

# SAMSUNG KIOSK User Manual

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## KM24A

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The colour and the appearance may differ depending on the product, and the content in the manual is subject to change without prior notice to improve the performance.

Recommended hours of use per day of this product is under 16 hours. If the product is used for longer than 16 hours a day, the warranty may be void.

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[For India Only]

This product is RoHS compliant.

For more information on safe disposal and recycling visit our website [www.samsung.com/in](http://www.samsung.com/in) or contact our Helpline numbers -

1800 40 SAMSUNG (1800 40 7267864) (Toll-Free)

1800 5 SAMSUNG (1800 5 7267864) (Toll-Free)

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# Chapter 01

## Before Using the Product

### Safety Precautions

The following safety instructions are to ensure your personal safety and prevent property damage. Please read the following to ensure the proper use of the product.

#### Safety symbols

Symbol	Name	Meaning
	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.
	Prohibition	Do NOT attempt.
	Instruction	Follow directions.

#### 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.

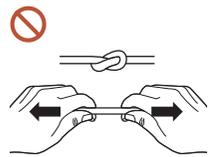
## Electricity and Safety

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

### Warning



Do not touch the power plug with wet hands.  
Otherwise, an electric shock may result.



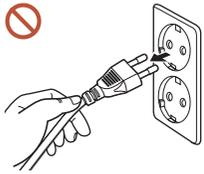
Do not bend or pull the power cable with force. Be careful not to leave the power cable under a heavy object.  
Product failure, an electric shock or fire may result from a damaged cable.



Do not connect multiple products to a single power socket.  
Overheated power sockets may cause a fire.

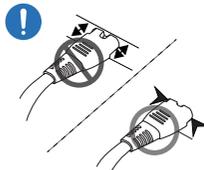
-  Insert the power plug all the way in so it is not loose.  
An unsecure connection may cause a fire.
-  Clean any dust around the pins of the power plug or the power socket with a dry cloth.  
A fire may result.
-  Connect the power plug to a grounded power socket. (Except for devices that do not provide grounding)  
An electric shock or injury may result.
-  Do not use a damaged power plug or a loose power socket.  
An electric shock or fire may result.

## Caution



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

An electric shock or fire may result.



When connecting the power plug to the port, be sure to connect it completely.

If the power plug is not completely connected to the port, the plug may be unexpectedly disconnected, or there is a risk of overheating due to overcurrent, leading to safety accidents.

 Only use the power cable provided with your product by Samsung. Do not use the power cable with other products.

An electric shock or fire may result.

 Keep the power socket where the power cord is connected unobstructed.

When a problem occurs with the product, the power cord must be unplugged to completely cut off power to the product. Note that the product is not completely powered down by using only the power button on the remote.

 Do not disconnect the power cable while the product is being used.

The product may become damaged by an electric shock.

 You can only assemble the power strip provided with the kiosk. Using any other power strip cannot guarantee your safety.

 Plug the unused outlets in the power strip with the provided cover.

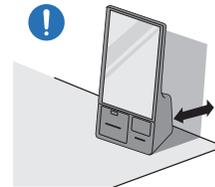
## Installation

### Warning



Before moving the product, turn off the power switch and disconnect the power cable and all other connected cables.

Damage to the cable may cause a fire or electric shock.



When installing the product, keep it at a distance from the wall so that it is well ventilated.

An increased internal temperature may cause a fire.



Do not install the product in a poorly ventilated space such as bookcase or closet.

An increased internal temperature may cause a fire.



Keep the plastic packaging out of the reach of children.

Children's misuse of the plastic packaging may cause suffocation.



Do not install the power cable (DC power supply) and the product near heat sources.

(Candles, mosquito repellents, cigarettes, sprays, heating devices, places exposed to direct sunlight(Except for Outdoor products), and more)



**When installing the product, fix it firmly so that it does not fall.**

If the product is not fixed firmly and a child touches the product while playing, the product may fall, causing damage to the product or injury to the child.



**Do not install the product in a kitchen or near a kitchen counter.**

Edible oil or oil vapor can damage or deform the product.



**Have a technician install the wall-mount hanger.**

Installation by an unqualified person can result in an injury. Only use approved cabinets.



**If the product is installed in an unusual location, the surrounding environment may cause a serious quality problem. Therefore, be sure to contact Samsung Customer Service Centre before installation.**

(Places where many fine dusts are generated, places where chemicals are used, places with too high or low temperatures, places with a lot of moisture or water, transportation equipment such as vehicles, airports and stations used continuously for a long time, and more)



**Caution**



**Do not drop the product while moving.**

The product may fall, causing personal injury or product damage.



**Do not lay down the product on its front.**

The screen may become damaged.



**Prolonged exposure to direct sunlight may discolour the surface of the screen display.**

## Operation

### Warning



If the product generates a strange noise, a burning smell, or smoke, unplug the power plug immediately and contact your Samsung Customer Service Centre.

An electric shock or fire may result.



Keep the remote control batteries and the small accessories out of the reach of children. Ensure children do not swallow any of them.

If children have had the battery in their mouths, consult your doctor immediately.



If the product is dropped or its appearance is damaged, turn off the power switch and disconnect the power cord. Then contact Samsung Customer Service Centre.

Continued use can result in an electric shock or a fire.



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

Product failure, an electric shock or fire may result from a damaged cable.



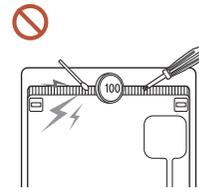
Ensure the vents are not blocked by tablecloths or curtains.

An increased internal temperature may cause a fire.



Do not apply an impact to the product.

- The screen display may be damaged.
- An electric shock or fire may result.



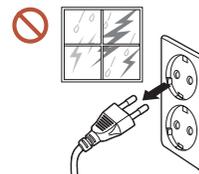
Do not insert metallic objects (chopsticks, coins, hairpins, etc) or objects that burn easily (paper, matches, etc) into the product (via the vent or input/output ports, etc).

- If foreign substances enter the product, be sure to power off the product and disconnect the power cord. Then contact Samsung Customer Service Centre.
- Product failure, an electric shock or fire may result.



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

- If foreign substances such as water enter the product, be sure to disconnect the power cord. Then contact Samsung Customer Service Centre.
- Product failure, an electric shock or fire may result.



During a lightning or thunderstorm, power off the product and disconnect the power cord.

An electric shock or fire may result.



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.



Do not hang on or climb on the product.

- The product may fall, causing personal injury or even death.
- Be especially careful that children do not hang on or climb on the product.



While the power plug is plugged into a power socket, do not insert a chopstick or other conductor into a remaining power socket. Also, after disconnecting the power plug from the power socket, do not touch the pins of the plug immediately.

Otherwise, an electric shock may result.



There is a high voltage inside the product. Never disassemble, repair or modify the product yourself.

- Contact Samsung Customer Service Centre for repairs.
- An electric shock or fire may result.



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

Sparks can cause an explosion or fire.



Do not use humidifiers or stoves around the product.

An electric shock or fire may result.



### Caution



Do not place heavy objects on the product.

Product failure or personal injury may result.



When you do not use the product for a long time due to vacation or other reason, disconnect the power cord from the power socket.

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.



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

Eye fatigue will be relieved.



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

When you do not use the product for a long time, activate power-saving mode or set the screen saver to moving-picture mode.



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

An explosion or fire may result.



Do not watch the product screen too closely and continuously for a long time.

Your eyesight may deteriorate.



Do not lift or move the product when it is in operation.



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

## Cleaning

### Warning

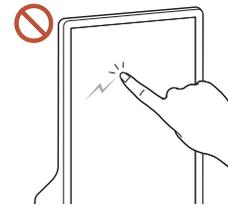


Do not spray water or cleaner directly on the product.

- The product's surface may be damaged, or the markings may be erased.
- An electric shock or fire may result.

### Caution

- ❗ When cleaning, be sure to disconnect the power plug.
- ❗ Wipe the surface with a slightly wet, soft cloth, and then wipe with a dry cloth.



Wipe gently with a soft and dry cloth such as superfine fibers or cotton flannels to prevent scratches because the surface of the product and the screen display are vulnerable to scratches.

- The product's surface may be damaged, or the markings may be erased.
- The product's surface or the screen display can be easily scratched with foreign substances.
- Do not scratch the screen with nails or sharp objects. Scratches may leave marks or damage the product.
- Removing a sticker attached on the screen may leave residues. Clean the residues before watching the screen.
- Do not strongly press and rub the product. Damage to the product may result.

❗ If you need to clean the glass part of the touchscreen models, apply IPA (Isopropyl Alcohol, 70% or less) on a smooth dry cloth (such as superfine fibers or cotton flannels), and gently wipe with it.

- IPA (Isopropyl Alcohol) is a colourless and flammable drug that can cause eye damage when it gets in the eye, and it is harmful to the human body. Please handle with care.
- If you use IPA (Isopropyl Alcohol) to clean any other part than the glass parts, the product's exterior may be discoloured or cracked, the surface of the panel may be peeled off, or the marking may be erased.

❗ Do not apply chemicals containing alcohol, solvent, or surfactant such as wax, benzene, thinner, pesticide, air freshener, lubricant, or cleaner to the product. The product's exterior may be discoloured or cracked, the surface of the panel may be peeled off, or the markings may be erased.



Due to the characteristics of high-glossy products, using a UV humidifier nearby may create white-coloured stains on the product.

- ⊘ Contact Samsung Customer Service Centre if the inside of the product needs cleaning (service fee will be charged).

# Chapter 02

## Preparations

### Checking the Components

- 
- ✎ Contact the vendor where you purchased the product if any components are missing.
  - ✎ The pictures may look different from the actual components.
  - ✎ The RS232C adapter can be used to connect to another monitor using the D-SUB (9-pin) type RS232C cable.

#### Display



Quick setup guide

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Warranty card

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Regulatory guide

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Power cord

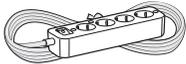
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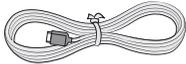
RS232C adapter

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# Connection Box



Power strip



OCM cable



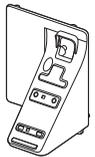
Screw(M4, L12) x 7



Screw(M3, L5) x 11



Sheet cover x 2



EFT Terminal cover holder



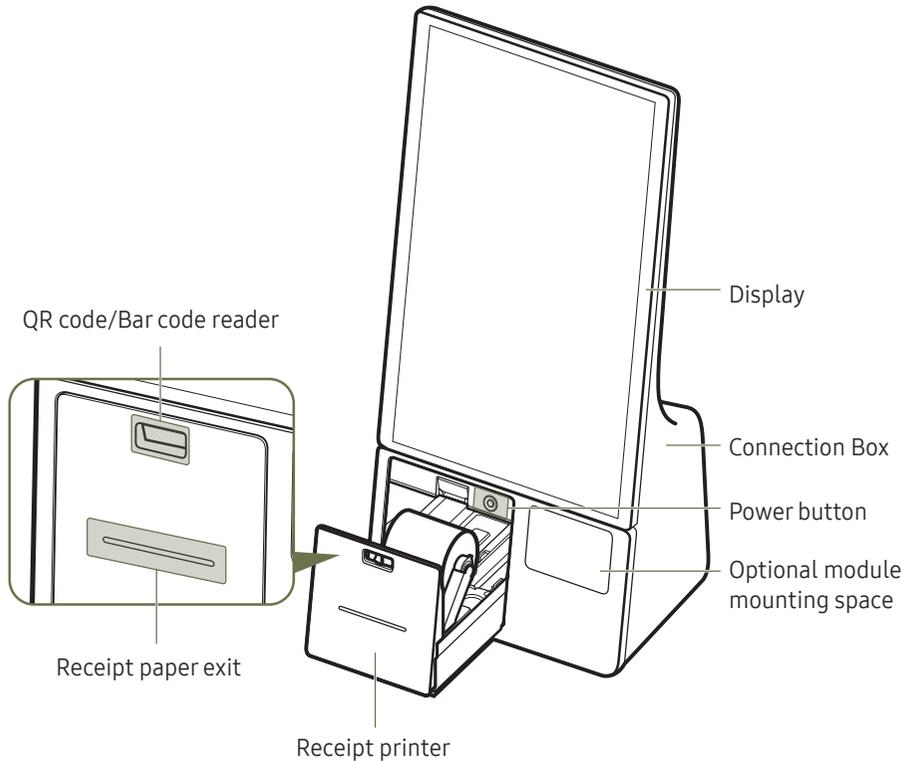
Screw(M3, L8) x 2



EFT Terminal holder guide

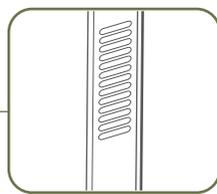
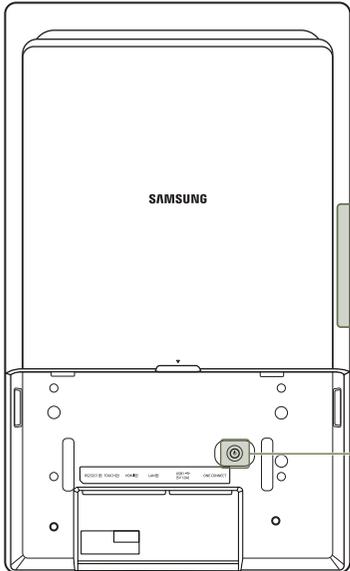
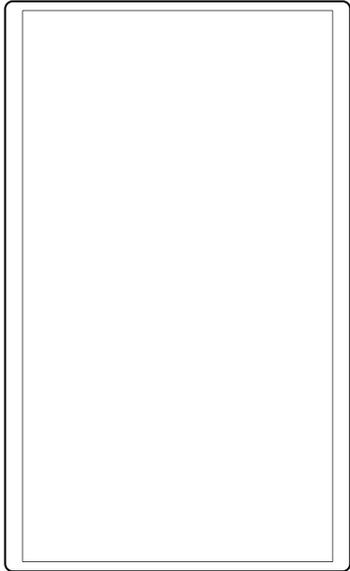
## Parts

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



Parts	Description
Display	Displays the Kiosk App or the screen of the external device.
Connection Box	Connection Box includes all the payment related equipment.
QR code/bar code reader	<p>A sensor for QR code and bar code recognition.</p> <p> Optimum operation condition</p> <ul style="list-style-type: none"> <li>- Distance from the sensor: 100 ~ 150 mm</li> <li>- Bar code length : 30 ~ 60 mm</li> <li>- QR code size : (25 ~ 30 mm) x (25 ~ 30 mm)</li> </ul>
Receipt printer	Prints receipt.
Power button	<p>Turn on or off the product.</p> <p> Press the button shortly to turn on the product.</p> <p> Press and hold the button to turn off the product.</p>
Optional module mounting space	<p>An extra space for mounting optional payment module.</p> <ul style="list-style-type: none"> <li>• EFT Terminal (Terminal cover holder is provided for this module)</li> </ul> <p> Samsung does not provide or sell any optional modules.</p>

## Display



Speaker



Power button

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

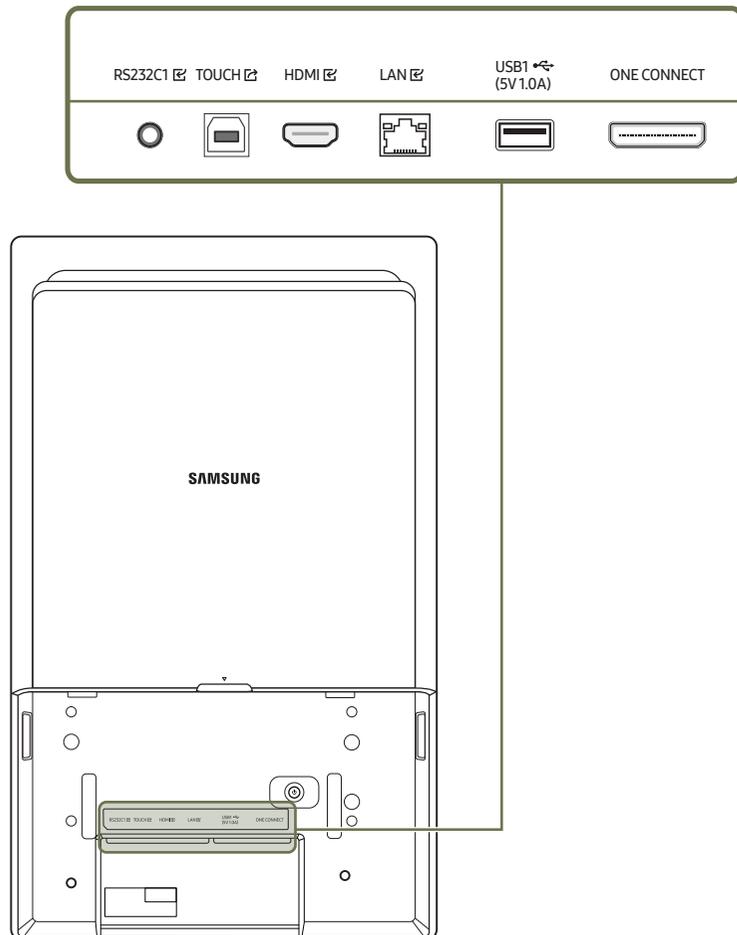
 This product does not support use of the remote control.

