SAMSUNG

USER MANUAL

Gaming Monitor

S27AG50*
S28AG70*
S49AG95*N

The colour 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 in the following situations:

(a) An engineer is called out at your request, but it is found that the product has no defect (i.e., where the user manual has not been read).

(b) You bring the unit to a repair centre, but it is found that the product has no defect (i.e., where the user manual has not been read).

You will be informed of the administration fee amount before a technician visits.

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Chapter 01

Before Using the Product

Safety Precautions

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

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

CAUTION			
RISK OF ELECTRIC SHOCK. DO NOT OPEN.			
CAUTION: TO REDUCE THE RISK OF ELECTRIC SHOCK, DO NOT REMOVE COVER (OR BACK). THERE ARE NO USER SERVICEABLE PARTS INSIDE. REFER ALL SERVICING TO QUALIFIED PERSONNEL.			
	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.		AC voltage: Rated voltage marked with this symbol is AC voltage.
	This symbol indicates that this product has included important literature concerning operation and maintenance.		DC voltage: Rated voltage marked with this symbol is DC voltage.
	Class II product: This symbol indicates that a safety connection to electrical earth (ground) is not required. If this symbol is not present on a product with a mains lead, the product MUST have a reliable connection to protective earth (ground).		Caution. Consult instructions for use: This symbol instructs the user to consult the user manual for further safety related information.

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 Centre if you want to install the product at such a place.
- Before assembling the product, place the product down on a flat and stable surface so that the screen is facing downwards.
  - The product is curved. Placing pressure on the product when on a flat surface may damage the product. When the product is on the ground facing up or down, do not put pressure on it. (S49AG95*N model only.)
- In the same series, the colour can vary depending on the size.

Operation

Warning

- There is a high voltage inside the product. Never disassemble, repair or modify the product yourself.
  - Contact Samsung Customer Service Centre 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 Centre.
- 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 Centre.
  - 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 Centre.
- 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 Centre.

Caution

¯ AC/DC adapter is only supported by S27AG50*, S28AG70* models.

- Leaving the screen fixed on a stationary image for an extended period of time may cause afterimage burn-in or defective pixels.
  - Set the screen to power-saving mode or moving-picture screen saver when not 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 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.
- 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.
  - 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.

Cleaning

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

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

Do not press the product screen with hands or other objects. There is a risk of damaging the screen.

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

Take the following steps when cleaning.

1 Power off the product and PC.

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 product with a clean, soft and dry cloth.

Wet a soft cloth in water, wing it out well, and then use the cloth to wipe the exterior of the product clean.

– Do not apply a cleaning agent that contains alcohol, solvent, or surfactant to the product.
– Do not spray water or detergent directly on the product.

4 Connect the power cord to the product when cleaning is finished.

5 Power on the product and PC.

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.

Chapter 02

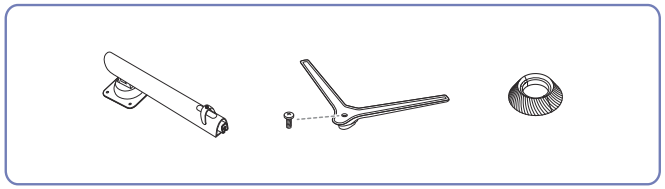
Preparations

Installation

Attaching the Stand

— Disassembly is the reverse order of assembly.

S27AG50*



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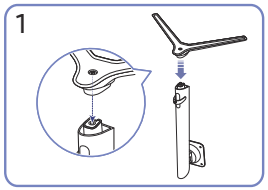
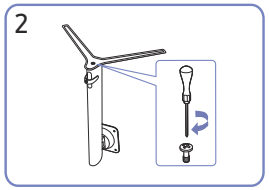


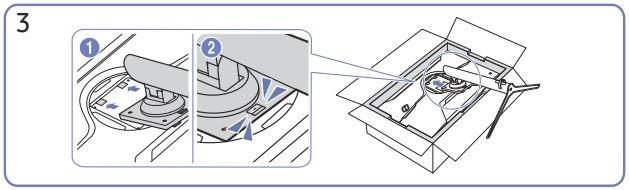
Put the stand base onto the stand neck as the direction shown in the figure. Check that the stand neck is firmly connected.

2



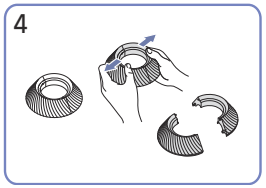
Tightly fasten the connecting screw at the bottom of the stand base. Fasten the large screw in the middle for assembly.

3



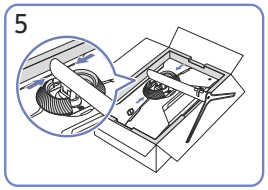
Push the assembled stand into the main body in the direction of the arrow as shown in the figure.

4



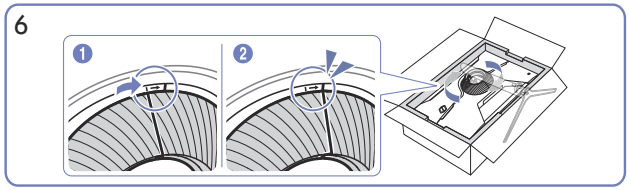
Disassemble the COVER-REAR TOP.

5



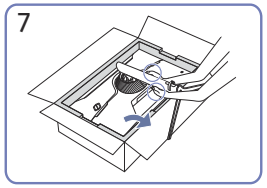
Assemble the COVER-REAR TOP to the stand neck as shown in the figure.

6



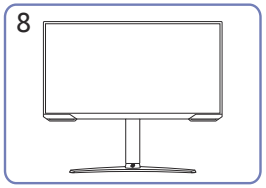
Rotate the COVER-REAR TOP clockwise.

7

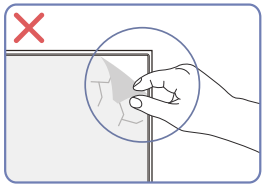


Stand up the monitor as shown in the figure.

8



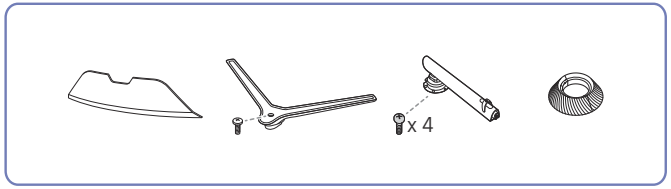
After installing the stand, place the product upright.

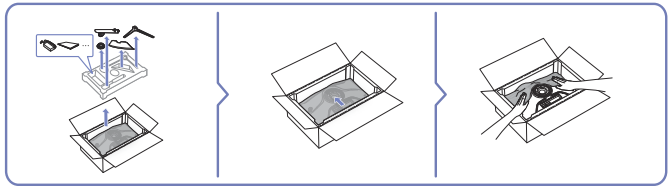


Caution

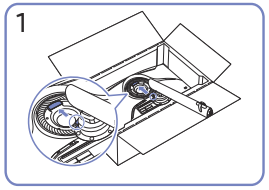
Do not arbitrarily remove the panel film. If not observed, the warranty service may be restricted.

S28AG70*



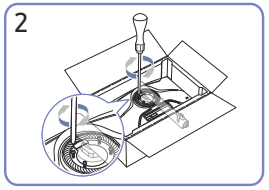


1



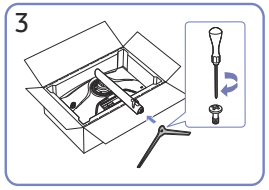
Place the stand neck on the monitor as shown in the figure.

2



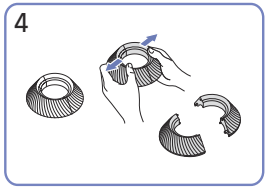
Fasten the screws at the top of the stand neck.

3



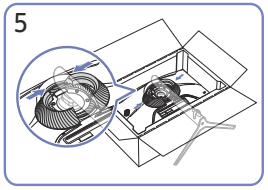
Insert the stand base into the stand neck in the direction as shown in the figure.

4



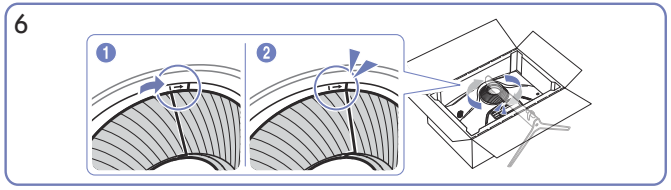
Disassemble the COVER-REAR TOP.

5



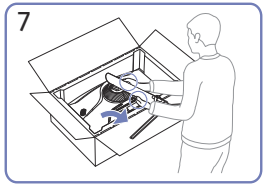
Assemble the COVER-REAR TOP to the stand neck as shown in the figure.

6



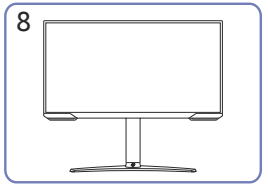
Rotate the COVER-REAR TOP clockwise.

7

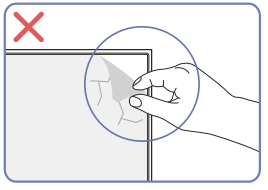


Stand up the monitor as shown in the figure.

8



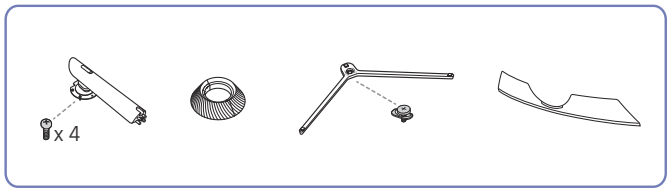
After installing the stand, place the product upright.



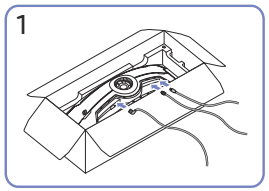
Caution

Do not arbitrarily remove the panel film. If not observed, the warranty service may be restricted.

S49AG95*N

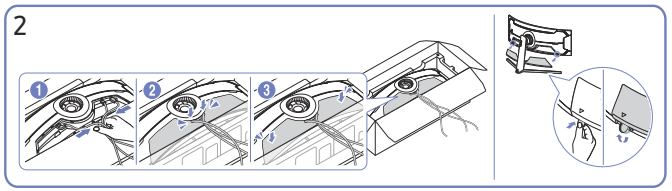


1



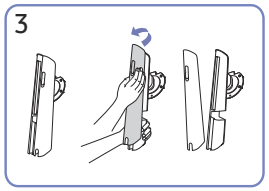
Connect the corresponding cables.

2



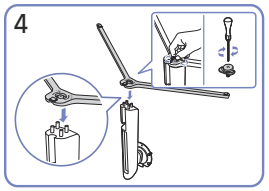
Collect cables and then align them with the centre groove of COVER REAR SUB. Assembly the COVER REAR SUB on the rear of the product.

3



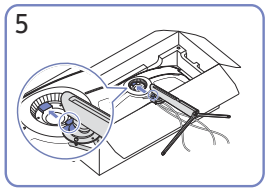
Remove the COVER STAND BODY REAR by pulling it in the direction as shown in the figure.

4



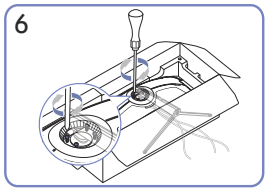
Insert the stand base into the stand neck in the direction as shown in the figure.

