SAMSUNG

USER MANUAL

Gaming Monitor

S*HG5*

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.

The contents of this manual are subject to change without notice to improve quality.

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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 center 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.

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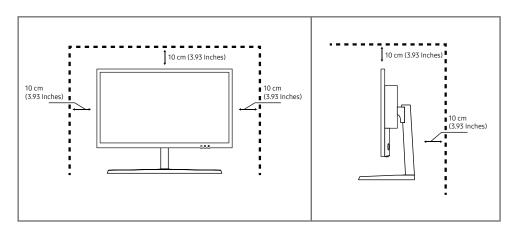
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Chapter 01 Before Using the Product

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.

Contact your nearest Samsung Customer Service Center if you want to clean the inside of the product (Service fee will be charged.)

Safety Precautions



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.

This symbol indicates that high voltage is present inside.

It is dangerous to make any kind of contact with any internal part of this product.

This symbol alerts you that important literature concerning operation and maintenance has been included with this product.



Symbols

Warning

Caution

A serious or fatal injury may result if instructions are not followed.

Personal injury or damage to properties may result if instructions are not followed.

Cleaning

- Take the following steps when cleaning.
- 1 Power off the product and computer.
- 2 Disconnect the power cord from the product.
 - Hold the power cable by the plug and do not touch the cable with wet hands. Otherwise, an electric shock may result.
- 3 Wipe the monitor with a clean, soft and dry cloth.
 - 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 product.
- 5 Connect the power cord to the product when cleaning is finished.
- 6 Power on the product and computer.

Electricity and Safety

Warning

- Do not use a damaged power cord or plug, or a loose power socket.
- Do not use multiple products with a single power socket.
- Do not touch the power plug with wet hands.
- Insert the power plug all the way in so it is not loose.
- Connect the power plug to a grounded power socket (type 1 insulated devices only).
- Do not bend or pull the power cord with force. Be careful not to leave the power cord under a heavy object.
- Do not place the power cord or product near heat sources.
- Clean any dust around the pins of the power plug or the power socket with a dry cloth.

Caution

- Do not disconnect the power cord while the product is being used.
- Only use the power cord provided with your product by Samsung. Do not use the power cord with other products.
- Keep the power socket where the power cord is connected unobstructed.
 - The power cord must be disconnected to cut off power to the product when an issue occurs.
- Hold the plug when disconnecting the power cord from the power socket.

Installation

Warning

- DO NOT PLACE CANDLES, INSECT REPELLANTS OR CIGARETTES ON TOP OF THE PRODUCT. DO NOT INSTALL THE PRODUCT NEAR HEAT SOURCES.
- Do not install the product in poorly ventilated spaces such as a bookcase or closet.
- Install the product at least 10cm away from the wall to allow ventilation.
- Keep the plastic packaging out of the reach of 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 become damaged and/or cause an 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.
- Do not expose the product to direct sunlight, heat, or a hot object such as a stove.
 - The product lifespan may be reduced or a fire may result.
- Do not install the product within the reach of young children.
 - The product may fall and injure children.
- Edible oil, such as soybean oil, can damage or deform the product. Do not install the product in a kitchen or near a kitchen counter.

Caution

- Do not drop the product while moving.
- Do not set down the product on its front.
- 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 become damaged and/or cause an injury.
 - Install the product only on cabinets or shelves of the right size.
- Set down the product gently.
 - Product failure or personal injury may result.
- 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 if you want to install the product at such a place.

Operation

Warning

- There is a high voltage inside the product. Never disassemble, repair or modify the product yourself.
 - Contact Samsung Customer Service Center for repairs.
- To move the product, first disconnect all the cables from it, including the power cable.
- If the product generates abnormal sounds, a burning smell or smoke, disconnect the power cord immediately and contact Samsung Customer Service Center.
- Do not let children hang from the product or climb on top of it.
 - Children may become injured or seriously harmed.
- If the product is dropped or the outer case is damaged, turn off the power and disconnect the power cord. Then contact Samsung Customer Service Center.
 - Continued use can result in a fire or electric shock.
- Do not leave heavy objects or items that children like (toys, sweets, etc.) on top of the product.
 - The product or heavy objects may fall as children try to reach for the toys or sweets resulting in a serious injury.
- During a lightning or thunderstorm, power off the product and remove the power cable.
- Do not drop objects on the product or apply impact.
- Do not move the product by pulling the power cord or any cable.
- If a gas leakage is found, do not touch the product or power plug. Also, ventilate the area immediately.
- Do not lift or move the product by pulling the power cord or any cable.
- Do not use or keep combustible spray or an inflammable substance near the product.
- Ensure the vents are not blocked by tablecloths or curtains.
 - An increased internal temperature may cause a fire.

- Do not insert metallic objects (chopsticks, coins, hairpins, etc) or objects that burn easily (paper, matches, etc) into the product (via the vent or input/output ports, etc).
 - Be sure to power off the product and disconnect the power cord when water or other foreign substances have entered the product. Then contact Samsung Customer Service Center.
- Do not place objects containing liquid (vases, pots, bottles, etc) or metallic objects on top of the product.
 - Be sure to power off the product and disconnect the power cord when water or other foreign substances have entered the product. Then contact Samsung Customer Service Center.

Caution

- Leaving the screen fixed on a stationary image for an extended period of time may cause afterimage burn-in or defective pixels.
 - Activate power-saving mode or a moving-picture screen saver if you will not be using the product for an extended period of time.
- Disconnect the power cord from the power socket if you do not plan on using the product for an extended period of time (vacation, etc).
 - Dust accumulation combined with heat can cause a fire, electric shock or electric leakage.
- Use the product at the recommended resolution and frequency.
 - Your eyesight may deteriorate.
- Do not put AC/DC adapters together.
- Remove the plastic bag from the AC/DC adapter before you use it.
- Do not let water enter the AC/DC adapter device or get the device wet.
 - 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 AC/DC adapter wet when you wash the floor.
- Do not put the AC/DC adapter near to any heating apparatus.
 - Otherwise, a fire may result.
- Keep the AC/DC 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.

- Insert the power plug into the AC/DC adapter until a click sound is heard.
- Do not insert only the power plug into the power outlet.
- Do not use an AC/DC adapter other than the provided one.
 - It may cause electric shock or fire.
- Do not insert the AC/DC adapter into the power outlet on the ceiling.
 - It may cause electric shock or fire.
- Rotate the power plug not to exceed the range (0 to 90°) on the AC/DC adapter.
 - It may cause electric shock or fire.
- Never diassemble the power plug after being assembled. (It cannot be separated after assembly.)
- Never use the provided power plug for other devices.
- When removing the AC/DC adapter from the power outlet, hold the body of AC/DC adapter and pull it up.
 - It may cause electric shock or fire.
- Do not drop any objects or apply shock on the AC/DC adapter.
 - It may cause electric shock or fire.
- Use the AC/DC adapter after removing its plastic cover.
 - Otherwise, this may result fire.

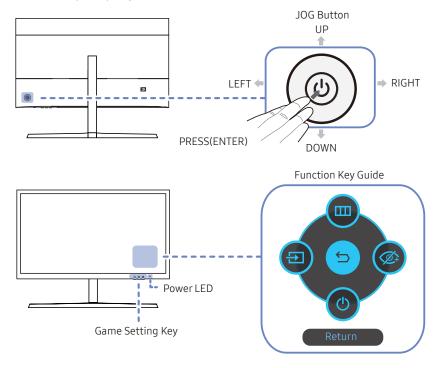
- Do not hold the product upside-down or move it by holding the stand.
 - The product may fall and become damaged or cause an injury.
- Looking at the screen too close for an extended period of time can deteriorate your eyesight.
- Do not use humidifiers or stoves around the product.
- Rest your eyes for more than 5 minutes or look at distance objects for every 1 hour of product use.
- Do not touch the screen when the product has been turned on for an extended period of time as it will become hot.
- Store small accessories out of the reach of children.
- Exercise caution when adjusting the product angle or stand height.
 - Your hand or finger may get stuck and injured.
 - Tilting the product at an excessive angle may cause the product to fall and an injury may result.
- Do not place heavy objects on the product.
 - Product failure or personal injury may result.
- When using headphones or earphones, do not turn the volume too high.
 - Having the sound too loud may damage your hearing.

Chapter 02 Preparations

Parts

Control Panel

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



Parts	Description
JOG Button	Multi directional button that helps navigate. — The JOG button is located on the rear left side of the product. The button can be used to move up, down, left or right, or as Enter.
Power LED Power LED	This LED is power status indicator and works as Power On (Power button): Off Power saving mode: Blinking Power Off (Power button): On
	 The power Indicator operation can be swapped by changing in the menu. (System → Power LED On) Actual models because of functional variation maybe haven't this function.
Function Key Guide	Press the JOG button when the screen is turned on. The Function Key Guide will appear. To access the onscreen menu when the guide is displayed, press the corresponding direction button again.
	Function Key Guide may vary depending on the function or product model. Please refer to the actual product.
	Use shortcut keys to access previously saved custom game modes.
Game Setting Key	 Game Setting 1 / Game Setting 2 / Game Setting 3 The Game Setting Keys are located at the bottom right on the front of the monitor. To edit and save a custom game mode, go to Game → Save Settings.

Function Key Guide

To enter the main menu or to use other items, press the JOG button to display the Function Key Guide. You can exit by pressing the JOG button again.



UP/DOWN/LEFT/RIGHT: Move to the item you want. The description for each item will appear when the focus changes. PRESS(ENTER): The selected item will be applied.

Icons		Description
	Menu	Selects by moving the JOG button in the function key guide screen. The OSD (On Screen Display) of your Monitor's feature appears.
(2)	Source	Selects to change the input signal by moving the JOG button in the Function Key Guide screen. A message will appear on the top left corner of the screen if the input signal has been changed.
		Selects by moving the JOG button in the function key guide screen. Press to enable or disable Eye Saver Mode.
Ø	Eye Saver Mode	The items below are not available if the Eye Saver Mode function is enable.
		 Game → Picture Mode, Black Equalizer
		 Picture → Picture Mode, Brightness, Color
		 System → Eco Saving Plus
(4)	Power Off	Selects to turn the Monitor off by moving the JOG button in the function key guide screen.

Actual models because of functional variation, Function key guide options will be different.

When the monitor displays nothing (i.e. Power saving mode or Non-signal mode), 2 direct keys for control source and power could be used as below.

JOG Button	Power saving/Non-signal mode
UP	Source Change
Down	
PRESS(ENTER) for 2 seconds	Power Off

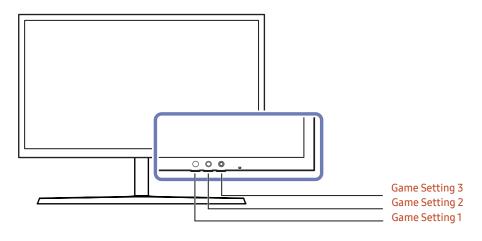
When the monitor displays the Main menu the JOG Button could be used as below.