Parts	Description
Power button	Turns the product on or off. <ul style="list-style-type: none"><li>• Press the button shortly to turn on the product.</li><li>• Press and hold the button to turn off the product.</li></ul>

## Ports

### Display

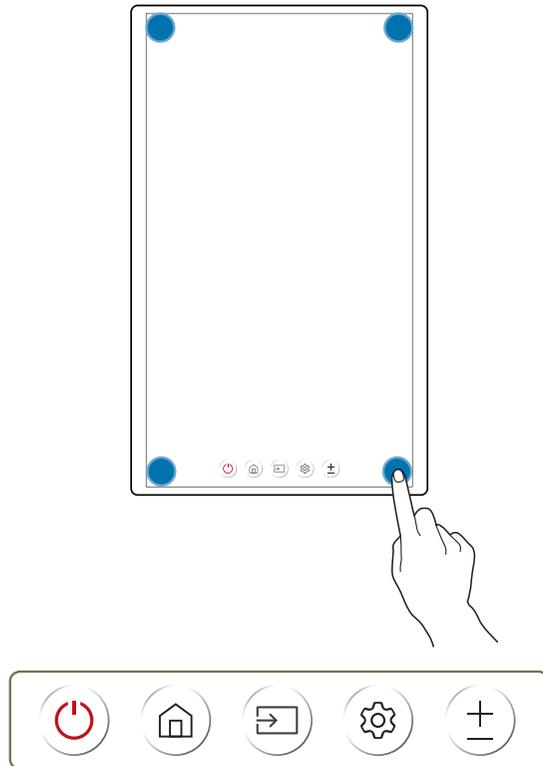
 The colour and the appearance may differ depending on the product, and specifications are subject to change without prior notice to improve the performance.



Ports	Description
RS232C1 	Connects to MDC using an RS232C adapter.
TOUCH 	Connects to a PC using a USB cable (for TOUCH OUT) to enable touch functions.
HDMI 	Connects to a source device using an HDMI cable.
LAN 	Connects to MDC and the Internet using a LAN cable. (10/100 Mbps)  Use Cat7(*STP Type) cable for the connection. *STP: Shielded Twist Pair.
USB  (5V 1.0A)	Connects to a USB device.  The USB ports on the product accept a maximum constant current of 1.0A. If the maximum value is exceeded, USB ports may not work.
ONE CONNECT	Connects the display and the Connection Box using an OCM cable.

# Administrator menu

- Once the product turns on, tap and hold any of the spots indicated in the following figure to open the Administrator menu.
- You may have to enter the PIN depending on the product status.

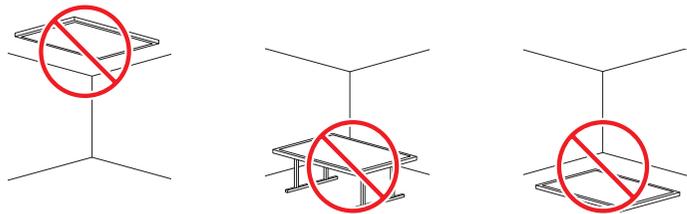


Button	Description
 <b>Power Off</b>	You can turn off or restart the product. <ul style="list-style-type: none"><li>Tap <b>Power Off</b>  from the Administrator menu, and then select <b>Power Off</b> or <b>Restart</b>.</li></ul>
 <b>Home</b>	You can enter the <b>Kiosk Home</b> screen. <ul style="list-style-type: none"><li>Tap <b>Home</b>  from the Administrator menu.</li></ul>
 <b>Source</b>	You can select an input source. <ul style="list-style-type: none"><li>Tap <b>Source</b>  from the administrator menu.</li></ul>
 <b>Settings</b>	You can access the OSD menu to adjust functions and settings of the product. To change settings, select a menu item. <ul style="list-style-type: none"><li>Tap <b>Settings</b>  from the Administrator menu.</li></ul>
 <b>Volume</b>	You can adjust the volume of the product. <ul style="list-style-type: none"><li>Tap <b>Volume</b>  from the Administrator menu.</li></ul>

## Before Installing the Product (Installation Guide)

This product can be installed and used with the exclusive Samsung stand sold separately by Samsung Electronics, and also can be wall-mounted.

 Do not use this model installed on a ceiling, floor, or table.



## Ventilation

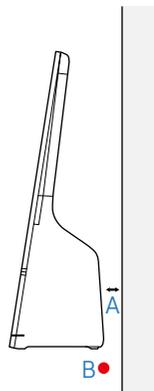
 Contact Samsung Customer Service Centre for further details.

## Installation on a Perpendicular Wall

A Minimum 15 mm

B Ambient temperature: 35 °C or less

 When installing the product on a perpendicular wall, allow at least 15 mm of space between the product and wall surface for ventilation and ensure that the ambient temperature is kept below 35 °C.



## Installation on an Indented Wall

A Minimum 15 mm

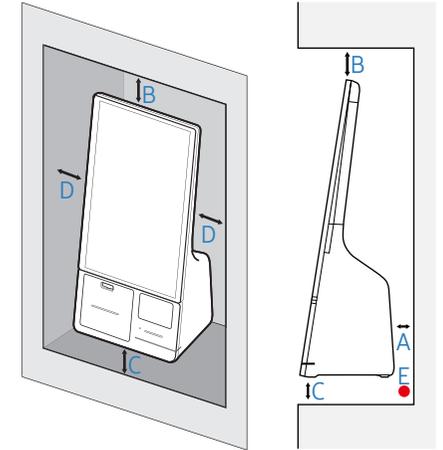
B Minimum 25 mm

C Minimum 25 mm

D Minimum 0 mm

E Ambient temperature: 35 °C or less

 When installing the product on an indented wall, allow minimum space between the product and walls as indicated in the figure for ventilation, and ensure that the ambient temperature is kept below 35 °C.



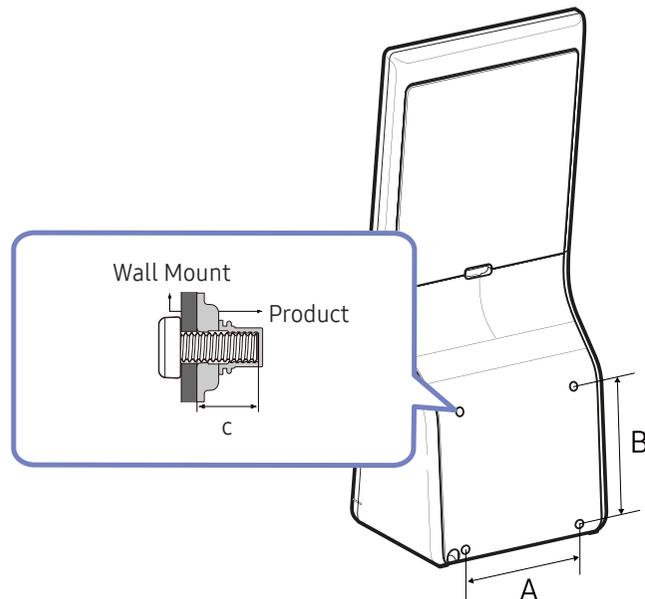
# Installing the Wall Mount

## Installing the Wall Mount

- The wall mount kit (sold separately) allows you to mount the product on the wall.
- The provided image is only for reference. For detailed information on installing the wall mount, see instructions provided with the wall mount.
- We recommend you contact a technician for assistance when installing the wall mount bracket.
- Samsung is not responsible for any damage or injury caused to the product, you or other people by installing the product without expert help.

## Wall Mount Kit Specifications (VESA)

 Install your wall mount on a solid wall perpendicular to the floor. To install the product on the unauthorized wall mount kit, contact the nearest agency. If you install the product on a slanted wall, it may fall and result in severe personal injury.



- Do not use screws that are longer than the standard length or do not comply with the VESA standard screw specifications. Screws that are too long may cause damage to the inside of the product.
- For wall mounts that do not comply with the VESA standard screw specifications, the length of the screws may differ depending on the wall mount specifications.
- Do not fasten the screws too firmly. This may damage the product or cause the product to fall, leading to personal injury. Samsung is not liable for these kinds of accidents.
- Samsung is not liable for product damage or personal injury when a non-VESA or non-specified wall mount is used or the consumer fails to follow the product installation instructions.
- Do not mount the product at more than a 15 degree tilt.
- Always have at least two people mount the product on a wall.
- Standard dimensions for wall mount kits are shown in the table below.

Model name	VESA standard (A * B) (mm)	C (mm)	Standard Screw	Quantity
KM24A	200 x 200	7.0 (Min) ~ 9.0 (Max)	M6	4

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

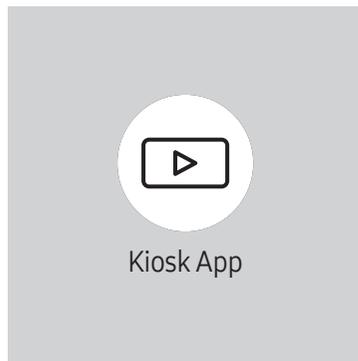
# Chapter 03

## Kiosk Home

You can tap and hold one of four corners of the display to open the Administrator menu, and then tap **Home** to access the Kiosk Home.

### Kiosk App

Administrator menu → **Home** → **Kiosk App**



 The displayed image may differ depending on the model.

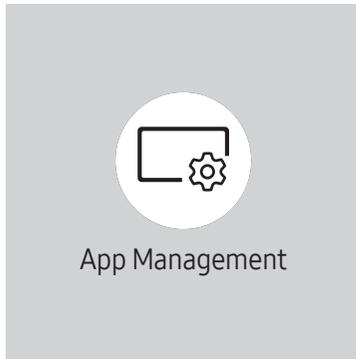
Launch the installed Kiosk App.

If you have not installed a Kiosk App, the **App Management** menu opens to proceed with the app installation.

 This function may not be supported depending on the model.

# App Management

Administrator menu → Home → App Management



 The displayed image may differ depending on the model.

You can install or uninstall the Kiosk App, or check the app information.

-  For details on how to use the **App Management** function, contact the dealer from whom you purchased the product.
-  This function may not be supported depending on the model.

## App Information

You can check the version of the installed app, and check the update information.

## Installing the Kiosk App

You can install the Kiosk App from the web server or the USB device.

-  If you already have a Kiosk App installed, you can uninstall it and then re-install the new app.

### Install from Web Server

Select an app provider from the list or manually enter the URL of the web server to install a Kiosk App.

-  When you enter the URL of the web server manually, you must enter both **Install URL** and the **Update Domain**.

### Install from USB Device

Select this to install the Kiosk App install file stored in the USB device.

### Uninstall Kiosk App

You can uninstall the Kiosk App.

- If you want to reuse the data when you reinstall the app in the future, select **Keep**. Select **Delete** to remove all data when uninstalling the app.

## Developer Mode

Run the Developer Mode.

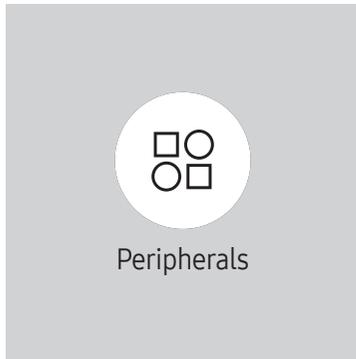
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# Peripherals

You can check the information of the devices connected to each USB port.

 This function may not be supported depending on the model.

Administrator menu → Home → Peripherals

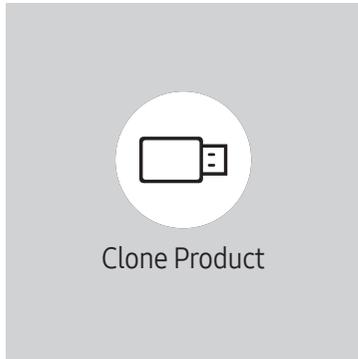


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 The displayed image may differ depending on the model.

# Clone Product

Administrator menu → Home → Clone Product



 The displayed image may differ depending on the model.

Export settings on the product to an external storage device. You can also import settings from an external storage device.

This option is useful when assigning the same settings to several products.

## When a duplicate file is not found on the external storage device

- 1 Connect the external storage device, then run the **Clone Product** function.
- 2 The **No cloning file found on the external storage device. Export this device's settings to the external storage device?** message appears.
- 3 Select **Export** to export the settings.

## When a duplicate file is found on the external storage device

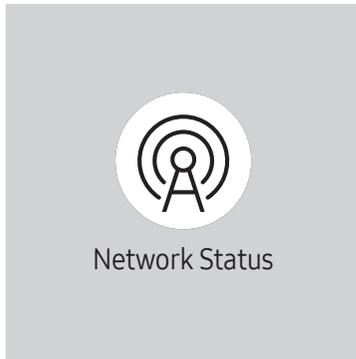
- 1 Connect the external storage device, then run the **Clone Product** function.
- 2 The **Cloning file found. Please select an option** message appears.  
Select **Import from External Storage** or **Export to External Storage**.
  - **Import from External Storage:** Copy settings saved on an external storage device to the product.  
 After configuration is complete, the product is rebooted automatically.
  - **Export to External Storage:** Copy settings on the product to an external storage device.

