SAMSUNG

User Manual

QBH-TR (QB65H-TR QB75H-TR)
QBN-W (QB75N-W)

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.

An administration fee may be charged in the following situations:

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

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

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

© Samsung
Samsung owns the copyright for this manual. Use or reproduction of this manual in parts or entirety without the authorization of Samsung is prohibited. Trademarks other than Samsung are property of their respective owners.

Table of contents

Before Using the Product

Safety Precautions 5
Safety symbols 5
Electricity and Safety 6
Installation 7
Operation 9
Cleaning 11

Storage and Maintenance 12

Precautions for Use 12

Preparations

Checking the Components 13

Parts 14
QB65H-TR/QB75H-TR 14
QB75N-W 15

Ports 16
QB65H-TR/QB75H-TR 16
QB75N-W 17
Tray 18
Using the touch function 19
Anti-theft Lock 19

Remote Control 20

Before Installing the Product (Installation Guide) 22
Tilting Angle 22
Ventilation 22

Installing the Wall Mount 23
Preparing before installing Wall-Mount 23
Installing the Wall Mount 23
Wall Mount Kit Specifications (VESA) 24

Using a touchscreen monitor

Touchscreen monitor 25
Read below before using the product 25

Connecting the touchscreen monitor 26
Connecting to a PC 26

Configuring the touchscreen monitor settings 27
Calibration 27

Main Menu 29

Controlling the screen 30
Touchscreen gestures 30
Notes 31

Connecting and Using a Source Device

Before Connecting 32
Pre-connection Checkpoints 32

Connecting to a PC 32
Connection Using an HDMI Cable 32
Connection Using an DP Cable 33
Connection Using a DVI Cable (Digital type) 33
Connection Using an HDMI-DVI Cable 34

Connecting to a Video Device 35
Connection Using an HDMI-DVI Cable 35
Connection Using an HDMI Cable 36

Connecting to an Audio System 36

Connecting the LAN Cable 36

Changing the Input source 37
Open 37
Remote Workspace 38

Multiple Display Control

Cable Connection 39
RS232C Cable 39
LAN Cable 40
Connection 42
Control Codes 43

Using MDC 47
MDC Programme Installation/Uninstallation 47

Table of contents

Screen Adjustment

Picture Mode 48

Backlight / Contrast / Brightness / Sharpness / Colour / Tint (G/R) 49

Colour Temperature 50

White Balance 51
2 Point 51
20 Point Settings 51

Gamma 52
HLG / ST.2084 / BT.1886 52

Calibrated value 52

Advanced Settings 53
Contrast Enhancer 53
Black Tone 53
Flesh Tone 53
RGB Only Mode 53
Colour Space Settings 54
HDMI UHD Color 54
Motion Lighting 54
HDR+ Mode 54

Picture Options 55
Colour Tone 55
Digital Clean View 55
HDMI Black Level 56
Film Mode 56
Dynamic Backlight 56

Picture Size Settings 57
Picture Size 57
Fit to screen 57
Zoom and Position 57

Reset Picture 58

OnScreen Display

Screen Protection 59
Auto Protection Time 59
Screen Burn Protection 59

Message Display 62
Source Info 62
MDC Message 62

Language 63

Reset OnScreen Display 63

Sound Adjustment

Sound Mode 64

Balance 65

Equaliser 65

HDMI Sound 65

Sound Output 65

Auto Volume 66

Reset Sound 66

Network

Network Status 67

Open Network Settings 67
Network Type 67
Network Settings (Wired) 68
Network Settings (Wireless) 70
Use WPS 72

Server Network Settings 72
Proxy server 72

Device Name 72

System

Whiteboard Manager 73
Start from Home 73
Reset Interval 73
Samba 74
Email 74
USB Lock 74
Network Lock 74
Web Browser Settings 75
Background colour 76

Accessibility 77
High Contrast 77

Table of contents

Enlarge 77

Start Setup 77

Time 78
Clock Set 78
DST 78
Power On Delay 78

Power Control 79
Auto Power On 79
Max. Power Saving 79
Network Standby 79
Power Button 79

Eco Solution 80
Energy Saving Mode 80
Screen Lamp Schedule 80
Auto Power Off 81

Temperature Control 81

ID Settings 82
Device ID 82
PC Connection Cable 82

Change PIN 82

Security 83
Safety Lock On 83
Button Lock 83
Remote Management 84
Secured Protocol 84

General 85
Smart Security 85
HDMI Hot Plug 85
Custom Logo 86
Game Mode 87

Reset System 87

Support

Software Update 88
Update Now 88

Contact Samsung 88

Reset All 88

Troubleshooting Guide

Requirements Before Contacting Samsung Customer Service Centre 89
Check the followings. 89

Specifications

General 96

Preset Timing Modes 97
Checking the Resolution and Frequency 97

Appendix

Responsibility for the Pay Service (Cost to Customers) 99
Not a product defect 99
A Product damage caused by customer's fault 99
Others 99

Prevention of Afterimage Burn-in 100
What is afterimage burn-in? 100
Recommended prevention practices 100

Licence 101

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

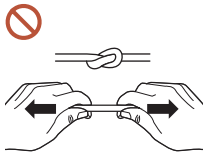
The following images are for reference only. Real-life situations may differ from what is shown in the images.

Warning



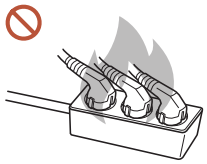
Do not touch the power plug with wet hands.

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.

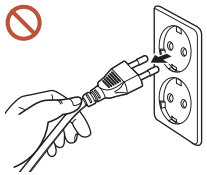
Connect the power plug to a grounded power socket. (Except for devices that do not provide grounding)

An electric shock or injury may result.

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

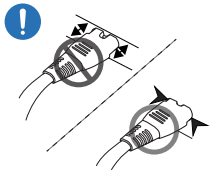
An electric shock or fire may result.

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.

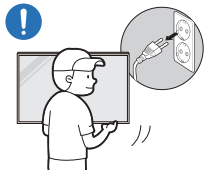
When a problem occurs with the product, the power cord must be unplugged to completely cut off power to the product. The power is not completely cut off by using only the Power button on the body of the product.

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

The product may become damaged by an electric shock.

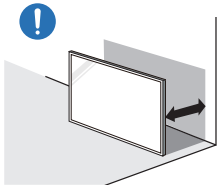
Installation

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.



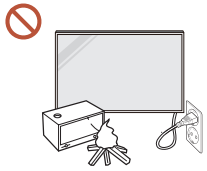
Do not install the product in a poorly ventilated space such as bookcase or closet.

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 head sources.

(Candles, mosquito repellents, cigarettes, sprays, heating devices, places exposed to direct sunlight, 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.

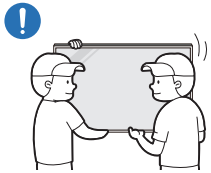
Have a technician install the wall-mount hanger.

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



When lifting and moving the product, do not touch the screen display, and make sure that at least two people work together.

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 discolor the surface of the screen display.

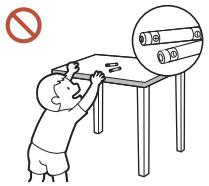
Operation

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.



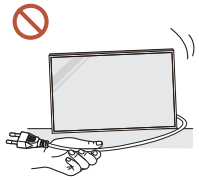
Keep the remote control batteries and the small accessories out of the reach of children. Ensure children do not swallow any of them.

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



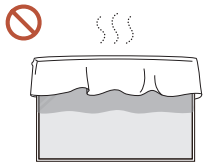
If the product is dropped or its appearance is damaged, turn off the power switch and disconnect the power cord. Then contact Samsung Customer Service Centre.

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



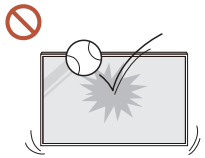
Do not move the product by pulling the power cord or any cable.

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



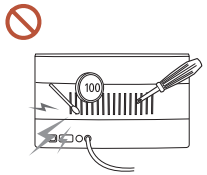
Ensure the vents are not blocked by tablecloths or curtains.

An increased internal temperature may cause a fire.



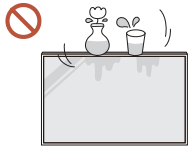
Do not apply an impact to the product.

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



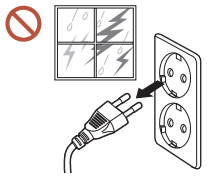
Do not insert metallic objects (chopsticks, coins, hairpins, etc) or objects that burn easily (paper, matches, etc) into the product (via the vent or input/output ports, etc).

- 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.



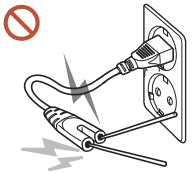
Do not leave heavy objects or items that children like (toys, sweets, etc.) on top of the product.

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



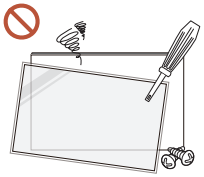
Do not hang on or climb on the product.

- 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.

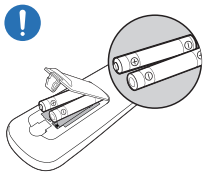
If a gas leakage is found, do not touch the product or the power plug, and ventilate the room immediately.

Sparks can cause an explosion or fire.

Do not use humidifiers or stoves around the product.

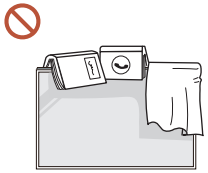
An electric shock or fire may result.

Caution



Insert each battery so that its polarity (+, –) is correct.

If the polarity is not correct, the battery may rupture or the internal fluid may leak, causing contamination and damage to the surroundings, fire, or personal injury.



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.

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

The customer can return used or rechargeable batteries to a nearby public recycling centre or to a store selling the same type of the battery or rechargeable battery.

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.

Use only the specified standardised batteries, and do not use a new battery and a used battery at the same time.

Otherwise, the batteries may be damaged or cause fire, personal injury or damage due to a leakage of the internal liquid.

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.

When using headphones or earphones, do not turn the volume too high or use them for a long time.

Damage to your hearing may result.

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 and wipe gently with a soft and dry cloth such as superfine fibers or cotton flannels to prevent scratches.

The product's surface may be damaged, or the markings may be erased.

Be sure to use a soft and dry cloth such as superfine fibers or cotton flannels because the surface of the product and the screen display are vulnerable to scratches.

The product's surface or the screen display can be easily scratched with foreign substances.

Do not apply chemicals containing alcohol, solvent, or surfactant such as wax, benzene, thinner, pesticide, air freshener, lubricant, or cleaner to the product.

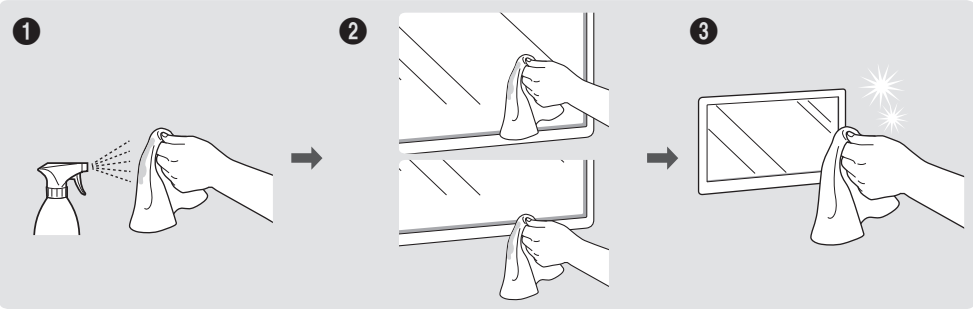
The product's exterior may be discolored or cracked, the surface of the panel may be peeled off, or the markings may be erased.

Storage and Maintenance

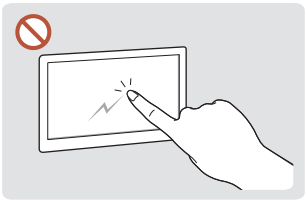
If dust or dirt from the supplied pen remains on the protective glass, clean it referring to the instructions below.

Cleaning the exterior and display

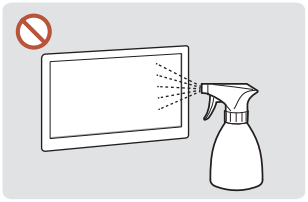
Wipe the surface with a slightly wet, soft cloth, and then wipe with a dry cloth.



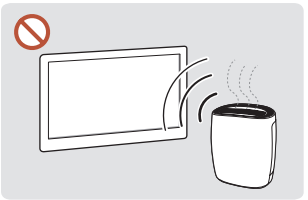
Precautions



Do not scratch the screen with nails or sharp objects. Scratches may leave marks or damage the product.



Do not spray water directly on any part of the product. Product failure, an electric shock or fire may result from water that enters the product.



Due to the characteristics of high-glossy products, using a UV humidifier nearby may create white-coloured stains on 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.
- Do not wipe the screen with chemicals. Product failure may result.
- Contact Customer Service Centre if the inside of the product needs cleaning (service fee will be charged).

Precautions for Use

Be careful that if you use the supplied pen with a load exceeding 2.5 kg, scratches may occur on the protective glass.

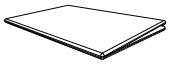
If you use a ballpoint pen other than the supplied pen, be careful that the screen may be stained with ink or damaged.

We recommend that you use the supplied pen. Do not use sharp, pointed objects other than the pen.

Chapter 02
Preparations

Checking the Components

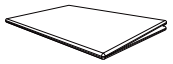
- Contact the vendor where you purchased the product if any components are missing.
- The appearance of the components may differ from the images shown.
- A stand is not provided with the product. To install a stand, you can purchase one separately.
- The RS232C adapter can be used to connect using the D-SUB(9-pin) to Stereo type RS232C cable.



Quick Setup Guide



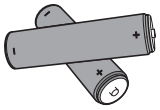
Warranty card
(Not available in some locations)



Regulatory guide



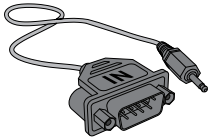
Power cord



Batteries (AAA x 2)
(Not available in some locations)



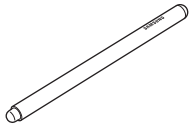
Remote Control



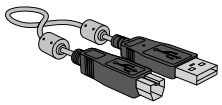
RS232C adapter



HOLDER-CABLE



Touch Pen x 2



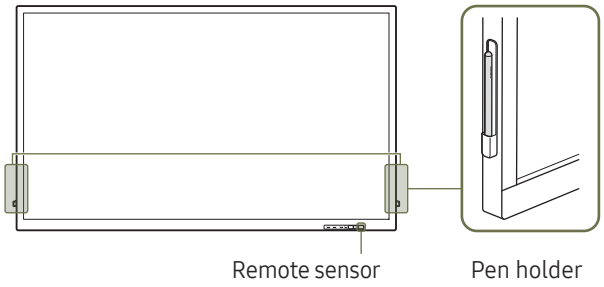
USB cable



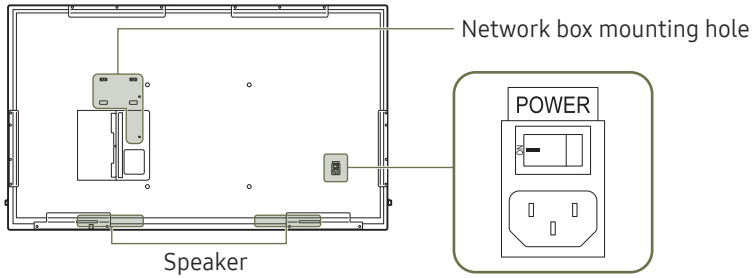
Holder-Ring x 4
(Supported model: QB75N-W)

Parts

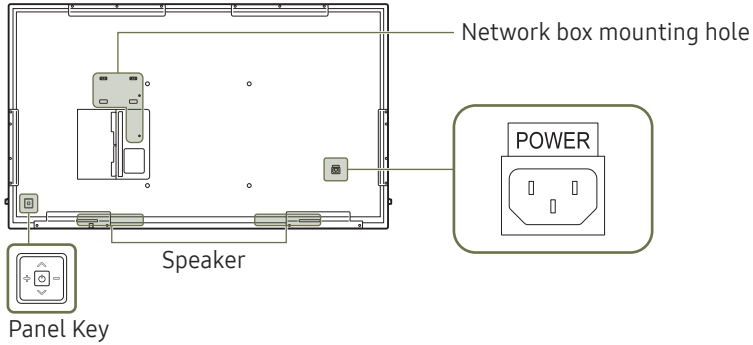
QB65H-TR/QB75H-TR



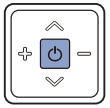
QB65H-TR



QB75H-TR



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

Parts	Description
Remote sensor	Press a button on the remote control pointing at the sensor on the front of the product to perform the corresponding function. Using other display devices in the same space as the remote control of this product can cause the other display devices to be inadvertently controlled.
Pen holder	Keep the touch pen in place.
	Turns the product on or off. Supported models: QB75H-TR

Use the remote control within 7 m to 10 m from the sensor on the product at an angle of 30° from the left and right.

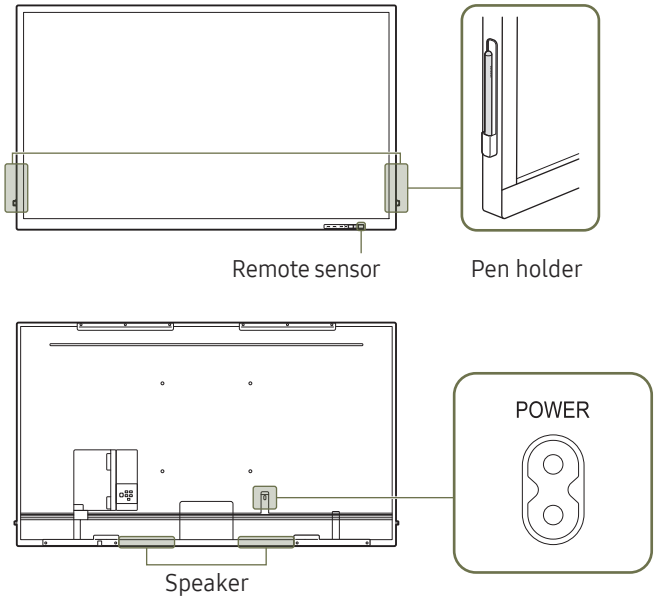
Store used batteries out of reach of children and recycle.