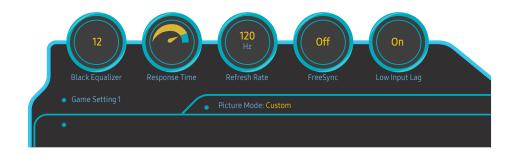
JOG Button	Action	
UP/DOWN	Move the option	
	Exit the Main menu.	
LEFT	Close Sublist without saving value.	
	Value decreases in the slider.	
RIGHT	Move to next depth.	
	Value increases in the slider.	
PRESS(ENTER)	Move to next depth.	
FRESS(ENTER)	Save the value and close Sublist.	

Game Setting Key

You can quickly view the setting with a shortcut key at the bottom without using an OSD menu. You can directly see the settings for three different modes.

• Game Setting 1 / Game Setting 2 / Game Setting 3





 $[\]overline{}$ The displayed image may differ depending on the model.

The displayed images reflect the status of the functions as the settings in OSD of the corresponding functions other than the real-time values.

Changing Brightness, Contrast and Sharpness settings

You can adjust Brightness, Contrast or Sharpness by moving the JOG button up or down, if no OSD menu is displayed.



The displayed image may differ depending on the model.

Brightness

- This menu is not available when **Eco Saving Plus** is enabled.
- This menu is not available when Eye Saver Mode is enabled.

Contrast

This menu is not available when **Picture Mode** is set to **Cinema** mode.

Sharpness

This menu is not available when **Picture Mode** is set to **Cinema** mode.

Changing the Volume setting

You can adjust Volume by moving the JOG button left or right, if no OSD menu is displayed.



- The displayed image may differ depending on the model.
- If the audio quality of a connected input device is poor, the Auto Mute function on the product may mute the sound or cause choppy audio when applying the headphones or speakers. Set the input volume for the input device to at least 20% and control the volume using the volume control (JOG button LEFT/RIGHT) on the product.
- What is Auto Mute?
- The function mutes the audio to improve sound effect when there is sound noise or when the input signal is weak, usually due to a problem with the volume of an input device.
- To activate the Mute function, access the Volume control screen, then use the JOG button to move the focus down.

To deactivate the Mute function, access the Volume control screen, then increase or decrease the Volume.

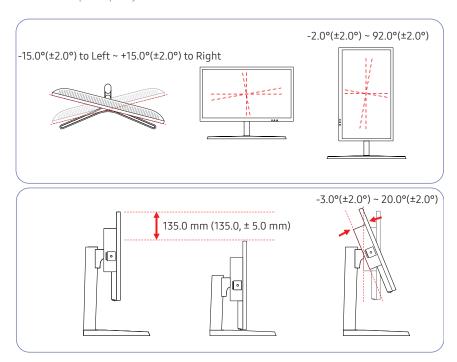
Reverse Side

- The color and shape of parts may differ from what is shown. Specifications are subject to change without notice to improve quality.
- The functions available may vary depending on the product model. Refer to the actual product.

Port	Description
POWER IN	Connect the power cord for your monitor to the POWER IN port on the back of the product. — (S25HG50FQ* model only)
DC 19V	Connects to the AC/DC adapter.
0	— (S27HG50QQ* model only)
HDMI IN 1 HDMI IN 2	Connects to a source device using an HDMI cable or HDMI-DVI cable.
DP IN	Connects to a PC using a DP cable.
0	Connect to an audio output device such as headphones.
\$\$ < 1 \$\$ < 2	Connect to a USB device. — (S27HG50QQ* model only)
SS-G-(PC IN)	Connects to a PC using a USB cable. Compatible with a USB cable version 3.0 or lower. This port can only connect to a PC. (S27HG50QQ* model only)

Adjusting the Product Tilt and Height

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

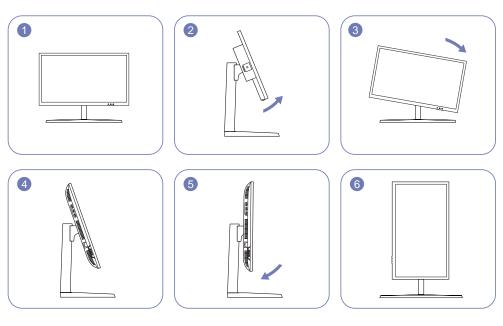


- The monitor tilt and height can be adjusted.
- When adjusting the tilt and height, hold both sides of the product and avoid using excessive force to prevent damage.
- The rotation and height adjustment has a certain tolerance. Stay within the tolerances when rotating or adjusting the height of the product.
- When adjusting the stand height, you may hear a noise. This noise is generated because the ball
 inside the stand slides when the stand height is adjusted. It is a normal noise and not a product
 malfunction.

Rotating the Monitor Screen

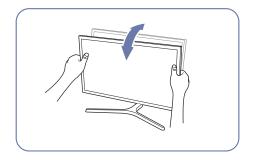
The color and shape of parts may differ from what is shown. Specifications are subject to change without notice to improve quality.

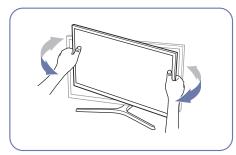
You can rotate your monitor as shown below.



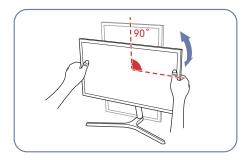
- Adjust the screen following the arrow direction.
- Rotate the screen in clockwise direction till it becomes completely vertical to the desktop.
- Rotating the screen counterclockwise can damage the product. Rotating the screen when the product is upright or when the height is not at the maximum can also damage the product.

Caution





• Grasp the left and right sides of the monitor and adjust the tilt.

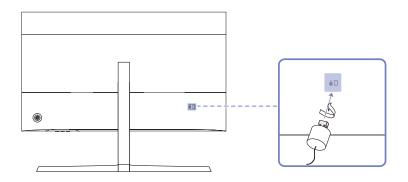


- Hold the bezel at both side edges and rotate the monitor. (Be careful not to directly hold the LCD display.)
- The screen can be rotated up to 90° clockwise if you are facing the screen.

Anti-theft Lock

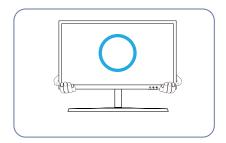
- An anti-theft lock allows you to use the product securely even in public places.
- The locking device shape and locking method depend on the manufacturer. Refer to the user guide provided with your anti-theft locking device for details.

To lock an anti-theft locking device:

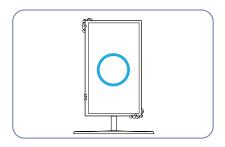


- 1 Fix the cable of your anti-theft locking device to a heavy object such as a desk.
- 2 Put one end of the cable through the loop on the other end.
- 3 Insert the locking device into the anti-theft lock slot at the back of the product.
- 4 Lock the locking device.
 - An anti-theft locking device can 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.

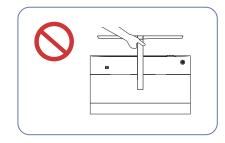
Precautions for moving the monitor



 Hold the lower part of the monitor when moving it.



 When moving the monitor, rotate to portrait orientation and hold the top and bottom of the monitor.

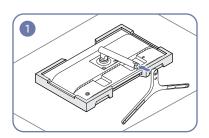


• Do not hold the product upside down only by the stand.

Installation

Attaching the Stand (S25HG50FQ* model only)

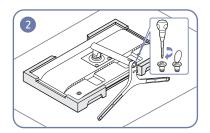
— Before assembling the product, place the product down on a flat and stable surface so that the screen is facing downwards.



Place the protective Styrofoam (cushion) included in the package on the floor and place the product facing down on the Styrofoam, as shown in the image. If Styrofoam is unavailable, use a thick sitting mat.

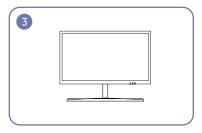
Insert the stand base into the stand neck in the direction shown in the figure.

 Keep the stand base within the platform to prevent it falling off and causing injury.

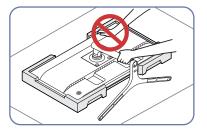


Attach the stand base to the stand neck, and then fasten the two screws on the base to tightly fix it.

 Keep the stand base within the platform to prevent it falling off and causing injury.



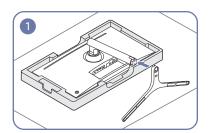
After attaching the stand, place the product in an upright position.



Caution

Attaching the Stand (S27HG50QQ* model only)

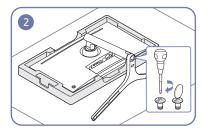
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Place the protective Styrofoam (cushion) included in the package on the floor and place the product facing down on the Styrofoam, as shown in the image.

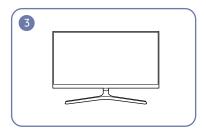
Insert the stand base into the stand neck in the direction shown in the figure.

 Keep the stand base within the platform to prevent it falling off and causing injury.

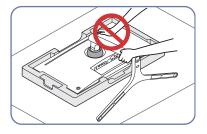


Install the stand base and tighten the screws at the bottom of the stand base.

 Keep the stand base within the platform to prevent it falling off and causing injury.



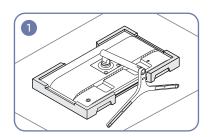
After attaching the stand, place the product in an upright position.



Caution

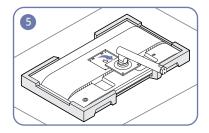
Removing the Stand (S25HG50FQ* model only)

Before removing the stand from the monitor, place the monitor on a flat and stable surface with the screen facing down.

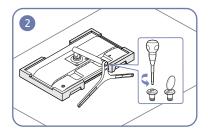


Place the protective Styrofoam (cushion) included in the package on the floor and place the product facing down on the Styrofoam, as shown in the image.

 Keep the stand base within the platform to prevent it falling off and causing injury.

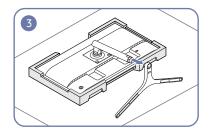


Lift and detach the stand neck.



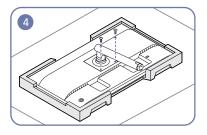
Loosen the screws at the bottom of the stand base.

 Keep the stand base within the platform to prevent it falling off and causing injury.

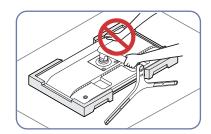


Remove the stand base.

 Keep the stand base within the platform to prevent it falling off and causing injury.



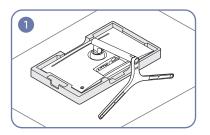
Unfasten the screw from the back of the product.



Caution

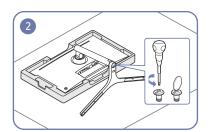
Removing the Stand (For Attaching the BRACKET WALL) (S27HG50QQ* model only)

Before removing the stand from the monitor, place the monitor on a flat and stable surface with the screen facing down.