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## Network Status

Check the current network and Internet connection.

Administrator menu → Home → Network Status



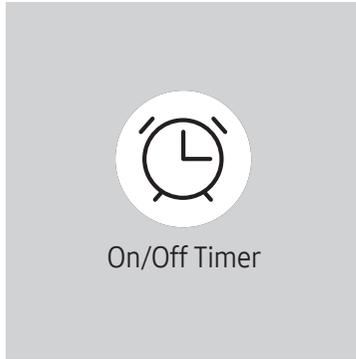
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 The displayed image may differ depending on the model.

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## On/Off Timer

Administrator menu → Home → On/Off Timer



 The displayed image may differ depending on the model.

 You must set **Clock Set** before you can use this feature.

## On Timer

Set **On Timer** so that your product turns on automatically at a time and on a day of your choice.

The power is turned on with the specified volume or input source.

**On Timer:** Set the on timer by making a selection from one of the seven options. Ensure you set the current time first. (**On Timer1** ~ **On Timer7**)

- **Setup:** Select **Off**, **Once**, **Everyday**, **Mon~Fri**, **Mon~Sat**, **Sat~Sun** or **Manual**.  
If you select **Manual**, you can choose the days you want **On Timer** to turn on your product.
  - The check mark indicates days you've selected.
- **Time:** Set the hour and minute.
- **Volume** (For models with built-in speakers): Set the desired volume level.
- **Source:** Select the input source of your choice.

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## Off Timer

Set the off timer (**Off Timer**) by making a selection from one of the seven options. (**Off Timer1 ~ Off Timer7**)

- **Setup:** Select **Off**, **Once**, **Everyday**, **Mon~Fri**, **Mon~Sat**, **Sat~Sun** or **Manual**.  
If you select **Manual**, you can choose the days you want **Off Timer** to turn off your product.
  - The check mark indicates days you've selected.
- **Time:** Set the hour and minute.

## Holiday Management

Timer will be disabled during a period specified as a holiday.

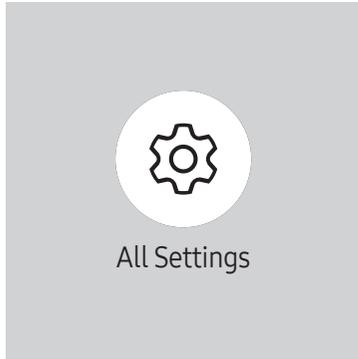
- **Add Holiday:** Specify the period you want to add as a holiday.  
Select the start and end dates of the holiday you want to add using the ▲/▼ buttons, and click the **Done** button.  
The period will be added to the list of holidays.
  - **Start Date:** Set the start date of the holiday.
  - **End Date:** Set the end date of the holiday.
- **Delete:** Delete selected items from the list of holidays.
- **Edit:** Select a holiday item and then change the date.
- **Set Applied Timer:** Set the **On Timer** and **Off Timer** to not activate on public holidays.
  - Select the **On Timer** and **Off Timer** settings you do not want to activate.
  - The selected **On Timer** and **Off Timer** will not activate.

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## All Settings

You can access the OSD menu to adjust functions and settings of the product.

Administrator menu → Home → All Settings



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 The displayed image may differ depending on the model.

# Chapter 04

## Menu

### Picture

2nd	3rd	Description
<b>Backlight / Brightness / Contrast / Sharpness</b>		Your product has several options for adjusting picture quality.  You can adjust and store settings for each external device you have connected to an input on the product.  Lowering picture brightness reduces power consumption.
<b>Colour Temperature</b>		It sets colour temperature. The value and temperature increase simultaneously, so the ratio of blue colour rises. (Range: 2800K~16000K)  Enabled when <b>Colour Tone</b> is set to <b>Off</b> .
<b>Advanced Settings</b>		Configure advanced picture settings to create your preferred picture.
	<b>Picture Enhancer</b>	Displays enhanced colour and sharpness.
	<b>HDR+ Mode</b> or <b>HDR10+ Mode</b>	Automatically provide an optimal HDR effect based on the video source.  This function may not be supported depending on the model.
	<b>Colour</b>	Adjust the colour saturation levels. Colour saturation intensifies as the value nears 100. (Range: 0~100)
	<b>Tint (G/R)</b>	Adjust the ratio of green to red tint levels. Increasing values intensifies the saturation of red and green colours. (Range: 0~50)

2nd	3rd	Description
Advanced Settings	White Balance	<p>Adjust the colour temperature of the picture so that white objects appear brighter.</p> <p> This function may not be supported depending on the model.</p> <ul style="list-style-type: none"> <li>• <b>2 Point</b> Adjust red, green, and blue luminosity levels in two sections for precise white balance optimization.</li> <li>• <b>20 Point Settings</b> Controls the white balance in 20 point interval by adjusting the red, green, and blue brightness. <ul style="list-style-type: none"> <li>– <b>20 Point</b> Adjust red, green, and blue luminosity levels in twenty sections for precise white balance optimization.</li> </ul> </li> </ul> <p> Some external devices may not support this function.</p>
	Gamma	<p>Adjust the mid-range brightness of the picture.</p> <p> <b>Gamma</b> settings <b>HLG</b>, <b>ST.2084</b>, and <b>BT.1886</b> may change depending on the input video settings. For models with the <b>HDR+ Mode</b> support, the Gamma settings <b>HLG</b>, <b>ST.2084</b>, and <b>BT.1886</b> may change depending on the input video and <b>HDR+ Mode</b> settings. If <b>HDR+ Mode</b> is set to Off, <b>HLG</b>, <b>ST.2084</b>, and <b>BT.1886</b> settings may be available depending on the input video. To adjust <b>S Curve</b>, set <b>HDR+ Mode</b> to Off.</p> <ul style="list-style-type: none"> <li>• <b>HLG / ST.2084 / BT.1886 / S Curve</b> Adjust the <b>HLG</b>, <b>ST.2084</b>, <b>BT.1886</b>, <b>S Curve</b> levels of the picture.</li> </ul> <p> Available options may vary depending on the connected device.</p>
	Contrast Enhancer	Automatically balance the contrast to prevent excessive differences between bright and dark areas.
	Black Tone	Select the black level to adjust the screen depth.
	Flesh Tone	Adjust the flesh tone colour by increasing or decreasing red levels.
	RGB Only Mode	Fine-tune the saturation and tint of the red, green, and blue colour channels.

2nd	3rd	Description
Advanced Settings	Colour Space Settings	Configure colour space settings to refine the spectrum of colours on your screen. <ul style="list-style-type: none"> <li> <b>Colour Space</b>                Choose a colour space.               <ul style="list-style-type: none"> <li> To adjust <b>Colour, Red, Green, Blue</b> and <b>Reset</b>, set <b>Colour Space</b> to <b>Custom</b>.</li> </ul> </li> </ul>
	Motion Lighting	Reduces power consumption by reducing screen brightness when the picture on the screen is in motion.
Picture Options	Colour Tone	Select the colour tone that best suits your viewing preferences.
	Digital Clean View	Reduces the noise of the picture to avoid distracting flickering.
	HDMI Black Level	Adjust the black level to optimize the HDMI picture brightness and contrast.
	Film Mode	Make frame transitions from older video sources smoother. This function is only available when the input signal is TV, AV, Component (480i, 1080i), or HDMI (1080i).
	Dynamic Backlight	Automatically adjust the backlight to provide the best possible screen contrast under the current conditions.
Apply Picture Settings		Apply the picture settings to all external devices connected to the device or to the current source only.
Reset Picture		Restore all picture settings to the factory default.

## OnScreen Display

2nd	3rd	Description
Display Orientation	Source Content Orientation	Rotate the product screen.  This function may not be supported depending on the model.
	Aspect Ratio	Set the rotated screen to be either full screen or original.  Available only when <b>Source Content Orientation</b> is set to <b>Portrait</b> .
Screen Protection	Auto Protection Time	If the screen displays a still image for a certain period of time you define, the product activates the screen saver to prevent the formation of burnt in ghost images on the screen.
	Screen Burn Protection	Screen Burn Protection option prevents and reduce pixel burn. Enable the <b>Screen Burn Protection</b> function. <ul style="list-style-type: none"> <li><b>Timer</b> You can set the timer for <b>Screen Burn Protection</b>. The <b>Screen Burn Protection</b> feature stops automatically after a specified period of time.</li> <li><b>Immediate Display</b> Select the screen saver you want to display immediately.</li> </ul>
Message Display	Source Info	Select whether to display the source OSD when the input source changes.
	No Signal Message	Select whether to display the no-signal OSD when no signal is detected. The message No Cable Connected will appear if no source device is connected.
	MDC Message	Select whether to display the MDC OSD when the product is controlled by the MDC.
	Download Status Message	Select to display the status when downloading content from a server or other device.
Language		Set the menu language. Select the desired language from the list.
Reset OnScreen Display		Restore all the values under <b>Settings</b> to the default when the product was purchased.

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## Sound

2nd	3rd	Description
<b>Sound Mode</b>		You can select a sound mode to suit your personal preferences.
<b>Equalizer</b>		Adjust the equalizer to customize the volume and pitch, and enhance the richness of the sound output.  Available only when <b>Sound Mode</b> is set to <b>Standard</b> .
<b>Auto Volume</b>		Automatically adjusts the volume level when you change video sources or content so the level remains the same.  To use the volume control of a connected source device, set <b>Auto Volume</b> to <b>Off</b> .
<b>Reset Sound</b>		Reset all sound settings to the factory defaults.

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## Network

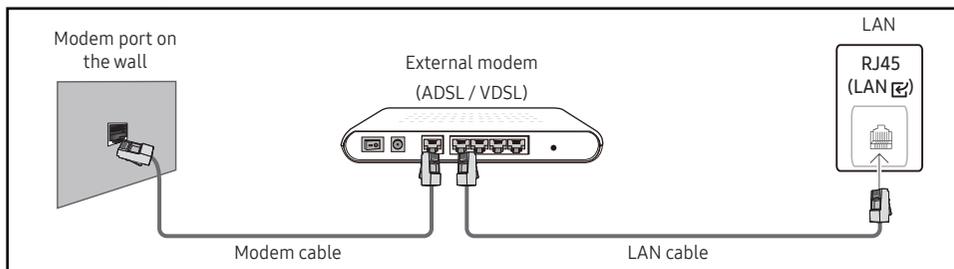
2nd	3rd	Description
<a href="#">Network Status</a>		You can check the current network and Internet status.
<a href="#">Open Network Settings</a>		Configure network settings to connect to an available network.
	<a href="#">Network Type</a>	 <a href="#">Network Type</a> menu may not be available in Wired models. Configure the network connection mode.

## Network Settings (Wired)

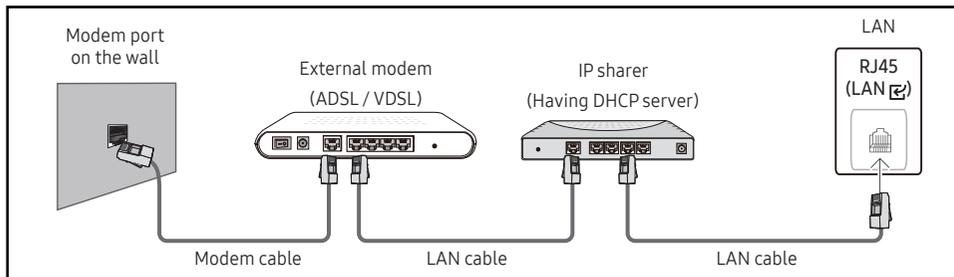
### Connecting to a Wired Network

There are three ways to attach your product to your LAN using cable.

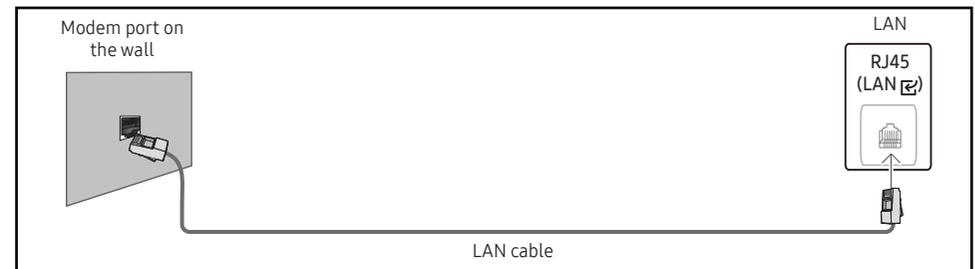
- You can attach your product to your LAN by connecting the LAN port on the back of your product to an external modem using a LAN cable. See the diagram below.



- You can attach your product to your LAN by connecting the LAN port on the back of your product to an IP Sharer which is connected to an external modem. Use LAN cable for the connection. See the diagram below.



- Depending on how your network is configured, you may be able to attach your product to your LAN by connecting the LAN port on the back of your product directly to a network wall outlet using a LAN cable. See the diagram below. Note that the wall outlet is attached to a modem or router elsewhere in your house.



If you have a Dynamic Network, you should use an ADSL modem or router that supports the Dynamic Host Configuration Protocol (DHCP).

Modems and routers that support DHCP automatically provide the **IP Address**, **Subnet Mask**, **Gateway**, and DNS values your product needs to access the Internet so you do not have to enter them manually. Most home networks are Dynamic Networks. Some networks require a Static IP address.

If your network requires a Static IP address, you must enter the **IP Address**, **Subnet Mask**, **Gateway**, and DNS values manually on your product **IP Settings** when you set up the network connection. To get the **IP Address**, **Subnet Mask**, **Gateway**, and DNS values, contact your Internet Service Provider (ISP).

If you have a Windows computer, you can also get these values through your computer.

- You can use ADSL modems that support DHCP if your network requires a Static IP address.
- ADSL modems that support DHCP also let you use Static IP addresses.

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Set the network connection to use Internet services such as perform software upgrades.

## Automatic Open Network Settings (Wired)

Connect to the network using a LAN cable.

Make sure a LAN cable is connected first.

### How to set up automatically

- 1 Set **Network Type** to **Wired** from the **Open Network Settings** page.
- 2 The network test screen appears and verifies the network connection.  
When the connection has been verified, the “**Success! Your device is connected to the Internet. If you have any problems using online services, please contact your Internet service provider.**” message appears.
  -  If the connection process fails, check the LAN port connection.
  -  If the automatic process cannot find the network connection values or if you want to set the connection manually, go to the next section(Manual Open Network Settings (Wired)).

## Manual Open Network Settings (Wired)

Offices may use static IP addresses.

If this is the case, ask the network administrator for the **IP address, Subnet Mask, Gateway** and DNS server address. Enter these values manually.

### Getting the Network Connection Values

To view the Network connection values on most Windows computers, follow these steps.

- 1 Right click the Network icon on the bottom right of the screen.
- 2 In the pop-up menu that appears, click Status.
- 3 On the dialog that appears, click the **Support** tab.
- 4 On the **Support** Tab, click the **Details** button. The Network connection values are displayed.
  -  The path to the settings depends on the installed OS.