Do not use a new and used battery together. Replace both batteries at the same time.

Remove batteries when the remote control is not to be used for an extended period of time.

To enhance the IR receiver performance, connect an External IR Sensor (sold separately) to the **IR IN** port.

QB75N-W



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

Parts	Description
Remote sensor	Press a button on the remote control pointing at the sensor on the front of the product to perform the corresponding function. Using other display devices in the same space as the remote control of this product can cause the other display devices to be inadvertently controlled.
Pen holder	Keep the touch pen in place.

Use the remote control within 7 m to 10 m from the sensor on the product at an angle of 30° from the left and right.

Store used batteries out of reach of children and recycle.

Do not use a new and used battery together. Replace both batteries at the same time.

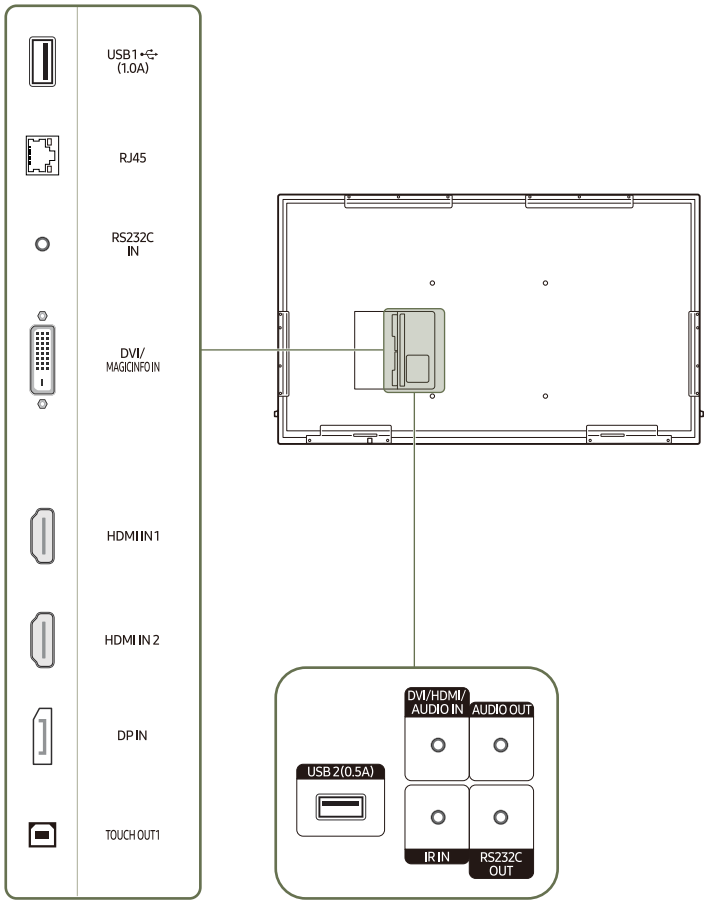
Remove batteries when the remote control is not to be used for an extended period of time.

To enhance the IR receiver performance, connect an External IR Sensor (sold separately) to the **IR IN** port.

Ports

QB65H-TR/QB75H-TR

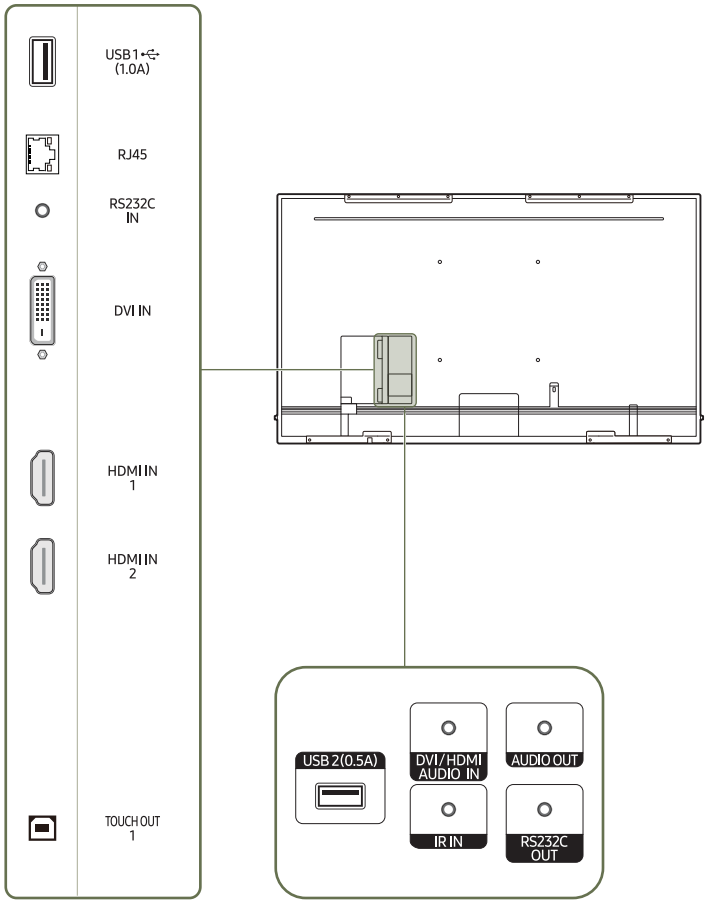
The colour and shape of parts may differ from what is shown.
Specifications are subject to change without notice to improve quality.



Port	Description
USB 1 (1.0A)	Connect to a USB memory 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.
RJ45	Connects to MDC using a LAN cable. (10/100 Mbps) Use Cat7(*STP Type) cable for the connection. *Shielded Twist Pair.
RS232C IN	Connects to the MDC using an RS232C adaptor (DB9 to Stereo type).
DVI/MAGICINFO IN	DVI: Connects to a source device using a DVI cable or HDMI-DVI cable. MAGICINFO IN: To use MagicInfo, make sure to connect the DP-DVI cable. To activate **MagicInfo**, the **IWB S5** function must be turned **OFF**. Please contact a service centre.
HDMI IN 1	Connects to a source device using a HDMI cable or HDMI-DVI cable.
HDMI IN 2	
DP IN	Connects to a PC using a DP cable.
TOUCH OUT1	Connects to a PC using an USB cable to enable touch functions.
USB 2(0.5A)	Connect to a USB memory device. The USB ports on the product accept a maximum constant current of 0.5A. If the maximum value is exceeded, USB ports may not work.
DVI/HDMI/AUDIO IN	Receives sound from a source device via an audio cable.
AUDIO OUT	Outputs sound to an audio device via an audio cable.
IR IN	Connects to an external IR cable that receives signals from the remote control.
RS232C OUT	Connects to the MDC using an RS232C adaptor (Stereo to Stereo type).

QB75N-W

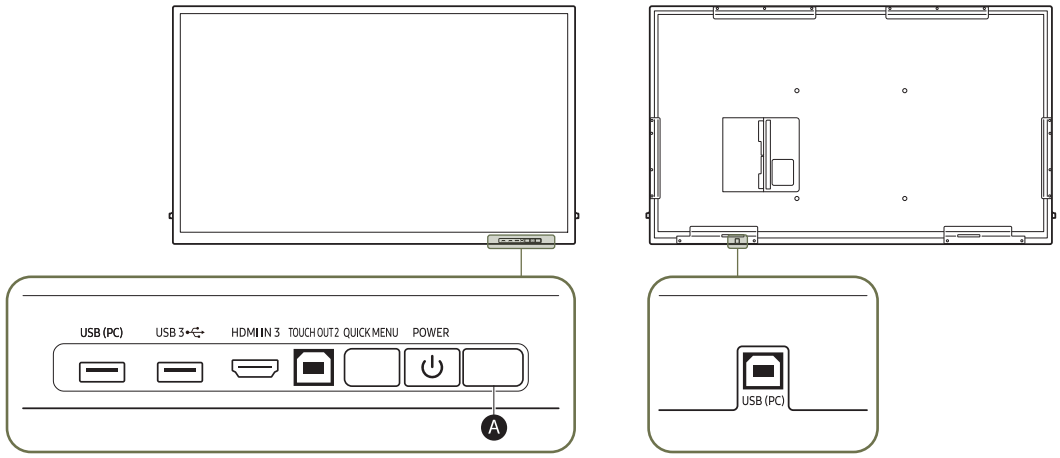
The colour and shape of parts may differ from what is shown.
Specifications are subject to change without notice to improve quality.



Port	Description
USB 1 (1.0A)	Connect to a USB memory 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.
RJ45	Connects to MDC using a LAN cable. (10/100 Mbps) Use Cat7(*STP Type) cable for the connection. *Shielded Twist Pair.
RS232C IN	Connects to the MDC using an RS232C adaptor (DB9 to Stereo type).
DVI IN	Connects to a source device using a DVI cable or HDMI-DVI cable.
HDMI IN 1	Connects to a source device using a HDMI cable or HDMI-DVI cable.
HDMI IN 2	
TOUCH OUT1	Connects to a PC using an USB cable to enable touch functions.
USB 2(0.5A)	Connect to a USB memory device. The USB ports on the product accept a maximum constant current of 0.5A. If the maximum value is exceeded, USB ports may not work.
DVI/HDMI AUDIO IN	Receives sound from a source device via an audio cable.
AUDIO OUT	Outputs sound to an audio device via an audio cable.
IR IN	Connects to an external IR cable that receives signals from the remote control.
RS232C OUT	Connects to the MDC using an RS232C adaptor (Stereo to Stereo type).

Tray

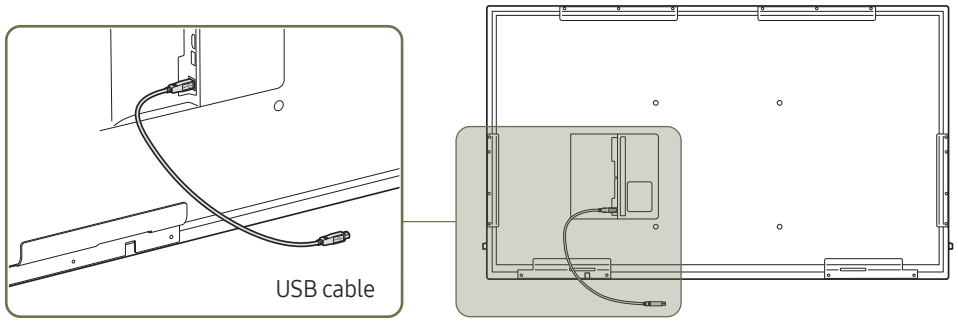
The colour and shape of parts may differ from what is shown. Specifications are subject to change without notice to improve quality.



Port	Description
USB (PC)	Connect to a USB memory device. 1 Use an USB cable between the **USB (PC)** port on the product and a USB port on a PC to connect them. 2 Insert an USB storage device to the **USB 3** port.
USB 3	
HDMI IN 3	Connects to a source device using a HDMI cable or HDMI-DVI cable.
TOUCH OUT 2	Connects to a PC using an USB cable to enable touch functions.
QUICK MENU	If you press the **QUICK MENU** button while the screen is on, the main menu appears at the bottom of the screen.
POWER	Turns the product on or off.
A Remote sensor	Press a button on the remote control pointing at the sensor on the front of the product to perform the corresponding function.

Using the touch function

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



1 To use the touch function with a Network box (sold separately) or computer connected to the product, use the USB cable to connect the **TOUCH OUT** port on the product to the USB port on the Network box or computer.

2 If you connect the **TOUCH OUT** port to a PC that uses multiple monitors, the touch function operates only on the primary monitor.

Anti-theft Lock

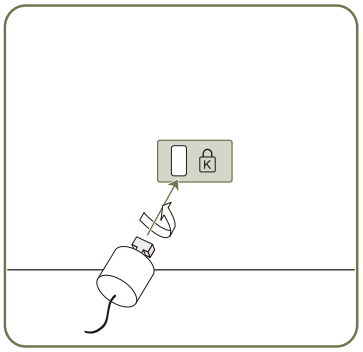
An anti-theft lock allows you to use the product securely even in public places.

The locking device shape and locking method depend on the manufacturer. Refer to the user guide provided with your anti-theft locking device for details.

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

This function may not be supported depending on the model.

To lock an anti-theft locking device:



1 Fix the cable of your anti-theft locking device to a heavy object such as a desk.

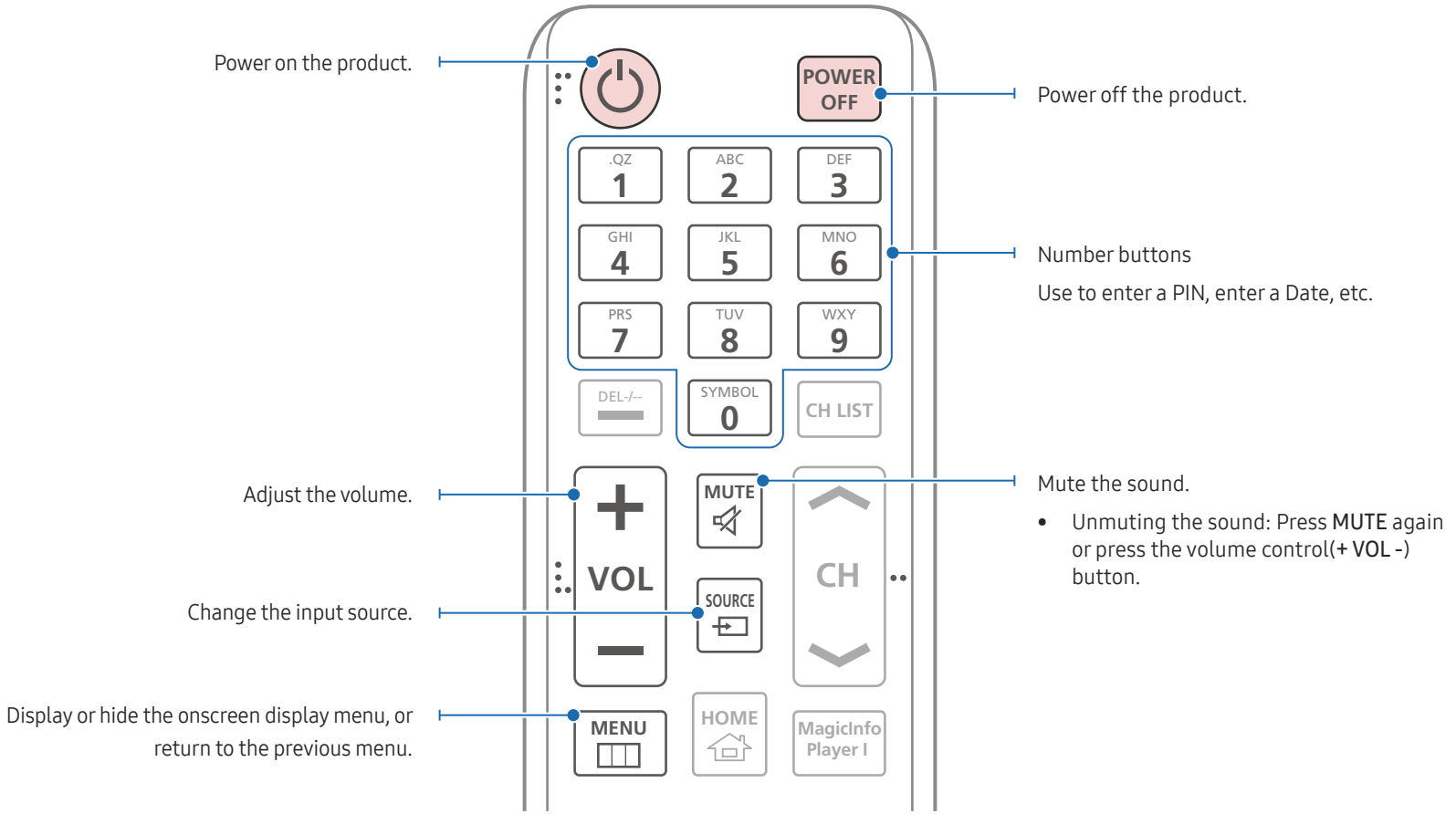
2 Put one end of the cable through the loop on the other end.

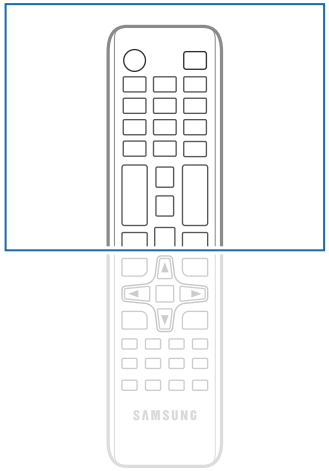
3 Insert the locking device into the anti-theft lock slot at the back of the product.

4 Lock the locking device.
- An anti-theft locking device can be purchased separately.
- Refer to the user guide provided with your anti-theft locking device for details.
- Anti-theft locking devices can be purchased at electronics retailers or online.

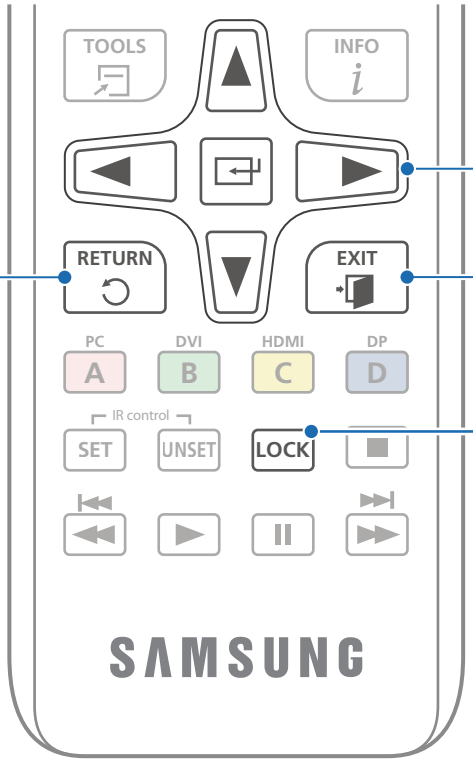
Remote Control

- Using other display devices in the same space as the remote control of this product can cause the other display devices to be inadvertently controlled.
- A button without a description in the image below is not supported on the product.