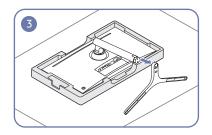
Place the screen on the Styrofoam or soft cushion included in the package, hold the stand base with one hand and remove the screws of the stand base with another hand.

 Keep the stand base within the platform to prevent it falling off and causing injury.



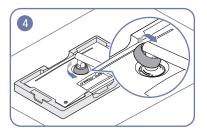
Loosen the screws at the bottom of the stand base.

 Keep the stand base within the platform to prevent it falling off and causing injury.

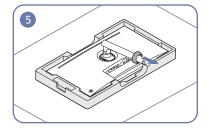


Place the device flat after removing the stand base.

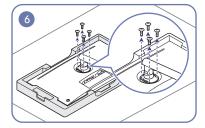
 Keep the stand base within the platform to prevent it falling off and causing injury.



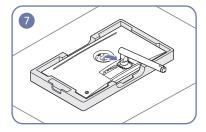
Turn the Cover-Stand Pivot Rear counterclockwise and then pull it upward to detach it from the rear cover.



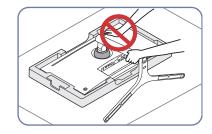
Remove the Cover-Stand Pivot Rear after detaching it from the rear cover.



Remove the 4 screws connecting the stand neck with the device and then lift and remove the stand neck.



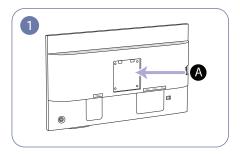
Lift and remove the stand.

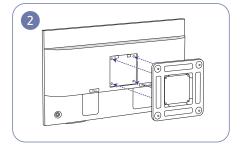


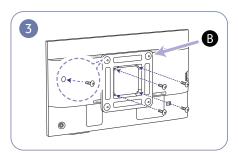
Caution

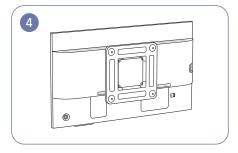
Installing a Wall-mount Kit or Desktop Stand (S25HG50FQ* model only)

Power the product off and remove the power cable from the power socket.









- A Attach the wall-mount kit or desktop stand here
- B Bracket (sold separately)

Align the grooves and tightly fasten the screws on the bracket on the product with the corresponding parts on the wall-mount kit or desktop stand you want to attach.

Notes

- Using a screw longer than the standard length can damage the internal components of the product.
- The length of screws required for a wall mount that does not comply with the VESA standards may vary depending on the specifications.
- Do not use screws that do not comply with the VESA standards. Do not attach the wall-mount kit
 or desktop stand using excessive force. The product may get damaged or fall and cause personal
 injury. Samsung shall not be held liable for any damage or injury caused by using improper screws
 or attaching the wall-mount kit or desktop stand using excessive force.
- Samsung shall not be held liable for any product damage or personal injury caused by using a wall-mount kit other than the one specified or from an attempt to install the wall-mount kit on your own.
- To mount the product on a wall, ensure you purchase a wall-mount kit that can be installed 10 cm or farther away from the wall.
- Be sure to use a wall-mount kit that complies with the standards.
- To install the monitor using a wall mount, disconnect the stand base from the monitor.

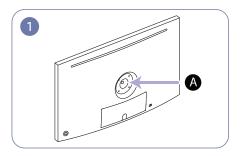
Unit: mm (inches)

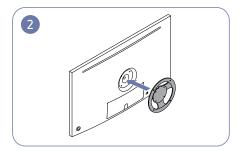
	VESA screw hole specs in millimeters	Standard Screw	Quantity
S25HG50FQ*	100.0 x 100.0 (3.9 x 3.9)	4.0 mm Φ, 0.7 pitch * 10.0 mm long	4 EA

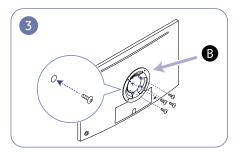
Do not install your Wall Mount Kit while your product is turned on. It may result in personal injury due to electric shock.

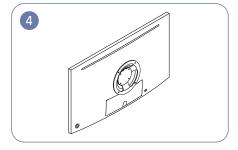
Attaching the BRACKET WALL (S27HG50QQ* model only)

Power the product off and remove the power cable from the power socket.









- A Attach the BRACKET WALL here
- **B** BRACKET WALL

Align B with A on the monitor, then tightly fasten with the screws removed from the stand (P20).

Notes

- Using a screw longer than the standard length can damage the internal components of the product.
- The length of screws required for a wall mount that does not comply with the VESA standards may vary depending on the specifications.
- Do not use screws that do not comply with the VESA standards. Do not attach the wall-mount kit
 or desktop stand using excessive force. The product may get damaged or fall and cause personal
 injury. Samsung shall not be held liable for any damage or injury caused by using improper screws
 or attaching the wall-mount kit or desktop stand using excessive force.
- Samsung shall not be held liable for any product damage or personal injury caused by using a wall-mount kit other than the one specified or from an attempt to install the wall-mount kit on your own.
- To mount the product on a wall, ensure you purchase a wall-mount kit that can be installed 10 cm or farther away from the wall.
- Be sure to use a wall-mount kit that complies with the standards.
- To install the monitor using a wall mount, disconnect the stand base from the monitor.
- If the thickness of the wall mount you purchased is less than 4 mm, you can use the M4*8 screws provided; if the thickness of the wall mount you purchased is greater than 4 mm, please use other proper screws. Otherwise, damage to the product or personal injury may be caused. Samsung is not liable for any product damage or personal injury caused due to failure to follow the instructions on the installation and use of the wall mount.

Unit: mm (inches)

Model name	VESA screw hole specs in millimeters	Standard Screw	Quantity
S27HG50QQ*	100.0 x 100.0 (3.9 x 3.9)	4.0 mm Φ, 0.7 pitch * 10.0 mm long	4 EA

Do not attach the BRACKET WALL when the monitor is turned on. This may cause electric shock and might result in injury.

Chapter 03

Connecting and Using a Source Device

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 before connecting all other cables.

 Ensure you connect a source device first before connecting the power cable.

 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.

Connecting and Using a PC

Select a connection method suitable for your PC.

- Connecting parts may differ in different products.
- Provided ports may vary depending on the product.

Connection Using the HDMI Cable



Connection Using an HDMI-DVI Cable



The audio function is not supported if the source device is connected using the HDMI-DVI cable.

Connection Using an DP Cable



A DP cable shorter under 1.5 m in length is recommended. Using a cable longer than 1.5 m can affect the picture quality.

Connecting to Headphones



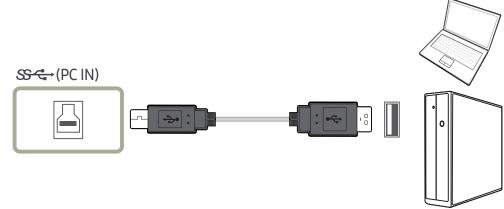
— Use headphones when activating sound with an HDMI-HDMI or DP cable.

Connecting the Product to a PC as a USB HUB (S27HG50QQ* model only)

Connecting a PC to the Product

The product can function as a HUB by connecting to a PC via a USB cable. You can connect a source device directly to the product and control the device from the product, without having to connect the device to the PC.

To use the product as a USB hub, connect the product to a PC using a USB cable.



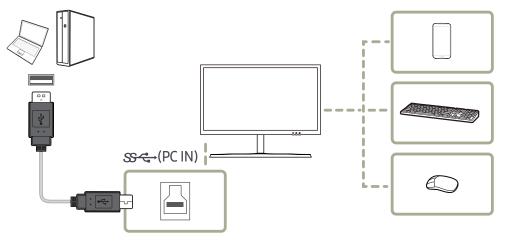
Connect the USB cable to on the back of the product and USB on the PC.

A USB 2.0 cable can be used to connect the product to a PC. However, to take full advantage of the USB 3.0 function, connect a USB 3.0 cable between the PC and the product. Ensure the PC supports USB 3.0.

Utilizing the Product as a USB HUB

Using the product as a hub, connect and use various source devices with the product at the same time.

A PC cannot connect to multiple source devices at the same time as it has a limited number of input/ output ports available. The HUB feature on the product will improve your work efficiency by allowing you to connect multiple source devices to the USB ports on the product at the same time without connecting them to a PC.



If multiple source devices are connected to the PC, the many cables around the PC may look messy. Connecting the devices directly to the product will resolve such inconvenience.

Connect a mobile device such as an MP3 player or smartphone to the product when connected to a PC. This allows you to control the device from the PC or charge the device battery.

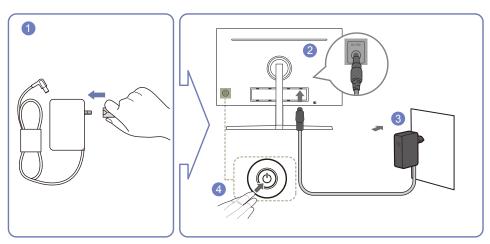
- To detect and start a USB device faster, connect the device to the USB 3.0 port on the product. The read/write rate will be affected by the USB device and your PC.
- The product does not support media play. If you need to play a file in your USB device, please connect the product as a Hub to your PC and play the file on your PC.
- For USB-related problems caused by OS, drive programs or software, please contact relevant suppliers.
- With the launch of various USB devices on the market, we cannot guarantee that our products are matched with all USB devices.
- For an external mass-storage HDD requiring external power supply, be sure to connect it to a power source.
- If the current is too high or an exception occurs, the over-current protection will be triggered. This is a normal setting of the product.
- USB devices requiring high current may not be supported. SSC→1 and SSC→2 can support a maximum current of 10A
- The battery can be charged in the power-saving mode, but it cannot be charged when the product is powered off.
- Charging your USB device is not possible if the power cable is disconnected from the power socket.
- The USB device needs to be purchased separately.

Connecting the Power (S25HG50FQ* model only)



To use the product, connect the power cable to a power outlet and the POWER IN port on the product.

Connecting the Power (S27HG50QQ* model only)

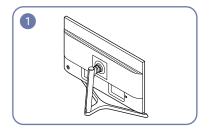


- 1 Connect the power plug to the AC/DC adapter.
- 2 Connect the AC/DC adapter cable to the DC 19V port on the back of the monitor.
- 3 Plug the AC/DC adapter into the power outlet.
- 4 Press the JOG button on the back of the monitor to turn it on.

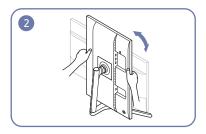
The input voltage is switched automatically.

The input voltage is switched automatically.

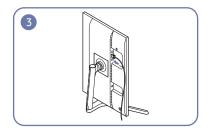
Tidying Up the Connected Cables (S25HG50FQ* model only)



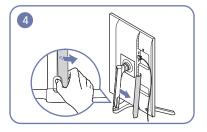
Stand assembly is complete.