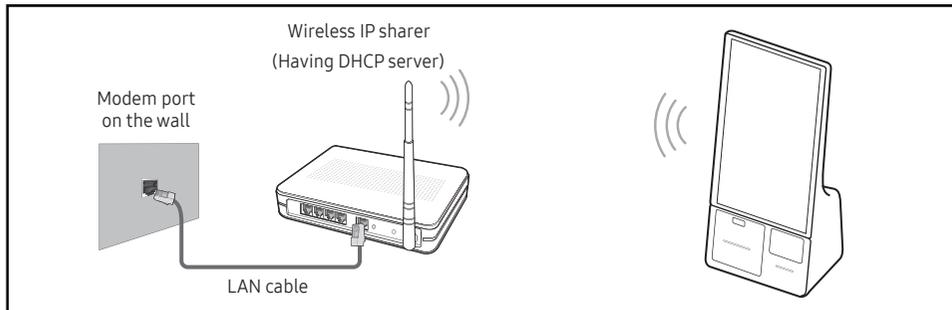
### How to set up manually

- 1 Set **Network Type** to **Wired** from the **Open Network Settings** page.
- 2 The network test screen appears and the verification process starts. Tap **Cancel**. The verification process stops.
- 3 Select **IP Settings** on network connection screen. The **IP Settings** screen appears.
- 4 Select **IP Setting** and set it to **Enter Manually**, and then enter the network information gathered from your PC.
  -  Setting **IP Setting** to **Enter manually** automatically changes **DNS Setting** to **Enter manually**.
- 5 When done, select **OK** at the bottom of the page. The product will attempt again to connect to the network based on the new settings.
- 6 When the connection has been verified, the “**Success! Your device is connected to the Internet. If you have any problems using online services, please contact your Internet service provider.**” message appears.

## Network Settings (Wireless)

 This function may not be supported depending on the model.

### Connecting to a Wireless Network



When you play video over a network connection, the video may not play smoothly.

-  Select a channel for the wireless IP sharer that is not currently being used. If the channel set for the wireless IP sharer is currently being used by another device nearby, this will result in interference and communication failure.
-  Your product supports only the following wireless network security protocols.
  - Authentication Modes: WEP, WPAPSK, WPA2PSK
  - Encryption Types: WEP, TKIP, AESIn compliance with the Wi-Fi certification specifications, Samsung products do not support WEP or TKIP security encryption in networks running in the High-throughput(Greenfield) 802.11n mode.
-  If your wireless router supports WPS (Wi-Fi Protected Setup), you can connect to the network via PBC (Push Button Configuration) or PIN (Personal Identification Number). WPS will automatically configure the SSID and WPA key in either mode.
-  Connection Methods: You can setup the wireless network connection in three ways. Automatic Network Setup, Manual Network Setup, **Use WPS**

### Automatic Network Setup (Wireless)

Most wireless networks have an optional security system that requires devices that access the network to transmit an encrypted security code called an Access or Security key. The Security key is based on a Pass Phrase, typically a word or a series of letters and numbers of a specified length you were asked to enter when you set up security for your wireless network.

If you use this method of setting up the network connection, and have a Security key for your wireless network, you will have to enter the Pass Phrase during the automatic or manual setup process.

#### How to set up automatically

- 1 Set **Network Type** to **Wireless** from the **Open Network Settings** page.
- 2 The Network function searches for available wireless networks. When done, it displays a list of the available networks.  
In the list of networks, select a network.
  -  If the desired wireless router does not appear, select **Refresh** to search again.
  -  If the router cannot be found after retrying, select the **Add Network**.
- 3 If the Enter the password for (AP Name). screen appears, go to step 4. If you select a wireless router that does not have security, go to step 6.
- 4 If the router has security, enter the Enter the password for (AP Name). (Security key or PIN).
- 5 When done, select **Done**. The network connection screen appears and the verification process starts.
  -  A connection with the router is established, but the Internet cannot be accessed. In this case, contact your Internet service provider.
- 6 When the connection has been verified, the **“Success! Your device is connected to the Internet. If you have any problems using online services, please contact your Internet service provider.”** message appears.

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## Manual Network Setup (Wireless)

Offices may use static IP addresses.

If this is the case, ask the network administrator for the **IP address**, **Subnet Mask**, **Gateway** and DNS server address. Enter these values manually.

### Getting the Network Connection Values

To view the Network connection values on most Windows computers, follow these steps.

- 1 Right click the Network icon on the bottom right of the screen.
- 2 In the pop-up menu that appears, click Status.
- 3 On the dialog that appears, click the **Support** tab.
- 4 On the **Support** Tab, click the **Details** button. The Network connection values are displayed.

### How to set up manually

- 1 Set **Network Type** to **Wireless** from the **Open Network Settings** page.
- 2 The Network function searches for available wireless networks. When done, it displays a list of the available networks.
- 3 In the list of networks, select a network.
  -  If the desired wireless router does not appear, select **Refresh** to search again.
  -  If the router cannot be found after retrying, select the **Stop** button. The **Add Network** button appears.
- 4 If the Enter the password for (AP Name). screen appears, go to step 5. If you select a wireless router that does not have security, go to step 7.
- 5 If the router has security, enter the Enter the password for (AP Name). (Security key or PIN).
- 6 When done, select **Done**. The network connection screen appears and the verification process starts.
- 7 Select **Cancel** while network connections are being attempted. This will stop the connection.
- 8 Select **IP Settings** on network connection screen. The **IP Settings** screen appears.
- 9 Select **IP Setting** and set it to **Enter Manually**, and then enter the network information gathered from your PC.
  -  Setting **IP Setting** to **Enter manually** automatically changes **DNS Setting** to **Enter manually**.
- 10 When done, select **OK** at the bottom of the page.

The product will attempt again to connect to the network based on the new settings.
- 11 When the connection has been verified, the "**Success! Your device is connected to the Internet. If you have any problems using online services, please contact your Internet service provider.**" message appears.

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## Use WPS

 This function may not be supported depending on the model.

### How to set up using Use WPS

If your router has a **Use WPS** button, follow these steps.

- 1 Set **Network Type** to **Wireless** from the **Open Network Settings** page.
- 2 Select **Use WPS**.
- 3 Press the WPS or PBC button on your wireless router within the next two minutes.  
Your product automatically acquires all the network setting values it needs and connects to your network.
  - If you want to use the WPS PIN, select **WPS PIN**.  
Go to your wireless router's Settings, enter your PIN, and then select **OK**.
- 4 When the connection has been verified, the “**Success! Your device is connected to the Internet. If you have any problems using online services, please contact your Internet service provider.**” message appears.

2nd	3rd	Description
IPv6		<p>Enable or disable IPv6.</p> <p> This function may not be supported depending on the model.</p>
IPv6 Status		<p>Check the status of your IPv6 Internet connection.</p> <p> This function may not be supported depending on the model.</p>
Server Network Settings	Connect to Server	<p>Connect to MagicInfo server.</p> <p> If you do use the TLS option, the server is configured to use https and data transfer is encrypted. (Port number: 7002)</p> <p> If you don't use the TLS option, enter the server IP address and port number. Use 7001 as the port number. (If you are unable to connect to the server using port number 7001, check with your server administrator to find the correct port number and then change the port number.)</p> <p> Enter the server IP address and port number. Use 7001 as the port number. (If you are unable to connect to the server using port number 7001, check with your server administrator to find the correct port number and then change the port number.)</p> <p> For the MagicInfo Server user guide, visit the following website: <a href="http://displaysolutions.samsung.com">http://displaysolutions.samsung.com</a> → Support → Resources → MagicInfo Web Manual.</p>
	Server Access	<p>Allow or deny access from MagicInfo server.</p>
	Proxy Server	<p>Set up your proxy server connection and related functions.</p> <p> <b>Address / Port / ID</b> and <b>Password</b> are enabled only when <b>Proxy server</b> is set to <b>On</b>.</p>
Device Name		<p>Select or enter a device name.</p> <p>This name can be shown on network remote controls over the network.</p> <p> <b>[Signage] Display1 ~ [Signage] Display6 / User Input</b></p>

# System

2nd	3rd	Description
Accessibility	High Contrast	Set the background and font to high-contrast colours in Menu. Menu transparencies become opaque when the option is selected.
	Enlarge	Enlarge the size of the Menu area.
Start Setup		Go through the initial setup steps like you did the first time you used this product.  Enter your 4 digit PIN number. The default PIN number is "0-0-0-0". If you want to change the PIN number, use the <b>Change PIN</b> function.  Change the PIN to keep your device secure.
Time		Configure various time-related settings.
	Clock Set	Select <b>Clock Set</b> . Tap Date or Time. Tap the ▲ or ▼ button to set the <b>Month/Day/Year</b>  You can tap any numbers of the date and time to open the number pad and enter the numbers directly from it.
	NTP Settings	Set up the server URL and time zone to use the network time.
	DST	Switches the DST (Daylight Saving Time) function on or off.  <b>Start Date, End Date</b> and <b>Time Offset</b> are enabled only when <b>DST</b> is set to <b>On</b> .
	Power On Delay	When connecting multiple products, adjust the power-on time for each product to prevent power overload (within the range 0–50 seconds).
Power Control	Auto Power On	This feature automatically turns on the product as soon as it is plugged in. Pressing the power button is not needed.
	Max. Power Saving	Conserve power by turning off PC monitor when PC is not used for certain time.  This function may not be supported depending on the model.
	Standby Control	When no signal is detected, it determines whether or not to enter sleep mode.  This function may not be supported depending on the model.
	Remote Configuration	This feature keeps the network power on when the product turns off.

2nd	3rd	Description
Eco Solution	Power Saving Mode	Reduce the power consumption by adjusting the screen brightness.
	Screen Lamp Schedule	<ul style="list-style-type: none"> <li>• <b>Screen Lamp Schedule</b> Enable or disable the lamp schedule.</li> <li>• <b>Schedule1, Schedule2</b> <ul style="list-style-type: none"> <li>- <b>Time</b> The panel brightness will change to the brightness set in Lamp at a specified time.</li> <li>- <b>Lamp</b> Adjust the panel brightness. A value closer to 100 makes the panel brighter.</li> </ul> </li> </ul>
	No Signal Power Off	<p>Save power by turning the product off when no signal is received from any source.</p> <p> This function may not be supported depending on the model.</p> <p> This function does not operate if the display is in the standby mode.</p> <p> The product will automatically power off at a specified time. The time can be changed as required.</p>
	Auto Power Off	Choose how long the display will wait before turning off after no user interaction is detected.
Temperature Control	<p>This function detects the internal temperature of the product. You can specify the temperature range that is acceptable. The default temperature is set to 77 °C.</p> <p>The recommended operating temperature for this product is 75 to 80 °C.</p> <p> The screen will become darker if the current temperature exceeds the specified temperature limit. If the temperature continues to rise, the product will power off to prevent overheating.</p> <p> This function may not be supported depending on the model.</p>	
Change PIN	<p>Change your 4-digit Personal Identification Number (PIN).</p> <p>Choose any 4 digits for your PIN and enter it in Enter a new PIN.. Reenter the same 4 digits in Enter the PIN again..</p> <p>The product has memorized your new PIN.</p> <p> The default PIN number is "0-0-0-0".</p> <p> Change the PIN to keep your device secure.</p>	

2nd	3rd	Description
<b>Security</b>		<p> Enter your 4 digit PIN number. The default PIN number is "0-0-0-0". If you want to change the PIN number, use the <b>Change PIN</b> function.</p> <p> Change the PIN to keep your device secure.</p>
	<b>Safety Lock On</b>	Turn <b>Safety Lock On</b> on or off. <b>Safety Lock On</b> restricts the actions that can be carried out by the remote control. The correct PIN must be entered to turn <b>Safety Lock On</b> off.
	<b>Remote Management</b>	You can Allow or Deny external commands to access your product via a network.
	<b>Secured Protocol</b>	Secure the protocol between this device and other devices. <ul style="list-style-type: none"> <li>• <b>SNMP Settings</b> Set up your ID and password for the SNMP connection.</li> </ul> <p> This function may not be supported depending on the model.</p>
	<b>Server Security Status</b>	Displays the information of the MagicInfo server.  You can use this function when the product is connected to the MagicInfo or RM server.
	<b>Network Lock</b>	Block external network access. You can register networks on the server to allow access.
	<b>Certificate Manager</b>	Manage the certificates installed on this device. <ul style="list-style-type: none"> <li> Limited supports for Enterprise WPA2 (TLS/TTLS/PEAP) certified models only.</li> <li> This function may not be supported depending on the model.</li> <li>• <b>Install Certificate</b> Connect a USB flash drive that contains certificates to install them on this device.</li> <li>• <b>Certificate List</b> View and manage the certificates installed on this device.</li> </ul>
	<b>Wired 802.1x Connection</b>	Enable this option to connect to a wired 802.1x network.

2nd	3rd	Description
General	Smart Security	<p>The security provided to protect your display device and connected storage devices against viruses includes.</p> <ul style="list-style-type: none"> <li>• <b>Scan</b> Inspect your display device and connected storage devices to check for viruses.</li> <li>• <b>Isolated List</b> This is the list of items that have been Isolated for containing viruses.</li> </ul>
	Anynet+ (HDMI-CEC)	<p>Anynet+ is a function that enables you to control all connected Samsung devices that support Anynet+. The Anynet+ system can be used only with Samsung devices that have the Anynet+ feature. To be sure your Samsung device has this feature, check if there is an Anynet+ logo on it.</p> <p> <b>Anynet+</b> works when the AV device supporting <b>Anynet+</b> is in the standby or on status.</p> <p> <b>Anynet+</b> supports up to 12 AV devices in total. Note that you can connect up to 3 devices of the same type.</p>

## Troubleshooting for Anynet+

Problem	Possible Solution
Anynet+ does not work.	<ul style="list-style-type: none"> <li>• Check if the device is an Anynet+ device. The Anynet+ system supports Anynet+ devices only.</li> <li>• Check if the Anynet+ device power cord is properly connected.</li> <li>• Check the Anynet+ device's Video/Audio/HDMI cable connections.</li> <li>• Check whether <b>Anynet+ (HDMI-CEC)</b> is set to <b>On</b> in the <b>System</b> menu.</li> <li>• Anynet+ doesn't work in certain situations. (initial setup)</li> <li>• If you have removed and then reconnected the HDMI cable, please make sure to search devices again or turn your product off and on again.</li> <li>• Check if the Anynet+ function of the Anynet device is set on.</li> </ul>
I want to start Anynet+.	<ul style="list-style-type: none"> <li>• Check if the Anynet+ device is properly connected to the product and check if the <b>Anynet+ (HDMI-CEC)</b> is set to <b>On</b> in the <b>System</b> menu.</li> </ul>
I want to exit Anynet+.	<ul style="list-style-type: none"> <li>• Set the <b>Anynet+ (HDMI-CEC)</b> to <b>Off</b> in the <b>System</b> menu.</li> </ul>
The message " <b>Connecting to Anynet+ device</b> " or <b>Disconnecting Anynet+ device...</b> " appears on the screen.	<ul style="list-style-type: none"> <li>• Please wait for a minute as it maybe configuring Anynet+ or switching to a view mode.</li> </ul>
The Anynet+ device does not play.	<ul style="list-style-type: none"> <li>• You cannot use the play function when initial setup is in progress.</li> </ul>
The connected device is not displayed.	<ul style="list-style-type: none"> <li>• Check whether or not the device supports Anynet+ functions.</li> <li>• Check whether or not the HDMI cable is properly connected.</li> <li>• Check whether <b>Anynet+ (HDMI-CEC)</b> is set to <b>On</b> in the <b>System</b> menu.</li> <li>• Search Anynet+ devices again.</li> <li>• Anynet+ requires an HDMI connection. Make sure the device is connected to your product with an HDMI cable.</li> <li>• Some HDMI cables may not support Anynet+ functions.</li> <li>• If the connection is terminated because there has been a power failure or the HDMI cable has been disconnected, please repeat the device scan.</li> </ul>