Remote control button functions may differ for different products.



Move to the upper, lower, left or right menu, or adjust an option's setting.

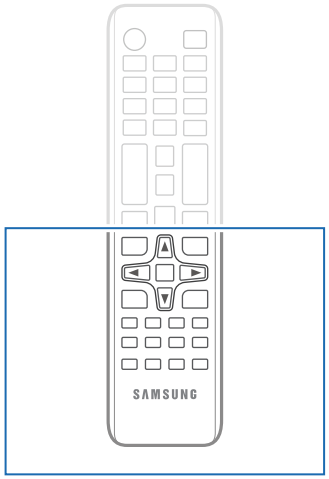
Confirm a menu selection.

Return to the previous menu.

Exit the current menu.

It sets Safety Lock function.

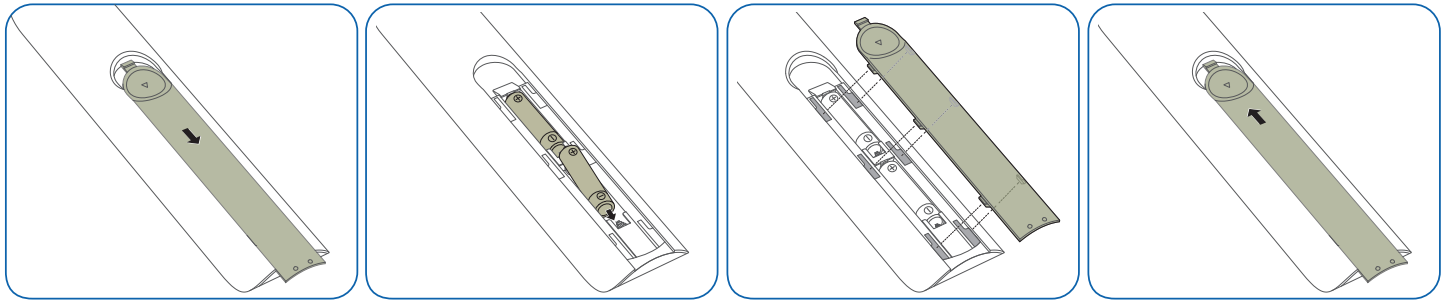
- To unlock: Press the button again.



Remote control button functions may differ for different products.

Remove batteries when the remote control is not to be used for an extended period of time.

To place batteries in the remote control (AAA x 2)



Before Installing the Product (Installation Guide)

To prevent injury, this apparatus must be securely attached to the floor/wall in accordance with the installation instructions.

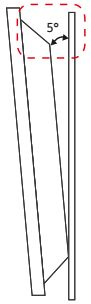
- Ensure that an authorised installation company installs the wall mount.
- Otherwise, it may fall and cause personal injury.
- Make sure to install the specified wall mount.

Tilting Angle

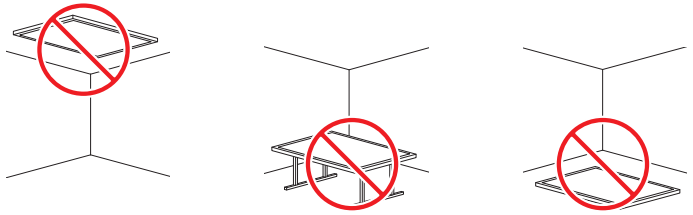
Contact Samsung Customer Service Centre for further details.

This model is designed for use in landscape orientation only.

- The product can be tilted at a maximum angle of 5° from a perpendicular wall surface.



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



Ventilation

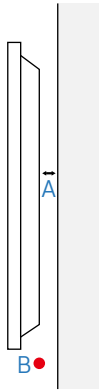
Contact Samsung Customer Service Centre for further details.

Installation on a Perpendicular Wall

A Minimum 40 mm

B Ambient temperature: Under 35 °C

When installing the product on a perpendicular wall, allow at least 40 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 40 mm

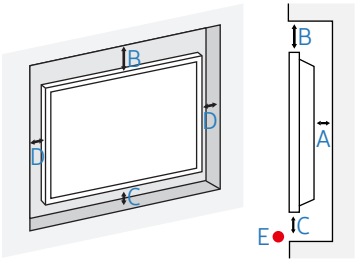
B Minimum 70 mm

C Minimum 50 mm

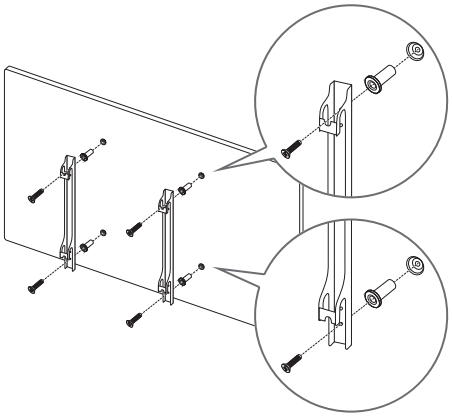
D Minimum 50 mm

E Ambient temperature: Under 35 °C

When installing the product on an indented wall, allow at least the space specified above between the product and wall for ventilation and ensure that the ambient temperature is kept below 35 °C.



Installing the Wall Mount



Preparing before installing Wall-Mount

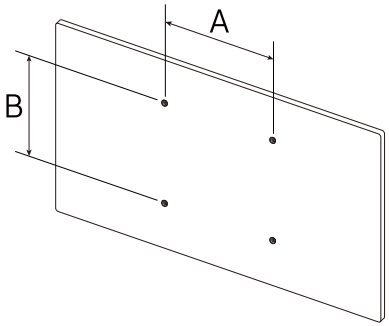
To install a wall-mount from another manufacturer, use the Holder-Ring.

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 to the product or injury to yourself or others if you select to install the wall mount on your own.

Wall Mount Kit Specifications (VESA)

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



- Samsung wall mount kits contain a detailed installation manual and all parts necessary for assembly are provided.
- 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 5 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.

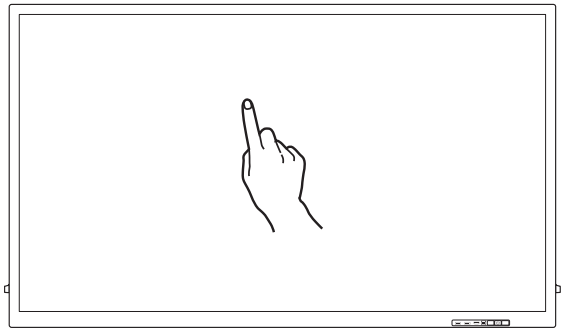
VESA screw hole specs (A * B) in millimetres	Standard Screw	Quantity
400 × 400	M8	4

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
Using a touchscreen monitor

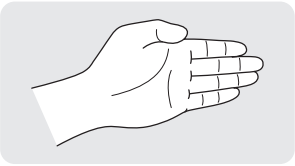
Touchscreen monitor

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 touchscreen 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.



- When using your palm as an eraser, put your fingers together.

Connecting the touchscreen monitor

The supported ports may vary depending on the model.

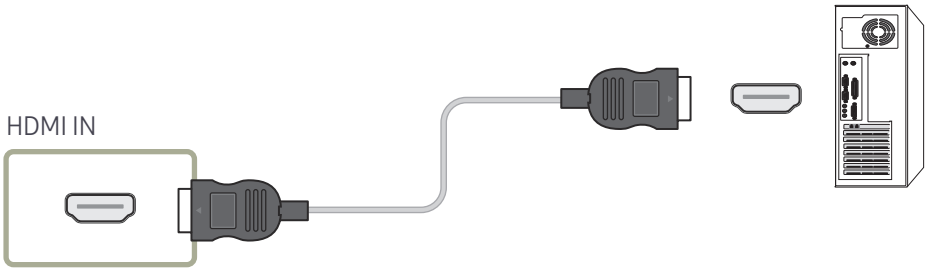
Connecting to a PC

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

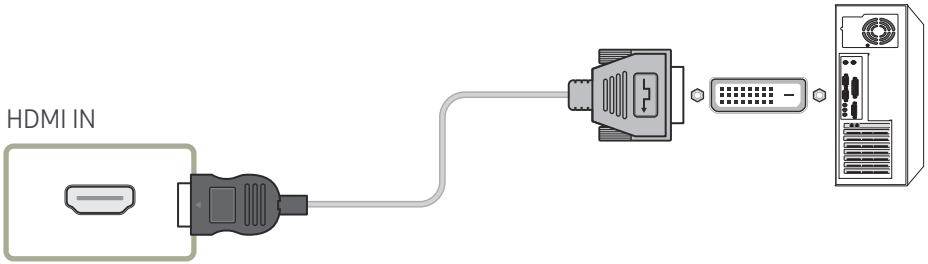
Use the appropriate cable for the port to connect to.

- Supported video ports: HDMI, DP(DisplayPort), DVI

Connecting the devices using a HDMI cable



Connecting the devices using a HDMI-DVI cable

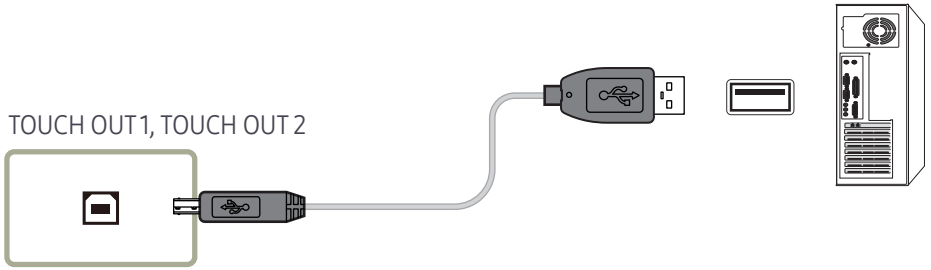


2 Connect the power cable from the product to the power outlet.

3 Connect the **TOUCH OUT** port on the product to a USB port on the PC using the USB cable.

TOUCH OUT 1 operates when the current screen is set to HDMI 1, HDMI 2, DisplayPort, or DVI.

TOUCH OUT 2 operates when the current screen is set to HDMI 3.



If touchscreen control is not available after the devices are connected

- Make sure to connect the HDMI or HDMI-DVI cable before connecting the USB cable.
- If touchscreen control is still unavailable after the cables are connected properly, disconnect the USB cable and then connect it again.

Configuring the touchscreen monitor settings

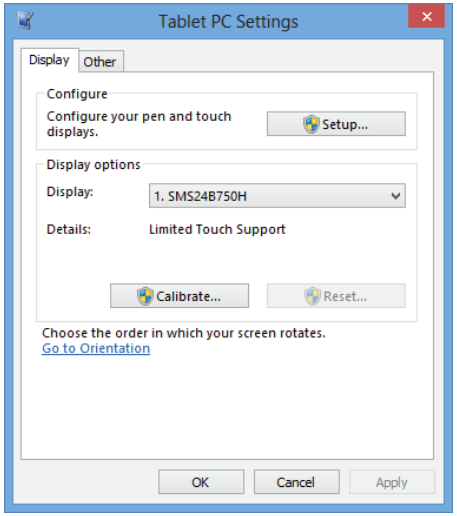
To properly use the touch function of the product in Windows, go to **Tablet PC Settings** and calibrate the product.

- 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 **Control Panel**, search for **Tablet PC Settings** from **Search Control Panel**.

Calibration

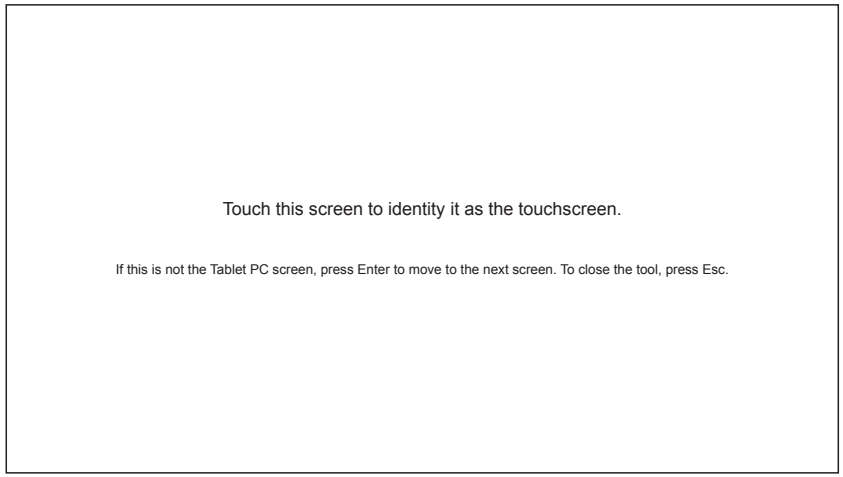
- Instructions below are for Windows 8. The same method applies to both Windows 7, Windows 8 and Windows 10.
- After changing the Picture Size from the OSD menu, you may need to calibrate the picture settings again.
- In the occurrence of an error during calibration, go to **Tablet PC Settings** → the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

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

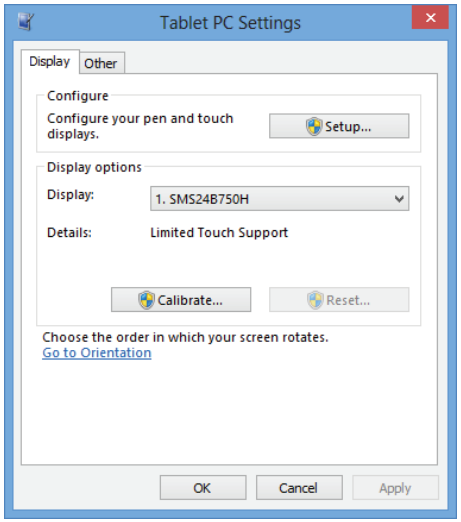


2 Tap the page displayed on the product with your finger.

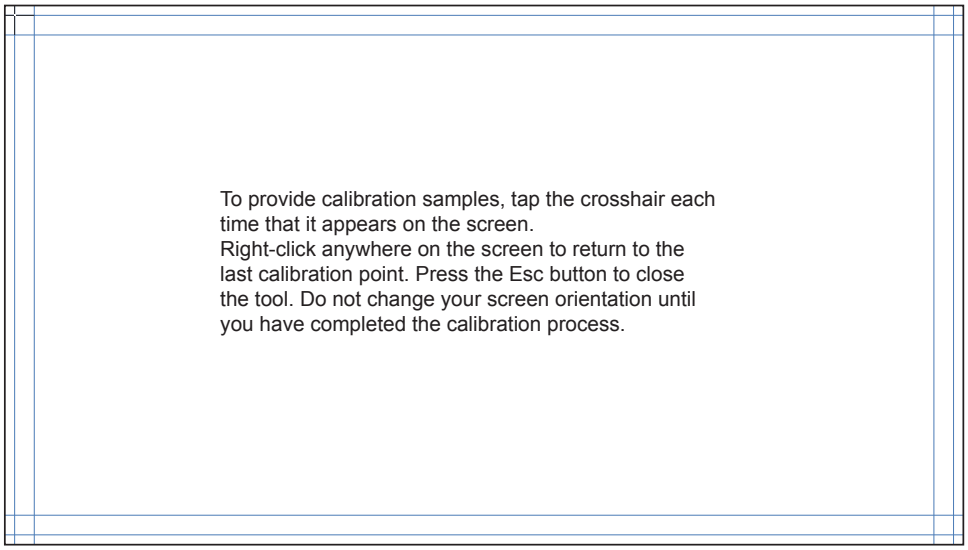
- In dual monitor mode: If the following page does not appear on the product, press the Enter key to display the page.



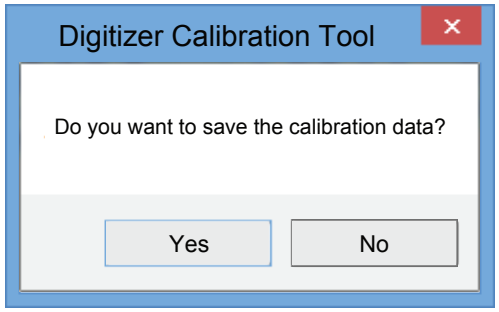
3 Select the product from **Display** under **Display options**. Next, select **Calibrate**.



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

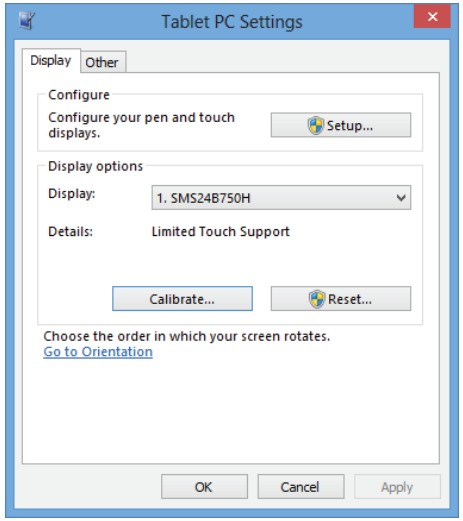


5 After calibration is complete, the message **Do you want to save the calibration data?** appears. Select **Yes**.

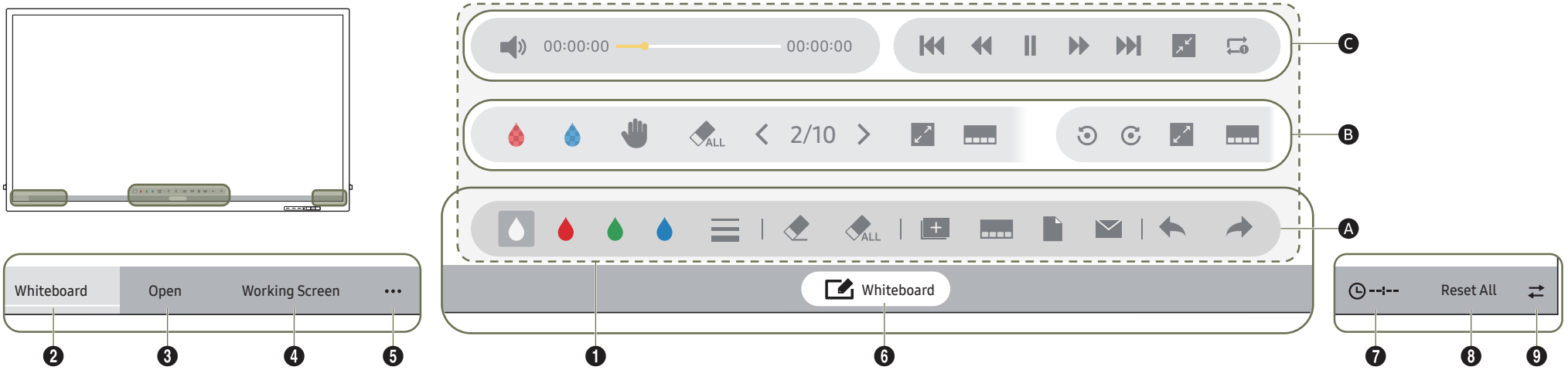


6 The touchscreen monitor has been calibrated successfully.

Selecting **Reset** will remove the calibration data.