5



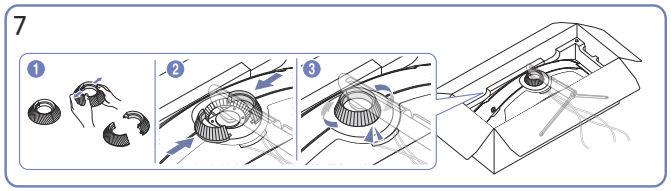
Place the stand neck on the monitor as shown in the figure.

6



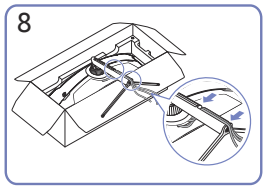
Fasten the screws at the top of the stand neck.

7



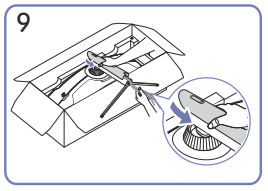
Disassemble the COVER-REAR TOP. Assemble the COVER-REAR TOP to the stand neck as shown in the figure. Rotate the COVER-REAR TOP clockwise.

8



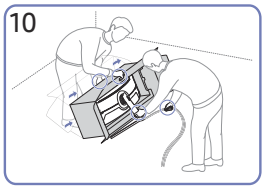
Place the corresponding cables into the stand-neck holder. Do not stretch the cable. Three cables in one holder is recommended.

9



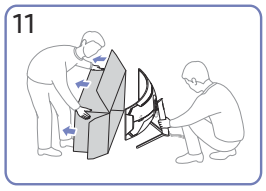
Push the COVER STAND BODY REAR in the direction as shown in the figure.

10



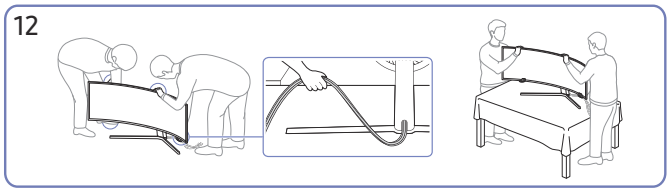
Stand up the monitor as shown in the figure.

11

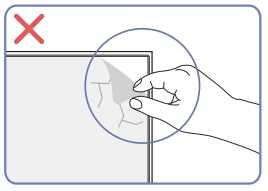


Remove the package.

12



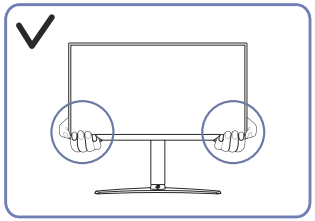
Move the product onto the table. At this time, hold the cables together not to be stuck under the stand.



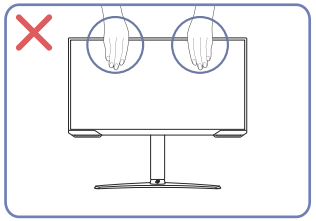
Caution

Do not arbitrarily remove the panel film. If not observed, the warranty service may be restricted.

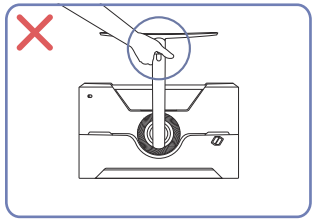
Precautions for moving the product



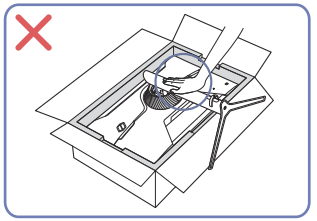
- Hold the lower corners or edges of the product when moving it.



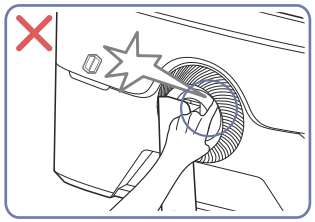
- Do not directly apply pressure on the screen.
- Do not hold the screen when moving the product.

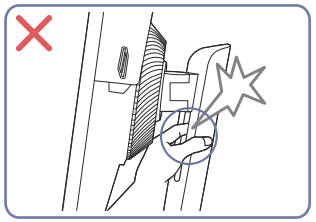


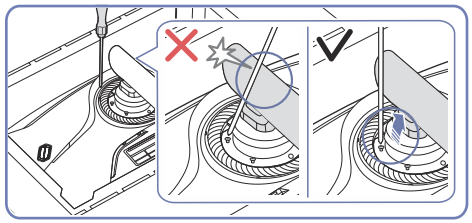
- Do not hold the product upside down only by the stand.



- Do not press down on the product. There is a risk of damaging the product.







- Tilt the stand neck to sides to avoid contact with the screwdriver.

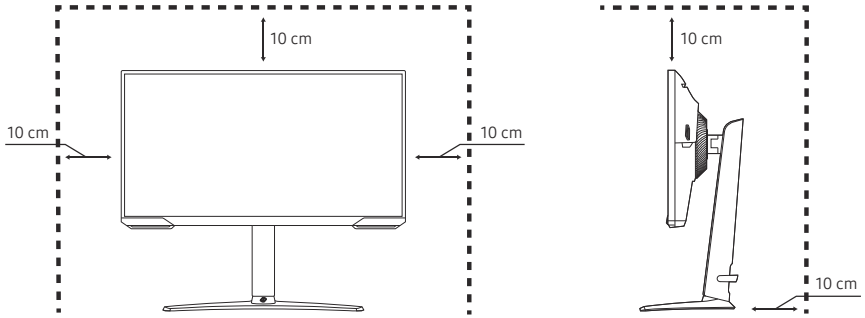
— Supported model: S28AG70*, S49AG95*N

Checking the space around the product

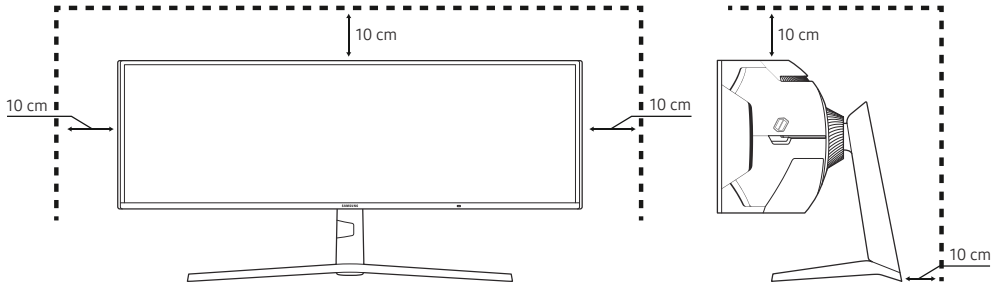
Make sure to have enough space for ventilation when placing the product. An internal temperature rise may cause fire and damage the product. Maintain enough space around the product as shown in the diagram when installing the product.

— The exterior may differ depending on the product.

S27AG50* / S28AG70*



S49AG95*N



Adjusting the Product Tilt and Height

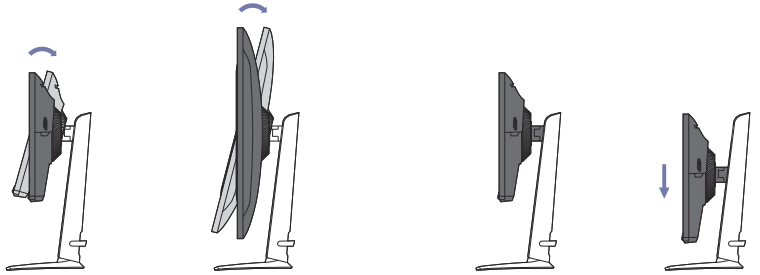
— The colour and shape of parts may differ from what is shown. Specifications are subject to change without notice to improve quality.

S27AG50* / S28AG70*

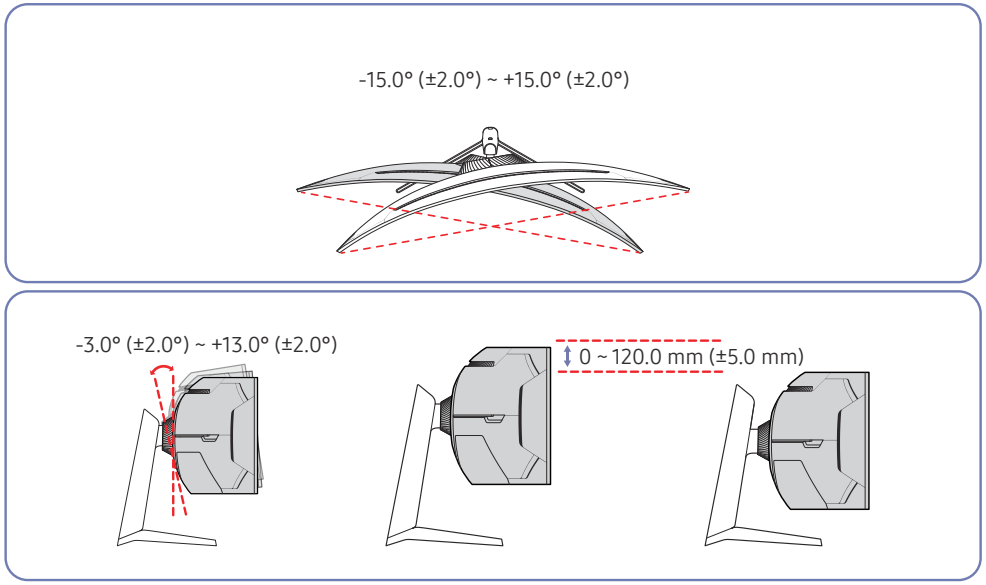
S27AG50* : -2.0° (±2.0°) ~ 22.0° (±2.0°)

S28AG70* : -9.0° (±2.0°) ~ 13.0° (±2.0°)

0 ~ 120.0 mm (±5.0 mm)

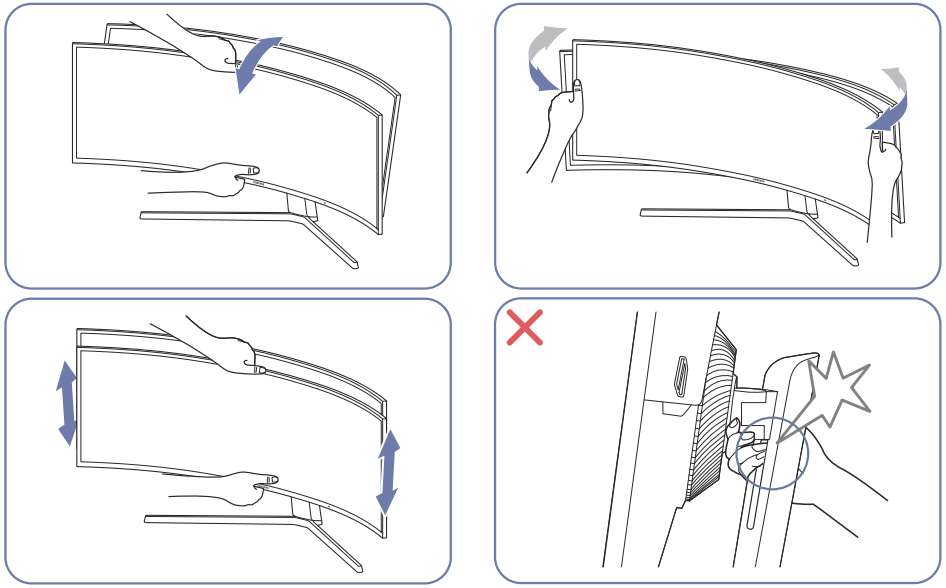


S49AG95*N



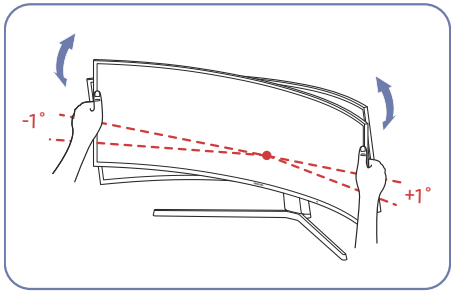
- The product tilt and height can be adjusted.
- Hold the top centre of the product and adjust the height carefully.
- The height adjustment has a certain tolerance. Stay within the tolerances when adjusting the height of the product.