2nd	3rd	Description
General	HDMI Hot Plug	This feature is used to activate the time delay to turn on a DVI/HDMI source device.
	Custom Logo	<p>You can download, select, and set the display time of a custom logo that appears when the product turns on.</p> <ul style="list-style-type: none"> <li> <b>Custom Logo</b> <ul style="list-style-type: none"> <li> You can select a custom logo (image/video) or turn off the custom logo display.</li> <li> You must download the custom logo from an external USB device to set the custom logo.</li> </ul> </li> <li> <b>Logo Display Time</b> <ul style="list-style-type: none"> <li> If the type of custom logo is <b>Image</b>, you can set the <b>Logo Display Time</b>.</li> </ul> </li> <li> <b>Download Logo File</b> <ul style="list-style-type: none"> <li> You can download a custom logo into the product from an external USB device.</li> <li> The file name of the custom logo you want to download must be saved as “samsung” in all small letters.</li> <li> When there are multiple numbers of external USB connections, the product will attempt to download the custom logo from the last device that has been connected to the product.</li> </ul> </li> </ul> <div style="border: 1px solid black; padding: 5px; margin-top: 10px;"> <p>Custom logo file restrictions</p> <ul style="list-style-type: none"> <li>Images up to 50 MB in size can be used. <ul style="list-style-type: none"> <li>Supported image file: samsung_image.*</li> <li>Supported file extensions: jpg, jpeg, bmp, png</li> </ul> </li> <li>Videos up to 150 MB in size can be used. The recommendation is under 20 seconds in length. <ul style="list-style-type: none"> <li>Supported video file: samsung_video.*</li> <li>Supported file extensions: avi, mpg, mpeg, mp4, ts, wmv, asf</li> </ul> </li> </ul> </div>
	Game Mode	<p>You can enjoy a more realistic gaming experience by selecting game mode.</p> <p>Use this function when connecting to a game console such as PlayStation™ or Xbox™.</p> <p> If you connect other external devices while <b>Game Mode</b> is on, the screen may not be in good condition.</p>
Reset System		Reset all system settings to default.

# Support

2nd	3rd	Description
<a href="#">Software Update</a>		<p>The Software Update menu lets you upgrade your product software to the latest version.</p> <ul style="list-style-type: none"><li>✎ Be careful not to turn off the power until the upgrade is complete. The product will turn off and on automatically after completing the software upgrade.</li><li>✎ When you upgrade software, all video and audio settings you have made will return to their default settings. We advise you to write down your settings so that you can easily reset them after the upgrade.</li></ul>
	<a href="#">Update now</a>	<p>Update the software to the latest version.</p> <ul style="list-style-type: none"><li>✎ <b>Current version:</b> This is the software version already installed in the product.</li></ul>
<a href="#">Contact Samsung</a>		<p>You can view the address of the Samsung website, the call centre phone number, your product's model number, software version, Open Source License and other information.</p> <ul style="list-style-type: none"><li>✎ Go to <a href="#">Contact Samsung</a> and find the product <b>Model Code</b> and <b>Software Version</b>.</li></ul>
<a href="#">Reset Kiosk</a>		<p>Restore all device settings to the factory defaults.</p>

# Chapter 05

## Connecting and Using a Source Device

### Before Connecting

#### Pre-connection Checkpoints

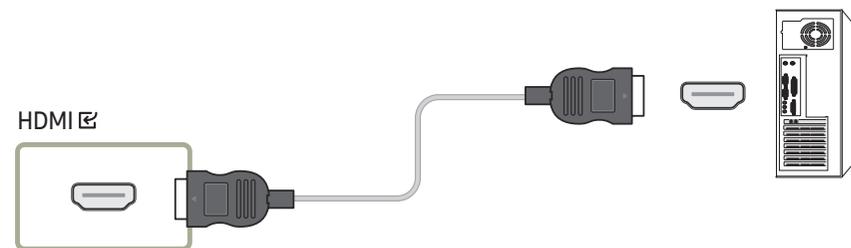
- ✎ Refer to the user guide for the source device you want to connect with.  
The number and location of ports available on the source device may vary depending on the model.
- ✎ Do not connect the power cable until all connections are completed.  
Connecting the power cable during connection may damage the product.
- ✎ Check the types of ports at the back of the product you want to connect.
- ✎ We recommend using authorized cables for HDMI cable connections.
- ✎ When connecting a PC or an external device, make sure to connect the HDMI cable and Touch Out USB cable to the display before assembling the display with the connection box.

### Connecting to a PC

- Do not connect the power cable before connecting all other cables.  
Ensure you connect a source device first before connecting the power cable.
- A PC can be connected to the product in a variety of ways.  
Select a connection method suitable for your PC.

#### Connection Using an HDMI Cable

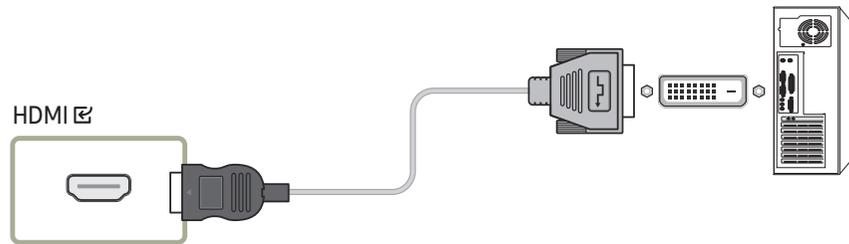
- ✎ The supported ports may vary depending on the model.



## Connection Using an HDMI-DVI Cable

 The supported ports may vary depending on the model.

- The audio function is not supported if the PC and the product is connected using the HDMI-DVI cable.



## Connecting to a Video Device

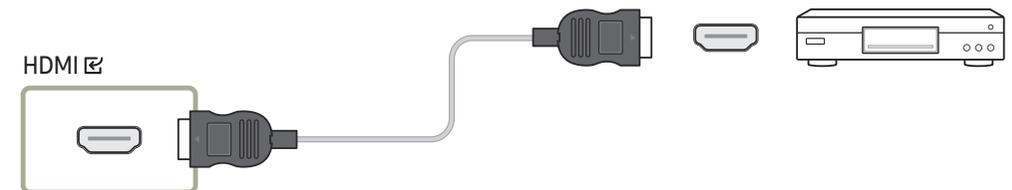
- Do not connect the power cable before connecting all other cables. Ensure you connect a source device first before connecting the power cable.
- You can connect a video device to the product using a cable.
-  After connecting an external device, tap **Source**  on the Administrator menu.

### Using an HDMI Cable or HDMI to DVI Cable: FHD connection

- An HDMI cable supports digital video and audio signals, and does not require an audio cable.
- The picture may not display normally (if at all) or the audio may not work if an external device that uses an older version of HDMI mode is connected to the product. If such a problem occurs, ask the manufacturer of the external device about the HDMI version and, if out of date, request an upgrade.
- Be sure to use an HDMI cable with a thickness of 14 mm or less.
- Be sure to purchase a certified HDMI cable. Otherwise, the picture may not display or a connection error may occur.
- A basic high-speed HDMI cable or one with Ethernet is recommended.
-  This product does not support the Ethernet function via HDMI.

## Connection Using an HDMI Cable

 The supported ports may vary depending on the model.

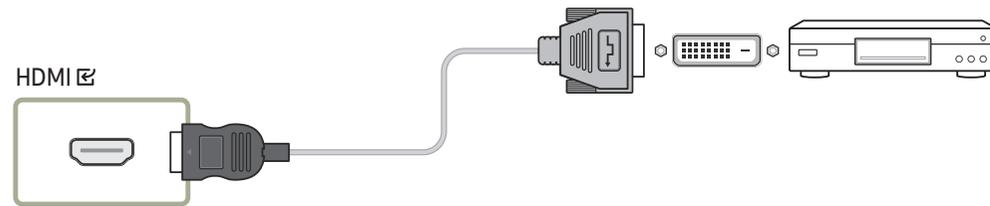


## Connection Using an HDMI-DVI Cable

 The supported ports may vary depending on the model.

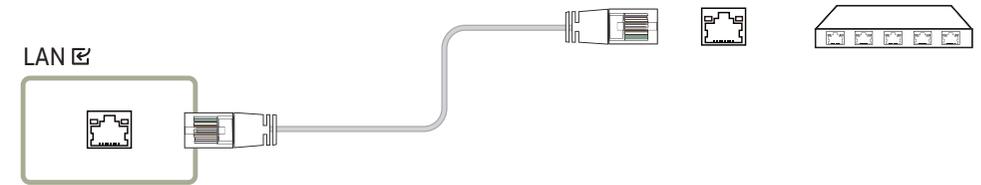
- The audio function is not supported if the video device and the product is connected using the HDMI-DVI cable.

 Supported resolutions include 1080p (50/60Hz), 720p (50/60Hz), 480p, and 576p.



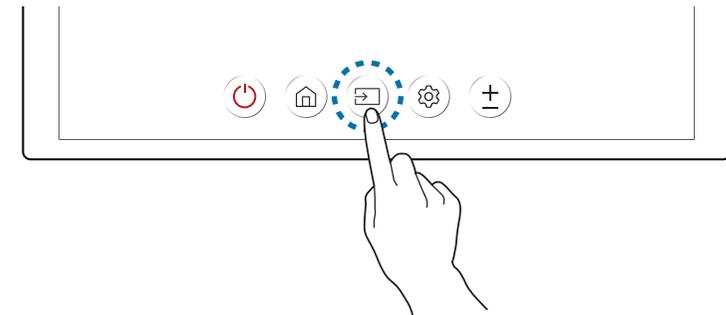
## Connecting the LAN cable

 The supported ports may vary depending on the model.



- Use Cat7(\*STP Type) cable for the connection. (10/100 Mbps)  
\*STP: Shielded Twist Pair

## Changing the Input source



- On the Administrator menu, you can tap **Source**  to switch the screen to an external device connected to the product.

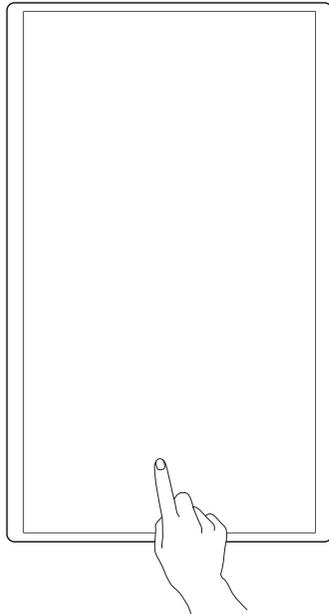
# Chapter 06

## Using a touchscreen monitor

### Touchscreen monitor

Control a PC by tapping the screen instead of using an input device such as a keyboard or mouse.

The touchscreen functions by detecting a minute electric current that runs through your body (capacitive). Make sure to use the surface of your finger tip when tapping the screen.



### Read below before using the product

- Take extra care to ensure an electrical substance does not contact the screen. The screen may not function properly if there is static.
- Do not press hard on the touch screen with your finger tip. Do not use a sharp object when tapping the screen. The screen may break or get damaged.
- Do not tap the screen while wearing a glove, with a dirty finger, or using something sharp such as your fingernail or a ballpoint pen. The screen may not function properly.
- Take extra care to ensure the screen does not contact moisture. The touch sensor may not function properly.
- Displaying a still image on the screen for an extended period of time may cause after images (screen degradation) or stains. Switch off the screen when not in use.

---

## Requirements

### Compatible operating systems

OS		Remark
Windows	Win10 / Win8.1 / Win8 / Win7 / Vista	Some operating systems do not support the multi-touch feature. (e.g. Win7 Home Basic, Win7 Starter, Vista)
Mac OSX	10.7 ~ 10.15 / and above	A separate driver needs to be installed for touch input. (UPDD driver)
Linux	Ubuntu	10.04 / 12.10 / 14.04 / 18.04 / Above
	Fedora	15 / 16 / 19 / 20 / Above
	OpenSUSE	11.4 / 12.1 / 12.2 / 12.3 / Above
	CentOS	6.6 / Above
	Mint	14.1 / Above
		Linux: The touch feature is available in Kernel version 3.0 or above. To use the multi-touch feature or change the display orientation, a separate driver needs to be installed. <ul style="list-style-type: none"><li>• You may not be able to use touch function in some OS (Linux distribution dependent)</li><li>• Android/Chrome may have limited touch capability</li></ul>

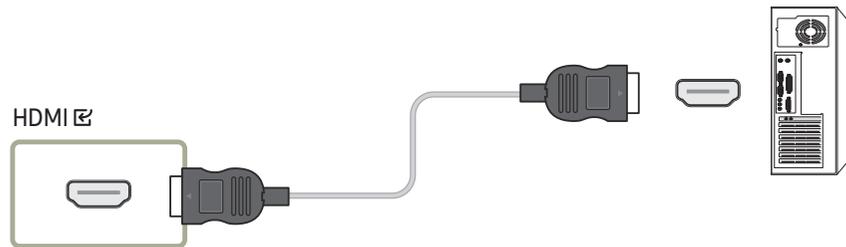
## Connecting the touchscreen monitor

- ✎ Connecting parts may differ in different products.
- ✎ When connecting a PC or an external device, make sure to connect the HDMI cable and Touch Out USB cable to the display before assembling the display with the connection box.

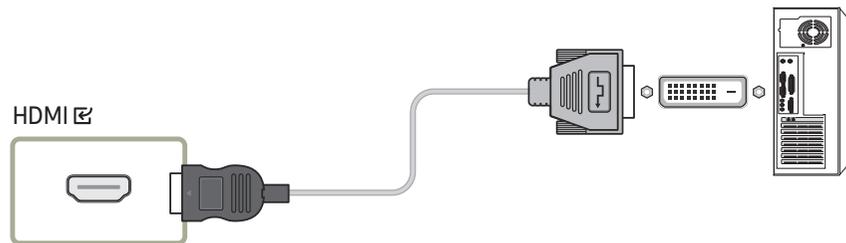
### Connecting to a PC

- 1 Connect a PC to the product using an HDMI or HDMI-DVI cable.