Main Menu



Buttons	Description
❶	Sub Menu Available menu items depend on the mode. • Whiteboard: Ⓐ • Document/Image Viewer: Ⓑ • Player: Ⓒ For detailed menu for each mode, see Quick Guide under More (•••).
❷	Launch Whiteboard.
❸	View and select content from the internal/external storage, change the connected source, or launch an installed application.
❹	Change the current screen to another screen or close a screen.

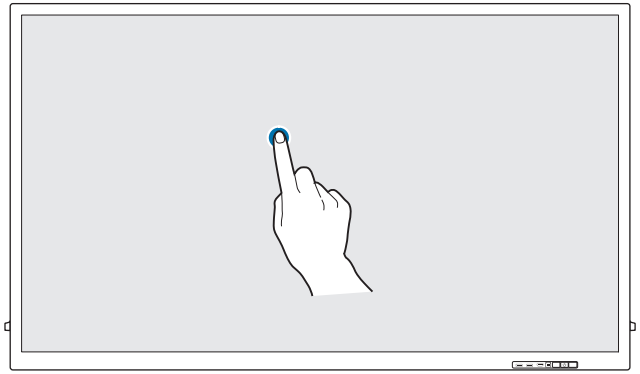
Buttons	Description
❺	More: View more options, such as Email, Adjust volume, Quick Guide, Settings. • Email: Send email messages. • Adjust volume: Adjust the volume. • Quick Guide: View details about how to use the device. • Settings: Access the settings menu.
❻	View the name of the current file in use or the current input mode name (source name).
❼	View the current time. When the user taps the clock(), the Clock Set will be displayed.
❽	All unsaved whiteboard data will be deleted and all open windows will be closed.
❾	Change the position of the main menu to the selected area.

Controlling the screen

Touchscreen gestures

Using touchscreen gestures is similar to using a mouse.

Tap

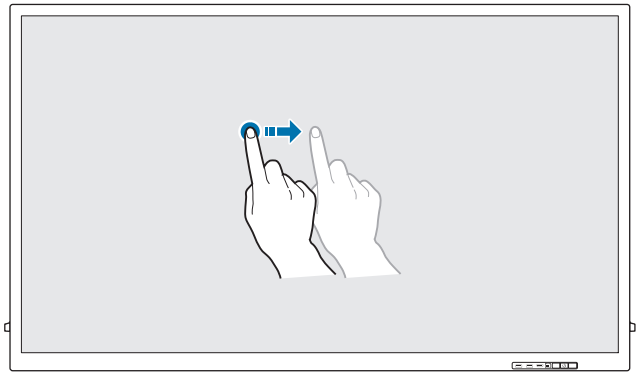


Lightly tap the screen.

Use this gesture to select a feature or menu item.

It is similar to clicking on a mouse.

Drag

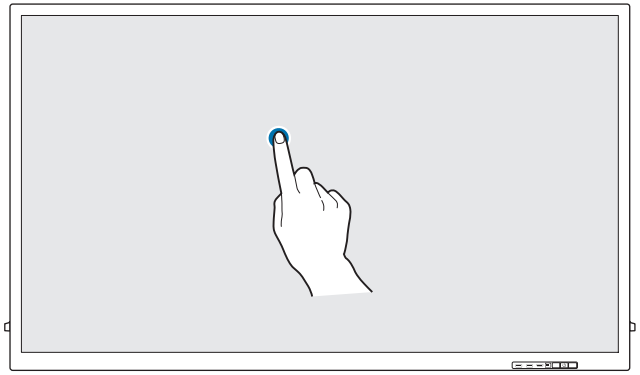


Lightly touch and drag in any direction on the screen.

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

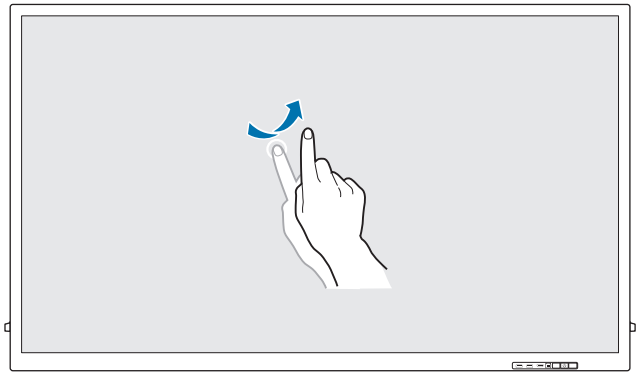


Tap the screen twice.

Use this gesture to run the selected programme.

It is similar to double-clicking on a mouse.

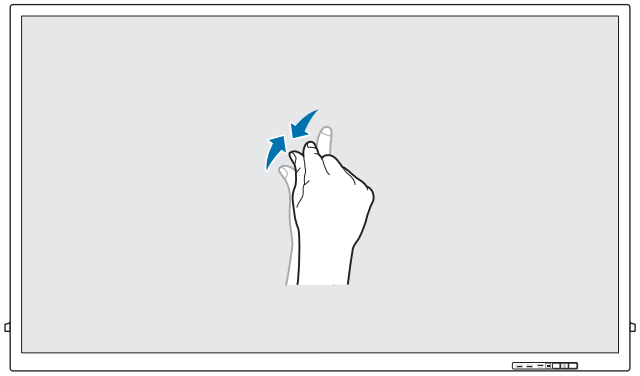
Flick



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.

Zoom in/out



Spread or pinch your fingers on the screen as shown in the image.

Use these gestures to zoom in or out respectively on a web page, map or photo.

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.
- For details on how to use the Whiteboard icons, tap the ••• icon at the bottom of the screen, and then tap Quick Guide.

Chapter 04
Connecting and Using a Source Device

Before Connecting

Pre-connection Checkpoints

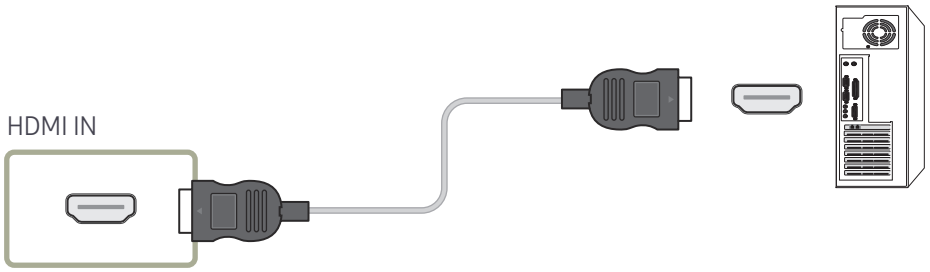
- Also refer to the user guide for the source device you want to connect with. The number and location of ports available on the source device may vary.
- Do not connect the power cable until all connections are completed. Connecting the power cable during connection may damage the product.
- Check the types of ports of the product you want to connect.
- We recommend using authorised cables for HDMI or DP cable connections.

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.

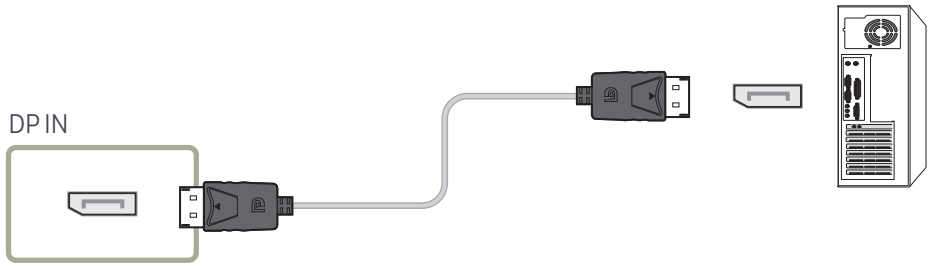
Connection Using an HDMI Cable

- Connecting parts may differ in depending on the model.



Connection Using an DP Cable

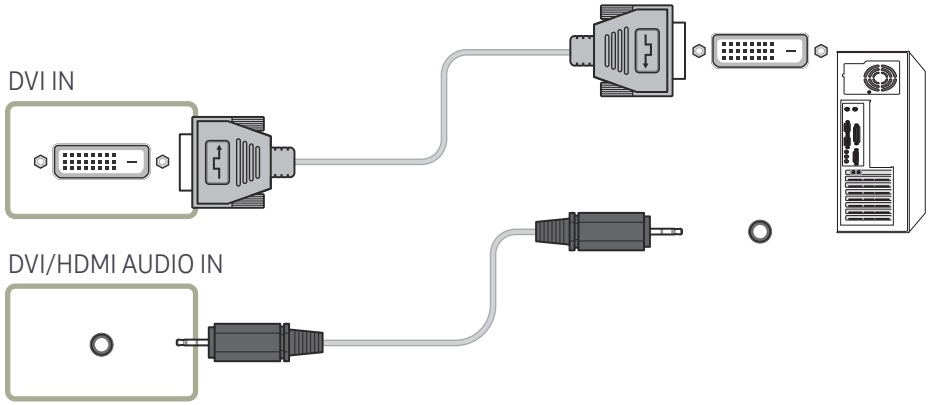
Connecting parts may differ in depending on the model.



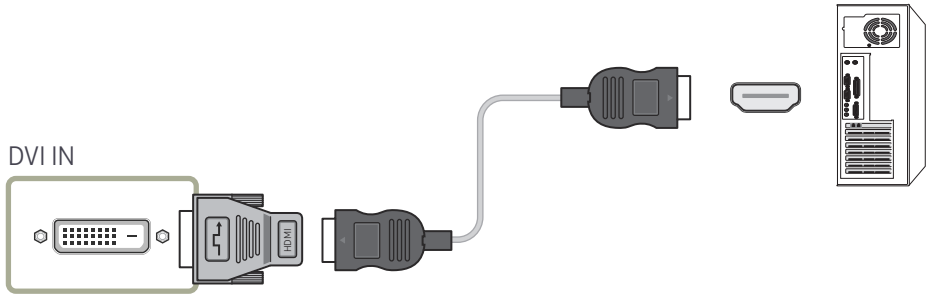
- Precautions for using DP
  - Some graphics cards that are not compliant with the DP standard may prevent the Windows Booting/Bios screen from being displayed when the product is in power-saving mode. If this is the case, make sure to turn on the product first before turning on your PC.
  - Using a DP cable that is not VESA compliant may cause the product to function improperly. Samsung shall not be held responsible for any issues from using a cable that is not VESA compliant.
    Make sure to use a DP cable that is VESA compliant.
  - To use the optimal resolution (3840 x 2160 @ 60Hz) when the input source is DisplayPort, using a DP cable shorter than 5m is recommended.
  - Disabling power-saving mode when the input source is DisplayPort may import new resolution information and reset the task window size or location.

Connection Using a DVI Cable (Digital type)

Connecting parts may differ in depending on the model.



- You can use the DVI port on the product as an HDMI port by using a DVI-HDMI adapter.
- When connecting the product (DVI) to a computer (HDMI) using a DVI-HDMI adaptor, configure the settings as shown below to use the video and audio from the computer.
  – Change Sound setting → from HDMI Sound to AV(HDMI)

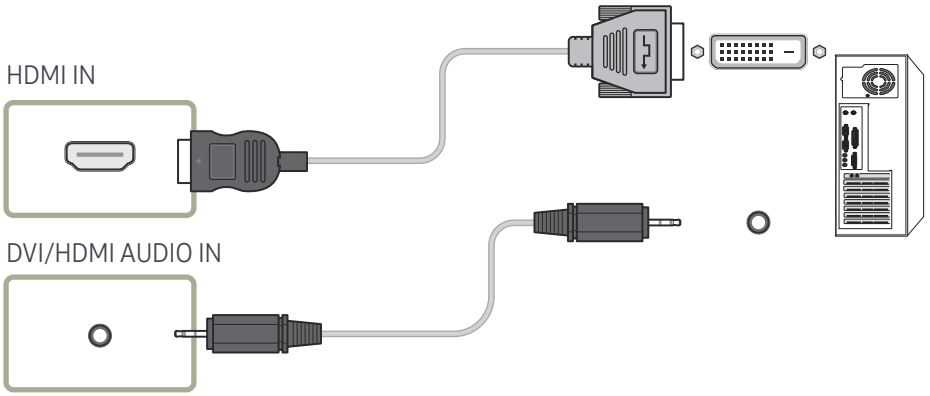


Connection Using an HDMI-DVI Cable

Connecting parts may differ in depending on the model.

After connecting a computer to the product with an HDMI-DVI cable, make sure to configure the settings as shown below to enable the video and audio from the computer.

- Sound → set HDMI Sound to PC(DVI)



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.

Press the SOURCE button on the remote control to change the source.

When using the touch function, connect the external device to the product, tap Open, and then select the connected external device while the product is turned on.

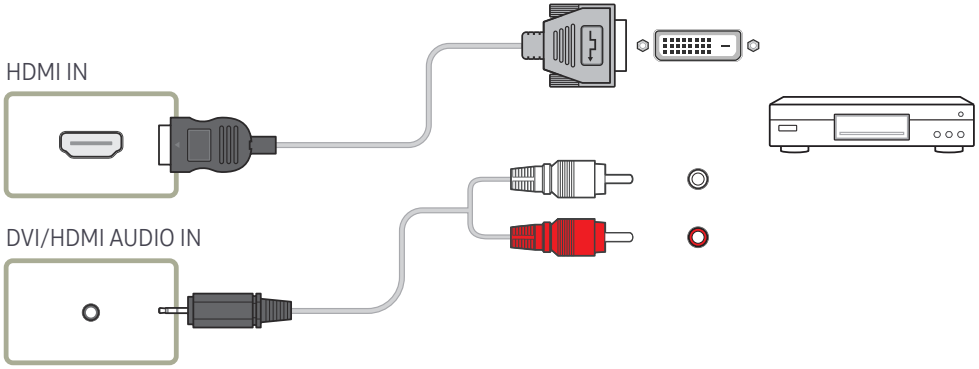
Connection Using an HDMI-DVI Cable

Connecting parts may differ in depending on the model.

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

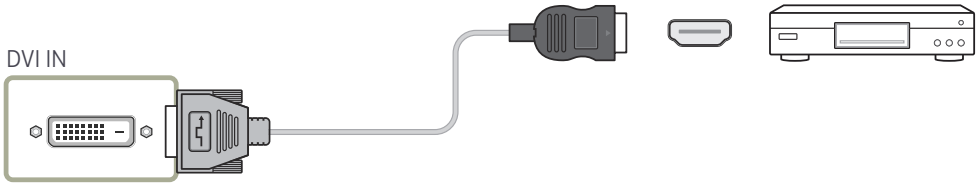
Make sure to connect the same color connectors together. (white to white, red to red, etc.)

- Audio will not be enabled if the product is connected to a video device using an HDMI-DVI cable. To resolve this, additionally connect an audio cable to the audio ports on the product and video device.



- After connecting a video device to the product with an HDMI-DVI cable, make sure to configure the settings as shown below to enable the video and audio from the video device.
  – Sound → set HDMI Sound to AV(HDMI)

You can use the DVI port on the product as an HDMI port by using a DVI-HDMI adapter.

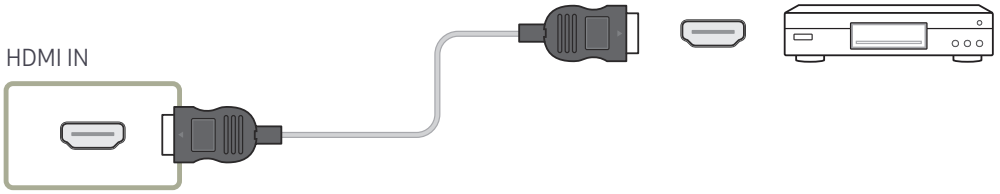


Connection Using an HDMI Cable

Connecting parts may differ in depending on the model.

Using an HDMI Cable or HDMI to DVI Cable (UHD 30Hz)

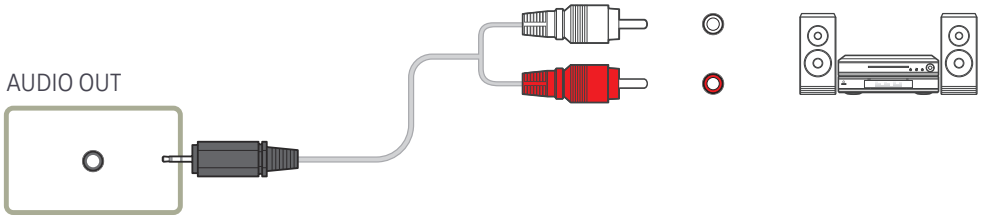
- An HDMI cable supports digital video and audio signals, and does not require an audio cable.
- The picture may not display normally (if at all) or the audio may not work if an external device that uses an older version of HDMI mode is connected to the product. If such a problem occurs, ask the manufacturer 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.