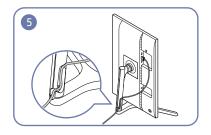
Rotate the machine to the vertical position.



Connect the corresponding cables.

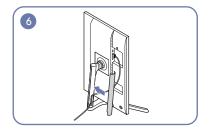


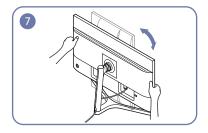
Open the COVER-STAND NECK LEFT, and rotate the open part at the bottom.



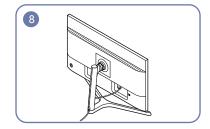
Place the corresponding cables into the stand-neck

Cover the COVER-STAND NECK LEFT. holder. Do not stretch the cable. Two cables in one holder is recommended.



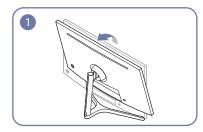


Rotate the machine to the horizontal position.



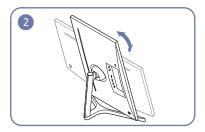
Arrange the external cables.

Tidying Up the Connected Cables (S27HG50QQ* model only)



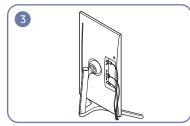
Stand assembly is complete.

Adjust the screen following the arrow direction.

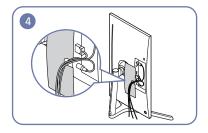


Rotate the machine to the highest vertical position.

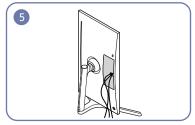
 The monitor may get damaged if you rotate the screen without tilt, or counter clockwise direction



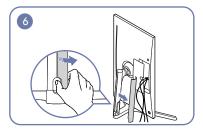
Connect the corresponding cables.



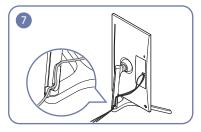
Arrange the cables against the bend tendency of the cables and pull the cables out of the COVER-REAR SUB grooves.



Cover the COVER-REAR SUB.



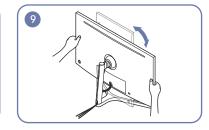
Open the COVER-STAND NECK LEFT, and rotate the open part at the bottom.



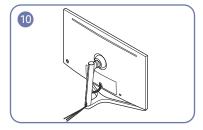
Place the corresponding cables into the stand-neck holder. Do not stretch the cable. Three cables in one holder is recommended.



Cover the COVER-STAND NECK LEFT.



Rotate the machine to the horizontal position.



Arrange the external cables.

Correct posture to use the product



Use the product in the correct posture as follows:

- Straighten your back.
- Allow a distance of 45 to 50cm 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.
- Do the Eye excercises or blink frequently, then eye fatigue will be relieved.

Driver Installation

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.

- 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.
- To change the refresh rate while retaining the current resolution, select Game → Refresh Rate on the OSD menu.

You can set the optimum resolution and frequency for this product by installing the corresponding drivers.

To install the latest version of the product driver, download it from the Samsung Electronics website at http://www.samsung.com.

Chapter 04 Game

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

The functions available may vary depending on the product model. The color and shape of parts may differ from what is shown. Specifications are subject to change without notice to improve quality.

Picture Mode

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

- This menu is not available when Eye Saver Mode is enabled.
- This menu is not available when Eco Saving Plus is enabled.
- This menu is not available when MAGICAngle is enabled.

In PC mode

- Custom: Customize the screen settings.
- FPS: Increase the brightness of darker areas of the FPS game screen. This mode increases visibility of your enemies during an FPS game.
- RTS: Increase the color temperature and contrast ratio to improve visibility of the RTS screen and minimap.
- RPG: This mode is optimized for 3D graphics and instant messaging on the RPG game screen.
- AOS: Increase the contrast ratio to obtain a picture quality optimized for the AOS game screen.
- Cinema: Obtain the brightness and sharpness of TVs suitable for enjoying video and DVD content.

In AV mode

When the external input is connected through HDMI/DP and PC/AV Mode is set to AV, Picture Mode 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
 fatique.
- Custom: Select this mode when you want to adjust the image according to your preferences.

Refresh Rate

Change the screen refresh rate. A higher refresh rate can reduce eye strain.

S25HG50FQ*

DisplayPort: 60 Hz / 100 Hz / 120 Hz / 144 Hz

HDMI1: 60 Hz / 100 Hz / 120 Hz

HDMI2: 60 Hz / 100 Hz / 120 Hz / 144 Hz

S27HG50QQ*

DisplayPort: 60 Hz / 100 Hz / 120 Hz / 144 Hz

HDMI1: 60 Hz

HDMI2: 60 Hz / 100 Hz / 120 Hz / 144 Hz

This menu is not available when **FreeSync** is set to **Standard Engine** or **Ultimate Engine** mode.

Changing the Refresh Rate may cause screen flickering, depending on the computer's graphics card.

The function is available in a computer equipped with the graphic card that can change the refresh rate. It is unavailable in the devices (e.g. AV devices) with fixed refresh rates. If the function is applied, the screen may have malfunction.

Black Equalizer

Adjust the brightness of the dark areas.

As the value gets closer to 1, the darker areas of the screen become brighter, making it easier to find enemies when playing a game. To find enemies more easily during a game, use a lower value.

As the value gets closer to 20, the darker areas of the screen become darker and the contrast increases.

Response Time

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.

This menu is not available when **Eye Saver Mode** is enabled.

This menu is not available when MAGICAngle is enabled.

This menu is not available when **Picture Mode** is set to **Cinema** mode.

This menu is not available when **FreeSync** is set to **Standard Engine** or **Ultimate Engine** mode.

FreeSync

FreeSync technology is solution that eliminates screen tearing without all the usual lag and latency.

This feature will eliminate screen tearing and lag during game play. Improve your gaming experience.

The displayed FreeSync menu items on the monitor may vary, depending on the monitor model and compatibility with the AMD graphics card.

- Off: Disable FreeSync.
- Standard Engine: Enable the basic FreeSync functions of the AMD graphics card.
- Ultimate Engine: Enable the FreeSync feature with a higher screen frame rate. Screen tearing
 (abnormal sync between the screen and content) is reduced in this mode. Note that screen flickering
 may occur during game play.

Apply the optimum resolution when using FreeSync.

The refresh rate setting method please refer to Q & A → How can I change the frequency?

The FreeSync function is only enabled in HDMI1, HDMI2 or DisplayPort mode.

Use the HDMI/DisplayPort cable provided by the manufacturer when using FreeSync.

If you use the FreeSync function while playing a game, the following symptoms may occur:

- The screen may flicker depending on the type of graphics card, the game option settings, or the
 video being played. Try the following actions: decrease the game setting values, change the current
 FreeSync mode to Standard Engine, or visit the AMD website to check your graphics driver's version
 and update it with the latest one.
- While you are using the FreeSync function, the screen may flicker due to variation of the output frequency from the graphics card.
- The response rate during the game may fluctuate depending on the resolution. A higher resolution generally decreases the response rate.
- The sound quality of the monitor may be degraded.
- If you encounter any issues when using the function, contact the Samsung Service Center.
- When the resolution is changed while setting FreeSync to Standard Engine or Ultimate Engine, the screen tearing can happen intermittently. Set FreeSync to Off and change the resolution.
- The function is unavailable in the devices (e.g. AV devices) that have no AMD graphic card. If the function is applied, the screen may have malfunction.

How do you enable FreeSync?

- 1 Set FreeSync to Standard Engine or Ultimate Engine in the OSD menu.
- 2 Enable FreeSync in AMD Radeon Settings: Right-click the mouse → AMD Radeon Settings → Display The "AMD FreeSync" feature should be set to "On". Select to "On" if not already enabled.







The models in the Graphic Cards list supports FreeSync

FreeSync can only be used with specific AMD graphics card models. Refer to the following list for supported graphics cards:

Make sure to install the latest official graphics drivers from AMD that support FreeSync.

- For additional AMD graphics card models that support the FreeSync feature, visit the official AMD website.
- Select FreeSync Off if you are using a graphics card from a different manufacturer.
- When applying the FreeSync function via the HDMI interface, it may fail to work due to the bandwidth limitation of certain AMD display cards.
- AMD Radeon R9 300 Series (Not include 370 / AMD Radeon R9 290 370X)
- AMD Radeon R9 Fury X
- AMD Radeon R7 360
- AMD Radeon R9 295X2
- AMD Radeon R9 290X

- AMD Radeon R9 285
- AMD Radeon R7 260X
- AMD Radeon R7 260
- AMD Radeon RX 400 Series

Low Input Lag

Minimize input lag for fast reactions by reducing the video processing time.

- This menu is not available when FreeSync is enabled.
- This menu is not available when Refresh Rate is set to 60Hz.
- If the refresh rate of the computer is different from the setting for **Refresh Rate** on the monitor, the function may not be supported.

Screen Size

Select the best screen size and ratio.

This menu is not available when FreeSync is enabled.

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.
- 17" (4:3): Use a 4:3 aspect ratio on a 17-inch screen. Pictures with a different aspect ratio will not be displayed.
- 19" (4:3): Use a 4:3 aspect ratio on a 19-inch wide screen. Pictures with a different aspect ratio will not be displayed.
- 19" Wide (16:10): Use a 16:10 aspect ratio on a 19-inch wide screen. Pictures with a different aspect ratio will not be displayed.
- 21.5" Wide (16:9): Use a 16:9 aspect ratio on a 21.5-inch wide screen. Pictures with a different aspect ratio will not be displayed.
- 22" Wide (16:10): Use a 16:10 aspect ratio on a 22-inch wide screen. Pictures with a different aspect ratio will not be displayed.
- 23" Wide (16:9): Use a 16:9 aspect ratio on a 23-inch wide screen. Pictures with a different aspect ratio will not be displayed.

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.
- 17" (4:3): Use a 4:3 aspect ratio on a 17-inch screen. Pictures with a different aspect ratio will not be displayed.
- 19" (4:3): Use a 4:3 aspect ratio on a 19-inch wide screen. Pictures with a different aspect ratio will
 not be displayed.
- 19" Wide (16:10): Use a 16:10 aspect ratio on a 19-inch wide screen. Pictures with a different aspect ratio will not be displayed.
- 21.5" Wide (16:9): Use a 16:9 aspect ratio on a 21.5-inch wide screen. Pictures with a different aspect
 ratio will not be displayed.
- 22" Wide (16:10): Use a 16:10 aspect ratio on a 22-inch wide screen. Pictures with a different aspect ratio will not be displayed.
- 23" Wide (16:9): Use a 16:9 aspect ratio on a 23-inch wide screen. Pictures with a different aspect ratio will not be displayed.
- The function may not be supported depending on the ports provided with the product.
- Changing the screen size is available when the following conditions are satisfied.
- A digital output device is connected using the HDMI/DP 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/DP and PC/AV Mode is set to AV. (DisplayPort/HDMI1/HDMI2: This option is available when FreeSync is disabled)

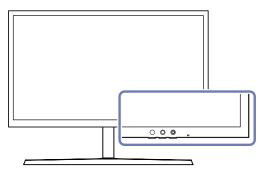
Save Settings

Save up to three custom game modes to suit your preferences. Press a game mode shortcut key at the lower part of the monitor to directly access your favorite custom game mode.