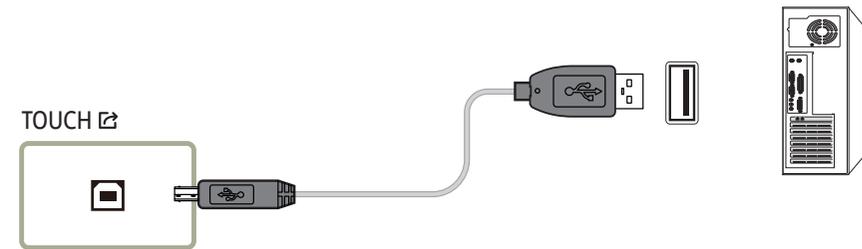
#### Connecting the devices using an HDMI cable



#### Connecting the devices using an HDMI-DVI cable



- 2 Connect the power cable from the product to the power outlet.
- 3 After connecting the power cable, tap **Source** on the Administrator menu.
- 4 Connect the Touch Out USB cable to the **TOUCH** port of the product and the USB port of the PC.
  - ✎ Touch Out USB cable is not provided with the product.



### Connecting to a laptop or tablet PC

A laptop or tablet PC can be connected to the product using the same method when connecting a desktop PC.

- ✎ If touchscreen control is not available after the devices are connected
  - Make sure to connect the HDMI or HDMI-DVI cable before connecting the TOUCH OUT cable.
  - If touchscreen control is still unavailable after the cables are connected properly, disconnect the TOUCH OUT cable and then connect it again.

# Configuring the touchscreen monitor settings

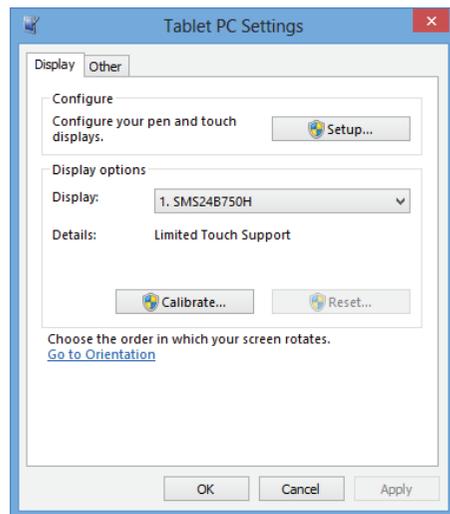
To properly use the touch function of the product in Windows, go to **Tablet PC Settings** and calibrate the product.

- ✎ First connect the touchscreen monitor before configuring the following settings.
- ✎ The maximum number of touchscreen monitors that can be connected simultaneously varies, depending on the operating system and graphics card settings.
- ✎ If **Tablet PC Settings** is not found in the Control Panel, search for **Tablet PC Settings** from Search Control Panel.
- ✎ If used in a multi-screen setup, make sure you have configured KM24A as the main display.

## Calibration

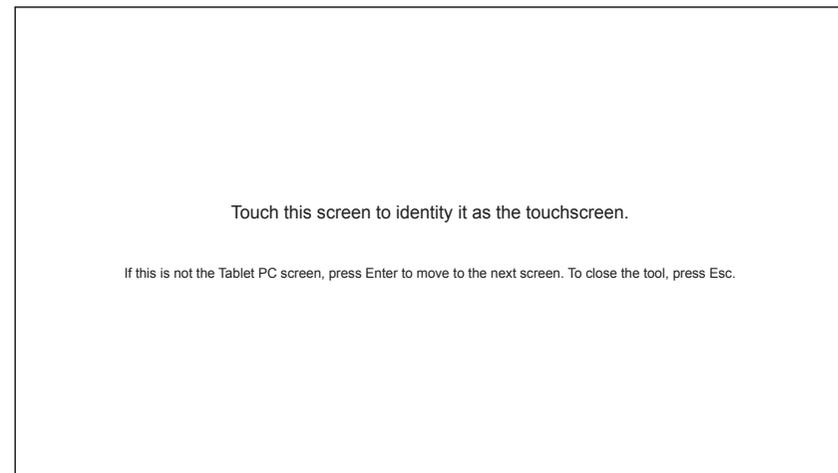
- ✎ Instructions below are for Windows 8. The same method applies to both Windows 7, Windows 8 and Windows 10.
- ✎ After changing the **Picture Size** from the Picture menu, you may need to calibrate the picture settings again.
- ✎ Upon occurrence of an error during calibration, go to **Tablet PC Settings**. In the **Display** tab, tap **Reset** and calibrate again.

1 In the **Display** tab, select **Setup** under **Configure**.

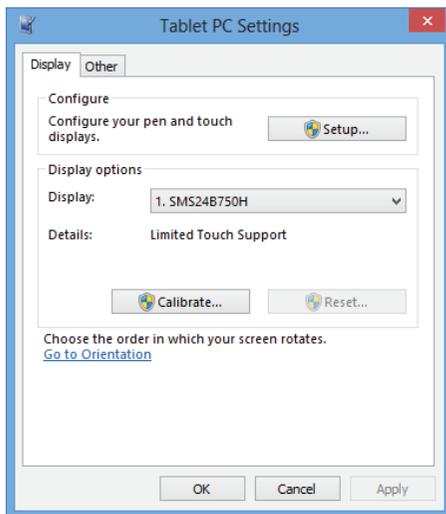


2 Tap the page displayed on the product with your finger.

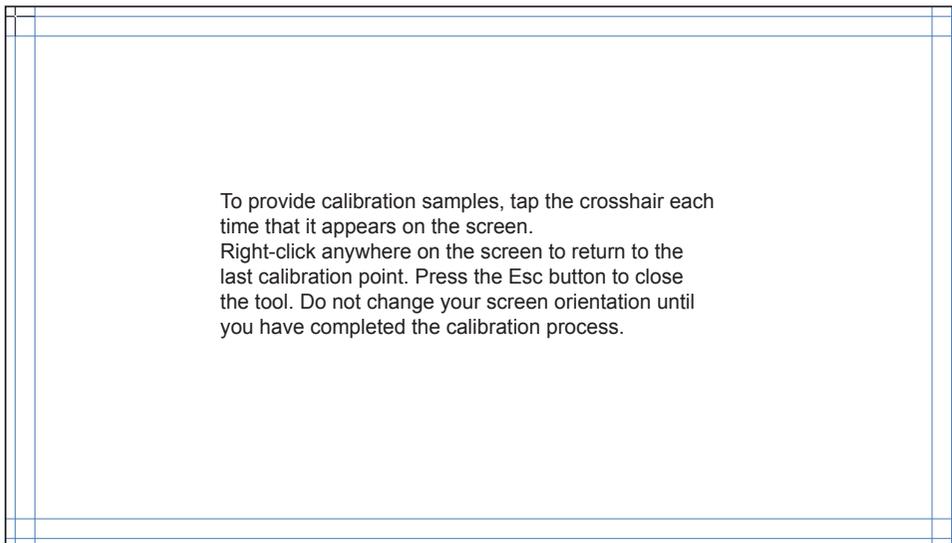
- ✎ In dual monitor mode: If the following page does not appear on the product, press the Enter key to display the page.



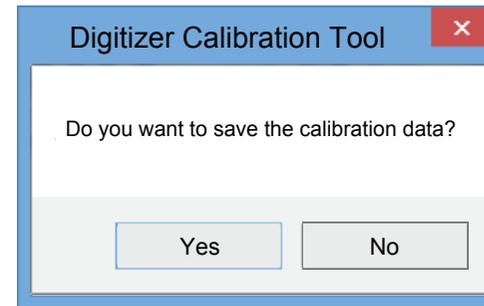
- 3 Select the product from Display under Display options. Next, select Calibrate.



- 4 Perform calibration following the onscreen instructions displayed as shown in the image.

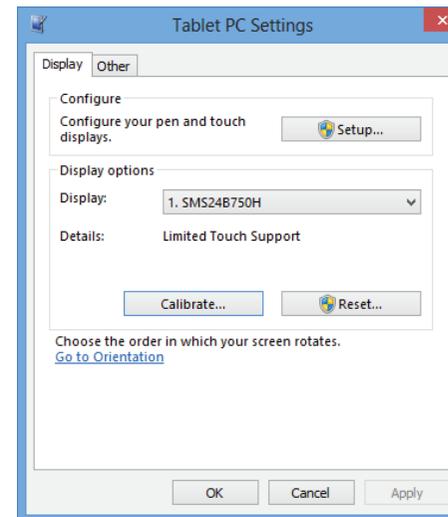


- 5 After calibration is complete, the message Do you want to save the calibration data? appears. Select Yes to save changes.



- 6 The touchscreen monitor has been calibrated successfully.

 Selecting Reset will remove the calibration data.



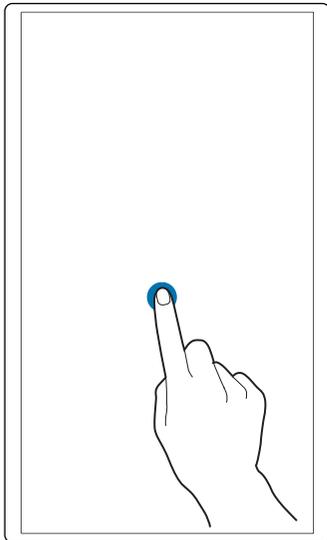
# Controlling the screen

 The instructions in this section is for controlling the PC with the touchscreen.

## Touchscreen gestures

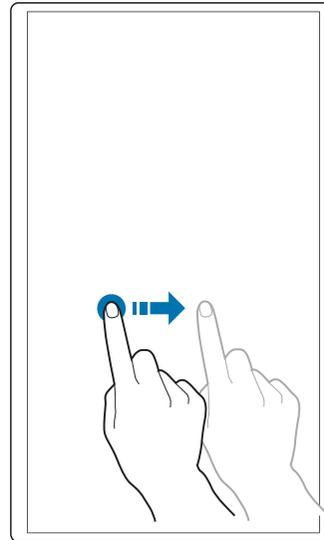
Using touchscreen gestures is similar to using a mouse.

### Tap



Lightly tap the screen.  
Use this gesture to select a feature or menu item.  
 It is similar to clicking on a mouse.

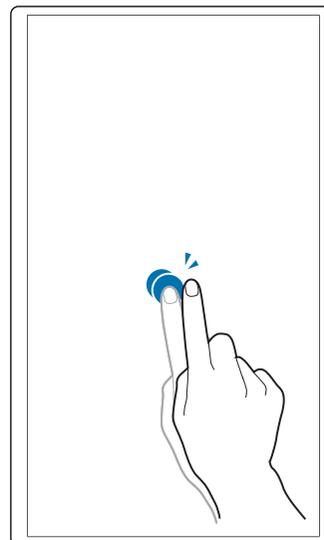
### Drag



Lightly touch and drag in any direction on the screen.  
Use this gesture to move in a specific direction on a web page, map or photo.

 It is similar to dragging a mouse.

### Double tap

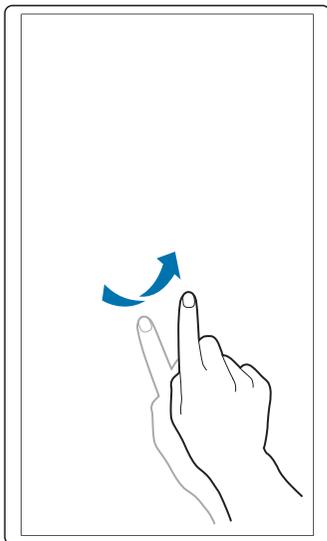


Tap the screen twice.  
Use this gesture to run the selected program.

 It is similar to double-clicking on a mouse.

---

## Flick



Flick your finger on the screen as shown in the image.  
Use this gesture to go to the previous or next picture or web page.

## Notes

- To increase the touch input accuracy, enlarge the font or icons.
- Use a mouse as an additional input method in touchscreen mode for more precise control.

# Chapter 07

## Multi Display Control

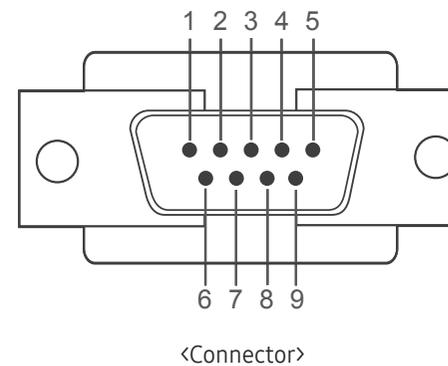
Control multiple display devices connected to a PC simultaneously.

### Cable Connection

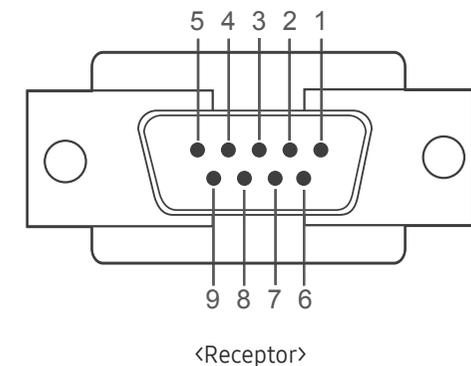
#### RS232C Cable

Interface	RS232C (9 Pins)
Pin	TxD (No.2), RxD (No.3), GND (No.5)
Bit rate	9600 bps
Data bits	8 bit
Parity	None
Stop bit	1 bit
Flow control	None
Maximum length	15 m (only shielded type)

- Pin assignment

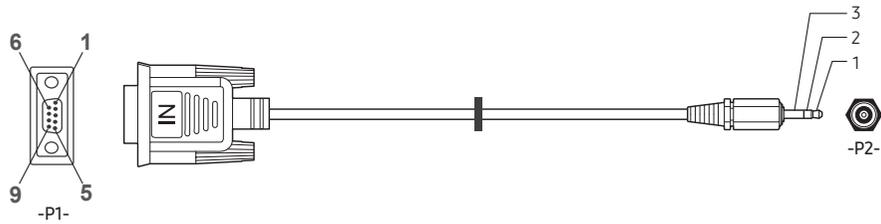


Pin	Signal
1	Detect data carrier
2	Received data
3	Transmitted data
4	Prepare data terminal
5	Signal ground



Pin	Signal
6	Prepare data set
7	Send request
8	Clear to send
9	Ring indicator

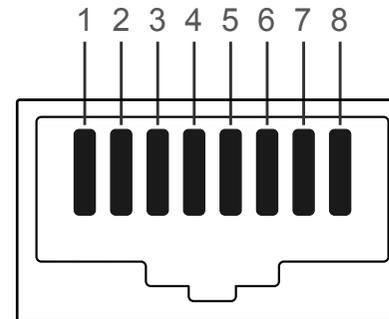
- RS232C Cable  
Connector: 9-Pin D-Sub - Stereo Cable



	-P1-			-P2-		-P2-
	Rx	3	↔	1	Tx	STEREO
Connector	Tx	2	↔	2	Rx	PLUG
	Gnd	5	↔	3	Gnd	(3.5ø)