Caution



- Grasp the left and right sides of the monitor and adjust the swivel.
- Grasp the centre of the monitor and adjust the height.
- Do NOT hold the stand moving part with your hand when leveling the screen. Your hand may get hurt.

After adjusting the product tilt and height, if the screen is not level, take the following actions.



- Hold the bezel at both side edges and adjust the monitor angle until the screen becomes level. (Be careful not to directly hold the LCD display.)
- The monitor angle can be adjusted from -1° to +1°.

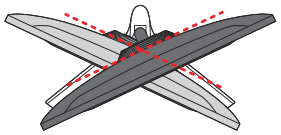
Rotating the Product

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

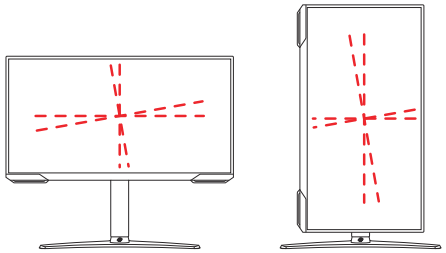
S27AG50* / S28AG70*

S27AG50* : -30.0° (±2.0°) ~ 30.0° (±2.0°)

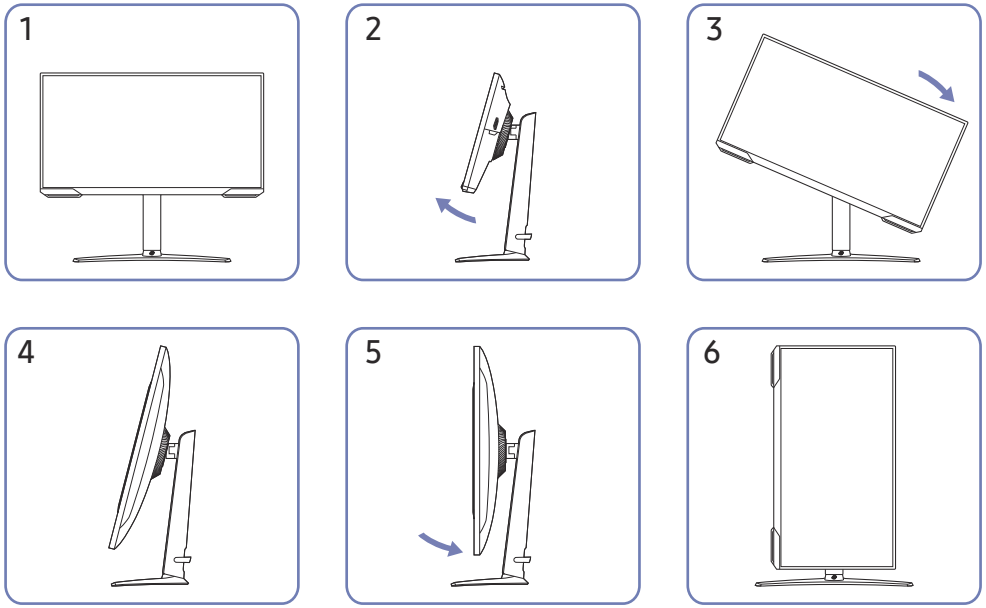
S28AG70* : -15.0° (±2.0°) ~ 15.0° (±2.0°)



-2.0° (±2.0°) ~ 92.0° (±2.0°)



You can rotate your product as shown below.



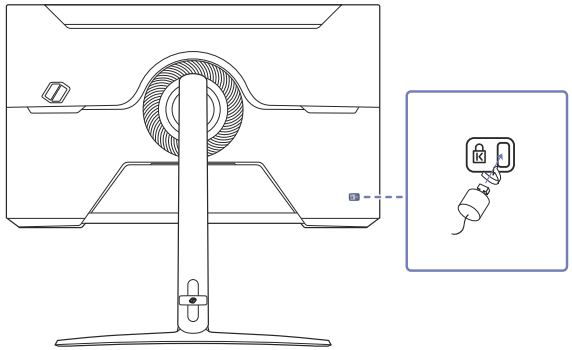
- Be sure to fully extend the stand before rotating the product.
- If you rotate the product without fully extending the stand, the corner of the product may hit the floor and get damaged.
- Do not rotate the product counterclockwise. The product may get damaged.
- When rotating the product, be careful not to damage the product by hitting the object or stand.

Anti-theft Lock

S27AG50*, S28AG70* model only.

- 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 manuals provided with your anti-theft locking device for details.

To lock an anti-theft locking device:

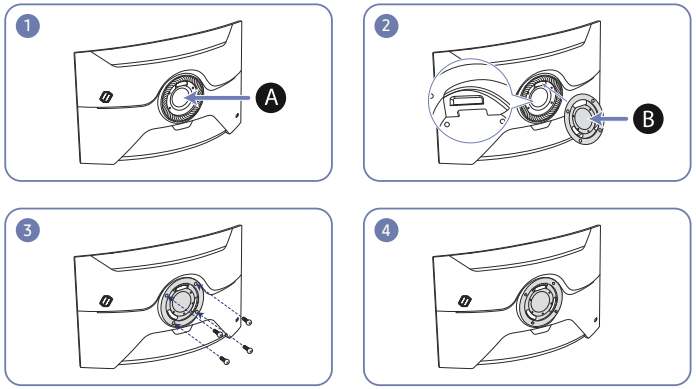


1. Fix the cable of your anti-theft locking device to a heavy object such as a desk.
2. Put one end of the cable through the loop on the other end.
3. Insert the locking device into the anti-theft lock slot at the back of the product.
4. Lock the locking device.
   - An anti-theft locking device can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

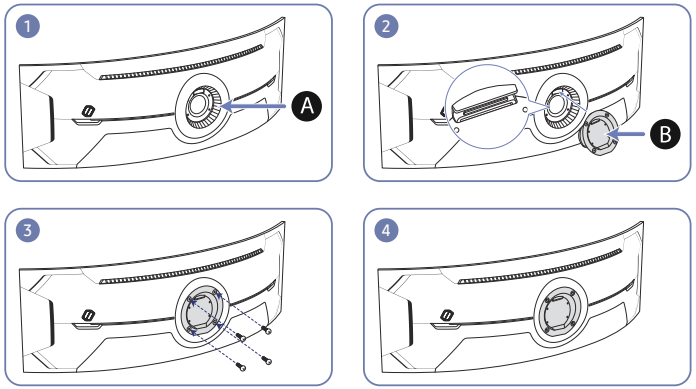
Attaching the BRACKET WALL

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

S27AG50* / S28AG70*



S49AG95*N



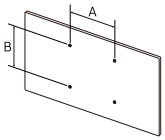
A Attach the BRACKET WALL here

B BRACKET WALL

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

- 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.

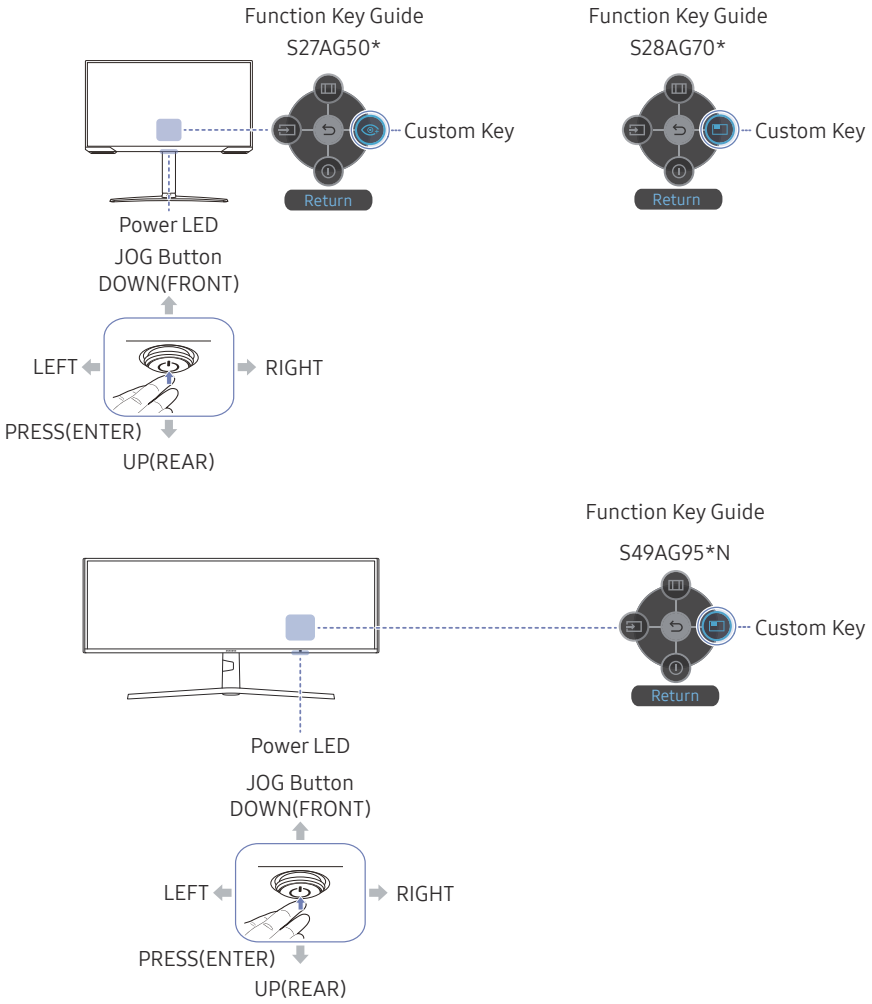
Model name	VESA screw hole specs (A * B) in millimetres	Standard Screw	Quantity
S27AG50*	100.0 x 100.0	M4	4
S28AG70*			
S49AG95*N			



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

Control Panel

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



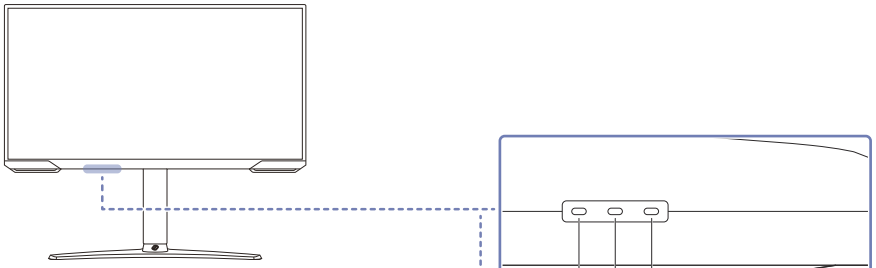
Parts	Description
JOG Button	Multi directional button that helps navigate.
Power LED	This LED is power status indicator. — You can select the power LED operation to be enabled or disabled on the menu screen. (→ System → Power LED On)
Function Key Guide	To use the Function Key Guide, press the JOG button when the screen is turned on.
Custom Key	• Custom Key is used to directly access the function set in Setup Custom Key. • Setup Custom Key — Go to → System → Setup Custom Key and change the custom key.
, Source	Changes the input source. A message will appear on the top left corner of the screen if the input source has been changed.
Menu	Displays the main on-screen menu.
Power Off	Turns off the product.
Return	Exits from the menu page.