Connecting to an Audio System

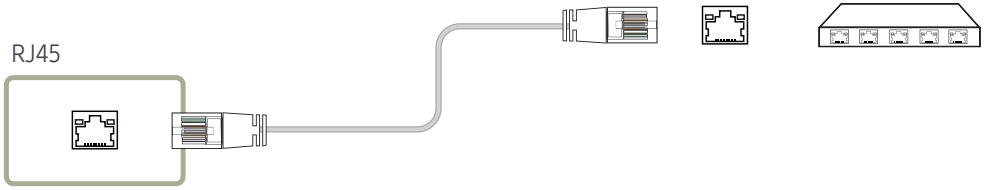
Connecting parts may differ in depending on the model.

Make sure to connect the same color connectors together. (white to white, red to red, etc.)



Connecting the LAN Cable

Connecting parts may differ in different products.

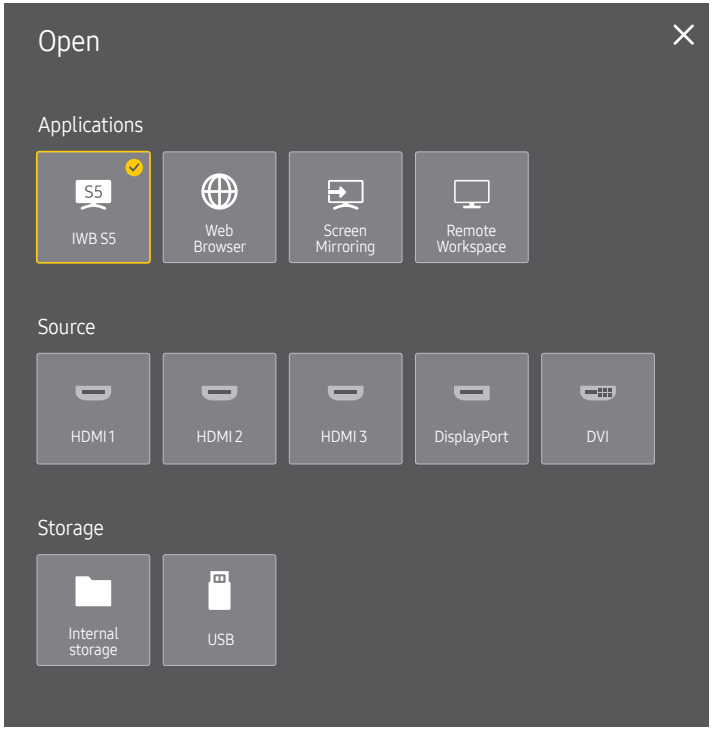


- Use Cat7(*STP Type) cable for the connection. (10/100 Mbps)
  *Shielded Twist Pair

Changing the Input source

Open

- Using the remote control: SOURCE
- Using touchscreen control mode: Open



The displayed image may differ depending on the model.

Applications

- IWB S5 / Web Browser / Screen Mirroring / Remote Workspace

Source

Source allows you to select a variety of sources and change source device names.

You can display the screen of a source device connected to the product. Select a source from source list to display the screen of the selected source.

If using the remote control, connect an external device and press SOURCE on the remote control to select the device.

When using the touch function, connect the external device to the product, tap Open, and then select the connected external device while the product is turned on.

The screen may not display correctly if an incorrect source is selected for the source device you want to convert to.

If there is no input from the selected external source device, the screen switches to the whiteboard after 30 seconds.

- HDMI 1 / HDMI 2 / HDMI 3 / DisplayPort / DVI

  Available source devices may vary depending on the product.

Storage

- Internal storage / USB

  This menu is not displayed when you press the SOURCE button on the remote control.

Remote Workspace

SOURCE → Remote Workspace → ENTER

This function allows you to connect your product to a remote PC or a cloud server.

Enter the address of the PC or cloud server you want to connect to. Then, follow the on-screen instructions.

- Make sure that the product is connected to the network.
- This function is supported when the operating system of the PC or cloud server is Windows Vista or later.
- This function may not be supported depending on the model.

Chapter 05
Multiple Display Control

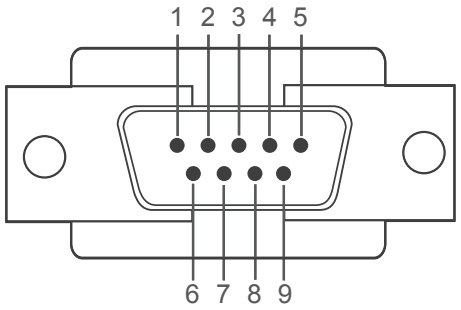
Control multiple display devices connected to a PC simultaneously.

Cable Connection

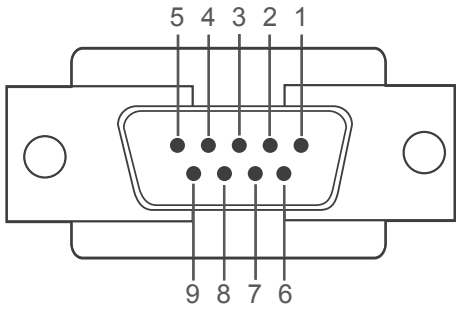
RS232C Cable

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



‹Male type›

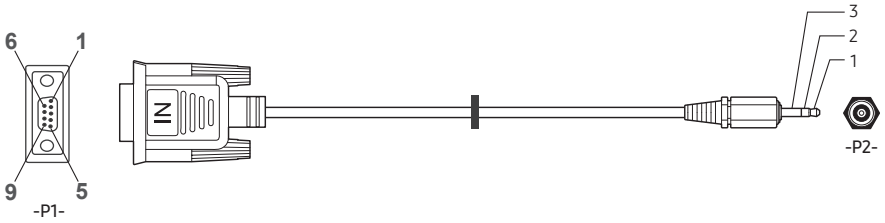


‹Female type›

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

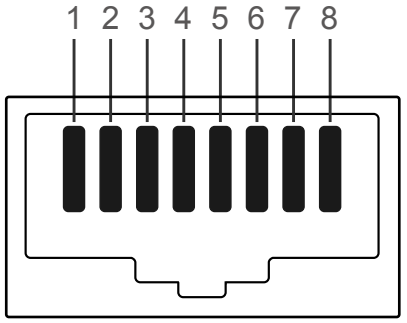
- RS232C cable
  Connector: 9-Pin D-Sub to Stereo Cable



-P1-		-P1-		-P2-		-P2-
Male type	Rx	3	⟷	1	Tx	STEREO
	Tx	2	⟷	2	Rx	PLUG
	Gnd	5	⟷	3	Gnd	(3.5ø)

LAN Cable

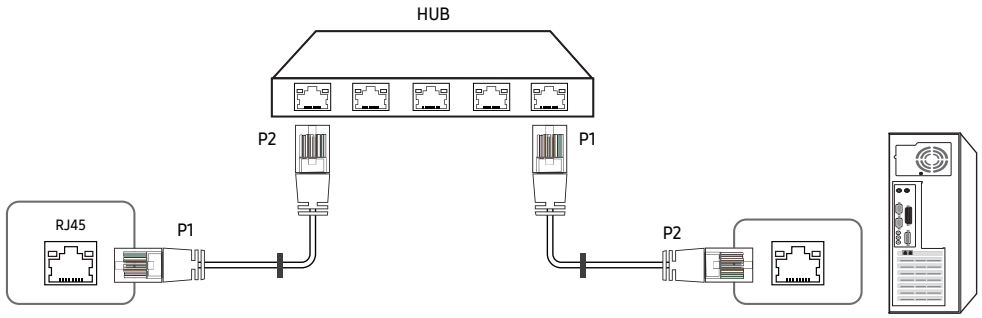
- Pin assignment



Pin No	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

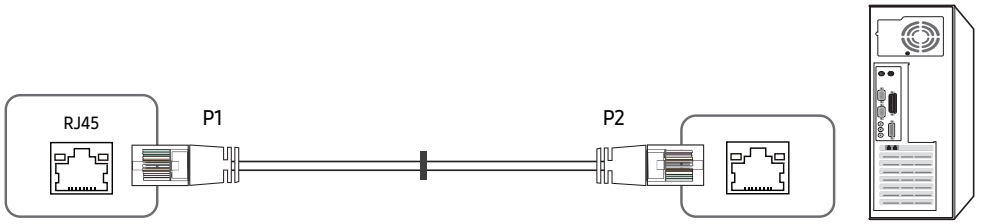
- Connector : RJ45

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 PC)

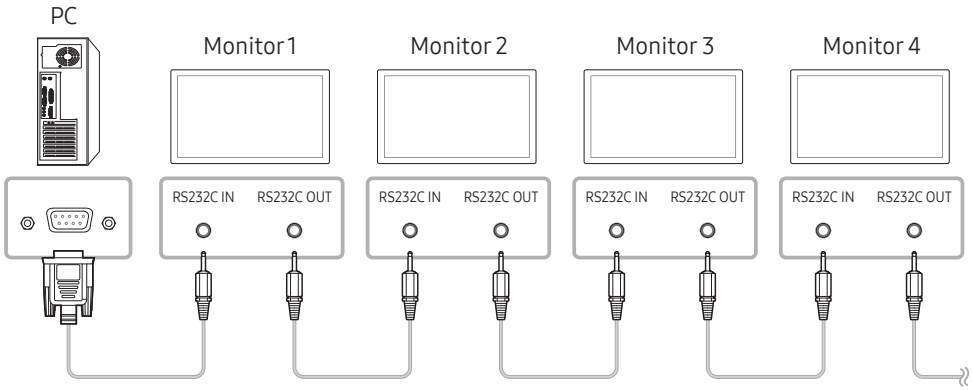


Signal	P1		P2	Signal
TX+	1	⟷	3	RX+
TX-	2	⟷	6	RX-
RX+	3	⟷	1	TX+
RX-	6	⟷	2	TX-

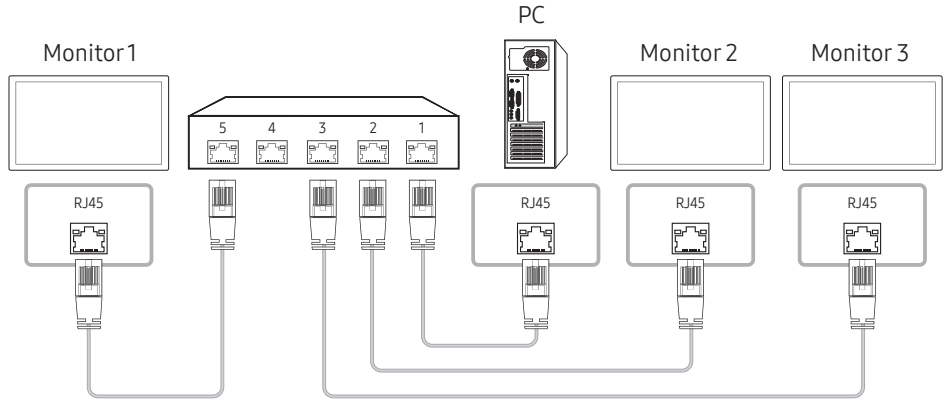
Connection

Ensure you connect each of the adapters to the correct RS232C IN or OUT port on the product.

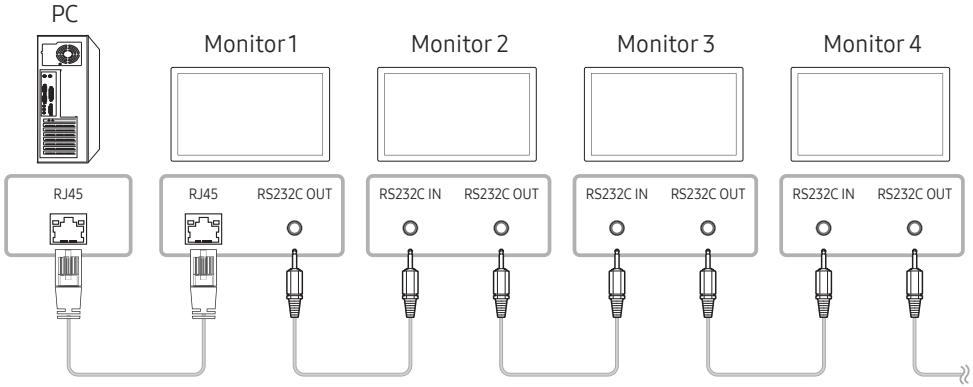
- Connection 1



- Connection 2



- Connection 3



Control Codes

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	Safety Lock	0x5D	0~1

- 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

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.

- 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

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

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 programme, refer to Help after installing the programme. The MDC programme is available on 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 42.

MDC Programme 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 programme.
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 programme in and click "Next".
   - If the directory path is not specified, the programme 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 programme 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 programme 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**.

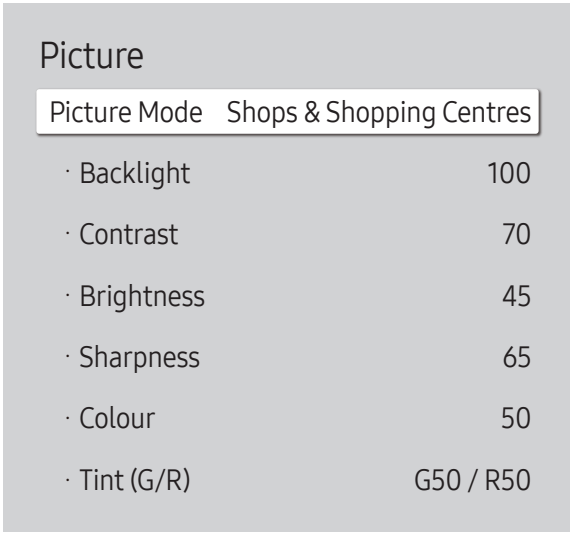
Chapter 06
Screen Adjustment

Configure the Picture settings (Backlight, Colour Tone, etc.).

The layout of the Picture menu options may vary depending on the product.

Picture Mode

MENU → Picture → Picture Mode → ENTER



The displayed image may differ depending on the model.

If HDR+ Mode is set to On, Picture Mode is disabled.

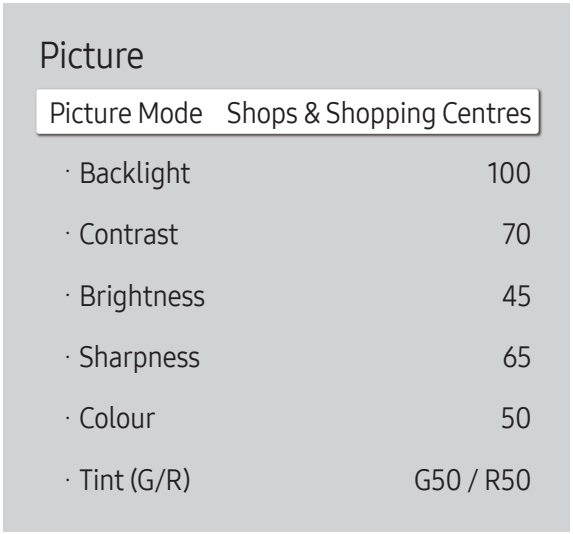
Select a picture mode (Picture Mode) suitable for the environment where the product will be used.

Videos/Images mode improves the picture quality of the video device. Text mode improves the picture quality of the computer.

- Shops & Shopping Centres
  Suitable for shopping malls.
  – Select either Videos/Images or Text depending on the picture mode.
- Offices & Schools
  Suitable for offices and schools.
  – Select either Videos/Images or Text depending on the picture mode.
- Terminals & Stations
  Suitable for bus terminals and train stations.
  – Select either Videos/Images or Text depending on the picture mode.
- Video Wall
  Suitable for environments where videowall display are used.
  – Select either Videos/Images or Text depending on the picture mode.
- Calibration
  In this mode, the brightness, colour, gamma and uniformity settings customised using the colour calibration programme **Color Expert** are applied.
  – To apply the Calibration mode properly, make sure you configure the picture quality settings, such as brightness, colour, gamma and uniformity, using the colour calibration programme **Color Expert**.
  – To download the **Color Expert** programme, visit www.samsung.com/displaysolutions.

Backlight / Contrast / Brightness / Sharpness / Colour / Tint (G/R)

MENU → Picture → ENTER



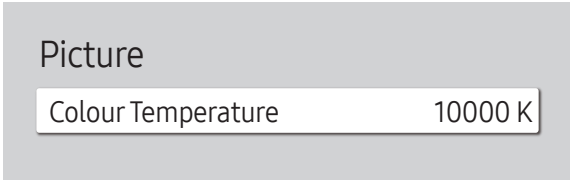
The displayed image may differ depending on the model.

Your product has several options for adjusting picture quality.

- You can adjust and store settings for each external device you have connected to the product.
- Lowering picture brightness reduces power consumption.
- To adjust Colour and Tint (G/R), set Picture Mode to Videos/Images.

Colour Temperature

MENU → Picture → Colour Temperature → ENTER



The displayed image may differ depending on the model.

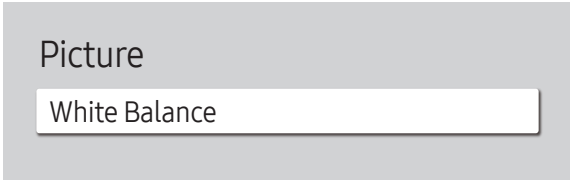
It sets color temperature. The value and temperature increase simultaneously, so the ratio of blue color rises. (Range: 2800K–16000K)

Enabled when Colour Tone is set to Off.

If Picture Mode is set to Calibration, Colour Temperature is disabled.

White Balance

MENU → Picture → White Balance → ENTER



The displayed image may differ depending on the model.

Adjust the colour temperature of the picture so that white objects appear brighter.

2 Point

Adjust red, green, and blue luminosity levels in two sections for precise white balance optimisation.

- R-Offset / G-Offset / B-Offset: Adjust the proportion of each of red, green and blue colours in dark areas.
- R-Gain / G-Gain / B-Gain: Adjust the proportion of each of red, green and blue colours in bright areas.
- Reset: Suitable for environments where videowall display are used.

20 Point Settings

Controls the white balance in 20 point interval by adjusting the red, green, and blue brightness.