- If you edit and save a custom game mode, the previous settings will be deleted. Be careful when editing a mode.
- Game Setting 1 / Game Setting 2 / Game Setting 3

Game Setting Key

You can quickly view the setting with a shortcut key at the bottom without using an OSD menu. You can directly see the settings for three different modes.



Chapter 05 Screen Setup

Configure the screen settings such as brightness.

A detailed description of each function is provided.

Picture Mode

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

- This menu is not available when Eye Saver Mode is enabled.
- This menu is not available when Eco Saving Plus is enabled.
- This menu is not available when MAGICAngle is enabled.

In PC mode

- Custom: Customize the screen settings.
- FPS: Increase the brightness of darker areas of the FPS game screen. This mode increases visibility of your enemies during a FPS game.
- RTS: Increase the color temperature and contrast ratio to improve visibility of the RTS screen and minimap.
- RPG: This mode is optimized for 3D graphics and instant messaging on the RPG game screen.
- AOS: Increase the contrast ratio to obtain a picture quality optimized for the AOS game screen.
- Cinema: Obtain the brightness and sharpness of TVs suitable for enjoying video and DVD content.

In AV mode

When the external input is connected through HDMI/DP and PC/AV Mode is set to AV, Picture Mode 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
 fatique.
- Custom: Select this mode when you want to adjust the image according to your preferences.

The functions available may vary depending on the product model. The color and shape of parts may differ from what is shown. Specifications are subject to change without notice to improve quality.

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 **Eco Saving Plus** is enabled.

This menu is not available when Eye Saver Mode is enabled.

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 menu is not available when **Picture Mode** is set to **Cinema** mode.

Sharpness

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

A higher value will make the outline of objects clearer.

This menu is not available when **Picture Mode** is set to **Cinema** mode.

Color

Adjust the tint of the screen.

- This menu is not available when Eye Saver Mode is enabled.
- This menu is not available when **Picture Mode** is set to **Cinema** mode.
- The Color Tone and Gamma menu is not available when MAGICAngle is enabled.
- Red: Adjust the red saturation level. Values closer to 100 mean greater intensity for the color.
- Green: Adjust the green saturation level. Values closer to 100 mean greater intensity for the color.
- Blue: Adjust the blue saturation level. Values closer to 100 mean greater intensity for the color.
- Color Tone: Select a color tone that best suits your viewing needs.
 - 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/DP and PC/AV Mode is set to AV, Color Tone has four color temperature settings (Cool, Normal, Warm and Custom).
- Gamma: Adjust the middle level of luminance.
 - Mode1 / Mode2 / Mode3

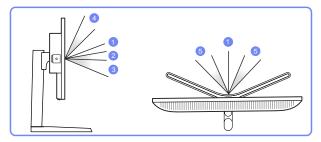
SAMSUNG MAGIC Angle

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

This menu is not available when **Picture Mode** is set to **Cinema** mode.

This menu is not available when Eye Saver Mode is enabled.

You can customize the angle to suit your preferences.



- 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.
- 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.

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 **HDMI1**, **HDMI2** mode.

- 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.

— HDMI Black Level may not be compatible with some source devices.

The HDMI Black Level feature is only activated at a certain AV resolution, such as 720P@60Hz and 1080P@60Hz.

Eye Saver Mode

Set to an optimum picture quality suitable for eye relaxation.

TÜV Rheinland "Low Blue Light Content" is a certification for products which meet requirements for lower blue light levels. When Eye Saver Mode is 'On', the blue light that wavelength is around 400nm will decrease, and it will provide an optimum picture quality suitable for eye relaxation. At the same time, the blue light level is lower than in the default settings, and it was tested by TÜV Rheinland and certified as it met the requirements of TÜV Rheinland "Low Blue Light Content" standards.

Screen Adjustment

This option is only available when PC/AV Mode is set to AV.

This menu is only available when Screen 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.

Configuring H-Position & V-Position

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

V-Position: Move the screen up or down.

Chapter 06

Adjusting OSD (On Screen Display) settings

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

The functions available may vary depending on the product model. The color and shape of parts may differ from what is shown. Specifications are subject to change without notice to improve quality.

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.

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.

Chapter 07 Setup and Reset

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

The functions available may vary depending on the product model. The color and shape of parts may differ from what is shown. Specifications are subject to change without notice to improve quality.

Volume

Adjust the Volume controlling the JOG button LEFT/RIGHT.

Eco Saving Plus

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

This menu is not available when Eye Saver Mode is enabled.

- Off: Deactivate the Eco Saving Plus function.
- Auto: The power consumption will automatically be reduced by about 10% over the current setting.
 (The reduction of power consumption depends on the customer screen brightness condition.)
- Low: The power consumption will be reduced by 25% over the default setting.
- High: The power consumption will be reduced by 50% over the default setting.

Off Timer

Off Timer: Turn on Off Timer mode.

Turn Off After: 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

 System and set Off Timer to Off.

PC/AV Mode

Set PC/AV Mode to AV. The picture size will be enlarged.

This option is useful when you view a movie.

- Set to PC when connected to a PC.
- Set to AV when connected to an AV device.
- Supplied for the wide models only such as 16:9 or 16:10.
- If the monitor is in HDMI1, HDMI2, DisplayPort mode and the screen says Check Signal Cable or power saving mode activates, press the JOG button to display the function-button screen and then select the icon. You can select PC or AV.

DisplayPort Ver.

Select your Displayport.

- Incorrect settings may cause the screen to go blank. If this occurs, check the device specifications.
- If the monitor (when set to HDMI1, HDMI2 or DisplayPort) is in power saving mode or is displaying the message Check Signal Cable or power saving mode activates, press the JOG button to display the function-button screen and then select the button to display the On Screen Display (OSD). You can select 1.1 or 1.21.
- If setting the DisplayPort Ver. to 1.1, for the bandwidth limitation of the DisplayPort 1.1 protocol, the actual maximum output refreshing rate of the display cards cannot achieve the level of 120 Hz/144 Hz.

Source Detection

Select either Auto or Manual as the method to recognize input signal.

Key Repeat Time

Acceleration, 1 sec, or 2 sec can be selected. If No Repeat is selected, a command responds only once when a button is pressed.

Power LED On

Configure the settings to enable or disable the power LED located at the lower part of the product.

- Working: The power LED is on when the product is turned on.
- Stand-by: The power LED is on when the product is turned off.

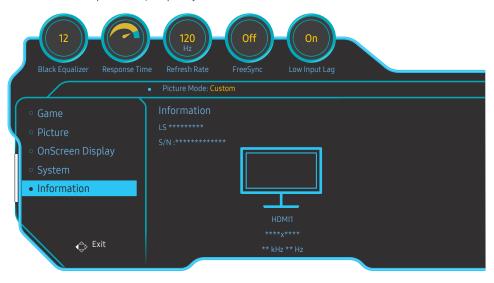
Reset All

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

Game Setting 1, Game Setting 2, and Game Setting 3 saved under Save Settings will not be changed.

Information

View the current input source, frequency and resolution.



The displayed image may differ depending on the model.

Chapter 08 Installing the Software

Easy Setting Box



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

To install the latest version of **Easy Setting Box**, download it from the Samsung Electronics website at http://www.samsung.com.

- 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

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

System Requirements

OS	Hardware
Windows 7 32Bit/64Bit	At least 32MB of memory
• Windows 8 32Bit/64Bit	At least 60MB of free space on the hard disk drive
• Windows 8.1 32Bit/64Bit	
• Windows 10 32Bit/64Bit	

Chapter 09 Troubleshooting Guide

Requirements Before Contacting Samsung Customer Service Center

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

Testing the Product

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.

Checking the Resolution and Frequency

For a mode that exceeds the supported resolution(refer to <u>Standard Signal Mode Table</u>), the message <u>Not Optimum Mode</u> will appear for a short time.

Check the following.

Installation issue (PC mode)

The screen keeps switching on and off.

Check the cable connection between the product and PC, and ensure the connectors are locked.

Blank spaces are found on all four sides of the screen when an HDMI or HDMI-DVI cable is connected to the product and PC.

The blank spaces found on the screen have nothing to do with the product.

Blank spaces on the screen are caused by the PC or graphics card. To resolve the problem, adjust the screen size in the HDMI or DVI settings for the graphics card.

If the graphics card settings menu does not have an option to adjust the screen size, update the graphics card driver to the latest version.

(Please contact the graphics card or computer manufacturer for further details about how to adjust the screen settings.)

Screen issue

The power LED is off. The screen will not switch on.

Check that the power cable is connected properly.

The message Check Signal Cable appears.

Check that the cable is properly connected to the product.

Check that the device connected to the product is powered on.

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

The displayed resolution may vary, depending on the computer system settings and cables.

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 (<u>P.48</u>).

The images on the screen look distorted.

Check the cable connection to the product.

The screen is not clear. The screen is blurry.

Remove any accessories (video extension cable, etc.) and try again.

Set the resolution and frequency to the recommended level.

The screen appears unstable and shaky. There are shadows or ghost images left on the screen.

Check that the resolution and frequency for the 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 (P.48) 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 LED blinks every 0.5 to 1 second.

The product is operating in power-saving mode.

Press any key on the keyboard or move the mouse to return to normal operating mode.

Text is blurry.

If using a Windows OS (e.g. Windows 7, Windows 8, Windows 8.1 or Windows 10): Go to Control Panel → Fonts → Adjust ClearType text and change Turn on ClearType.

Video playback is choppy.

Playback of high-definition large video files can be choppy. This may be because the video player is not optimized for the computer resource.

Try playing the file on another video player.

Sound issue

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.

Video is available but there is no sound.

Sound cannot be heard if an HDMI-DVI cable is used to connect the input device.

Connect the device using an HDMI cable or a DP cable.

Source device issue

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.

Q & A

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

How can I change the frequency?

Set the frequency on your graphics card.

- Windows 7: Go to Control Panel → Appearance and Personalization → Display → Screen Resolution → Advanced settings → Monitor, and adjust Refresh rate under Monitor settings.
- Windows 8(Windows 8.1): Go to Settings → Control Panel → Appearance and Personalization → Display → Screen Resolution → Advanced settings → Monitor, and adjust Refresh rate under Monitor settings.
- Windows 10: Go to Settings → System → Display → Advanced display settings → Display adapter properties → Monitor, and adjust Screen refresh rate under Monitor settings.

How can I change the resolution?