Game Setting Key

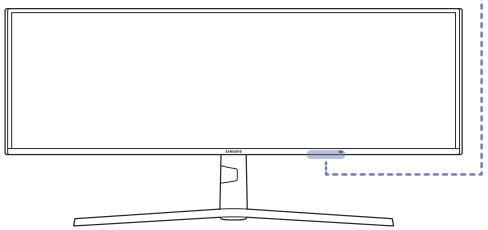
You can quickly view the setting with a shortcut key at the bottom without using an OSD menu. You can directly see the settings for three different modes.

- Game Setting 1 / Game Setting 2 / Game Setting 3

S27AG50* / S28AG70*



S49AG95*N



The displayed image may differ depending on the model.

Chapter 03

Connecting and Using a Source Device

Read below before connecting the product.

1 Before connecting the product, check the shapes of both ports of the supplied signal cables and the shapes and locations of the ports on the product and external device.

2 Before connecting the product, make sure you remove the power cables from both the product and the external device to prevent damage to the product due to a short circuit or over current.

3 After all signal cables have been properly connected, connect the power cables back to the product and the external device.

4 After connecting is completed, make sure you read the manuals to acquaint yourself with the product functions, precautions and other information required to use the product properly.

5 To use Max specifications of our products, check the support specifications of the cable version you use.

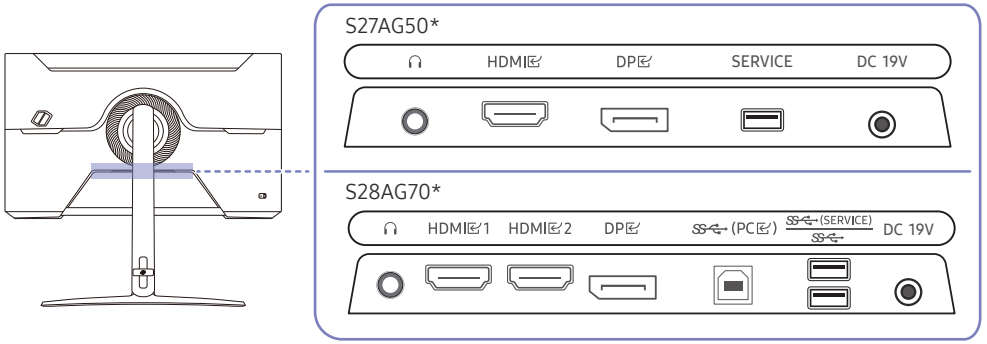
— Connecting parts may differ in different products.

— Provided ports may vary depending on the product.

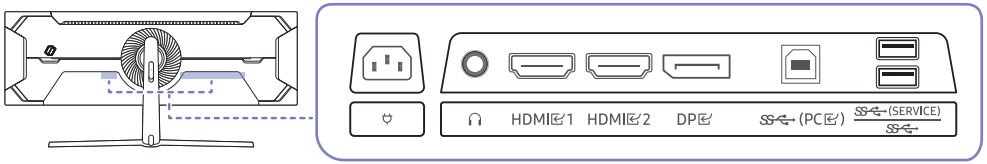
Ports

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

S27AG50* / S28AG70*



S49AG95*N



Port	Description
🎧	Connect to an audio output device such as headphones or earphones.
HDMI	Connects to a source device using an HDMI cable or HDMI-DVI cable. — S27AG50* model only.
HDMI1 HDMI2	Connects to a source device using an HDMI cable or HDMI-DVI cable. — S28AG70*, S49AG95*N model only.
DP	Connects to a PC using a DP cable.
SERVICE	Use a USB memory stick to perform software upgrade. — S27AG50* model only.
SS (PC)	Connects to a PC using a USB cable. Compatible with a USB cable version 2.0. — S28AG70*, S49AG95*N model only.
SS (SERVICE) SS	Connect to a USB device. For more information, see Connecting the Product to a PC as a USB HUB, Software Update page. — S28AG70*, S49AG95*N model only.
DC 19V	Connects to the AC/DC adapter. — S27AG50*, S28AG70* model only.
⏻	Connect the power cord for product. — S49AG95*N model only.

Connecting and Using a PC

Select a connection method suitable for your PC.

Connection Using the HDMI Cable

- It is recommended to use the HDMI cable provided as components. If not provided, be sure to use authorised cable for HDMI cable connections. If you use a unauthorised HDMI cable, the image quality may be degrade.

Connection Using an HDMI-DVI Cable

- The audio function is not supported if the source device is connected using the HDMI-DVI cable.
- The optimum resolution may not be available with an HDMI-DVI cable.

Connection Using an DP Cable

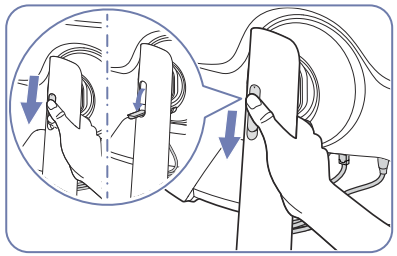
- It is recommended to use the DP cable provided as an accessory. If not provided, be sure to use a DP cable of 1.5 m or below.
- Use a VESA certified DP1.2 cable or higher and its gender.

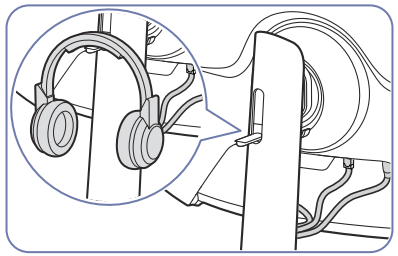
Connecting to headphones or earphones

- Use headphones or earphones when activating sound with an HDMI-HDMI or DP cable.
- The headphones or earphones jack supports only the 3 conductor tip-ring-sleeve (TRS) type.

S49AG95*N

: Headphones hanger
: Downward

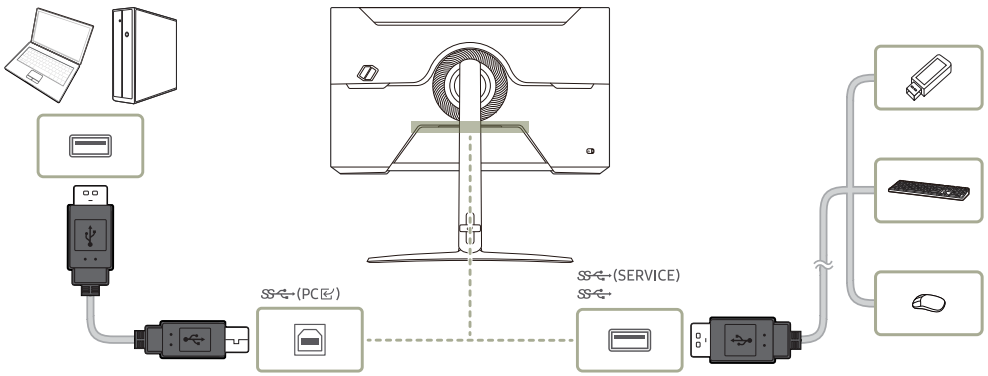




Connecting the Product to a PC as a USB HUB

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

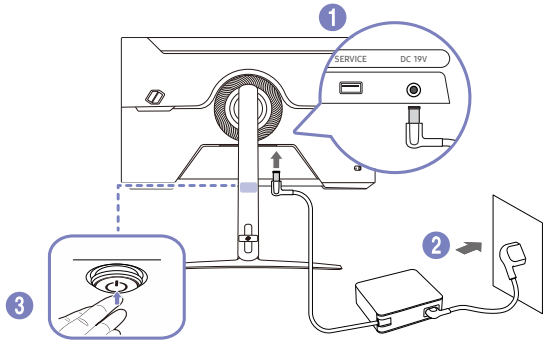
S28AG70* / S49AG95*N



- To detect and start a USB device faster, connect the USB device to the SS (SERVICE), SS port on the product. The read/write rate will be affected by the USB device and your PC.
- For USB-related problems caused by OS, drive programmemes 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.
- USB devices requiring high current may not be supported. SS can support a maximum current of 900mA.
- 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 company is not liable for problems or damages to an external device caused by using an unauthorised cable for the connection.
- Some products do not follow the USB standard, and it may cause a malfunction of the device.

Connecting the Power

S27AG50* / S28AG70*



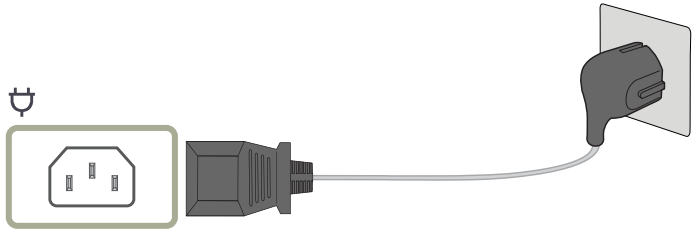
1 Connect the power cable to the AC/DC adapter. Then, connect the AC/DC adapter to the **DC 19V** port on the back of the product.

2 Next, connect the power cable to the power outlet.

3 Press the JOG button at the bottom of the product to turn it on.

— The input voltage is switched automatically.

S49AG95*N



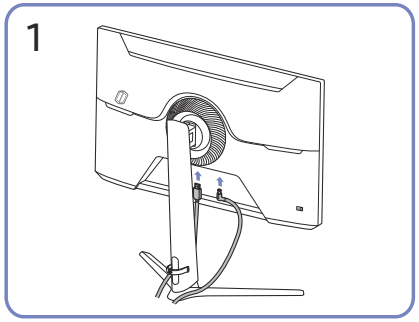
To use the product, connect the power cable to a power outlet and the ⏚ port on the product.

— The input voltage is switched automatically.

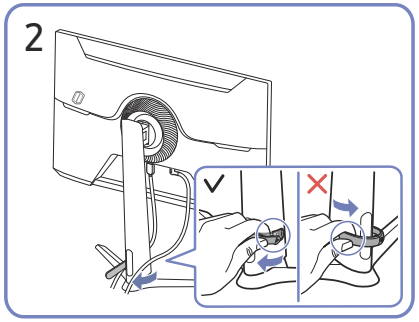
Tidying Up the Connected Cables

— Refer to "Attaching the Stand (P.11)" for more information on how to organise cables for the S49AG95*N model.

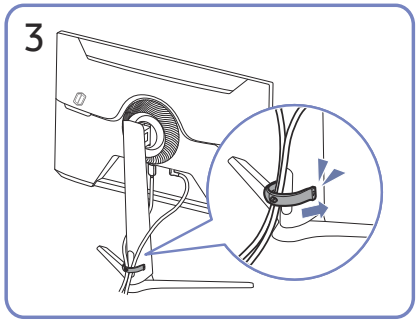
S27AG50*



Connect the corresponding cables.