20 Point

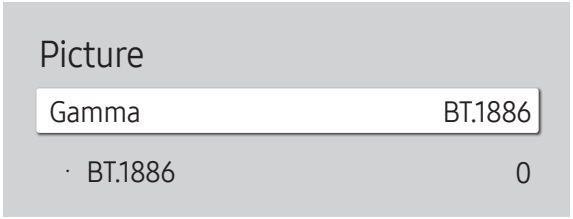
Adjust red, green, and blue luminosity levels in twenty sections for precise white balance optimisation.

- Off ( ) / On ( )
- Interval: Select interval to adjust.
- Red: Adjust the red level.
- Green: Adjust the green level.
- Blue: Adjust the blue level.
- Reset: Restore the current level's 20 point White Balance to the default values.

Some external devices may not support this function.

Gamma

MENU → Picture → Gamma → ENTER



The displayed image may differ depending on the model.

Adjust the primary colour intensity.

- HLG / ST.2084 / BT.1886

If Picture Mode is set to Calibration, Gamma is disabled.

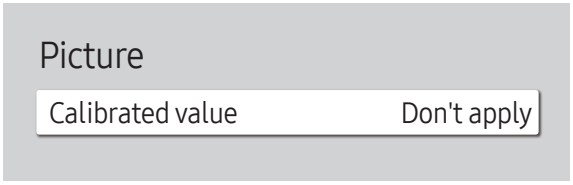
The HLG, ST.2084, and BT.1886 sub functions of Gamma vary depending on the input picture and the HDR+ Mode value. When HDR+ Mode is set to On, all of HLG, ST.2084, and BT.1886 are available.

HLG / ST.2084 / BT.1886

Adjust the HLG, ST.2084, BT.1886 levels of the picture.

Calibrated value

MENU → Picture → Calibrated value → ENTER



The displayed image may differ depending on the model.

Select whether to apply the brightness, colour, gamma and uniformity settings customised using the colour calibration programme **Color Expert** to the Information and Advertisement modes.

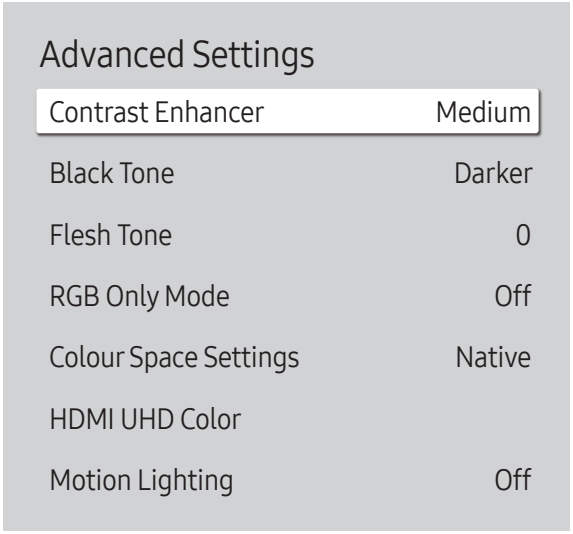
- Don't apply / Apply

To download the **Color Expert** programme, visit www.samsung.com/displaysolutions.

If Picture Mode is set to Calibration, Calibrated value is disabled.

Advanced Settings

MENU → Picture → Advanced Settings → ENTER



The displayed image may differ depending on the model.

If Picture Mode is set to Calibration, Advanced Settings is disabled.

Contrast Enhancer

Automatically balance the contrast to prevent excessive differences between bright and dark areas.

- Off / Low / Medium / High

If Picture Mode is set to Video Wall, Contrast Enhancer is disabled.

Black Tone

Select the black level to adjust the screen depth.

- Off / Dark / Darker / Darkest

Flesh Tone

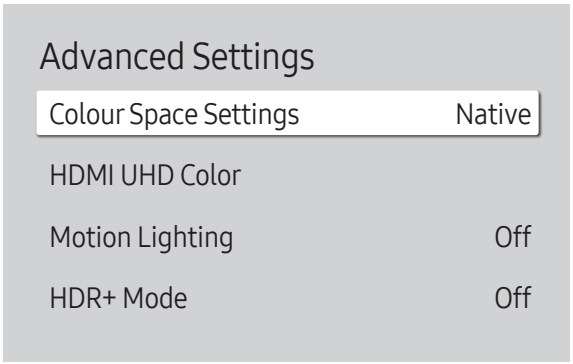
Adjust the flesh tone colour by increasing or decreasing red levels.

Enabled when Picture Mode is set to Videos/Images.

RGB Only Mode

Fine-tune the saturation and tint of the red, green, and blue colour channels.

- Off / Red / Green / Blue



The displayed image may differ depending on the model.

Colour Space Settings

Configure colour space settings to refine the spectrum of colours on your screen.

Enabled when Picture Mode is set to Videos/Images.

Colour Space

Choose a colour space.

- Auto / Native / Custom

To adjust Colour, Red, Green, Blue and Reset, set Colour Space to Custom.

HDMI UHD Color

Enable to optimise picture quality for HDMI UHD connection.

- HDMI1 (Off ( ) / On ( ))
- HDMI2 (Off ( ) / On ( ))

It supports only the models with UHD resolution.

Motion Lighting

Reduces power consumption by reducing screen brightness when the picture on the screen is in motion.

- Off / On

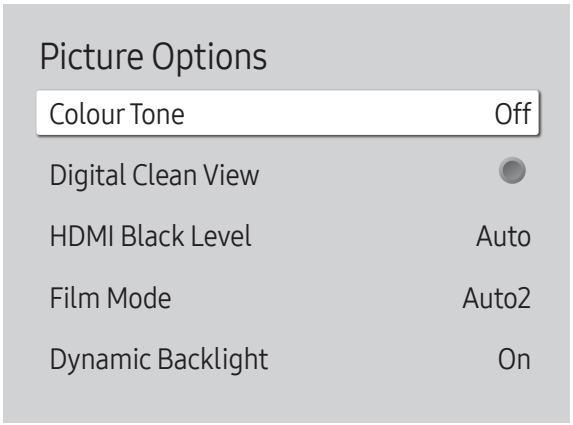
HDR+ Mode

Automatically provide an optimal HDR effect based on the video source.

- Off / On

Picture Options

MENU → Picture → Picture Options → ENTER



The displayed image may differ depending on the model.

Colour Tone

If Picture Mode is set to Text

- Off / Cool / Standard / Warm

If Picture Mode is set to Videos/Images

- Off / Cool / Standard / Warm1 / Warm2

If Picture Mode is set to Calibration, Colour Tone is disabled.

Settings can be adjusted and stored for each external device connected to an input on the product.

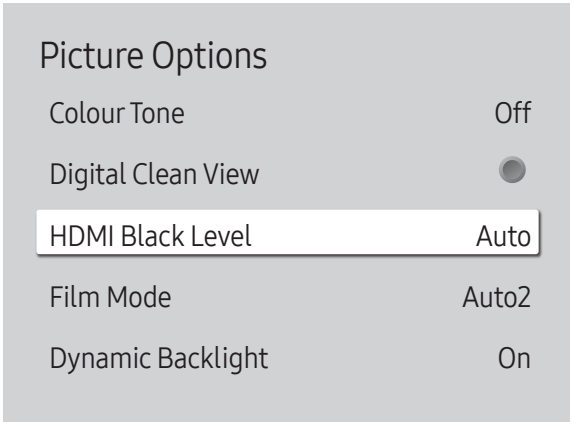
Digital Clean View

Reduce picture noise to avoid distractions such as flickering.

- Off ( ) / On ( )

If Picture Mode is set to Calibration, Digital Clean View is disabled.

Enabled when Picture Mode is set to Videos/Images.



The displayed image may differ depending on the model.

HDMI Black Level

Adjust the black level to optimize the HDMI picture brightness and contrast.

- Normal / Low / Auto

Film Mode

Make frame transitions from older video sources smoother. This function is only available when the input signal is HDMI (1080i).

- Off / Auto1 / Auto2

Enabled when Picture Mode is set to Videos/Images.

Dynamic Backlight

Automatically adjust the backlight to provide the best possible screen contrast under the current conditions.

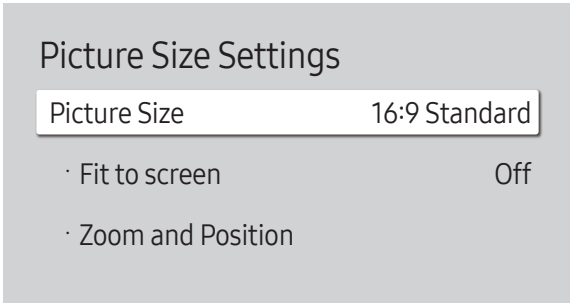
- Off / On

The default values of the Dynamic Backlight function in each Picture Mode are as follows:

Dynamic Backlight	Picture Mode	Picture Mode settings
Off	Shops & Shopping Centres, Offices & Schools, Terminals & Stations, Video Wall	Text
	Video Wall	Videos/Images
	Calibration	-
On	Shops & Shopping Centres, Offices & Schools, Terminals & Stations	Videos/Images

Picture Size Settings

MENU → Picture → Picture Size Settings → ENTER



The displayed image may differ depending on the model.

Choose size and aspect ratio picture displayed on screen.

Picture Size

Different screen adjustment options are displayed depending on the current input source.

Available functions may differ depending on the model.

Supported picture sizes differ with the input signal.

- 16:9 Standard: Sets the picture to 16:9 Standard wide mode.
- Custom: Changes the resolution to suit the user's preferences.
- 4:3: Sets the picture to basic (4:3) mode.

  Do not set your product to 4:3 format for a long time.
  The borders displayed on the left and right, or top and bottom of the screen may cause image retention (screen burn) which is not covered by the warranty.

Fit to screen

Expand the picture to fit the screen. When selected, the full programme image will be displayed. No part of the image will be cut off.

This function may not be supported depending on the Picture Size setting.

- Off / On / Auto

Zoom and Position

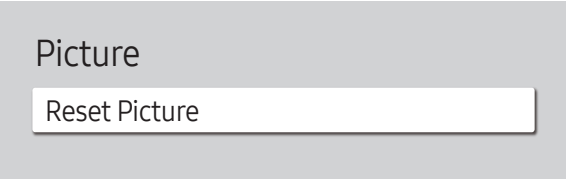
Adjust the picture size and position. This option is available when the input source is set to DVI, HDMI 1, HDMI 2, HDMI 3 (1080i/1080p), DisplayPort. Picture Size must be set to Custom for the option to be available.

If you want to reset the picture to its original position, select Reset in the Zoom and Position screen. The picture will be set to its default position.

Available source devices may vary depending on the product.

Reset Picture

MENU → Picture → Reset Picture → ENTER



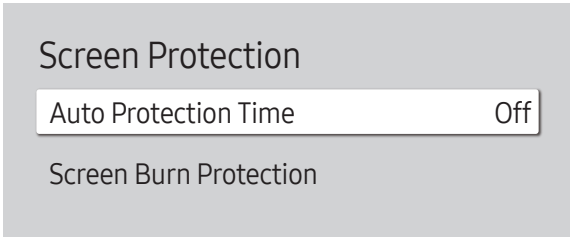
The displayed image may differ depending on the model.

Resets your current picture mode to its default settings.

Chapter 07
OnScreen Display

Screen Protection

MENU → OnScreen Display → Screen Protection → ENTER



The displayed image may differ depending on the model.

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.

- Off / 2 hours / 4 hours / 6 hours / 8 hours / 10 hours

Screen Burn Protection

To reduce the possibility of screen burn, this unit is equipped with Screen Burn Protection screen burn prevention technology.

Screen Burn Protection moves the picture slightly on the screen.

Pixel Shift

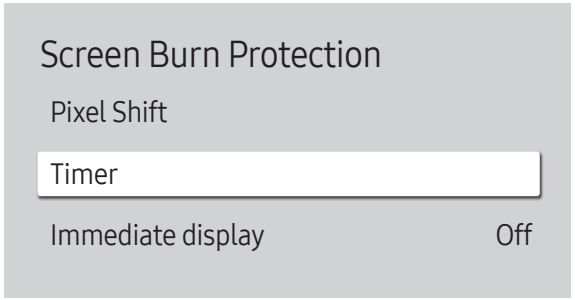
Minimize image retention by finely moving pixels horizontally or vertically.

- Pixel Shift (Off ( ) / On ( ))
  Horizontal, Vertical and Time are enabled only when Pixel Shift is set to On.
- Horizontal: Sets how many pixels the screen moves horizontally.
- Vertical: Sets how many pixels the screen moves vertically.
- Time: Set the time interval for performing the horizontal or vertical movement, respectively.

Available Pixel Shift Settings and Optimum Settings.

	Available Settings	Optimum Settings
Horizontal (pixels)	0 ~ 4	4
Vertical (pixels)	0 ~ 4	4
Time (minute)	1 minute ~ 4 minutes	4 minutes

- The Pixel Shift value may differ depending on the model.
- Displaying a still image or a 4:3 output for an extended period of time may cause image retention. This is not a defect in the product.



The displayed image may differ depending on the model.

Timer

You can set the timer for Screen Burn Protection.

The Screen Burn Protection feature stops automatically after a specified period of time.

Timer

Off

Repeat: Display the image retention-preventive pattern set in Mode at specified time intervals(Period).

Interval: Display the image retention-preventive pattern set in Mode for a specified period of time (from Start Time to End Time).

Mode, Period, Time, Start Time and End Time are enabled only when Timer is set to Repeat or Interval.

- Mode: Select a screen protective pattern to display.
  - Pixel: Pixels on the screen alternate black continuously.
  - Rolling bar: A vertical bar moves left to right.
  - Fading screen: The entire screen becomes brighter, then darker.

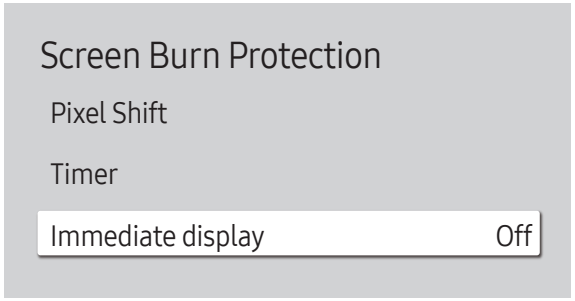
    The Rolling bar and Fading screen patterns appear only once regardless of the specified repeat period or time.
- Period: Specify the time interval to activate the Screen Burn Protection function.

  The option is enabled when Repeat is selected for Timer.
- Time: Specify the duration to keep the Screen Burn Protection function on.

  Enabled when Timer is set to Repeat and Mode is set to Pixel.
- Start Time: Set the start time to activate the screen protection function.

  The option is enabled when Interval is selected for Timer.
- End Time: Set the end time to deactivate the screen protection function.

  The option is enabled when Interval is selected for Timer.



The displayed image may differ depending on the model.

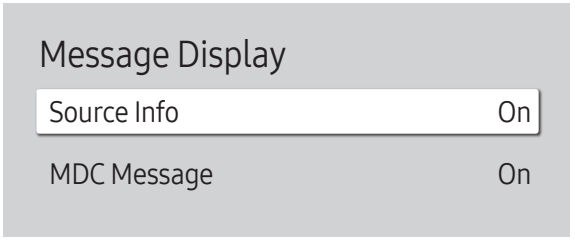
Immediate display

Select the screen saver you want to display immediately.

- Off / Pixel / Rolling bar / Fading screen

Message Display

MENU → OnScreen Display → Message Display → ENTER



The displayed image may differ depending on the model.

Source Info

Select whether to display the source OSD when the input source changes.

- Off / On

MDC Message

Select whether to display the MDC OSD when the product is controlled by the MDC.

- Off / On

Language

MENU → OnScreen Display → Language → ENTER



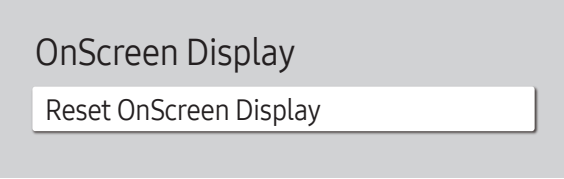
The displayed image may differ depending on the model.

Set the menu language.

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

Reset OnScreen Display

MENU → OnScreen Display → Reset OnScreen Display → ENTER



The displayed image may differ depending on the model.

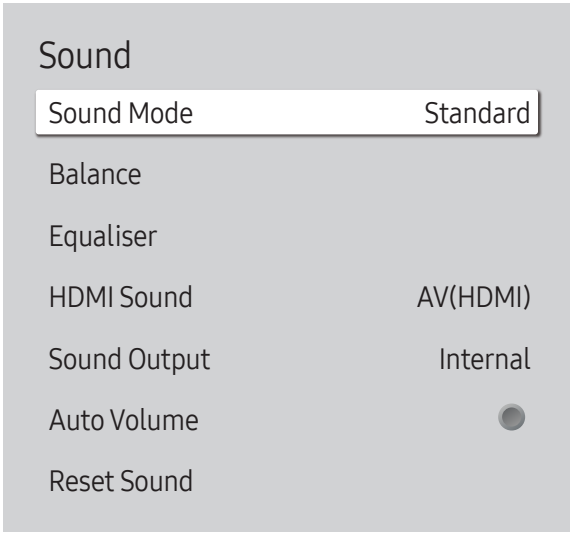
This option returns the current settings under OnScreen Display to the default factory settings.

Chapter 08
Sound Adjustment

Configure the Sound settings for the product.

Sound Mode

MENU → Sound → Sound Mode → ENTER



The displayed image may differ depending on the model.

You can select a sound mode to suit your personal preferences.

- Standard: Selects the normal sound mode.
- Music: Emphasises music over voices.
- Movie: Provides the best sound for movies.
- Clear Voice: Emphasises voices over other sounds.
- Amplify: Increase the intensity of high-frequency sound to allow a better listening experience for the hearing impaired.

If Sound Output is set to External, Sound Mode is disabled.

Balance

MENU → Sound → Balance → ENTER

Adjust speaker volume levels for sound balance optimisation.

- Balance L/R: Adjusts the balance between the left and right speaker.
- Reset: Resets the balance to its default settings.