- Windows 7: Go to Control Panel → Appearance and Personalization → Display → Adjust Resolution, and adjust the resolution.
- Windows 8(Windows 8.1): Go to Settings → Control Panel → Appearance and Personalization → Display → Adjust Resolution, and adjust the resolution.
- Windows 10: Go to Settings → System → Display → Advanced display settings, and adjust the resolution.

How do I set power-saving mode?

- Windows 7: Set power-saving mode in Control Panel → Appearance and Personalization → Personalize → Screen Saver Settings → Power options or BIOS SETUP on the PC.
- Windows 8(Windows 8.1): Set power-saving mode in Settings → Control Panel → Appearance and Personalization → Personalize → Screen Saver Settings → Power options or BIOS SETUP on the PC.
- Windows 10: Set power-saving mode in Settings → Personalization → Lock screen → Screen timeout settings → Power & sleep or BIOS SETUP on the PC.

Chapter 10 Specifications

General

Model Name	S25HG50FQ*	S27HG50QQ*		
Size	25 Class (24.5 Inches / 62.2 cm)	27 Class (26.9 Inches / 68.4 cm)		
Display area	543.74 mm (H) x 302.62 mm (V)	596.74 mm (H) x 335.66 mm (V)		
	21.4 Inches (H) x 11.9 Inches (V)	23.5 Inches (H) x 13.2 Inches (V)		
Pixel Pitch	0.2832 mm (H) x 0.2802 mm (V)	0.2331 mm (H) x 0.2331 mm (V)		
	0.01115 Inches (H) x 0.011031 Inches (V)	0.009177 Inches (H) x 0.009177 Inches (V)		
Maximum Pixel	HDMI1: 297 MHz	HDMI1: 241.5 MHz		
Clock	HDMI2: 346.5 MHz	HDMI2: 590 MHz		
	DisplayPort: 346.5 MHz	DisplayPort: 590 MHz		
Power Supply	AC100 - 240 V - (+/-10 %), 50/60 Hz ± 3	Hz		
	Refer to the label at the back of the product as the standard voltage can vary in different countries.			
Signal connectors	HDMI, DisplayPort			
Environmental	Operating			
conditions	Temperature: 50 °F – 104 °F (10 °C – 40 °C)			
	Humidity: 10 % – 80 %, non-condensing			
	Storage			
	Temperature: -4 °F – 113 °F (-20 °C – 45 °C)			
	Humidity: 5 % – 95 %, non-condensing			

— Plug-and-Play

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.
- For detailed device specifications, visit the Samsung Electronics website.

(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

Standard Signal Mode Table

Model Name		S25HG50FQ*	S27HG50QQ*	
Synchronization	Horizontal Frequency	30 – 167 kHz	30 – 223 kHz	
	Vertical Frequency	30 – 120 Hz (HDMI1)	50 – 75 Hz (HDMI1)	
		30 – 144 Hz (HDMI2)	50 – 144 Hz (HDMI2)	
		30 – 144 Hz (DisplayPort)	50 – 144 Hz (DisplayPort)	
Resolution	Optimum resolution	1920 x 1080 @ 120 Hz (HDMI1)	2560 x 1440 @ 60 Hz (HDMI1)	
		1920 x 1080 @ 144 Hz (HDMI2)	2560 x 1440 @ 144 Hz (HDMI2)	
		1920 x 1080 @ 144 Hz (DisplayPort)	2560 x 1440 @ 144 Hz (DisplayPort)	
	Maximum resolution	1920 x 1080 @ 120 Hz (HDMI1)	2560 x 1440 @ 60 Hz (HDMI1)	
		1920 x 1080 @ 144 Hz (HDMI2)	2560 x 1440 @ 144 Hz (HDMI2)	
		1920 x 1080 @ 144 Hz (DisplayPort)	2560 x 1440 @ 144 Hz (DisplayPort)	

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.

S25HG50FQ* HDMI1

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 DMT, 640 x 480	31.469	59.940	25.175	-/-
VESA DMT, 640 x 480	37.861	72.809	31.500	-/-
VESA DMT, 640 x 480	37.500	75.000	31.500	-/-
VESA DMT, 800 x 600	35.156	56.250	36.000	+/+
VESA DMT, 800 x 600	37.879	60.317	40.000	+/+
VESA DMT, 800 x 600	48.077	72.188	50.000	+/+
VESA DMT, 800 x 600	46.875	75.000	49.500	+/+
VESA DMT, 1024 x 768	48.363	60.004	65.000	-/-
VESA DMT, 1024 x 768	56.476	70.069	75.000	-/-
VESA DMT, 1024 x 768	60.023	75.029	78.750	+/+
VESA DMT, 1152 x 864	67.500	75.000	108.000	+/+
VESA DMT, 1280 x 720	45.000	60.000	74.250	+/+
VESA DMT, 1280 x 800	49.702	59.810	83.500	-/+
VESA DMT, 1280 x 1024	63.981	60.020	108.000	+/+
VESA DMT, 1280 x 1024	79.976	75.025	135.000	+/+
VESA DMT, 1440 x 900	55.935	59.887	106.500	-/+
VESA DMT, 1600 x 900	60.000	60.000	108.000	+/+
VESA DMT, 1680 x 1050	65.290	59.954	146.250	-/+
VESA DMT, 1920 x 1080	67.500	60.000	148.500	+/+
CEA, 1920 x 1080	112.500	100.000	297.000	+/+
CEA, 1920 x 1080	135.000	120.000	297.000	+/+

S25HG50FQ* HDMI2

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 DMT, 640 x 480	31.469	59.940	25.175	-/-
VESA DMT, 640 x 480	37.861	72.809	31.500	-/-
VESA DMT, 640 x 480	37.500	75.000	31.500	-/-
VESA DMT, 800 x 600	35.156	56.250	36.000	+/+
VESA DMT, 800 x 600	37.879	60.317	40.000	+/+
VESA DMT, 800 x 600	48.077	72.188	50.000	+/+
VESA DMT, 800 x 600	46.875	75.000	49.500	+/+
VESA DMT, 1024 x 768	48.363	60.004	65.000	-/-
VESA DMT, 1024 x 768	56.476	70.069	75.000	-/-
VESA DMT, 1024 x 768	60.023	75.029	78.750	+/+
VESA DMT, 1152 x 864	67.500	75.000	108.000	+/+
VESA DMT, 1280 x 720	45.000	60.000	74.250	+/+
VESA DMT, 1280 x 800	49.702	59.810	83.500	-/+
VESA DMT, 1280 x 1024	63.981	60.020	108.000	+/+
VESA DMT, 1280 x 1024	79.976	75.025	135.000	+/+
VESA DMT, 1440 x 900	55.935	59.887	106.500	-/+
VESA DMT, 1600 x 900	60.000	60.000	108.000	+/+
VESA DMT, 1680 x 1050	65.290	59.954	146.250	-/+
VESA DMT, 1920 x 1080	67.500	60.000	148.500	+/+
CEA, 1920 x 1080	112.500	100.000	297.000	+/+
CEA, 1920 x 1080	135.000	120.000	297.000	+/+
CVT, 1920 x 1080	166.587	143.981	346.500	+/-

S25HG50FQ* DisplayPort

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 DMT, 640 x 480	31.469	59.940	25.175	-/-
VESA DMT, 640 x 480	37.861	72.809	31.500	-/-
VESA DMT, 640 x 480	37.500	75.000	31.500	-/-
VESA DMT, 800 x 600	35.156	56.250	36.000	+/+
VESA DMT, 800 x 600	37.879	60.317	40.000	+/+
VESA DMT, 800 x 600	48.077	72.188	50.000	+/+
VESA DMT, 800 x 600	46.875	75.000	49.500	+/+
VESA DMT, 1024 x 768	48.363	60.004	65.000	-/-
VESA DMT, 1024 x 768	56.476	70.069	75.000	-/-
VESA DMT, 1024 x 768	60.023	75.029	78.750	+/+
VESA DMT, 1152 x 864	67.500	75.000	108.000	+/+
VESA DMT, 1280 x 720	45.000	60.000	74.250	+/+
VESA DMT, 1280 x 800	49.702	59.810	83.500	-/+
VESA DMT, 1280 x 1024	63.981	60.020	108.000	+/+
VESA DMT, 1280 x 1024	79.976	75.025	135.000	+/+
VESA DMT, 1440 x 900	55.935	59.887	106.500	-/+
VESA DMT, 1600 x 900	60.000	60.000	108.000	+/+
VESA DMT, 1680 x 1050	65.290	59.954	146.250	-/+
VESA DMT, 1920 x 1080	67.500	60.000	148.500	+/+
CEA, 1920 x 1080	112.500	100.000	297.000	+/+
CEA, 1920 x 1080	135.000	120.000	297.000	+/+
CVT, 1920 x 1080	166.587	143.981	346.500	+/-

S27HG50QQ* HDMI1

Resolution	Horizontal Frequency (kHz)	Vertical Frequency (Hz)	Pixel Clock (MHz)	Sync Polarity (H/V)
IBM, 720 x 400	31.469	70.087	28.322	-/+
VESA DMT, 640 x 480	31.469	59.940	25.175	-/-
MAC, 640 x 480	35.000	66.667	30.240	-/-
VESA DMT, 640 x 480	37.861	72.809	31.500	-/-
VESA DMT, 640 x 480	37.500	75.000	31.500	-/-
VESA DMT, 800 x 600	35.156	56.250	36.000	+/+
VESA DMT, 800 x 600	37.879	60.317	40.000	+/+
VESA DMT, 800 x 600	48.077	72.188	50.000	+/+
VESA DMT, 800 x 600	46.875	75.000	49.500	+/+
MAC, 832 x 624	49.726	74.551	57.284	-/-
VESA DMT, 1024 x 768	48.363	60.004	65.000	-/-
VESA DMT, 1024 x 768	56.476	70.069	75.000	-/-
VESA DMT, 1024 x 768	60.023	75.029	78.750	+/+
VESA DMT, 1152 x 864	67.500	75.000	108.000	+/+
MAC, 1152 x 870	68.681	75.062	100.000	-/-
VESA DMT, 1280 x 720	45.000	60.000	74.250	+/+
VESA DMT, 1280 x 800	49.702	59.810	83.500	-/+
VESA DMT, 1280 x 1024	63.981	60.020	108.000	+/+
VESA DMT, 1280 x 1024	79.976	75.025	135.000	+/+
VESA DMT, 1440 x 900	55.935	59.887	106.500	-/+
VESA DMT, 1600 x 900	60.000	60.000	108.000	+/+
VESA DMT, 1680 x 1050	65.290	59.954	146.250	-/+
VESA DMT, 1920 x 1080	67.500	60.000	148.500	+/+
VESA CVT, 2560 x 1440	88.787	59.951	241.500	+/-