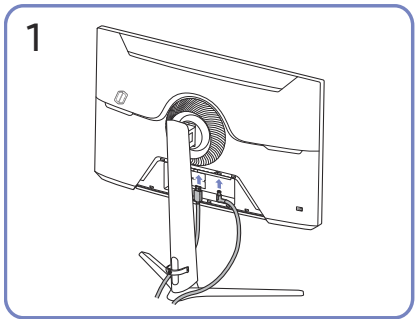
Pull the right side of the HOLDER-STAND CABLE to remove from the stand. The left side of the HOLDER-STAND CABLE can be damaged when pulled forcibly.



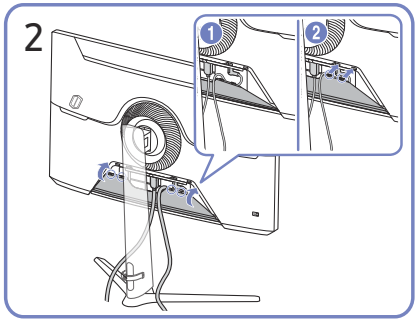
Put both cables in the cable holder on the stand (HOLDER-STAND CABLE) to organise the cables, as shown in the figure.

Assembly is complete.

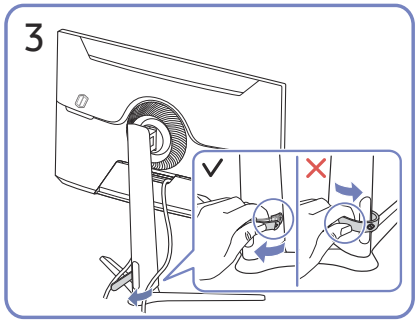
S28AG70*



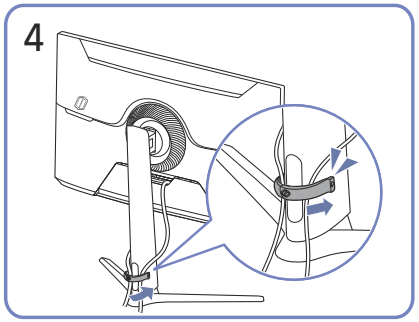
Connect the corresponding cables.



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



Pull the right side of the HOLDER-STAND CABLE to remove from the stand. The left side of the HOLDER-STAND CABLE can be damaged when pulled forcibly.



Put both cables in the cable holder on the stand (HOLDER-STAND CABLE) to organise the cables, as shown in the figure.

Assembly is complete.

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 information message 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.
- If you want to set the optimum resolution for your computer, please refer to (Q&A) → "How can I change the resolution?"
- You can adjust the refresh rate according to the screen resolution by selecting Game → Refresh Rate in the OSD menu.
- To enable the maximum refresh rate, set Adaptive-Sync / FreeSync Premium (S27AG50* model only.) / FreeSync Premium Pro (S28AG70* model only / S49AG95*N model in HDMI mode only.) to On or set Refresh Rate to 144 Hz.
- This menu is only available when Refresh Rate is set to 165 Hz.(S27AG50* model only.) (in DisplayPort mode)
- This menu is only available when Refresh Rate is set to 240 Hz.(S49AG95*N model only.) (in DisplayPort mode)

List of graphic cards supporting HDR10 / HDR 400 / QUANTOM HDR 2000

HDR10 / HDR 400 / QUANTOM HDR 2000 is accessible only on Windows 10 systems equipped with graphic cards that support Play Ready 3.0 Digital Rights Management (for protected HDR content). Use graphic cards listed below for HDR10 / HDR 400 / QUANTOM HDR 2000.

- NVIDIA GeForce 1000 series or higher
- AMD Radeon™ RX 400 series or higher
- Intel UHD Graphics 600 series or higher

- Graphic cards that support hardware-accelerated 10-bit video decoding for HDR video codecs are recommended.
- HDR 10 : S27AG50* model only.
  VESA HDR 400 : S28AG70* model only.
  QUANTOM HDR 2000 : S49AG95*N model only.

Chapter 04
Menu

Function Key Guide →

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

Game

2nd	3rd	Description
Refresh Rate		Change the screen refresh rate. A higher refresh rate can reduce eye strain. • DisplayPort: 60 Hz / 120 Hz / 144 Hz / 165 Hz HDMI: 60 Hz / 120 Hz / 144 Hz — S27AG50* model only. • 60 Hz / 120 Hz / 144 Hz — S28AG70* model only. • DisplayPort: 60 Hz / 120 Hz / 240 Hz HDMI: 60 Hz / 120 Hz / 144 Hz — S49AG95*N model only. — This menu is not available when PC/AV Mode is set to AV. — This menu is not available when PIP Mode is enabled. (S28AG70* model only.) — This menu is not available when PIP/PBP is enabled. (S49AG95*N model only.) — This option is not available when Ultrawide Game View is set to On. (S27AG50*, S28AG70* model only.) — This option is not available when Adaptive-Sync is set to On. — Except when Refresh Rate is set to 120 Hz / 144 Hz / 165 Hz / 240 Hz. (in DisplayPort mode)

2nd	3rd	Description
Refresh Rate		¯ This option is not available when **FreeSync Premium** (S27AG50* model only.) / **FreeSync Premium Pro** (S28AG70*, S49AG95*N model only.) is set to **On**. ¯ Changing the **Refresh Rate** may cause screen flickering, depending on the PC's graphics card. ¯ The function is available in a PC equipped with the graphics 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. ¯ If the **Refresh Rate** function is in use and the text displayed on the PC screen looks blurry or corrupted, resolve the issue by changing the resolution of the PC screen to the recommended resolution.
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 or game. ¯ This option is not available when **Adaptive-Sync** / **FreeSync Premium** (S27AG50* model only.) / **FreeSync Premium Pro** (S28AG70*, S49AG95*N model only.) is set to **On**. ¯ This menu is not available when **PIP Mode** is enabled. (S28AG70* model only.) ¯ This menu is not available when **PIP/PBP** is enabled. (S49AG95*N model only.)
Adaptive-Sync		**Adaptive-Sync** technology is solution that eliminates screen tearing without all the usual lag and latency. For more information, see Adaptive-Sync (for NVIDIA graphics card) page. ¯ This menu is not available when **PC/AV Mode** is set to **AV**. ¯ This menu is not available when **PIP Mode** is enabled. (S28AG70* model only.) ¯ This menu is not available when **PIP/PBP** is enabled. (S49AG95*N model only.)
FreeSync Premium (Supported model: S27AG50*)		FreeSync technology is solution that eliminates screen tearing without all the usual lag and latency. FreeSync can be operated when you use AMD's graphic card with supporting FreeSync solution. For more information, see FreeSync (for AMD graphics card) page. ¯ This menu is not available when **PC/AV Mode** is set to **AV**. (S28AG70* model only.) ¯ This menu is not available when **PIP Mode** is enabled. (S28AG70* model only.) ¯ This menu is not available when **PIP/PBP** is enabled. (S49AG95*N model only.)
FreeSync Premium Pro (Supported model: S28AG70*, S49AG95*N)		
Ultrawide Game View		Set the game screen's ratio to wide for more immersive gaming. ¯ S27AG50*, S28AG70* model only. ¯ This menu is not available when **PIP Mode** is enabled. (S28AG70* model only.)

2nd	3rd	Description
Low Input Lag		Minimise input lag for fast reactions by reducing the video processing time. ¯ This option is not available when Ultrawide Game View is set to On. (S27AG50*, S28AG70* model only.) ¯ This menu is not available when Adaptive-Sync / FreeSync Premium (S27AG50* model only.) / FreeSync Premium Pro (S28AG70*, S49AG95*N model only.) is enabled. ¯ If the refresh rate of the PC is different from the setting for Refresh Rate on the product, the function may not be supported. ¯ This menu is not available when PIP Mode is enabled. (S28AG70* model only.) ¯ This menu is not available when PIP/PBP is enabled. (S49AG95*N model only.)
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. ¯ This menu is not available when Eye Saver Mode is enabled. ¯ This menu is not available when Picture Mode is set to Cinema mode. ¯ This menu is not available when Picture Mode is set to Dynamic Contrast mode. ¯ This menu is not available when the input signal is AV timing and the monitor is in AV mode. ¯ This menu is not available when PIP Mode is enabled. (S28AG70* model only.) ¯ This menu is not available when PIP/PBP is enabled. (S49AG95*N model only.)
Virtual Aim Point		• Off: Virtual Aim Point is not available while Off is selected. • : Select the preferred aim point style. • Position Reset: Restore the aim point position to the default. ¯ This menu is not available when PIP Mode is enabled. (S28AG70* model only.) ¯ This menu is not available when PIP/PBP is enabled. (S49AG95*N model only.)
Core Lighting (Supported model: S28AG70*)		Turn on or off the LED lighting behind the screen.
Infinity Core Lighting (Supported model: S49AG95*N)		

2nd	3rd	Description
Screen Size		Select the best screen size and ratio. — This option is not available when Ultrawide Game View is set to On. (S27AG50*, S28AG70* model only.) — This menu is not available when Adaptive-Sync / FreeSync Premium (S27AG50* model only.) / FreeSync Premium Pro (S28AG70*, S49AG95*N model only.) is enabled. — This menu is not available when PIP Mode is enabled. (S28AG70* model only.) — This menu is not available when PIP/PBP is enabled. (S49AG95*N model only.) 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. • 27" Wide (16:9): Use a 16:9 aspect ratio on a 27-inch wide screen. Pictures with a different aspect ratio will not be displayed. — S28AG70*, S49AG95*N model only. • 29" Wide (21:9): Use a 21:9 aspect ratio on a 29-inch wide screen. Pictures with a different aspect ratio will not be displayed. — S49AG95*N model only.

2nd	3rd	Description
		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. • 21:9: Display the picture with an aspect ratio of 21:9. — S49AG95*N model only. • 32:9: Display the picture with an aspect ratio of 32:9. — S49AG95*N model only. • 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. • 27" Wide (16:9): Use a 16:9 aspect ratio on a 27-inch wide screen. Pictures with a different aspect ratio will not be displayed. — S28AG70*, S49AG95*N model only. • 29" Wide (21:9): Use a 21:9 aspect ratio on a 29-inch wide screen. Pictures with a different aspect ratio will not be displayed. — S49AG95*N model only. — 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. — The input source is 480p, 576p, 720p, 1080p or 2160p and product 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. — This option is available when Adaptive-Sync / FreeSync Premium (S27AG50* model only.) / FreeSync Premium Pro (S28AG70*, S49AG95*N model only.) is set to Off. — This option is not available when Ultrawide Game View is set to On. (S27AG50*, S28AG70* model only.)

Picture

2nd	3rd	Description
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 PIP Mode is enabled. (S28AG70* model only.) — This menu is not available when PIP/PBP is enabled. (S49AG95*N model only.) — This menu is not available when Eye Saver Mode is enabled. In PC mode • Custom: Customise the screen settings. • High Bright: Maximise the screen brightness. — S28AG70*, S49AG95*N model only. • FPS: Increase the brightness of darker areas of the FPS (First-Person Shooter) game screen. This mode increases visibility of your enemies during a FPS (First-Person Shooter) game. • RTS: Increase the colour temperature and contrast ratio to improve visibility of the RTS (Real-Time Strategy) screen and minimap. • RPG: This mode is optimised for 3D graphics and instant messaging on the RPG (Role Playing Game) game screen. • AOS: Increase the contrast ratio to obtain a picture quality optimised for the AOS (Aeon Of Strife) game screen. • sRGB: Adjust the colour system to sRGB mode. This is the standard mode of this monitor. • Cinema: Obtain the brightness and sharpness of monitors suitable for enjoying video and DVD content. • Dynamic Contrast: Obtain balanced brightness through automatic contrast adjustment.