## LAN cable

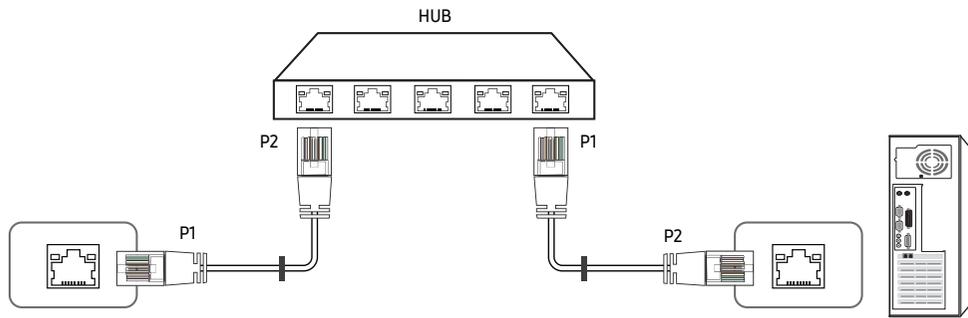
- Pin assignment



Pin	Standard Colour	Signal
1	White and orange	TX+
2	Orange	TX-
3	White and green	RX+
4	Blue	NC
5	White and blue	NC
6	Green	RX-
7	White and brown	NC
8	Brown	NC

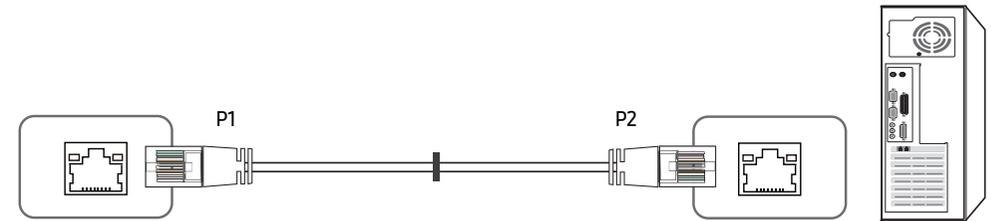
- Connector: RJ45

### Direct LAN cable (PC to HUB)



Signal	P1		P2	Signal
TX+	1	↔	1	TX+
TX-	2	↔	2	TX-
RX+	3	↔	3	RX+
RX-	6	↔	6	RX-

### Cross LAN cable (PC to LFD)

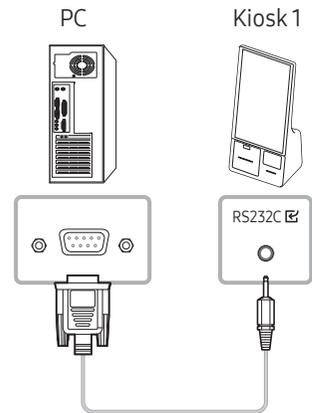


Signal	P1		P2	Signal
TX+	1	↔	3	RX+
TX-	2	↔	6	RX-
RX+	3	↔	1	TX+
RX-	6	↔	2	TX-

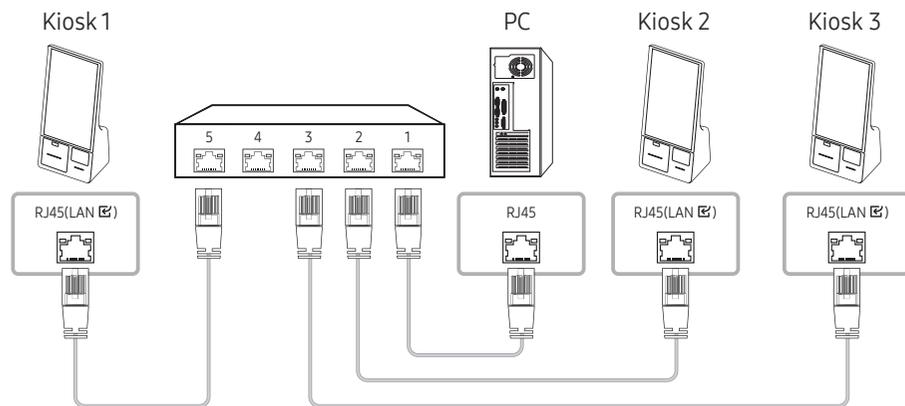
## Connection

- Connect the cable to the RS232C IN ports of the PC and the product.
- The supported ports may vary depending on the model.

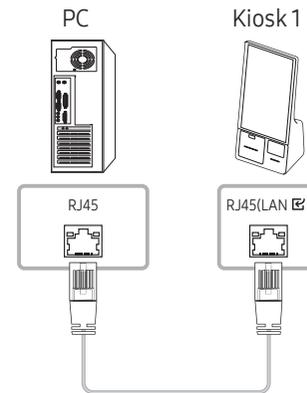
- Connection 1



- Connection 2



- Connection 3



## Control Codes

 The supported control codes may vary depending on the model.

### Viewing control state (Get control command)

Header	Command	ID	Data length	Checksum
0xAA	Command type		0	

### Controlling (Set control command)

Header	Command	ID	Data length	Data	Checksum
0xAA	Command type		1	Value	

### Command

No.	Command type	Command	Value range
1	Power control	0x11	0~1
2	Volume control	0x12	0~100
3	Input source control	0x14	-
4	Screen size control	0x19	0~255
5	Video wall mode control	0x5C	0~1
6	Safety Lock	0x5D	0~1
7	Video Wall On	0x84	0~1
8	Video Wall User Control	0x89	-

- All communications take place in hexadecimals. The checksum is calculated by adding up all values except the header. If a checksum adds up to be more than 2 digits as shown below ( $11+FF+01+01=112$ ), the first digit is removed.

E.g. Power On & ID=0

Header	Command	ID	Data length	Data 1	Checksum
0xAA	0x11		1	"Power"	

Header	Command	ID	Data length	Data 1	12
0xAA	0x11		1	1	

- To control all devices connected by a serial cable simultaneously irrespective of IDs, set the ID as "0xFE" and transmit commands. Commands will be executed by each device but ACK will not respond.

## Power control

- Function  
A product can be powered on and off using a PC.
- Viewing power state (Get Power ON / OFF Status)

Header	Command	ID	Data length	Checksum
0xAA	0x11		0	

- Setting power ON/Off (Set Power ON / OFF)

Header	Command	ID	Data length	Data	Checksum
0xAA	0x11		1	"Power"	

"Power": Power code to be set on a product.

1: Power ON

0: Power OFF

- Ack

Header	Command	ID	Data length	Ack/Nak	r-CMD	Val1	Checksum
0xAA	0xFF		3	'A'	0x11	"Power"	

"Power": Power code to be set on a product.

- Nak

Header	Command	ID	Data length	Ack/Nak	r-CMD	Val1	Checksum
0xAA	0xFF		3	'N'	0x11	"ERR"	

"ERR": A code showing what error has occurred.

## Volume control

- Function  
The volume of a product can be adjusted using a PC.
- Viewing volume state (Get Volume Status)

Header	Command	ID	Data length	Checksum
0xAA	0x12		0	

- Setting the volume (Set Volume)

Header	Command	ID	Data length	Data	Checksum
0xAA	0x12		1	"Volume"	

"Volume": Volume value code to be set on a product. (0-100)

- Ack

Header	Command	ID	Data length	Ack/Nak	r-CMD	Val1	Checksum
0xAA	0xFF		3	'A'	0x12	"Volume"	

"Volume": Volume value code to be set on a product. (0-100)

- Nak

Header	Command	ID	Data length	Ack/Nak	r-CMD	Val1	Checksum
0xAA	0xFF		3	'N'	0x12	"ERR"	

"ERR": A code showing what error has occurred.

## Input source control

- Function  
The input source of a product can be changed using a PC.
- Viewing input source state (Get Input Source Status)

Header	Command	ID	Data length	Checksum
0xAA	0x14		0	

- Setting the input source (Set Input Source)

Header	Command	ID	Data length	Data	Checksum
0xAA	0x14		1	"Input Source"	

"Input Source": An input source code to be set on a product.

0x18	DVI
0x0C	Input source
0x20	MagicInfo
0x1F	DVI_video
0x21	HDMI1
0x22	HDMI1_PC
0x23	HDMI2
0x24	HDMI2_PC
0x25	DisplayPort
0x67	Kiosk App

 DVI\_video, HDMI1\_PC and HDMI2\_PC cannot be used with the Set command. They only respond to "Get" commands.

 **MagicInfo** is only available with models that contain the **MagicInfo** function.

 Kiosk App is only available with models that support the app.

- Ack

Header	Command	ID	Data length	Ack/Nak	r-CMD	Val1	Checksum
0xAA	0xFF		3	'A'	0x14	"Input Source"	

"Input Source": An input source code to be set on a product.

- Nak

Header	Command	ID	Data length	Ack/Nak	r-CMD	Val1	Checksum
0xAA	0xFF		3	'N'	0x14	"ERR"	

"ERR": A code showing what error has occurred.

## Screen size control

- Function  
The screen size of a product can be changed using a PC.
- Viewing the screen size (Get Screen Size Status)

Header	Command	ID	Data length	Checksum
0xAA	0x19		0	

- Ack

Header	Command	ID	Data length	Ack/Nak	r-CMD	Val1	Checksum
0xAA	0xFF		3	'A'	0x19	"Screen Size"	

"Screen Size": product screen size (range: 0 – 255, unit: inch)

- Nak

Header	Command	ID	Data length	Ack/Nak	r-CMD	Val1	Checksum
0xAA	0xFF		3	'N'	0x19	"ERR"	

"ERR": A code showing what error has occurred.

## Video Wall Mode Control

- Function  
**Video Wall** mode can be activated on a product using a PC.  
This control is only available on a product whose **Video Wall** is enabled.
- Viewing video wall mode (Get Video Wall Mode)

Header	Command	ID	Data length	Checksum
0xAA	0x5C		0	

- Setting the video wall (Set Video Wall Mode)

Header	Command	ID	Data length	Data	Checksum
0xAA	0x5C		1	"Video Wall Mode"	

"Video Wall Mode": A code used to activate Video Wall mode on a product

1: **Full**

0: **Natural**

- Ack

Header	Command	ID	Data length	Ack/Nak	r-CMD	Val1	Checksum
0xAA	0xFF		3	'A'	0x5C	"Video Wall Mode"	

"Video Wall Mode": A code used to activate Video Wall mode on a product

- Nak

Header	Command	ID	Data length	Ack/Nak	r-CMD	Val1	Checksum
0xAA	0xFF		3	'A'	0x5C	"ERR"	

"ERR": A code showing what error has occurred.

## Safety Lock

- Function  
PC can be used to turn the **Safety Lock On** function on or off on a product.  
This control is available regardless of whether or not the power is turned on.
- Viewing the safety lock state (Get Safety Lock Status)

Header	Command	ID	Data length	Checksum
0xAA	0x5D		0	

- Enabling or disabling safety lock (Set Safety Lock Enable / Disable)

Header	Command	ID	Data length	Data	Checksum
0xAA	0x5D		1	"Safety Lock"	

"Safety Lock": Safety lock code to be set on a product

1: ON

0: OFF

- Ack

Header	Command	ID	Data length	Ack/Nak	r-CMD	Val1	Checksum
0xAA	0xFF		3	'A'	0x5D	"Safety Lock"	

"Safety Lock": Safety lock code to be set on a product

- Nak

Header	Command	ID	Data length	Ack/Nak	r-CMD	Val1	Checksum
0xAA	0xFF		3	'N'	0x5D	"ERR"	

"ERR": A code showing what error has occurred.

## Video Wall On

- Function  
Turn Video Wall on or off on the product from your computer.
- Get Video Wall On/Off Status

Header	Command	ID	Data length	Checksum
0xAA	0x84		0	

- Set Video Wall On/Off

Header	Command	ID	Data length	Data	Checksum
0xAA	0x84		1	V.Wall_On	

- V.Wall\_On: Video Wall code to be assigned to the product

1: Video Wall ON

0: Video Wall OFF

- Ack

Header	Command	ID	Data length	Ack/Nak	r-CMD	Val1	Checksum
0xAA	0xFF		3	'A'	0x84	V.Wall_On	

V.Wall\_On: Video Wall code to be assigned to the product

- Nak

Header	Command	ID	Data length	Ack/Nak	r-CMD	Val1	Checksum
0xAA	0xFF		3	'N'	0x84	ERR	

"ERR": A code showing what error has occurred.

## Video Wall User Control

- Function  
Turn Video Wall on or off on the product from your computer.

- Get Video Wall Status

Header	Command	ID	Data length	Checksum
0xAA	0x89		0	

- Set Video Wall

Header	Command	ID	Data length	Data 1	Data 2	Checksum
0xAA	0x89		2	Wall_Div	Wall_SNo	

Wall\_SNo: Product Number code assigned to the product

10x10 Video Wall Model: (1 ~ 100)	
Set Number	Data
1	0x01
2	0x02
...	...
99	0x63
100	0x64

- Ack

Header	Command	ID	Data length	Ack/Nak	r-CMD	Val1	Val2	Checksum
0xAA	0xFF		4	'A'	0x89	Wall_Div	Wall_SNo	

- Nak

Header	Command	ID	Data length	Ack/Nak	r-CMD	Val1	Checksum
0xAA	0xFF		3	'N'	0x89	ERR	

"ERR": A code showing what error has occurred.

Wall\_Div: Video Wall Divider code assigned to the product

10x10 Video Wall Model															
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
<b>Off</b>	0x00														
<b>1</b>	0x11	0x12	0x13	0x14	0x15	0x16	0x17	0x18	0x19	0x1A	0x1B	0x1C	0x1D	0x1E	0x1F
<b>2</b>	0x21	0x22	0x23	0x24	0x25	0x26	0x27	0x28	0x29	0x2A	0x2B	0x2C	0x2D	0x2E	0x2F
<b>3</b>	0x31	0x32	0x33	0x34	0x35	0x36	0x37	0x38	0x39	0x3A	0x3B	0x3C	0x3D	0x3E	0x3F
<b>4</b>	0x41	0x42	0x43	0x44	0x45	0x46	0x47	0x48	0x49	0x4A	0x4B	0x4C	0x4D	0x4E	0x4F
<b>5</b>	0x51	0x52	0x53	0x54	0x55	0x56	0x57	0x58	0x59	0x5A	0x5B	0x5C	0x5D	0x5E	0x5F
<b>6</b>	0x61	0x62	0x63	0x64	0x65	0x66	0x67	0x68	0x69	0x6A	0x6B	0x6C	0x6D	0x6E	0x6F
<b>7</b>	0x71	0x72	0x73	0x74	0x75	0x76	0x77	0x78	0x79	0x7A	0x7B	0x7C	0x7D	0x7E	N/A
<b>8</b>	0x81	0x82	0x83	0x84	0x85	0x86	0x87	0x88	0x89	0x8A	0x8B	0x8C	N/A	N/A	N/A
<b>9</b>	0x91	0x92	0x93	0x94	0x95	0x96	0x97	0x98	0x99	0x9A	0x9B	N/A	N/A	N/A	N/A
<b>10</b>	0xA1	0xA2	0xA3	0xA4	0xA5	0xA6	0xA7	0xA8	0xA9	0xAA	N/A	N/A	N/A	N/A	N/A
<b>11</b>	0xB1	0xB2	0xB3	0xB4	0xB5	0xB6	0xB7	0xB8	0xB9	N/A	N/A	N/A	N/A	N/A	N/A
<b>12</b>	0xC1	0xC2	0xC3	0xC4	0xC5	0xC6	0xC7	0xC8	N/A						
<b>13</b>	0xD1	0xD2	0xD3	0xD4	0xD5	0xD6	0xD7	N/A							
<b>14</b>	0xE1	0xE2	0xE3	0xE4	0xE5	0xE6	0xE7	N/A							
<b>15</b>	0xF1	0xF2	0xF3	0xF4	0xF5	0xF6	N/A								

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## Using MDC

Multiple display control "MDC" is an application that allows you to easily control multiple display devices simultaneously using a PC.