S27HG50QQ* HDMI2

Resolution	Horizontal Frequency (kHz)	Vertical Frequency (Hz)	Pixel Clock (MHz)	Sync Polarity (H/V)
IBM, 720 x 400	31.469	70.087	28.322	-/+
VESA DMT, 640 x 480	31.469	59.940	25.175	-/-
MAC, 640 x 480	35.000	66.667	30.240	-/-
VESA DMT, 640 x 480	37.861	72.809	31.500	-/-
VESA DMT, 640 x 480	37.500	75.000	31.500	-/-
VESA DMT, 800 x 600	35.156	56.250	36.000	+/+
VESA DMT, 800 x 600	37.879	60.317	40.000	+/+
VESA DMT, 800 x 600	48.077	72.188	50.000	+/+
VESA DMT, 800 x 600	46.875	75.000	49.500	+/+
MAC, 832 x 624	49.726	74.551	57.284	-/-
VESA DMT, 1024 x 768	48.363	60.004	65.000	-/-
VESA DMT, 1024 x 768	56.476	70.069	75.000	-/-
VESA DMT, 1024 x 768	60.023	75.029	78.750	+/+
VESA DMT, 1152 x 864	67.500	75.000	108.000	+/+
MAC, 1152 x 870	68.681	75.062	100.000	-/-
VESA DMT, 1280 x 720	45.000	60.000	74.250	+/+
VESA DMT, 1280 x 800	49.702	59.810	83.500	-/+
VESA DMT, 1280 x 1024	63.981	60.020	108.000	+/+
VESA DMT, 1280 x 1024	79.976	75.025	135.000	+/+
VESA DMT, 1440 x 900	55.935	59.887	106.500	-/+
VESA DMT, 1600 x 900	60.000	60.000	108.000	+/+
VESA DMT, 1680 x 1050	65.290	59.954	146.250	-/+
VESA DMT, 1920 x 1080	67.500	60.00	148.500	+/+
VESA CVT, 2560 x 1440	88.787	59.951	241.500	+/-
VESA CVT, 2560 x 1440	150.919	99.946	410.500	+/-
VESA CVT, 2560 x 1440	182.996	119.998	497.750	+/-
Unique Custom Timing, 2560 x 1440	213.265	144.000	580.080	+/-