2nd	3rd	Description
		In AV mode When the external input is connected through HDMI/DP and PC/AV Mode is set to AV, Picture Mode has four 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 personalised picture settings. • Dynamic: Select this mode to view a sharper image than in Standard mode. • Standard: Select this mode when the surroundings are bright. • Movie: Select this mode when the surroundings are dark. This will save power and reduce eye fatigue. • Custom: Select this mode when you want to adjust the image according to your preferences. — The Picture Mode feature is only activated at a certain AV resolution, such as 720P @ 60 Hz and 1080P @ 60 Hz. In HDR mode Set to an optimum picture quality suitable for the working environment. • HDR Dynamic / HDR Standard
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 Eye Saver Mode is enabled. — This menu is not available when Response Time is set to Extreme (MBR) mode.
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, Dynamic Contrast or sRGB mode. — This menu is not available when PIP Mode is enabled. (S28AG70* model only.) — This menu is not available when PIP/PBP is enabled. (S49AG95*N model only.)
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 or Dynamic Contrast mode. — This menu is not available when PIP Mode is enabled. (S28AG70* model only.) — This menu is not available when PIP/PBP is enabled. (S49AG95*N model only.) — When the Sharpness is changed, it may affect picture quality. (S28AG70* model only.)

2nd	3rd	Description
Color		Adjust the tint of the screen. • Color Tone: Select a colour tone that best suits your viewing needs. — When the external input is connected through HDMI/DP and PC/AV Mode is set to AV (720P @ 60 Hz, 1080P @ 60 Hz and 2160P @ 60Hz), Color Tone has four colour temperature settings (Cool, Normal, Warm and Custom). • Red: Adjust the red saturation level. Values closer to 100 mean greater intensity for the colour. • Green: Adjust the green saturation level. Values closer to 100 mean greater intensity for the colour. • Blue: Adjust the blue saturation level. Values closer to 100 mean greater intensity for the colour. • Gamma: Adjust the middle level of luminance. • Saturation: Adjust the saturation level. Values closer to 100 mean greater intensity for the colour. — This menu is not available when Eye Saver Mode is enabled. — This menu is not available when Picture Mode is set to Cinema or sRGB mode. — This menu is not available when Dynamic Contrast is enabled. — The Color feature is only activated at a certain AV resolution, such as 720P @ 60 Hz, 1080P @ 60 Hz and 2160P @ 60 Hz.
Black Level		If a DVD player or set-top box is connected to the product via HDMI, image quality degradation (contrast/colour degradation, black level, etc.) may occur, depending on the connected source device. In such case, Black Level can be used to adjust the image quality. • 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. — This menu is not available when PIP Mode is enabled. (S28AG70* model only.) — This menu is not available when PIP/PBP is enabled. (S49AG95*N model only.) — This function is only available in HDMI mode. — Black Level may not be compatible with some source devices. — The Black Level feature is only activated at a certain AV resolution, such as 720P @ 60 Hz, 1080P @ 60 Hz and 2160P @ 60 Hz. — Adjust the Black Level because the image quality may differ depending on the external device.
Eye Saver Mode		Set to an optimum picture quality suitable for eye relaxation.

2nd	3rd	Description
Screen Adjustment		• H-Position: Move the screen to the left or right. • V-Position: Move the screen up or down. — This menu is not available when PIP Mode is enabled. (S28AG70* model only.) — This menu is not available when PIP/PBP is enabled. (S49AG95*N model only.) — 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, 576P, 720P, 1080p or 2160p signal is input in AV mode and the product can display normally, select Screen Fit to adjust horizontal position and vertical position in 0-6 levels.
Calibration Report		View the Calibration Report. — S28AG70*, S49AG95*N model only.

PIP (Supported model: S28AG70*)

2nd	3rd	Description
PIP Mode		Turn PIP Mode on or off.
Screen Size		Select sub-screen size. •
Screen Position		Select the position of the sub-screen from the available options. •
Source		Select the source for each screen.
Sound Source		Set which screen you want to hear the sound for. •

2nd	3rd	Description
Screen Ratio		Choose the size and aspect ratio of the picture displayed on screen. In PC mode • Auto / Wide In AV mode • 4:3 / 16:9 / Screen Fit — The function may not be supported depending on the ports provided with the product. — Changing the Screen Ratio is available when the following conditions are satisfied. — The input source is 480p, 576p, 720p, 1080p or 2160p and product 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. — The Screen Ratio feature is only activated at a certain AV resolution, such as 720P @ 60 Hz, 1080P @ 60 Hz and 2160P @ 60 Hz.
Contrast		Adjust the contrast level. Values closer to 100 mean a bigger light/dark contrast.

PIP/PBP (Supported model: S49AG95*N)

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

— If the PIP/PBP function is in use and the text displayed on the PC screen looks blurry or corrupted, resolve the issue by changing the resolution of the PC screen to the recommended resolution.

— Do not arbitrarily change the PIP/PBP function while playing a game. Otherwise, some game apps may not respond, resulting in screen errors.

2nd	3rd	Description
PIP/PBP Mode		Turn PIP/PBP Mode on or off.
Mode Type		Select the size and aspect ratio of the sub-screen. •
Screen Size		Select sub-screen size. • — This option is available when Mode Type is set to PIP. (S49AG95*N model only.)

2nd	3rd	Description
Screen Position		Select the position of the sub-screen from the available options. • — This option is available when Mode Type is set to PIP. (S49AG95*N model only.)
Source		Select the source for each screen.
Sound Source		Set which screen you want to hear the sound for. • PIP: • PBP:
Screen Ratio		Choose the size and aspect ratio of the picture displayed on screen. In PC mode • Auto / Wide In AV mode • 4:3 / 16:9 / 21:9 / Screen Fit — The function may not be supported depending on the ports provided with the product. — Changing the Screen Ratio is available when the following conditions are satisfied. — The input source is 480p, 576p, 720p, 1080p or 2160p and product 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. — The Screen Ratio feature is only activated at a certain AV resolution, such as 720P @ 60 Hz, 1080P @ 60 Hz and 2160P @ 60 Hz.
Contrast		Adjust the contrast level. Values closer to 100 mean a bigger light/dark contrast.

OnScreen Display

2nd	3rd	Description
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 how long the menu window will remain on screen for when it is not in use.

System

2nd	3rd	Description
Local Dimming		Control the brightness of individual areas on the screen to maximise contrast automatically. — S28AG70*, S49AG95*N model only. — This menu is not available when PIP Mode is enabled. (S28AG70* model only.) — This menu is not available when PIP/PBP is enabled. (S49AG95*N model only.) — This menu is not available when Eye Saver Mode is enabled.
Volume		Adjust the Volume controlling the JOG button LEFT/RIGHT. — 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.
Dynamic Brightness		Automatically adjust the Brightness to provide the best possible screen contrast under the current conditions. — S49AG95*N model only.

2nd	3rd	Description
Eco Saving Plus		Reduce energy consumption compared to consumption at the maximum brightness level. • 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: Saves up to 25 % energy compared to the maximum brightness. • High: Saves up to 50 % energy compared to the maximum brightness. — S28AG70* model only. — This option is not available when Picture Mode is in Dynamic Contrast mode. — This menu is not available when Eye Saver Mode is enabled.
Off Timer Plus	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 → Off Timer Plus and set Off Timer to Off.
	Eco Timer	• Eco Timer: Turn on Eco Timer mode. • Eco Off After: The Eco Off After can be set between 10 and 180 minutes. The product will automatically power off after the specified time has elapsed. — This option is only available when Eco Timer is set to On.
PC/AV Mode		Set PC/AV Mode to AV. The picture size will be enlarged. This option is useful when you view a movie. — Products with a display area of 16:9 or 16:10 are only supported. — If the product is in HDMI, DisplayPort mode and the screen says Check the cable connection and the settings of the source device. press the JOG button to display the Function Key Guide screen and then select → System → PC/AV Mode → HDMI, DisplayPort → PC or AV. — If input source is AV device, the screen may not display properly or there is no sound. Set PC/AV Mode to AV.

2nd	3rd	Description
DisplayPort Ver.		Select your Displayport. — Incorrect settings may cause the screen to go blank. If this occurs, check the device specifications. — If the product (in DisplayPort mode) is displaying the message Check the cable connection and the settings of the source device. press the JOG button to display the Function Key Guide screen and then select → System → DisplayPort Ver. → 1.1, 1.2↑ (S27AG50* model only.), 1.2 (S28AG70*, S49AG95*N model only.) or 1.4 (S28AG70*, S49AG95*N model only.). — 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 graphics cards cannot achieve the level of 120 Hz/144 Hz. — If the PC has entered BIOS mode and the BIOS screen does not appear, go to the following path and then select the mode. → System → DisplayPort Ver. → 1.1, 1.2↑ (S27AG50* model only.), 1.2 (S28AG70*, S49AG95*N model only.) or 1.4 (S28AG70*, S49AG95*N model only.).
Input Port Ver.		Select an HDMI version. — S27AG50*: 1.4 / 2.0 — S28AG70*: 1.4 / 2.0 / 2.1 — S49AG95*N: 1.4 / 2.0↑ — The supportable device and resolution may differ depending on its version. — When the version is changed, the screen may blink. — If the HDMI Mode is set to 2.0 (S28AG70* model only.), HDR On is available only in UHD 60 Hz. In a higher resolution (UHD 120/140), HDR On is unavailable due to the bandwidth limitation. — If you set the HDMI Mode to 1.4, some high resolutions may not be supported because of bandwidth limitation of the HDMI 1.4 protocol. — If you set the HDMI Mode to 2.0 (S28AG70* model only.), some high resolutions may not be supported because of bandwidth limitation of the HDMI 2.0 protocol. — When the setting is not appropriate, a blank screen may appear. In this case, check the specifications of the device. — Set HDMI Mode to 1.4 if the monitor is connected to an HDMI device and the monitor does not display the screen properly, displays a blank screen, or does not play sound at all. — Set HDMI Mode to 2.0 (S28AG70* model only.) if the monitor is connected to an HDMI device and the monitor does not display the screen properly, displays a blank screen, or does not play sound at all.