For details on how to use the MDC program, refer to Help after installing the program. The MDC program can be downloaded from the website. (<http://displaysolutions.samsung.com>)

- ✎ If you press the **On** or **Off** button located at the top left of the screen, the product checks its status for about one minute.  
To run other commands, try after the one minute.
- ✎ For details on how to connect devices for multiple display control, refer to page [60](#).

## MDC Program Installation/Uninstallation

- ✎ Installing and uninstalling steps can vary depending on the OS.

### Installation

- ✎ MDC installation can be affected by the graphics card, mother board and network conditions.
- 1 Click the MDC Unified installation program.
  - 2 Click **"Next"**.
  - 3 When the **"Welcome to the InstallShield Wizard for MDC\_Unified"** screen appears, click **"Next"**.
  - 4 In the **"License Agreement"** window displayed, select **"I accept the terms in the license agreement"** and click **"Next"**.
  - 5 In the displayed **"Customer Information"** window, fill out all the information fields and click **"Next"**.
  - 6 In the displayed **"Destination Folder"** window, select the directory path you want to install the program in and click **"Next"**.
    - ✎ If the directory path is not specified, the program will be installed in the default directory path.

- 7 In the displayed **"Ready to Install the Program"** window, check the directory path to install the program in and click **"Install"**.
- 8 Installation progress will be displayed.
- 9 Click **"Finish"** in the displayed **"InstallShield Wizard Complete"** window.
  - ✎ Select **"Launch the program"** and click **"Finish"** to run the MDC program immediately.
- 10 The MDC Unified shortcut icon will be created on the desktop after installation.
  - ✎ The MDC execution icon may not be displayed depending on the PC system or product specifications.
  - ✎ Press F5 if the execution icon is not displayed.

### Uninstallation

- 1 Select **Settings** → **Control Panel** on the **Start** menu and double-click **Add/Delete Program**.
- 2 Select MDC Unified from the list and click **Change/Remove**.

# Chapter 08

## Troubleshooting Guide

### Requirements Before Contacting Samsung Customer Service Centre

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 Follow the instruction on the right to test your product before requesting for service. If the problem persists, contact Samsung Customer Service Centre.

 The power indicator may not be supported depending on the model.

#### Testing the Products

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

If the screen remains blank while the power indicator blinks even when the product is correctly connected to a PC, perform product testing.

- 1 Power off both the PC and product.
- 2 Disconnect all the cables from the product.
- 3 Power on the product.
- 4 If **No Cable Connected** is displayed, the product is operating normally.

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

## Check the followings.

Installation issue (PC mode)	
The screen keeps switching on and off.	Check that the cable between the product and the PC is connected correctly.
Blank spaces are found on all four sides of the screen when an HDMI or HDMI-DVI cable is connected to the product and PC.	The blank spaces found on the screen have nothing to do with the product.
	Blank spaces on the screen are caused by the PC or graphics card. To resolve the problem, adjust the screen size in the HDMI or DVI settings for the graphics card.
	If the graphics card settings menu does not have an option to adjust the screen size, update the graphics card driver to the latest version. (Please contact the graphics card or computer manufacturer for further details about how to adjust the screen settings.)

Screen issues	
The power indicator is off. The screen will not switch on.	Make sure that the power cord is connected.
<b>Weak</b> or <b>No Signal</b> is displayed on the screen.	Check that products (including source device) are connected correctly with a cable.
	Check that the source device connected to the product is powered on.
	Depending on the type of external device, the screen may not display properly. In this case, connect it with the <b>HDMI Hot Plug</b> function turned <b>On</b> .
<b>Not Optimum Mode</b> is displayed.	This message is displayed when a signal from the graphics card exceeds the product's maximum resolution and frequency.
	Refer to the "Preset Timing Modes" and set the maximum resolution and frequency according to the product specifications.
The images on the screen look distorted.	Check the cable connection to the product.
The screen is not clear. The screen is blurry.	Set the resolution and frequency to the recommended level.
The screen appears unstable and shaky.	Check that the resolution and frequency of the PC and graphics card are set within a range compatible with the product. Then, change the screen settings if required by referring to "Preset Timing Modes".
There are shadows or ghost images left on the screen.	

 The power indicator may not be supported depending on the model.

 The power indicator may not be supported depending on the model.

Screen issues	
The screen is too bright. The screen is too dark.	Go to <b>Picture</b> and adjust the <b>Brightness</b> and <b>Contrast</b> settings.
Screen colour is inconsistent.	Go to <b>Picture</b> and adjust the <b>Colour Space Settings</b> settings.
White does not really look white.	Go to <b>Picture</b> and adjust the <b>White Balance</b> settings.
There is no image on the screen and the power indicator blinks every 0.5 to 1 second.	The display is turned off to save energy.
	Press any key on the keyboard or move the mouse to return to the previous screen.
The product will turn off automatically.	If a PC is connected to the product, check the power status of the PC.
	Make sure the power cable is connected properly to the product and power outlet.
	If the signal from a connected device is not detected, the product automatically turns off after 10 to 15 minutes.
The screen display does not look normal.	Encoded video content may cause the display to appear corrupted in scenes featuring fast moving objects such as in a sports event or action video.
	Low signal level or low picture quality may cause the display to appear corrupted. This does not mean the product is defective.
	A cell phone within a distance of one-meter radius may cause static on analog and digital products.
The brightness and colour do not look normal.	Go to <b>Picture</b> and adjust the screen settings such as <b>Colour</b> , <b>Brightness</b> and <b>Sharpness</b> .
	Go to <b>System</b> and adjust <b>Eco Solution</b> settings.
	Reset the screen settings to the default settings. ( <a href="#">page 31</a> )
I see red, green, and blue.	Check the cable connection.
	This issue may happen when the panel of the product is defective. Contact a Samsung Service Centre to resolve the issue.
The display looks unstable and then freezes.	The screen may freeze when a resolution other than the recommended resolution is used or if the signal is not stable. To resolve the issue, change the PC resolution according to a resolution supported on the display according to the "Preset Timing Modes".

## Screen issues

The screen cannot be displayed in full screen.	A scaled SD (4:3) content file can cause black bars on both sides of an HD channel screen.
	A video with an aspect ratio different from the product can cause black bars at the top and bottom of the screen.
	Change the screen size setting to full screen on the product or source device.

## Sound issue (For models with built-in speakers)

There is no sound.	Check the connection of the audio cable or adjust the volume.
	Check the volume.
The volume is too low.	Adjust the volume.
	If the volume is still low after turning it up to the maximum level, adjust the volume on your PC sound card or software program.
Video is available but there is no sound.	If an HDMI cable or DP cable is connected, check the audio output settings on the PC.
	If a source device is used <ul style="list-style-type: none"><li>Check the audio output settings for the source device. (For example, if your monitor is connected to HDMI, you may need to change the audio option of your video output device to HDMI.)</li></ul>
	If a DVI-HDMI cable is used, a separate audio cable is required.
	Reconnect the power cable to the device and then reboot the device.
There is static coming from the speakers.	Check the signal strength after connecting a cable.
	Low signal level can cause corrupted sound.

## 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.
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 The DisplayPort may not be supported depending on the model.

Touch function issues	
Touching does not work when PC connection is used.	Check whether the TOUCH  port on the product and the USB port on the PC is connected with a Touch Out USB cable.
Touches break, reaction speed gets slow, and so on.	Make sure that there are no foreign substances on the screen surface.
	Check whether the screen is broken.
	Place the product at least 3 m away from any devices that use high voltage.
Other issue	
The product smells like plastic.	The plastic smell is normal and disappears over time.
The monitor appears tilted.	Remove and then attach the stand again to the product.
Audio or video cuts out intermittently.	Check the cable connection and connect it again if required.
	Use a standard cable.
Small particles are found on the edges of the product.	The particles are part of the product design. The product is not defective.
When I try to change the PC resolution, a message "Mode Not Supported" appears.	The message "Mode Not Supported" appears if the input source resolution exceeds the maximum resolution of the display. To resolve the issue, change the PC resolution to a resolution supported on the display.
There is no sound from the speakers in HDMI mode when a DVI-HDMI cable is connected.	DVI cables do not transmit sound data. Make sure to connect the audio cable to the correct input port to enable audio.
HDMI Black Level is not functioning properly on an external device with HDMI YCbCr output.	This function is available only when a source device with RGB signal, such as a DVD player and STB, is connected to the product to HDMI cable.
There is not sound in HDMI mode	The picture may not display normally (if at all) or the audio may not work if an external device that uses an older version of HDMI mode is connected to the product. If these issues occur, connect an audio cable along with the HDMI cable.
	Some PC graphics cards may not automatically recognize HDMI signals that do not include sound. In this case, manually select a sound input.

## Other issue

HDMI-CEC does not work.	<p>To use several external devices compatible with the HDMI-CEC feature that are connected to the <b>HDMI IN</b> ports on the product, turn off the HDMI-CEC features on all the external devices. External devices include Blu-ray and DVD players.</p> <p>Operating an external device when its HDMI-CEC feature is enabled may automatically stop other external devices.</p> <p>To change HDMI-CEC settings, refer to the device user guide or contact the device manufacturer for assistance.</p>
In power-saving mode, when the input source is <b>DisplayPort</b> , PC display settings cannot be saved.	Go to <b>System</b> → <b>Power Control</b> and set <b>Max. Power Saving</b> to <b>Off</b> . Alternatively, configure the PC display output settings again. Ensure the product is turned on.
When booting the PC with the input source set to <b>DisplayPort</b> , the BIOS and booting screens do not appear.	Boot the PC when the product is turned on or when the input source is not <b>DisplayPort</b> .

 For models with the DisplayPort port only.

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## Payment module issue

Printer is not working.	Make sure there is enough receipt paper in the printer.
	Make sure the receipt paper is properly inserted into the printer.
	Make sure the cover of the receipt paper is closed.
	Check the power and signal cable connection status, and restart the product.
	Press the Self Test button to check if the printer works. It is not the problem of the printer if it works.
QR code/bar code sensor	Check the power and signal cable connection status, and restart the product.
	If the recognition results are poor, clean the sensor with a smooth, damp cloth, and then wipe out the moisture and try again.

# Chapter 09

## Specifications

### General

Model Name		KM24A
Panel	Size	60.4 cm
	Display area	527.04 mm (H) x 296.46 mm (V)
Resolution	Optimum resolution	1920 × 1080 @ 60 Hz
	Maximum resolution	
Power Supply		AC100-240V~ 50/60Hz Refer to the label at the back of the product as the standard voltage can vary in different countries.
Environmental considerations	Operating	Temperature: 0 °C ~ 40 °C (32 °F ~ 104 °F) * For installing the enclosure, keep the internal temperature at 35 °C or below. Humidity: 10 % ~ 80 %, non-condensing
	Storage	Temperature: -20 °C ~ 45 °C (-4 °F ~ 113 °F) Humidity: 10 % ~ 90 %, non-condensing * Applicable before the product package is unpacked.
Wireless Network		802.11ac (2.4GHz & 5GHz)
Receipt printer	Type	3 inch thermal printing
	Power	Exclusive adapter
	Signal	Serial / USB

Model Name		KM24A
QR code/bar code sensor	Resolution	640 * 480
	Power and signal	USB (Format : UVC 1.1)
	Others	Red Aimer / White LED

-  **Plug-and-Play**  
This monitor can be installed and used with any Plug-and-Play compatible systems. Two-way data exchange between the monitor and PC system optimizes the monitor settings. Monitor installation takes place automatically. However, you can customize the installation settings if desired.
-  Due to the nature of the manufacturing of this product, approximately 1 pixel per million (1ppm) may appear brighter or darker on the panel. This does not affect product performance.
-  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.
-  For detailed device specifications, visit the Samsung website.

## Preset Timing Modes

The screen will automatically be adjusted if a signal that belongs to the following standard signal modes is transmitted from your PC.

If the signal transmitted from the PC does not belong to the standard signal modes, the screen may become blank.

In such a case, change the settings according to the following table by referring to the graphics card user manual.

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

Resolution	Horizontal Frequency (kHz)	Vertical Frequency (Hz)	Pixel Clock (MHz)	Sync Polarity (H / V)
VESA, 1024 x 768	60.023	75.029	78.750	+/+
VESA, 1152 x 864	67.500	75.000	108.000	+/+
VESA, 1280 x 720	45.000	60.000	74.250	+/+
VESA, 1280 x 800	49.702	59.810	83.500	-/+
VESA, 1280 x 1024	63.981	60.020	108.000	+/+
VESA, 1280 x 1024	79.976	75.025	135.000	+/+
VESA, 1366 x 768	47.712	59.790	85.500	+/+
VESA, 1440 x 900	55.935	59.887	106.500	-/+
VESA, 1600 x 900	60.000	60.000	108.000	+/+
VESA, 1680 x 1050	65.290	59.954	146.250	-/+
VESA, 1920 x 1080	67.500	60.000	148.500	+/+

# Chapter 10

## 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 program.
- If customer requests software installation and setup for the product.
- If a service technician removes/cleans dusts or foreign materials inside of the product.
- If customer requests an installation additionally after purchasing a product through home-shopping or online.

### A Product damage caused by customer's fault

Product damage caused by customer's mishandling or wrong repair.

If a product damage is caused by;

- External impact or drop.
- Use of supplies or separately sold product unspecified by Samsung.
- Repair from a person besides an engineer of outsourcing service company or partner of Samsung Electronics Co.,LTD.
- Remodeling or repairing the product by customer.
- Using it with incorrect voltage or non-authorized 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.

## Prevention of Afterimage Burn-in

### What is afterimage burn-in?

Afterimage burn-in should not occur when the panel is operating normally. Normal operation refers to a continuously changing video pattern. If the panel displays a fixed pattern for an extended period of time a slight voltage difference may occur between the electrodes in pixels that control the liquid crystals.

Such a voltage difference between electrodes increases with time and makes the liquid crystals thinner.

When this occurs, a previous image can remain on the screen when the pattern changes.

- ⊘ This information is a guide to prevent afterimage burn-in. Viewing a fixed screen for an extended period of time may cause afterimage burn-in. This problem is not included in warranty.

### Recommended prevention practices

Viewing a fixed screen for an extended period of time may cause afterimage burn-ins or smudges. If the product is not to be used for a long time, turn it off, or activate the Power Saving mode or Screen Saver with a moving image.

- Change the colors regularly.



- Avoid combinations of a text color and background color of contrasting brightness.
- ✎ Avoid using colors of contrasting brightness (black and white; gray and black).



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