If Sound Output is set to External, Balance is disabled.

Equaliser

MENU → Sound → Equaliser → ENTER

Adjust the equaliser to customise the volume and pitch, and enhance the richness of the sound output.

- 100 Hz / 200 Hz / 500 Hz / 1 kHz / 2 kHz / 5 kHz / 10 kHz (Bandwidth Adjustment): Adjusts the level of specific bandwidth frequencies.
- Reset: Resets the equaliser to its default settings.

Available only when Sound Mode is set to Standard.

If Sound Output is set to External, Equaliser is disabled.

HDMI Sound

MENU → Sound → HDMI Sound → ENTER

Select whether to hear from AV(HDMI) or PC(DVI).

- AV(HDMI) / PC(DVI)

Sound Output

MENU → Sound → Sound Output → ENTER

Select speakers for sound output.

- Internal / External

When you set Sound Output to External, the products speakers are turned off. You will hear sound through the external speakers only. When the Sound Output is set to Internal, both the product speakers and the external speakers are on. You will hear sound through both.

If there is no video signal, both the products speakers and the external speakers will be mute.

Auto Volume

MENU → Sound → Auto Volume → ENTER

Automatically adjusts the volume level when you change video sources or content so the level remains the same.

- Off ( ) / On ( )

To use the volume control of a connected source device, set Auto Volume to Off.

If Sound Output is set to External, Auto Volume is disabled.

Reset Sound

MENU → Sound → Reset Sound → ENTER

Reset all sound settings to the factory defaults.

Chapter 09
Network

The Network functions cannot be configured while the Screen Mirroring function is running.

Network Status

MENU → Network → Network Status → ENTER

You can check the current network and Internet status.

Open Network Settings

MENU → Network → Open Network Settings → ENTER

Configure network settings to connect to an available network.

Network Type

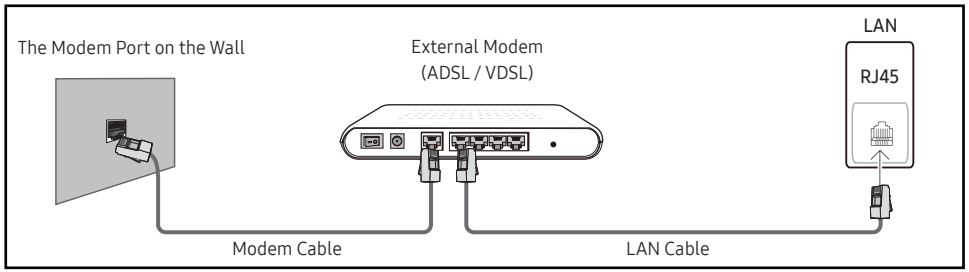
- Wireless / Wired

Network Settings (Wired)

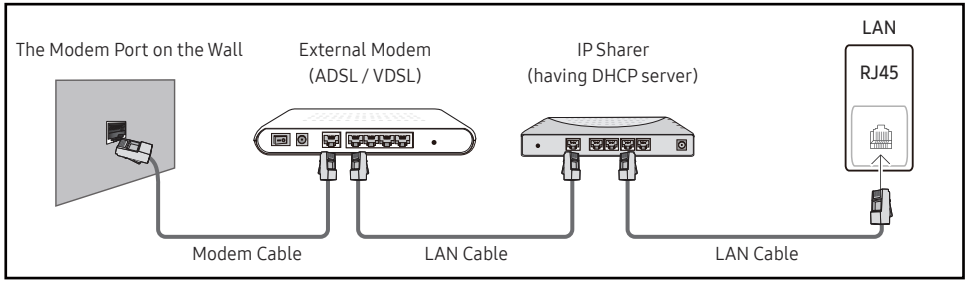
Connecting to a Wired Network

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

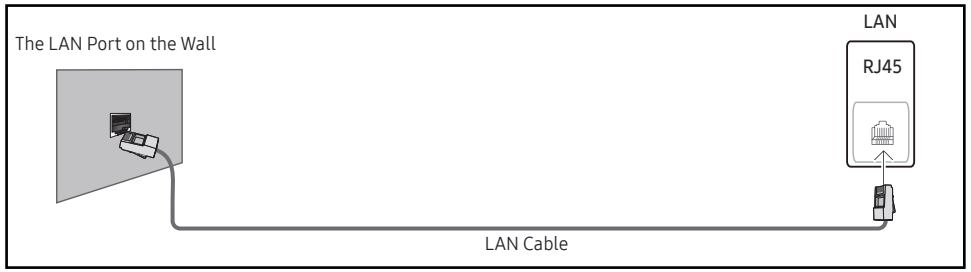
- You can attach your product to your LAN by connecting the LAN port on the back of your product to an external modem using a LAN cable.
  See the diagram below.



- 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.

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. Press Cancel. The verification process stops.

3 Select IP Settings on network connection screen. The IP Settings screen appears.

4 Select the field at the top, press ↵, and then set IP setting to Enter manually. Repeat the entry process for each field in the IP Address.

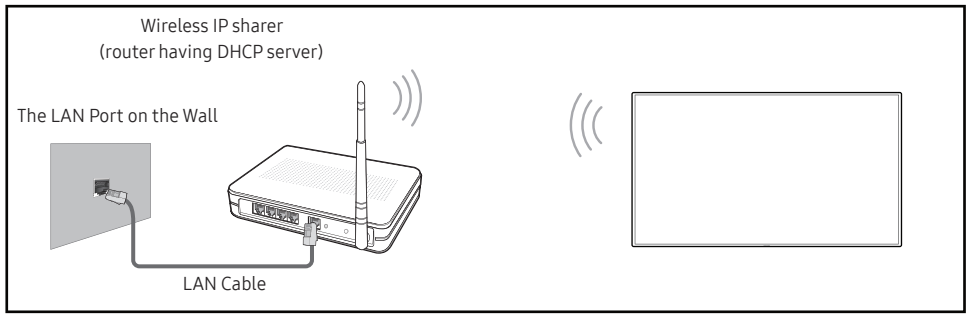
Setting IP setting to Enter manually automatically changes DNS setting to Enter manually.

5 When done, select OK at the bottom of the page, and then press ↵. The network test screen appears and the verification process starts.

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)

Connecting to a Wireless Network



Samsung recommends using IEEE 802.11n. 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.
  If you select the Pure High-throughput (Greenfield) 802.11n mode and the Encryption type is set to WEP, TKIP or TKIP AES (WPS2Mixed) on your AP or wireless router, Samsung products will not support a connection in compliance with new Wi-Fi certification specifications.
- 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.
  Auto Setup (Using the Auto Network Search function), Manual 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 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, press the ▲ or ▼ button to select a network, and then press the ↵ button twice.
   - 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.
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, use the right arrow button to move the cursor to Done, and then press ↵. The network connection screen appears and the verification process starts.
   - A connection with the router is established, but the Internet cannot be accessed.
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.

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, press the ▲ or ▼ button to select a network, and then press the ↵ button twice.

- 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, use the right arrow button to move the cursor to Done, and then press ↵. 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 the field at the top, press ↵, and then set IP setting to Enter manually. Repeat the entry process for each field in the IP Address.

- Setting IP setting to Enter manually automatically changes DNS setting to Enter manually.

10 When done, select OK at the bottom of the page, and then press ↵. The network test screen appears and the verification process starts.

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.

Use WPS

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, press ↵.

3 Press the WPS or PBC button on your wireless router withine 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 The network connection screen appears, and network setup is done.

Server Network Settings

MENU ☰ → Network → Server Network Settings → ENTER ↵

Proxy server

Set up your proxy server connection and related functions.

Off / On

- Address / Port / ID / Password

Address / Port / ID and Password are enabled only when Proxy server is set to On.

Device Name

MENU ☰ → Network → Device Name → ENTER ↵

Select or enter a device name.

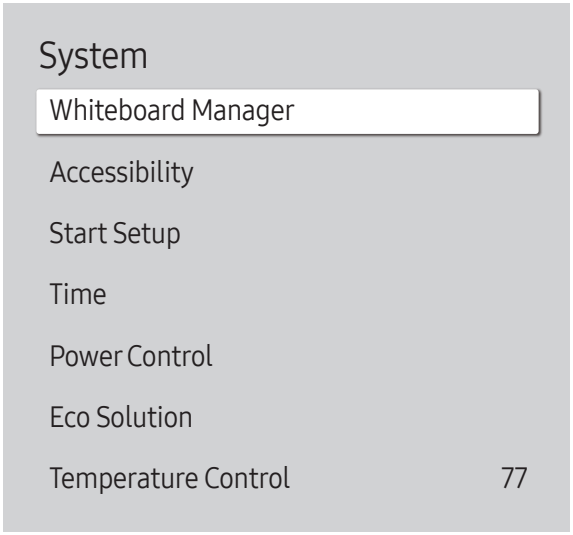
This name can be shown on network device over the network.

- [Signage] Display1 ~ 6 / User Input

Chapter 10
System

Whiteboard Manager

MENU → System → Whiteboard Manager → ENTER



The displayed image may differ depending on the model.

This is IWB Whiteboard Manager.

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 Change PIN function.

Start from Home

Select the screen that will be displayed at startup.

- Off / On

Reset Interval

Set a regular reset interval at which all data on the internal storage will be deleted.

- Off / Every 2 Weeks / Every Month / When Power is Off

Samba

Add and edit Samba accounts.

Add Samba Account

Add new Samba accounts.

- Address / Username / Password

Edit Samba Account

Edit Samba accounts.

The Edit Samba Account function is activated only when the Address, Username, and Password are set at Add Samba Account.

Email

Set up an email account for sending emails.

- SMTP Server Name / SMTP Port Number / SSL/TLS / Sender Authentication / Account / Password

USB Lock

Set up a USB Lock. After setting up, the device will be restarted to apply the settings.

- Off / On

Network Lock

Set up a Network Lock.

- Off / On

Web Browser Settings

Open the Settings page of the web browser.

Refresh Interval

Set the time for the web browser to wait before returning to the home page.

- Off / 5 min / 10 min / 15 min / 30 min

Zoom

Set the zoom scale to apply when the web browser is refreshed.

- 50% / 75% / 100% / 125% / 150% / 200% / 300%

Home Page

Set the website to display when the web browser is refreshed.

- Samsung Display / Custom

Custom

Enter the URL to set as the home page.

- Enter URL

Available only when Home Page is set to Custom.

Advanced Settings

General	
Hide Tabs and Toolbar automatically	If the browser tabs, menu or toolbar are not used for a while, they will automatically disappear. To make them appear again, move the pointer or focus to the top of the screen. • Use / Do not use
Hide Cursor in Touch Mode	Hide the cursor to prevent interference with touch operation. • Use / Do not use
Pop-up Blocker	Make your browsing experience more pleasant by blocking pop-up windows. • Use / Do not use
Proxy server	Configure a proxy server for the web browser. • Use / Do not use
Reset Settings	All your customised Web Browser settings will be reset to their default values. Your bookmarks and history won't be affected.

Search Engine
If you enter a keyword in the URL/keyword input field, Web Browser will open the Search Results page. Choose the search engine you want to use. • Google / Bing

Privacy & Security	
Do Not Track	Ask websites not to track you. • Use / Do not use
Delete History	Delete your entire browsing history.
JavaScript	Allow all sites to run JavaScript for a better browsing experience. • Use / Do not use
Delete browsing data	Delete all browsing data such as cookies, cached images and data. Your bookmarks and history won't be affected.

Encoding	
Encoding	Choose an encoding method for web pages. The current setting is Auto. • Auto / Manual (Current : Unicode)

About
Display the current version of Web Browser.

Read Before Using the Web Browser Function

Read this information before using the Web Browser function.

- File download is not supported.
- The Web Browser function may not be able to access certain websites, including websites operated by certain companies.
- The product does not support playback of flash videos.
- E-commerce for online purchases is not supported.
- ActiveX is not supported.
- Only a limited number of fonts are supported. Certain symbols and characters may not be displayed properly.
- The response to remote commands and the resulting on-screen display may be delayed while a web page is loading.
- Loading a web page may be delayed or suspended completely depending on the status of the participating systems.
- Copy and paste operations are not supported.
- When composing an email or a simple message, certain functions such as the font size and color selection may not be available.
- There is a limit to the number of bookmarks and the size of the log file that can be saved.
- The number of windows that can be opened concurrently is limited.
- Web browsing speed will differ with the network environment.
- Browsing history is saved from latest to oldest, with the oldest entries being overwritten first.
- Depending on the types of video/audio codecs supported, you may not be able to play certain HTML5 video and audio files.
- Video sources from PC-optimized streaming service providers may not play properly on our proprietary Web Browser browser.

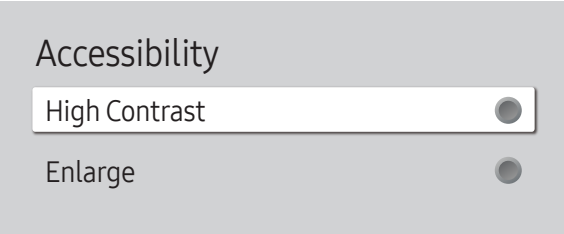
Background colour

Set the whiteboard background colour.

- Dark Grey / White

Accessibility

MENU → System → Accessibility → ENTER



The displayed image may differ depending on the model.

High Contrast

Set the background and font to high-contrast colours in Menu. Menu transparencies become opaque when the option is selected.

- Off ( ) / On ( )

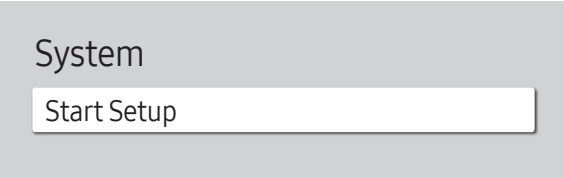
Enlarge

Enlarge the size of the Menu area.

- Off ( ) / On ( )

Start Setup

MENU → System → Start Setup → ENTER



The displayed image may differ depending on the model.

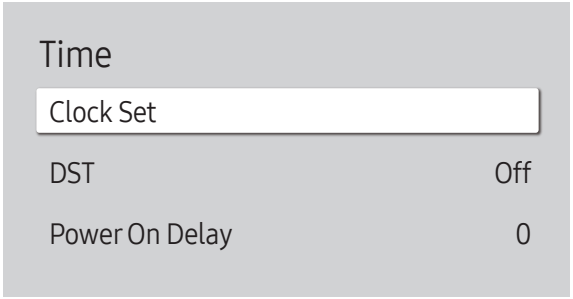
Go through the initial setup steps like you did the first time you used this product.

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 Change PIN function.

Change the PIN to keep your device secure.

Time

MENU → System → Time → ENTER



The displayed image may differ depending on the model.

You can configure Clock Set or DST. Configure various time-related settings.

Clock Set

Select Clock Set. Select Date or Time, and then press .

Use the number buttons to enter numbers or press the up and down arrow buttons. Use the left and right arrow buttons to move from one entry field to the next. Press when done.

You can set the time by pressing the number buttons on the remote control.

DST

Switches the DST (Daylight Saving Time) function on or off.

Off / On

- Start Date: Set the start date of Daylight Saving Time.
- End Date: Set the end date of Daylight Saving Time.
- Time Offset: Select the correct time offset for your timezone.

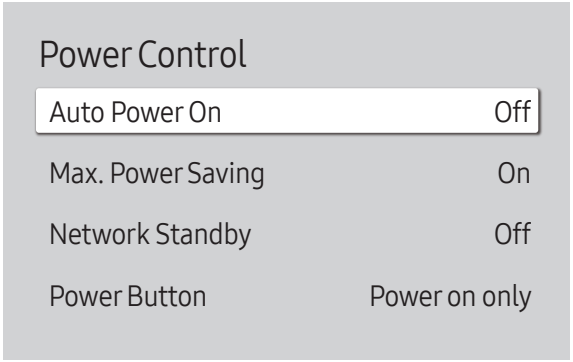
Start Date, End Date and Time Offset are enabled only when DST is set to On.

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

MENU → System → Power Control → ENTER



The displayed image may differ depending on the model.

Auto Power On

This feature automatically turns on the product as soon as it is plugged in. Pressing the power button is not needed.

- Off / On

Max. Power Saving

Conserve power by turning off PC monitor when PC is not used for certain time.

- Off / On

Network Standby

This feature keeps the network power on when the product turns off.

- Off / On

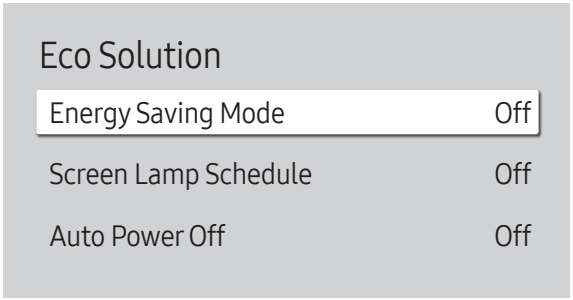
Power Button

The power button can be set to either turn on the power or turn on/off the power.

- Power on only: Set the power button to turn on the power.
- Power on and off: Set the power button to turn on/off the power.

Eco Solution

MENU → System → Eco Solution → ENTER



The displayed image may differ depending on the model.

Energy Saving Mode

Reduce the power consumption by adjusting the screen brightness.

- Off / Low / Medium / High

Screen Lamp Schedule

Screen Lamp Schedule

Enable or disable the lamp schedule.

- Off / On

Schedule 1, Schedule 2

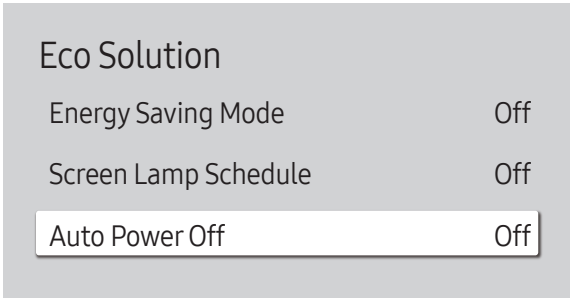
Time

The panel brightness will change to the brightness set in Lamp at a specified time.