2nd	3rd	Description
Auto Source Switch (Supported model: S27AG50*)		By activating, a new connected source is displayed automatically. — This function may not be supported depending on the model or geographical area.
Auto Source Switch+ (Supported model: S28AG70*, S49AG95*N)		
Key Repeat Time		Control the response rate of a button when the button is pressed. 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.
VRR Control		By optimising the video signal processing, this additional function mitigates screen flicker. While playing any game or content that causes screen flicker, use the VRR Control function with setting it to On. — S49AG95*N model only.
Setup Custom Key		Set the custom key so that your chosen function can be set up directly. • S27AG50*: Eye Saver Mode / Ultrawide Game View / Low Input Lag / Response Time / Auto Source Switch / Refresh Rate / Black Equalizer / Virtual Aim Point / Picture Mode • S28AG70*: Eye Saver Mode / PIP / Refresh Rate / Ultrawide Game View / Low Input Lag / Black Equalizer / Virtual Aim Point / Core Lighting / Auto Source Switch+ / Picture Mode / Response Time • S49AG95*N: Eye Saver Mode / PIP/PBP / Refresh Rate / Low Input Lag / Black Equalizer / Virtual Aim Point / Infinity Core Lighting / Auto Source Switch+ / Picture Mode / Response Time

Support

2nd	3rd	Description
Self Diagnosis		Perform this test when you experience a problem with your monitor's picture. — Never turn off the power nor change the input source during self diagnosis. If possible, try not to interrupt testing.
Software Update		Update software using an update file on a USB device. 1 Save the update file (in .bin or .img format) that you downloaded from the Samsung website (http://www.samsung.com/sec) to a USB storage device. 2 Connect the USB device to the SERVICE, SS (SERVICE) port on the monitor. Select → Support → Software Update. 3 Follow the instructions on the screen to proceed with update. 4 Your product will turn itself off and on again automatically after completing update, and then turn off your product. 5 Remove the power cord from the power outlet and then reconnect the cord after turning off. — To perform software update by using a USB memory, first format the USB memory to FAT32. — When performing update, make sure that only one BIN or IMG file (.bin or .img) is saved in the root directory. — Upon updates, save only either the .bin or .image file, downloaded from the Samsung website, to the root directory. — If the No update files found on your USB device. Please check your USB device and try again. message is displayed, this is probably due to the following reasons. — A USB memory is not connected to the SERVICE, SS (SERVICE) port. — The files in the connected USB memory are not compatible formats. — There are no valid update files found in the connected USB memory. (There are no update files saved in the memory or the file names are incorrect.) — Do not turn off the product until the update is complete. And prevent the updating from any interruption as far as possible. In general, the product returns to the previous version if an update is interrupted. — It may change the screen colour or blink during USB update, but it is not a monitor problem. Since S/W update is performed normally, please wait until the update is finished.
Information		View the current software information. Refer to the actual monitor screen.
Reset All		Return all the settings for the product to the default factory settings.

Chapter 05

Installing the Software

Easy Setting Box

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

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

— The software may not work properly if you do not restart the PC after the installation.

— The **Easy Setting Box** icon may not appear depending on the PC 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 • Windows 8 32Bit/64Bit • Windows 8.1 32Bit/64Bit • Windows 10 32Bit/64Bit	• At least 32MB of memory • At least 60MB of free space on the hard disk drive

Driver Installation

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

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

Chapter 06

Troubleshooting Guide

Requirements Before Contacting Samsung Customer Service Centre

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

Product diagnosis (Screen issue)

If a problem occurs with the monitor screen, run Self Diagnosis to check that the monitor is working properly.

Checking the Resolution and Frequency

If a resolution that is not supported (see the Standard Signal Mode Table) is selected, the Not Optimum Mode message may appear for a short time or the screen may not be displayed properly.

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

Check the following.

Caution

When the product makes popping (cracking) sound.

The sound may be caused by contraction or expansion from temperature change of external components or internal circuit of the product.

This is NOT a product failure and does not affect the life of the product.

Installation issue (PC mode)

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 PC 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.

If a problem occurs with the monitor screen, run Self Diagnosis to check that the monitor is working properly.

The message Check the cable connection and the settings of the source device. appears.

Check that the cable is properly connected to the product.

If the monitor is in HDMI or DisplayPort mode, press the JOG button to display the Function Key Guide screen and select the → System → PC/AV Mode → HDMI, DisplayPort → PC or AV.

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 (P.50).

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.50) in this manual and the Information menu on the product.

Change the Response Time in the Display OSD to Faster or Standard depending on your application and usage.

The screen is too bright. The screen is too dark.

Adjust Brightness and Contrast.

Screen colour is inconsistent.

Change the Color settings.

The colours 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.

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

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

The product is operating in power-saving 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 optimised for the PC resource.

Try playing the file on another video player.

When setting the PIP Screen Size, the screen does not fit the PIP size.

Depending on the graphic card or graphic card driver, it may not be automatically set to the Optimum resolution. If you set it properly for the first time, there will be no problems thereafter.

— PIP (Supported model: S28AG70*, S49AG95*N)

Sound issue

There is no sound.

Re-check the condition of the connected headphone or earphone and/or adjust the volume.

Check the volume.

Check whether the volume of the product or the source device is set to mute.

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 programme.

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.

¯ The path to the settings depends on the installed OS.

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 **Screen 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** → **Screen Resolution** → **Adjust 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: Go to **Control Panel** → **Appearance and Personalization** → **Personalization** → **Screen Saver Settings** → **Power options** or BIOS SETUP on the PC.
- Windows 8(Windows 8.1): Go to **Settings** → **Control Panel** → **Appearance and Personalization** → **Personalize** → **Screen Saver Settings** → **Power options** or BIOS SETUP on the PC.
- Windows 10: Go to **Settings** → **Personalization** → **Lock screen** → **Screen timeout settings** → **Power & sleep** or BIOS SETUP on the PC.

Chapter 07
Specifications

General

Model Name	S27AG50*	S28AG70*	S49AG95*N
Size	27 Class (26.9 Inches / 68.4 cm)	28 Class (27.9 Inches / 70.8 cm)	49 Class (48.7 Inches / 123.8 cm)
Display area	596.736 mm (H) x 335.684 mm (V)	620.93 mm (H) x 341.28 mm (V)	1191.936 mm (H) x 335.232 mm (V)
Pixel Pitch	0.2331 mm (H) x 0.2331 mm (V)	0.16 mm (H) x 0.16 mm (V)	0.2328 mm (H) x 0.2328 mm (V)
Maximum Pixel Clock	699.28 MHz	1430 MHz	2018.5 MHz
Power Supply	AC100-240V~ 50/60Hz Based on the AC voltage of the adapter. For the DC voltage of the product, refer to the product label.		AC100-240V~ 50/60Hz Refer to the label at the back of the product as the standard voltage can vary in different countries.
Signal connectors	HDMI, DisplayPort		
Environmental conditions	**Operating** Temperature: 10 °C – 40 °C (50 °F – 104 °F) Humidity: 10 % – 80 %, non-condensing		
	Storage Temperature: -20 °C – 45 °C (-4 °F – 113 °F) Humidity: 5 % – 95 %, non-condensing		

- Plug-and-Play

  This product can be installed and used with any Plug-and-Play compatible systems. Two-way data exchange between the product and PC system optimises the product settings. Product installation takes place automatically. However, you can customise 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.
- For detailed device specifications, visit the Samsung website.
- (Europe only)

  To access the EPREL registration of the model:

  (1) Go to https://eprel.ec.europa.eu

  (2) Get the model identifier from the energy label of the product and type it in the search box

  (3) Energy Labelling information of the model is shown

  * You can directly access the product information via https://eprel.ec.europa.eu/qr/##### (registration no.)

    The registration no. can be found on the rating label on your product.

- (Turkey only)

  To access the energy labelling information of the model:

  (1) Go to https://www.samsung.com/global/ecodesign_energy

  (2) Get the model identifier from the energy label of the product and type it in the search box

  (3) Energy labelling information can be found

Standard Signal Mode Table

Model Name		S27AG50*	S28AG70*	S49AG95*N
Synchronization (PANEL Spec)	Vertical Frequency	48 ~ 165 Hz	48 ~ 144 Hz	60 ~ 240 Hz
Resolution	Optimum resolution	2560 x 1440 @ 144 Hz (HDMI) 2560 x 1440 @ 165 Hz (DisplayPort)	3840 x 2160 @ 144 Hz (HDMI, Display Port)	5120 x 1440 @ 144 Hz (HDMI) 5120 x 1440 @ 120 Hz (DisplayPort)
	Maximum resolution			5120 x 1440 @ 144 Hz (HDMI) 5120 x 1440 @ 240 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.

S27AG50*

Resolution	Horizontal Frequency (kHz)	Vertical Frequency (Hz)	Pixel Clock (MHz)	Sync Polarity (H/V)	Port	
					HDMI IN	DP IN
IBM, 720 x 400	31.469	70.087	28.322	-/+	O	O
MAC, 640 x 480	35.000	66.667	30.240	-/-	O	O
MAC, 832 x 624	49.726	74.551	57.284	-/-	O	O
MAC, 1152 x 870	68.681	75.062	100.000	-/-	O	O
VESA, 640 x 480	31.469	59.940	25.175	-/-	O	O
VESA, 640 x 480	37.861	72.809	31.500	-/-	O	O
VESA, 640 x 480	37.500	75.000	31.500	-/-	O	O
VESA, 800 x 600	35.156	56.250	36.000	+/+	O	O
VESA, 800 x 600	37.879	60.317	40.000	+/+	O	O
VESA, 800 x 600	48.077	72.188	50.000	+/+	O	O
VESA, 800 x 600	46.875	75.000	49.500	+/+	O	O
VESA, 1024 x 768	48.363	60.004	65.000	-/-	O	O
VESA, 1024 x 768	56.476	70.069	75.000	-/-	O	O

Resolution	Horizontal Frequency (kHz)	Vertical Frequency (Hz)	Pixel Clock (MHz)	Sync Polarity (H/V)	Port	
					HDMI IN	DP IN
VESA, 1024 x 768	60.023	75.029	78.750	+/+	O	O
VESA, 1152 x 864	67.500	75.000	108.000	+/+	O	O
VESA, 1280 x 720	45.000	60.000	74.250	+/+	O	O
VESA, 1280 x 800	49.702	59.810	83.500	-/+	O	O
VESA, 1280 x 1024	63.981	60.020	108.000	+/+	O	O
VESA, 1280 x 1024	79.976	75.025	135.000	+/+	O	O
VESA, 1440 x 900	55.935	59.887	106.500	-/+	O	O
VESA, 1600 x 900	60.000	60.000	108.000	+/+	O	O
VESA, 1680 x 1050	65.290	59.954	146.250	-/+	O	O
VESA, 1920 x 1080	166.587	143.981	346.500	+/-	O	O
VESA, 1920 x 1080	185.577	164.957	384.730	+/-	-	O
VESA, 2560 x 1440	88.787	59.951	241.500	+/-	O	O
VESA, 2560 x 1440	182.992	119.998	497.750	+/-	O	O
VESA, 2560 x 1440	222.192	144.000	586.586	+/-	O	O
VESA, 2560 x 1440	256.978	164.835	664.670	+/-	-	O

