents how many images can be created per second by those horizontal lines. A vertical frequency of 60 means that an image is transmitted 60 times per second. The vertical frequency is also called "refresh rate" and affects screen flicker.

Resolution

Resolution is the number of horizontal pixels and vertical pixels that form a screen. It represents the level of display detail.

A higher resolution displays a greater amount of information on the screen and is suitable for performing multiple tasks at the same time.

E.g. A resolution of 1920 x 1080 consists of 1920 horizontal pixels (horizontal resolution) and 1080 vertical lines (vertical resolution).

Plug & Play

The Plug & Play feature allows the automatic exchange of information between a monitor and PC to produce an optimum display environment.

The monitor uses VESA DDC (international standard) to execute Plug & Play.

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