S27HG50QQ* DisplayPort

IBM, 720 x 400	Resolution	Horizontal Frequency (kHz)	Vertical Frequency (Hz)	Pixel Clock (MHz)	Sync Polarity (H/V)
MAC, 640 x 480	IBM, 720 x 400	31.469	70.087	28.322	-/+
VESA DMT, 640 x 480 37.861 72.809 31.500 -/- VESA DMT, 640 x 480 37.500 75.000 31.500 -/- VESA DMT, 800 x 600 35.156 56.250 36.000 +/+ VESA DMT, 800 x 600 37.879 60.317 40.000 +/+ VESA DMT, 800 x 600 48.077 72.188 50.000 +/+ VESA DMT, 800 x 600 46.875 75.000 49.500 +/+ MAC, 832 x 62a 49.726 74.551 57.284 -/- VESA DMT, 1024 x 768 48.363 60.004 65.000 -/- VESA DMT, 1024 x 768 48.363 60.004 65.000 -/- VESA DMT, 1024 x 768 66.476 70.069 75.000 -/- VESA DMT, 1282 x 864 67.500 75.000 108.000 +/+ VESA DMT, 1282 x 870 68.681 75.022 108.000 +/+ VESA DMT, 1280 x 1024 45.000 60.000 74.250 +/+ VESA DMT, 1280 x 1024 65.981 60.020	VESA DMT, 640 x 480	31.469	59.940	25.175	-/-
VESA DMT, 800 x 800 37,500 75,000 31,500 -/- VESA DMT, 800 x 600 35,156 56,250 36,000 +/+ VESA DMT, 800 x 600 37,879 60,317 40,000 +/+ VESA DMT, 800 x 600 48,077 72,188 50,000 +/+ VESA DMT, 800 x 600 46,875 75,000 49,500 +/+ MAC, 832 x 624 49,726 74,551 57,284 -/- VESA DMT, 1024 x 768 48,363 60,004 65,000 -/- VESA DMT, 1024 x 768 56,476 70,069 75,000 -/- VESA DMT, 1024 x 768 60,023 75,029 78,750 +/+ VESA DMT, 128 x 864 67,500 75,000 108,000 +/+ VESA DMT, 1280 x 720 45,000 60,000 74,250 +/+ VESA DMT, 1280 x 1024 63,981 75,062 100,000 +/+ VESA DMT, 1280 x 1024 63,981 60,020 108,000 +/+ VESA DMT, 1280 x 1024 63,981 60,020	MAC, 640 x 480	35.000	66.667	30.240	-/-
VESA DMT, 800 x 600 35.156 56.250 36.000 +/+ VESA DMT, 800 x 600 37.879 60.317 40.000 +/+ VESA DMT, 800 x 600 48.077 72.188 50.000 +/+ VESA DMT, 800 x 600 48.075 75.000 49.500 +/+ MAC, 832 x 624 49.776 74.551 57.284 -/- VESA DMT, 1024 x 768 48.363 60.004 65.000 -/- VESA DMT, 1024 x 768 56.476 70.069 75.000 -/- VESA DMT, 1024 x 768 60.023 75.029 78.750 +/+ VESA DMT, 1152 x 864 67.500 75.000 108.000 +/+ MAC, 1152 x 870 68.681 75.062 100.000 -/- VESA DMT, 1280 x 720 45.000 60.000 74.250 +/+ VESA DMT, 1280 x 1024 63.981 60.020 108.000 +/+ VESA DMT, 1280 x 1024 79.976 75.025 135.000 +/+ VESA DMT, 1400 x 900 55.935 59.887	VESA DMT, 640 x 480	37.861	72.809	31.500	-/-
VESA DMT, 800 x 600 37.879 60.317 40.000 +/+ VESA DMT, 800 x 600 48.077 72.188 50.000 +/+ VESA DMT, 800 x 600 46.875 75.000 49.500 +/+ MAC, 832 x 624 49.726 74.551 57.284 -/- VESA DMT, 1024 x 768 48.363 60.004 65.000 -/- VESA DMT, 1024 x 768 56.476 70.069 75.000 -/- VESA DMT, 1024 x 768 60.023 75.029 78.750 +/+ VESA DMT, 1152 x 864 67.500 75.000 108.000 +/+ MAC, 1152 x 870 68.681 75.062 100.000 -/- VESA DMT, 1280 x 720 45.000 60.000 74.250 +/+ VESA DMT, 1280 x 1024 63.981 60.020 108.000 +/+ VESA DMT, 1280 x 1024 79.976 75.025 135.000 +/+ VESA DMT, 1400 x 900 60.000 60.000 108.000 +/+ VESA DMT, 1600 x 900 60.000 60.000	VESA DMT, 640 x 480	37.500	75.000	31.500	-/-
VESA DMT, 800 x 600 48.077 72.188 50.000 +/+ VESA DMT, 800 x 600 46.875 75.000 49.500 +/+ MAC, 832 x 624 49.726 74.551 57.284 -/- VESA DMT, 1024 x 768 48.363 60.004 65.000 -/- VESA DMT, 1024 x 768 56.476 70.069 75.000 -/- VESA DMT, 1024 x 768 60.023 75.029 78.750 +/+ VESA DMT, 1152 x 864 67.500 75.000 108.000 +/+ MAC, 1152 x 870 68.681 75.062 100.000 -/- VESA DMT, 1280 x 720 45.000 60.000 74.250 +/+ VESA DMT, 1280 x 800 49.702 59.810 83.500 -/+ VESA DMT, 1280 x 1024 63.981 60.020 108.000 +/+ VESA DMT, 1280 x 1024 79.976 75.025 135.000 +/+ VESA DMT, 1600 x 900 60.000 60.000 108.000 +/+ VESA DMT, 1600 x 900 60.000 108.000	VESA DMT, 800 x 600	35.156	56.250	36.000	+/+
VESA DMT, 800 x 600 46.875 75.000 49.500 +/+ MAC, 832 x 624 49.726 74.551 57.284 -/- VESA DMT, 1024 x 768 48.363 60.004 65.000 -/- VESA DMT, 1024 x 768 56.476 70.069 75.000 -/- VESA DMT, 1024 x 768 60.023 75.029 78.750 +/+ VESA DMT, 1152 x 864 67.500 75.000 108.000 +/+ MAC, 1152 x 864 67.500 75.002 108.000 +/+ VESA DMT, 1280 x 720 45.000 60.000 74.250 +/+ VESA DMT, 1280 x 720 45.000 60.000 74.250 +/+ VESA DMT, 1280 x 1024 63.981 60.020 108.000 +/+ VESA DMT, 1280 x 1024 79.76 75.025 135.000 +/+ VESA DMT, 1280 x 1024 79.76 75.025 135.000 +/+ VESA DMT, 1600 x 900 60.000 60.000 108.000 +/+ VESA DMT, 1600 x 900 65.290 59.954	VESA DMT, 800 x 600	37.879	60.317	40.000	+/+
MAC, 832 x 624 49.726 74.551 57.284 -/- VESA DMT, 1024 x 768 48.363 60.004 65.000 -/- VESA DMT, 1024 x 768 56.476 70.069 75.000 -/- VESA DMT, 1024 x 768 60.023 75.029 78.750 +/+ VESA DMT, 1152 x 864 67.500 75.000 108.000 +/+ MAC, 1152 x 870 68.681 75.062 100.000 -/- VESA DMT, 1280 x 720 45.000 60.000 74.250 +/+ VESA DMT, 1280 x 800 49.702 59.810 83.500 -/+ VESA DMT, 1280 x 1024 63.981 60.020 108.000 +/+ VESA DMT, 1280 x 1024 79.976 75.025 135.000 +/+ VESA DMT, 1280 x 1024 79.976 75.025 135.000 +/+ VESA DMT, 1600 x 900 60.000 60.000 108.000 +/+ VESA DMT, 1600 x 900 60.000 60.000 108.000 +/+ VESA DMT, 1600 x 1050 65.290 59.954	VESA DMT, 800 x 600	48.077	72.188	50.000	+/+
VESA DMT, 1024 x 768 48.363 60.004 65.000 -/- VESA DMT, 1024 x 768 56.476 70.069 75.000 -/- VESA DMT, 1024 x 768 60.023 75.029 78.750 +/+ VESA DMT, 1152 x 864 67.500 75.000 108.000 +/+ MAC, 1152 x 870 68.681 75.062 100.000 -/- VESA DMT, 1280 x 720 45.000 60.000 74.250 +/+ VESA DMT, 1280 x 800 49.702 59.810 83.500 -/+ VESA DMT, 1280 x 1024 63.981 60.020 108.000 +/+ VESA DMT, 1280 x 1024 79.976 75.025 135.000 +/+ VESA DMT, 1440 x 900 55.935 59.887 106.500 -/+ VESA DMT, 1600 x 900 60.000 60.000 108.000 +/+ VESA DMT, 1680 x 1050 65.290 59.954 146.250 -/+ VESA DMT, 1280 x 1050 67.500 60.00 148.500 +/+ VESA CVT, 2560 x 1440 180.919 99.	VESA DMT, 800 x 600	46.875	75.000	49.500	+/+
VESA DMT, 1024 x 768 56.476 70.069 75.000 -/- VESA DMT, 1024 x 768 60.023 75.029 78.750 +/+ VESA DMT, 1152 x 864 67.500 75.000 108.000 +/+ MAC, 1152 x 870 68.681 75.062 100.000 -/- VESA DMT, 1280 x 720 45.000 60.000 74.250 +/+ VESA DMT, 1280 x 800 49.702 59.810 83.500 -/+ VESA DMT, 1280 x 1024 63.981 60.020 108.000 +/+ VESA DMT, 1280 x 1024 79.976 75.025 135.000 +/+ VESA DMT, 1440 x 900 55.935 59.887 106.500 -/+ VESA DMT, 1600 x 900 60.000 60.000 108.000 +/+ VESA DMT, 1680 x 1050 65.290 59.954 146.250 -/+ VESA CVT, 2560 x 1440 88.787 59.951 241.500 +/- VESA CVT, 2560 x 1440 150.919 99.946 410.500 +/- VESA CVT, 2560 x 1440 182.996 <td< td=""><td>MAC, 832 x 624</td><td>49.726</td><td>74.551</td><td>57.284</td><td>-/-</td></td<>	MAC, 832 x 624	49.726	74.551	57.284	-/-
VESA DMT, 1024 x 788 60.023 75.029 78.750 +/+ VESA DMT, 1152 x 864 67.500 75.000 108.000 +/+ MAC, 1152 x 870 68.681 75.062 100.000 -/- VESA DMT, 1280 x 720 45.000 60.000 74.250 +/+ VESA DMT, 1280 x 800 49.702 59.810 83.500 -/+ VESA DMT, 1280 x 1024 63.981 60.020 108.000 +/+ VESA DMT, 1280 x 1024 79.976 75.025 135.000 +/+ VESA DMT, 1440 x 900 55.935 59.887 106.500 -/+ VESA DMT, 1600 x 900 60.000 60.000 108.000 +/+ VESA DMT, 1680 x 1050 65.290 59.954 146.250 -/+ VESA DMT, 1920 x 1080 67.500 60.00 148.500 +/+ VESA CVT, 2560 x 1440 88.787 59.951 241.500 +/- VESA CVT, 2560 x 1440 182.996 119.998 497.750 +/-	VESA DMT, 1024 x 768	48.363	60.004	65.000	-/-
VESA DMT, 1152 x 864 67.500 75.000 108.000 +/+ MAC, 1152 x 870 68.681 75.062 100.000 -/- VESA DMT, 1280 x 720 45.000 60.000 74.250 +/+ VESA DMT, 1280 x 800 49.702 59.810 83.500 -/+ VESA DMT, 1280 x 1024 63.981 60.020 108.000 +/+ VESA DMT, 1280 x 1024 79.976 75.025 135.000 +/+ VESA DMT, 1440 x 900 55.935 59.887 106.500 -/+ VESA DMT, 1680 x 1050 60.000 60.000 108.000 +/+ VESA DMT, 1920 x 1080 67.500 60.00 148.500 +/+ VESA CVT, 2560 x 1440 88.787 59.951 241.500 +/- VESA CVT, 2560 x 1440 150.919 99.946 410.500 +/- VESA CVT, 2560 x 1440 182.996 119.998 497.750 +/-	VESA DMT, 1024 x 768	56.476	70.069	75.000	-/-
MAC, 1152 x 870 68.681 75.062 100.000 -/- VESA DMT, 1280 x 720 45.000 60.000 74.250 +/+ VESA DMT, 1280 x 800 49.702 59.810 83.500 -/+ VESA DMT, 1280 x 1024 63.981 60.020 108.000 +/+ VESA DMT, 1280 x 1024 79.976 75.025 135.000 +/+ VESA DMT, 140 x 900 55.935 59.887 106.500 -/+ VESA DMT, 1600 x 900 60.000 60.000 108.000 +/+ VESA DMT, 1680 x 1050 65.290 59.954 146.250 -/+ VESA DMT, 1920 x 1080 67.500 60.00 148.500 +/- VESA CVT, 2560 x 1440 88.787 59.951 241.500 +/- VESA CVT, 2560 x 1440 182.996 119.998 497.750 +/-	VESA DMT, 1024 x 768	60.023	75.029	78.750	+/+
VESA DMT, 1280 x 720 45.000 60.000 74.250 +/+ VESA DMT, 1280 x 800 49.702 59.810 83.500 -/+ VESA DMT, 1280 x 1024 63.981 60.020 108.000 +/+ VESA DMT, 1280 x 1024 79.976 75.025 135.000 +/+ VESA DMT, 1440 x 900 55.935 59.887 106.500 -/+ VESA DMT, 1600 x 900 60.000 60.000 108.000 +/+ VESA DMT, 1680 x 1050 65.290 59.954 146.250 -/+ VESA DMT, 1920 x 1080 67.500 60.00 148.500 +/+ VESA CVT, 2560 x 1440 88.787 59.951 241.500 +/- VESA CVT, 2560 x 1440 150.919 99.946 410.500 +/- VESA CVT, 2560 x 1440 182.996 119.998 497.750 +/-	VESA DMT, 1152 x 864	67.500	75.000	108.000	+/+
VESA DMT, 1280 x 800 49.702 59.810 83.500 -/+ VESA DMT, 1280 x 1024 63.981 60.020 108.000 +/+ VESA DMT, 1280 x 1024 79.976 75.025 135.000 +/+ VESA DMT, 1440 x 900 55.935 59.887 106.500 -/+ VESA DMT, 1600 x 900 60.000 60.000 108.000 +/+ VESA DMT, 1680 x 1050 65.290 59.954 146.250 -/+ VESA DMT, 1920 x 1080 67.500 60.00 148.500 +/+ VESA CVT, 2560 x 1440 88.787 59.951 241.500 +/- VESA CVT, 2560 x 1440 150.919 99.946 410.500 +/- VESA CVT, 2560 x 1440 182.996 119.998 497.750 +/-	MAC, 1152 x 870	68.681	75.062	100.000	-/-
VESA DMT, 1280 x 1024 63.981 60.020 108.000 +/+ VESA DMT, 1280 x 1024 79.976 75.025 135.000 +/+ VESA DMT, 1440 x 900 55.935 59.887 106.500 -/+ VESA DMT, 1600 x 900 60.000 108.000 +/+ VESA DMT, 1680 x 1050 65.290 59.954 146.250 -/+ VESA DMT, 1920 x 1080 67.500 60.00 148.500 +/+ VESA CVT, 2560 x 1440 88.787 59.951 241.500 +/- VESA CVT, 2560 x 1440 150.919 99.946 410.500 +/- VESA CVT, 2560 x 1440 182.996 119.998 497.750 +/-	VESA DMT, 1280 x 720	45.000	60.000	74.250	+/+
VESA DMT, 1280 x 1024 79.976 75.025 135.000 +/+ VESA DMT, 1440 x 900 55.935 59.887 106.500 -/+ VESA DMT, 1600 x 900 60.000 60.000 108.000 +/+ VESA DMT, 1680 x 1050 65.290 59.954 146.250 -/+ VESA DMT, 1920 x 1080 67.500 60.00 148.500 +/+ VESA CVT, 2560 x 1440 88.787 59.951 241.500 +/- VESA CVT, 2560 x 1440 150.919 99.946 410.500 +/- VESA CVT, 2560 x 1440 182.996 119.998 497.750 +/-	VESA DMT, 1280 x 800	49.702	59.810	83.500	-/+
VESA DMT, 1440 x 900 55.935 59.887 106.500 -/+ VESA DMT, 1600 x 900 60.000 108.000 +/+ VESA DMT, 1680 x 1050 65.290 59.954 146.250 -/+ VESA DMT, 1920 x 1080 67.500 60.00 148.500 +/+ VESA CVT, 2560 x 1440 88.787 59.951 241.500 +/- VESA CVT, 2560 x 1440 150.919 99.946 410.500 +/- VESA CVT, 2560 x 1440 182.996 119.998 497.750 +/-	VESA DMT, 1280 x 1024	63.981	60.020	108.000	+/+
VESA DMT, 1600 x 900 60.000 60.000 108.000 +/+ VESA DMT, 1680 x 1050 65.290 59.954 146.250 -/+ VESA DMT, 1920 x 1080 67.500 60.00 148.500 +/+ VESA CVT, 2560 x 1440 88.787 59.951 241.500 +/- VESA CVT, 2560 x 1440 150.919 99.946 410.500 +/- VESA CVT, 2560 x 1440 182.996 119.998 497.750 +/-	VESA DMT, 1280 x 1024	79.976	75.025	135.000	+/+
VESA DMT, 1680 x 1050 65.290 59.954 146.250 -/+ VESA DMT, 1920 x 1080 67.500 60.00 148.500 +/+ VESA CVT, 2560 x 1440 88.787 59.951 241.500 +/- VESA CVT, 2560 x 1440 150.919 99.946 410.500 +/- VESA CVT, 2560 x 1440 182.996 119.998 497.750 +/-	VESA DMT, 1440 x 900	55.935	59.887	106.500	-/+
VESA DMT, 1920 x 1080 67.500 60.00 148.500 +/+ VESA CVT, 2560 x 1440 88.787 59.951 241.500 +/- VESA CVT, 2560 x 1440 150.919 99.946 410.500 +/- VESA CVT, 2560 x 1440 182.996 119.998 497.750 +/-	VESA DMT, 1600 x 900	60.000	60.000	108.000	+/+
VESA CVT, 2560 x 1440 88.787 59.951 241.500 +/- VESA CVT, 2560 x 1440 150.919 99.946 410.500 +/- VESA CVT, 2560 x 1440 182.996 119.998 497.750 +/-	VESA DMT, 1680 x 1050	65.290	59.954	146.250	-/+
VESA CVT, 2560 x 1440 150.919 99.946 410.500 +/- VESA CVT, 2560 x 1440 182.996 119.998 497.750 +/-	VESA DMT, 1920 x 1080	67.500	60.00	148.500	+/+
VESA CVT, 2560 x 1440 182.996 119.998 497.750 +/-	VESA CVT, 2560 x 1440	88.787	59.951	241.500	+/-
·	VESA CVT, 2560 x 1440	150.919	99.946	410.500	+/-
VESA CVT, 2560 x 1440 222.192 144.000 586.586 +/-	VESA CVT, 2560 x 1440	182.996	119.998	497.750	+/-
	VESA CVT, 2560 x 1440	222.192	144.000	586.586	+/-

— 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.

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. Using 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 your product.

Chapter 11 Appendix

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 separatly 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.)

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