S28AG70*

Resolution	Horizontal Frequency (kHz)	Vertical Frequency (Hz)	Pixel Clock (MHz)	Sync Polarity (H/V)	Port	
					HDMI IN	DP IN
IBM, 720 x 400	31.469	70.087	28.322	-/+	O	O
MAC, 640 x 480	35.000	66.667	30.240	-/-	O	O
MAC, 832 x 624	49.726	74.551	57.284	-/-	O	O
MAC, 1152 x 870	68.681	75.062	100.000	-/-	O	O
VESA, 640 x 480	31.469	59.940	25.175	-/-	O	O
VESA, 640 x 480	37.861	72.809	31.500	-/-	O	O
VESA, 640 x 480	37.500	75.000	31.500	-/-	O	O
VESA, 800 x 600	35.156	56.250	36.000	+/+	O	O
VESA, 800 x 600	37.879	60.317	40.000	+/+	O	O
VESA, 800 x 600	48.077	72.188	50.000	+/+	O	O
VESA, 800 x 600	46.875	75.000	49.500	+/+	O	O
VESA, 1024 x 768	48.363	60.004	65.000	-/-	O	O
VESA, 1024 x 768	56.476	70.069	75.000	-/-	O	O
VESA, 1024 x 768	60.023	75.029	78.750	+/+	O	O
VESA, 1152 x 864	67.500	75.000	108.000	+/+	O	O
VESA, 1280 x 720	45.000	60.000	74.250	+/+	O	O
VESA, 1280 x 800	49.702	59.810	83.500	-/+	O	O
VESA, 1440 x 900	55.935	59.887	106.500	-/+	O	O
VESA, 1600 x 900	60.000	60.000	108.000	+/+	O	O
VESA, 1680 x 1050	65.290	59.954	146.250	-/+	O	O
VESA, 1920 x 1080	67.500	60.000	148.500	+/+	O	O
VESA, 2560 x 1440	88.787	59.951	241.500	+/-	O	O
VESA, 2560 x 1440	182.992	119.998	497.750	+/-	O	O
VESA, 3840 x 2160	255.000	144.000	1430.0	+/-	O	O

S49AG95*N

Resolution	Horizontal Frequency (kHz)	Vertical Frequency (Hz)	Pixel Clock (MHz)	Sync Polarity (H/V)	Port	
					HDMI IN	DP IN
CEA, 1920 x 1080	135.000	120.000	297.000	+/+	O	O
VESA, 2560 x 1440	182.996	119.998	497.750	+/-	O	O
IBM, 720 x 400	31.469	70.087	28.322	-/+	O	O
MAC, 640 x 480	35.000	66.667	30.240	-/-	O	O
MAC, 832 x 624	49.726	74.551	57.284	-/-	O	O
MAC, 1152 x 870	68.681	75.062	100.000	-/-	O	O
VESA, 640 x 480	31.469	59.940	25.175	-/-	O	O
VESA, 640 x 480	37.861	72.809	31.500	-/-	O	O
VESA, 640 x 480	37.500	75.000	31.500	-/-	O	O
VESA, 800 x 600	35.156	56.250	36.000	+/+	O	O
VESA, 800 x 600	37.879	60.317	40.000	+/+	O	O
VESA, 800 x 600	48.077	72.188	50.000	+/+	O	O
VESA, 800 x 600	46.875	75.000	49.500	+/+	O	O
VESA, 1024 x 768	48.363	60.004	65.000	-/-	O	O
VESA, 1024 x 768	56.476	70.069	75.000	-/-	O	O
VESA, 1024 x 768	60.023	75.029	78.750	+/+	O	O
VESA, 1152 x 864	67.500	75.000	108.000	+/+	O	O
VESA, 1280 x 720	45.000	60.000	74.250	+/+	O	O
VESA, 1280 x 800	49.702	59.810	83.500	-/+	O	O
VESA, 1280 x 1024	63.981	60.020	108.000	+/+	O	O
VESA, 1280 x 1024	79.976	75.025	135.000	+/+	O	O
VESA, 1440 x 900	55.935	59.887	106.500	-/+	O	O
VESA, 1600 x 900	60.000	60.000	108.000	+/+	O	O

Resolution	Horizontal Frequency (kHz)	Vertical Frequency (Hz)	Pixel Clock (MHz)	Sync Polarity (H/V)	Port	
					HDMI IN	DP IN
VESA, 1680 x 1050	65.290	59.954	146.250	-/+	O	O
VESA, 1920 x 1080	67.500	60.000	148.500	+/+	O	O
VESA, 2560 x 1440	88.787	59.951	241.500	+/-	O	O
VESA, 2560 x 1440	356.523	240.000	941.222	+/-	O	O
VESA, 3440 x 1440	87.500	59.973	315.000	+/-	O	O
VESA, 3440 x 1440	177.719	120.000	639.790	+/-	O	O
VESA, 3840 x 1080	66.625	59.968	266.500	+/-	O	O
VESA, 3840 x 1080	137.250	119.974	549.000	+/-	O	O
VESA, 3840 x 1080	291.562	240.000	1166.25	+/-	-	O
Unique Custom Timing, 5120 x 1440	88.826	59.977	469.000	+/-	O	O
Unique Custom Timing, 5120 x 1440	182.955	119.970	966.000	+/-	O	O
Unique Custom Timing, 5120 x 1440	222.159	144.000	1173.000	+/-	O	-
Unique Custom Timing, 5120 x 1440	356.523	240.000	2018.5	+/-	-	O

— 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 08
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 is requested to give 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 the customer requests instructions on how to use another company's product.
- If customer requests instructions on how to use the network or another company's programme.
- If customer requests software installation and setup for the product.
- If a service technician removes/cleans dusts or foreign materials inside of the product.
- If customer requests an installation additionally after purchasing a product through home-shopping or online.

A Product damage caused by customer's fault

Product damage caused by customer's mishandling or wrong repair

If a product damage is caused by;

- External impact or drop.
- Use of supplies or separately sold product unspecified by Samsung.
- Repair from a person besides an engineer of outsourcing service company or partner of Samsung Electronics Co., Ltd.
- Remodeling or repairing the product by customer.
- Using it with incorrect voltage or non-authorised electrical connections.
- Not following the "cautions" in User Manual.

Others

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

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

FreeSync (for AMD graphics card)

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.
- On: Turn on the AMD graphics cards' FreeSync function. You may experience intermittent flickers when playing some games.

Apply the optimum resolution when using FreeSync.

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

— This menu is not available when PC/AV Mode is set to AV. (S28AG70* model only.)

— This menu is not available when PIP Mode is enabled. (S28AG70* model only.)

— This menu is not available when PIP/PBP is enabled. (S49AG95*N model only.)

— The FreeSync function is only enabled in HDMI or DisplayPort mode.
Use the HDMI/DP cable provided by the manufacturer when using FreeSync.

— If the FreeSync function is in use and the text displayed on the PC screen looks blurry or corrupted, resolve the issue by changing the resolution of the PC screen to the recommended resolution.

— If the DisplayPort Ver. is set to 1.1, the FreeSync Premium (S27AG50* model only.) / FreeSync Premium Pro (S28AG70*, S49AG95*N model only.) mode is disabled.

— If the DisplayPort Ver. is set to 1.2, the FreeSync Premium Pro (S28AG70*, S49AG95*N model only.) mode is disabled.

— If you set the HDMI Mode to 1.4, the FreeSync Premium (S27AG50* model only.) / FreeSync Premium Pro (S28AG70*, S49AG95*N model only.) mode is disabled.

— If you set the HDMI Mode to 2.0, the FreeSync Premium Pro mode is disabled. (S28AG70* model only.)

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 Premium (S27AG50* model only.) / FreeSync Premium Pro (S28AG70*, S49AG95*N model only.) mode to Off, 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 Centre.

— If you change the screen resolution while the function is On, the screen may intermittently blank out due to the graphic card. Set FreeSync Premium (S27AG50*, S28AG70* model only.) / FreeSync Premium Pro (S28AG70*, S49AG95*N model only.) 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.

The models in the Graphics 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 Premium (S27AG50* model only.) / FreeSync Premium Pro (S28AG70*, S49AG95*N model only.) Off if you are using a graphics card from a different manufacturer.

— When applying the FreeSync function via the HDMI cable, it may fail to work due to the bandwidth limitation of certain AMD graphics card.

- Radeon™ RX Vega series
- Radeon™ RX 500 series
- Radeon™ RX 400 series
- Radeon™ R9/R7 300 series (excluding R9 370/X, R7 370/X, R7 265)
- Radeon™ Pro Duo (2016 edition)
- Radeon™ R9 Nano series
- Radeon™ R9 Fury series
- Radeon™ R9/R7 200 series (excluding R9 270/X, R9 280/X)

Adaptive-Sync (for NVIDIA graphics card)

Adaptive-Sync 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 Adaptive-Sync menu items on the product may vary, depending on the product model and compatibility with the NVIDIA graphics card.

- Off: Disable Adaptive-Sync.
- On: Enable the Adaptive-Sync feature with a higher screen frame rate. Screen tearing (abnormal sync between the screen and content) is reduced in this mode. Note, however, that intermittent screen flickering may occur during gameplay.

If you use the Adaptive-Sync 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, or visit the NVIDIA website to check your graphics driver's version and update it with the latest one.
- When using the Adaptive-Sync function, the screen may flicker due to the fluctuation of 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 product may be degraded.

— If you encounter any issues when using the function, contact the Samsung Service Centre.

— When the resolution is changed while setting Adaptive-Sync, the screen tearing can happen intermittently. Set Adaptive-Sync to Off and change the resolution.

— The function is unavailable in the devices (e.g. AV devices) that have no NVIDIA graphics card. If the function is applied, the screen may have malfunction.

— Depending on the source device, 4K output from an AV device is supported only when the Adaptive-Sync is Off.

— Use the DisplayPort cable provided by the manufacturer when using Adaptive-Sync.

— Install the latest NVIDIA graphics card driver to enable Adaptive-Sync.

— Use Window 10 or higher to enable Adaptive-Sync.

— This menu is not available when PC/AV Mode is set to AV.

— This menu is not available when PIP Mode is enabled. (S28AG70* model only.)

— If the Adaptive-Sync function is in use and the text displayed on the PC screen looks blurry or corrupted, resolve the issue by changing the resolution of the PC screen to the recommended resolution.

— If the DisplayPort Ver. is set to 1.1, the Adaptive-Sync mode is disabled.

— If the DisplayPort Ver. is set to 1.2 the Adaptive-Sync mode is disabled.

— HDMI port only supports AMD FreeSync Premium (S27AG50* model only.) / FreeSync Premium Pro (S28AG70*, S49AG95*N model only.), so even if you connect NVIDIA graphics card to HDMI port, it will be indicated as FreeSync Premium (S27AG50* model only.) / FreeSync Premium Pro (S28AG70*, S49AG95*N model only.) on OSD.

— To enable Adaptive-Sync through HDMI, use the NVIDIA graphics card that supports HDMI 2.1 (S28AG70* model only.).

— If you set the HDMI Mode to 1.4 or 2.0, the Adaptive-Sync mode is disabled. (S28AG70* model only.)

— If you set the HDMI Mode to 1.4, the Adaptive-Sync mode is disabled. (S49AG95*N model only.)

The models in the Graphics Cards list supports Adaptive-Sync

Adaptive-Sync can only be used with specific NVIDIA graphics card models. Refer to the following list for supported graphics cards:

Make sure to install the latest official graphics drivers from NVIDIA that support Adaptive-Sync.

— For additional NVIDIA graphics card models that support the Adaptive-Sync feature, visit the official NVIDIA website.

— Select Adaptive-Sync Off if you are using a graphics card from a different manufacturer.

— When applying the Adaptive-Sync function via the DisplayPort cable, it may fail to work due to the bandwidth limitation of certain NVIDIA graphics card.

- GeForce GTX 10 series
- GeForce GTX 30 series
- GeForce RTX 20 series

WEEE

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

(Applicable in countries with separate collection systems)

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

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

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