Lamp

Adjust the panel brightness. A value closer to 100 makes the panel brighter.

- 0 ~ 100



The displayed image may differ depending on the model.

Auto Power Off

Choose how long the display will wait before turning off after no user interaction is detected.

- Off / 4 hours / 6 hours / 8 hours / 16 hours

Temperature Control

MENU → System → Temperature Control → ENTER



The displayed image may differ depending on the model.

This function detects the internal temperature of the product. You can specify the temperature range that is acceptable.

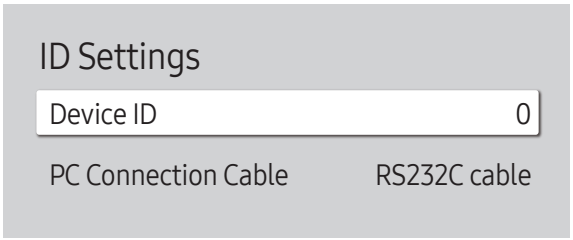
The default temperature is set to 77 °C.

The recommended operating temperature for this product is 75 to 80 °C (based on an ambient temperature of 40 °C).

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.

ID Settings

MENU → System → ID Settings → ENTER



The displayed image may differ depending on the model.

Device ID

Set a unique ID number for each product. (Range: 0~224)

Press ▲/▼ to select a number, and press ↵.

Enter the number you want using the number buttons on the remote control.

PC Connection Cable

Select which type of cable you are using to connect the display to the PC.

- RS232C cable
  Communicate with MDC via the RS232C cable(DB9 to Stereo type).
- RJ-45 (LAN)/Wi-Fi Network
  Communicate with MDC via the RJ45 cable.

Change PIN

MENU → System → Change PIN → ENTER



The displayed image may differ depending on the model.

Change your 4-digit Personal Identification Number (PIN).

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..

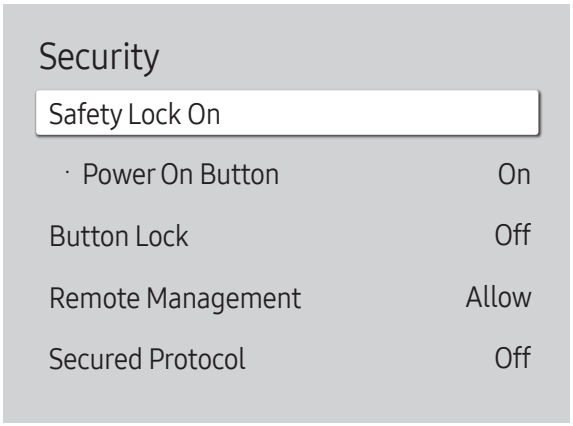
The product has memorised your new PIN.

The default PIN number is "0-0-0-0".

Change the PIN to keep your device secure.

Security

MENU → System → Security → ENTER



The displayed image may differ depending on the model.

Safety Lock On

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 Change PIN function.

Change the PIN to keep your device secure.

Turn Safety Lock On on or off. Safety Lock On restricts the actions that can be carried out by the remote control. The correct PIN must be entered to turn Safety Lock On off.

Power On Button

Turn on this feature to enable the remote control's Power button to turn on the product while Safety Lock On is enabled.

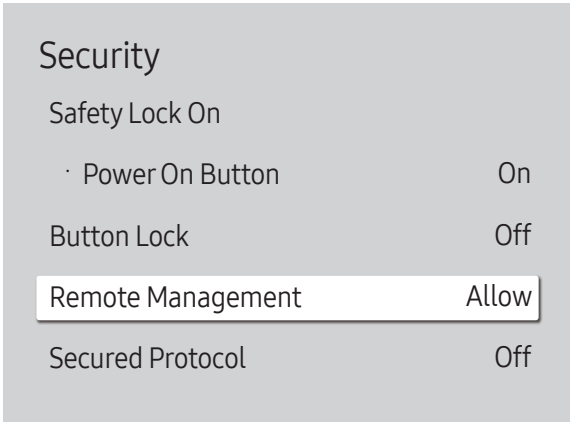
- Off / On

Button Lock

This menu can be used to lock the buttons on the product.

Only the remote control can control the product if Button Lock is set to On.

- Off / On



The displayed image may differ depending on the model.

Remote Management

You can Allow or Deny external commands to access your device via a network.

- Deny / Allow

The changed setting remains even after the product is turned off and on using the Power button or Power switch.

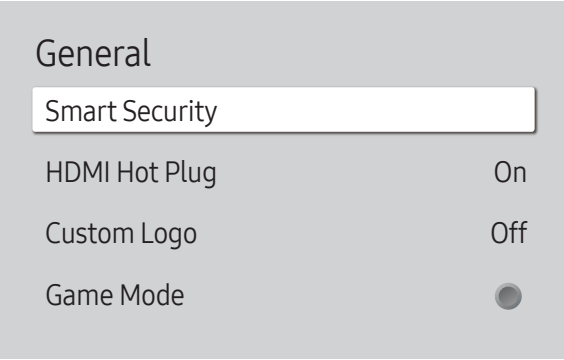
Secured Protocol

Secure the protocol between this device and other devices.

- Off / On

General

MENU → System → General → ENTER



The displayed image may differ depending on the model.

Smart Security

The security provided to protect your display device and connected storage devices against viruses includes.

Scan

Inspect your display device and connected storage devices to check for viruses.

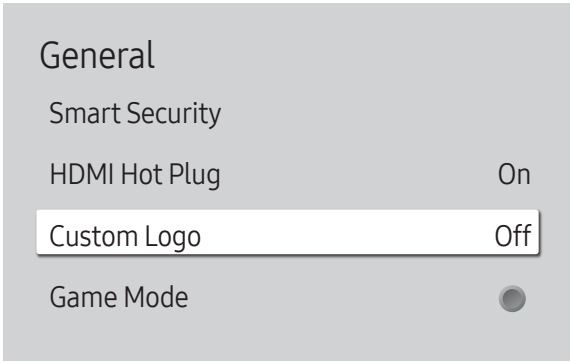
Isolated List

This is the list of items that have been Isolated for containing viruses.

HDMI Hot Plug

This feature is used to activate the time delay to turn on a DVI/HDMI source device.

- Off / On



The displayed image may differ depending on the model.

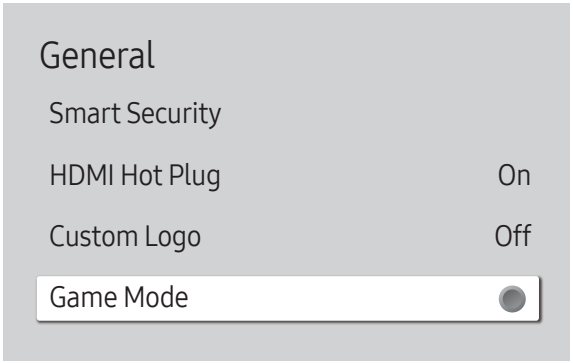
Custom Logo

You can download, select, and set the display time of a custom logo that appears when the product turns on.

- Custom Logo
  - You can select a custom logo (image/video) or turn off the custom logo display.
  - You must download the custom logo from an external USB device to set the custom logo.
- Logo Display Time
  - If the type of custom logo is **Image**, you can set the **Logo Display Time**.
- Download Logo File
  - You can download a custom logo into the product from an external USB device.
  - The file name of the custom logo you want to download must be saved as “samsung” in all small letters.
  - 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.

Custom logo file restrictions

- For image type custom logo, only bitmap files (aRGB 32bpp format) are supported.
- The resolution of the image type custom logo must be between a minimum of 64 x 64 and the maximum screen resolution. (Horizontal/Vertical values of the resolution must be multiples of 4.)
- For video type custom logo, only TS Stream types are supported.
- The maximum supported video file is 150 MB. The recommended length of a video file is 20 seconds or less.



The displayed image may differ depending on the model.

Game Mode

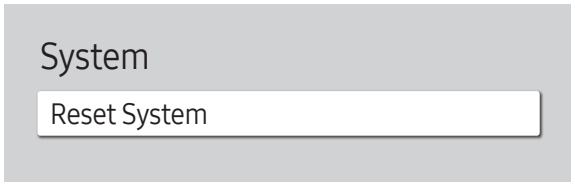
When connecting to a game console such as PlayStation™ or Xbox™, you can enjoy a more realistic gaming experience by selecting game mode.

- Off ( ) / On ( )

If you connect other external devices while Game Mode is on, the screen may not be in good condition.

Reset System

MENU → System → Reset System → ENTER



The displayed image may differ depending on the model.

Reset all system settings to default.

Chapter 11
Support

Software Update

MENU → Support → Software Update → ENTER

The Software Update menu lets you upgrade your product software to the latest version.

- 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.
- 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.

Update Now

Update the software to the latest version.

- Current version: This is the software version already installed in the product.

Contact Samsung

MENU → Support → Contact Samsung → ENTER

You can view the address of the Samsung website, the call centre phone number, your product's model number, software version, Open Source Licence and other information.

- Go to Contact Samsung and find the product Model Code and Software Version.

Reset All

MENU → Support → Reset All → ENTER

This option returns all the current settings for a display to the default factory settings.

Chapter 12
Troubleshooting Guide

Requirements Before Contacting Samsung Customer Service Centre

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

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 issue	
The power indicator is off. The screen will not switch on.	Make sure that the power cord is connected.
Not Optimum Mode is displayed.	This message is displayed when a signal from the graphics card exceeds the product's maximum resolution and frequency.
	Refer to the Standard Signal Mode Table 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 screen is too bright. The screen is too dark.	Go to Picture and adjust the Brightness and Contrast settings.
Screen colour is inconsistent.	Go to Picture and adjust the Colour Space Settings settings.
White does not really look white.	Go to Picture and adjust the White Balance settings.
There is no image on the screen and the power indicator blinks every 0.5 to 1 second.	The status of product is in power-saving mode.
	Press any key on the keyboard or move the mouse to return to the previous screen.

Screen issue	
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 analogue and digital products.
The brightness and colour do not look normal.	Go to Picture and adjust the screen settings such as Picture Mode, Colour, Brightness and Sharpness.
	Go to System and adjust the Eco Solution settings.
	Reset the screen settings to the default settings.
I see red, green, and blue.	Check the cable connections.
	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 to the recommended resolution.

Screen issue	
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 a black bar to appear at the top and bottom of the screen.
	Change the screen size setting to full screen on the product or source device.

Sound issue	
There is no sound.	Check the connection of the audio cable or adjust the volume.
	Check the volume.
The volume is too low.	Adjust the volume.
	If the volume is still low after turning it up to the maximum level, adjust the volume on your PC sound card or software programme.
Video is available but there is no sound.	If an HDMI cable or a DP cable is connected, check the audio output settings on the PC.
	Go to Sound and change Sound Output to Internal.
	If a source device is used • Make sure the audio cable is properly connected to the audio input port on the product. • 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.)
	If a DVI-HDMI cable is used, a separate audio cable is required.
	If the product has a headphone port, make sure nothing is connected to it.
	Reconnect the power cable to the device and then reboot the device.

Sound issue	
There is static coming from the speakers.	Check the cable connection. Make sure a video cable is not connected to an audio input port.
	Check the signal strength after connecting a cable.
	Low signal level can cause corrupted sound.

Remote control issue	
The remote control does not work.	Make sure that the batteries are correctly in place (+/-).
	Check if the batteries are flat.
	Check for power failure.
	Make sure that the power cord is connected.
	Check for any special lighting or neon signs switched on in the vicinity.

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.

Touch function issues	
The icons can be touched but the drawings cannot.	Use the provided product-specific pen.
Touching does not work when PC connection is used.	Check whether the **TOUCH OUT** port on the product is connected to a USB port on the PC using a USB cable.
I use two pens, but they do not work well.	Make sure that there is enough space between the two pens at multi-touching.

Touch function issues	
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.
	Make sure that the product is not exposed to direct sunlight.

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 "The defined resolution is not supported." appears.	The message "The defined resolution is 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.

Other issue	
There is no sound in HDMI mode.	Displayed picture colours may not look normal. Video or sound may not be available. This can occur if a source device that only supports an older version of the HDMI standard 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 recognise HDMI signals that do not include sound. In this case, manually select a sound input.
HDMI-CEC does not work.	To use several external devices compatible with the HDMI-CEC feature that are connected to the **HDMI IN** ports on the product, turn off the HDMI-CEC features on all the external devices. External devices include Blu-ray and DVD players. Operating an external device when its HDMI-CEC feature is enabled may automatically stop other external devices. To change HDMI-CEC settings, refer to the device user guide or contact the device manufacturer for assistance.
In power-saving mode, when the input source is DisplayPort, PC display settings cannot be saved.	Go to System → Power Control and set Max. Power Saving to Off. Alternatively, configure the PC display output settings again. Ensure the product is turned on.
When booting the PC with the input source set to DisplayPort, the BIOS and booting screens do not appear.	Boot the PC when the product is turned on or when the input source is not DisplayPort.

Chapter 13
Specifications

General

Model Name		QB65H-TR	QB75H-TR / QB75N-W
Panel	Size	65 CLASS (64.5 inches / 163.8 cm)	75 CLASS (74.5 inches / 189.3 cm)
	Display area	1428.48 mm (H) x 803.52 mm (V)	1650.24 mm (H) x 928.26 mm (V)
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 40 °C or below. Humidity : 10% – 80%, non-condensing	
	Storage	Temperature : -20 °C – 45 °C (-4 °F – 113 °F) Humidity : 5% – 95%, non-condensing * Applicable before the product package is unpacked.	

- 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 optimises the monitor settings. Monitor installation takes place automatically. However, you can customise 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 is a class A product. In a domestic environment this product may cause radio interference in which case the user may be required to take adequate measures.
- For detailed device specifications, visit the Samsung website.

Preset Timing Modes

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.

Model Name		QB65H-TR / QB75H-TR	QB75N-W
Synchronization	Horizontal Frequency	30 - 81 kHz (DVI), 30 - 134 kHz (DisplayPort), 30 - 90 kHz (HDMI)	30 - 81 kHz (DVI), 30 - 90 kHz (HDMI)
	Vertical Frequency	48 - 75 Hz (DVI), 56 - 75 Hz (DisplayPort), 24 - 75 Hz (HDMI)	48 - 75 Hz (DVI), 24 - 75 Hz (HDMI)
Resolution	Optimum resolution	1920 x 1080 @ 60 Hz (DVI), 3840 x 2160 @ 60 Hz (DisplayPort), 3840 x 2160 @ 60 Hz (HDMI)	1920 x 1080 @ 60 Hz (DVI), 3840 x 2160 @ 60 Hz (HDMI)
	Maximum resolution		

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

Vertical Frequency
The product displays a single image multiple times per second (like a fluorescent light) to display what the viewer sees. The rate of a single image being displayed repeatedly per second is called vertical frequency or refresh rate. Vertical frequency is measured in Hz.

Checking the Resolution and Frequency

For modes that exceed the supported resolutions, the message "Not Optimum Mode" appears briefly.

Set the PC resolution by referring to 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 be blank with the power indicator on. In such a case, change the settings according to the following table by referring to the graphics card user manual.

Resolution	Horizontal Frequency (kHz)	Vertical Frequency (Hz)	Pixel Clock (MHz)	Sync Polarity (H/V)
IBM, 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	-/-
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	+/+
VESA, 2560 x 1440	88.787	59.951	241.500	+/-
CEA, 3840 x 2160 (HDMI)	67.500	60.000	297.000	+/+
CEA, 3840 x 2160 (HDMI 1, 2)	67.500	60.000	594.000	+/+
VESA, 3840 x 2160 (DP)	133.313	59.997	533.250	+/-

The QB75N-W model are not available in the VESA 3840 x 2160 (DP).

Chapter 14
Appendix

Responsibility for the Pay Service (Cost to Customers)

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

Not a product defect

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

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

A Product damage caused by customer's fault

Product damage caused by customer's mishandling or wrong repair

If a product damage is caused by;

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

Others

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

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

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.

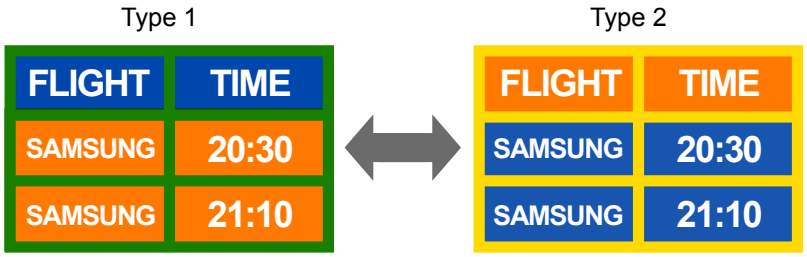
Such a voltage difference between electrodes increases with time and makes the liquid crystals thinner. When this occurs, a previous image can remain on the screen when the pattern changes.

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 colours regularly.



- Avoid combinations of a text colour and background colour of contrasting brightness.

Avoid using colours of contrasting brightness (black and white; gray and black).



Licence

Manufactured under license from Dolby Laboratories.

Dolby, Dolby Audio, Pro Logic, and the double-D symbol are trademarks of Dolby Laboratories.

The terms HDMI and HDMI High-Definition Multimedia Interface, and the HDMI Logo are trademarks or registered trademarks of HDMI Licensing Administrator, Inc. in the United States and other countries.

Open Source Licence Notice

In the case of using open source software, Open Source Licences are available on the product menu. Open Source Licence Notice is written only English.

For information on the Open Source Licence Notice, contact the Samsung Customer Centre or send email to oss.request@samsung.com.

HEVC Advance™
Covered by Patents at patentlist.hevcadvance.com

THIS PRODUCT IS SOLD WITH A LIMITED LICENCE AND IS AUTHORISED TO BE USED ONLY IN CONNECTION WITH HEVC CONTENT THAT MEETS EACH OF THE THREE FOLLOWING QUALIFICATIONS: (1) HEVC CONTENT ONLY FOR PERSONAL USE; (2) HEVC CONTENT THAT IS NOT OFFERED FOR SALE; AND (3) HEVC CONTENT THAT IS CREATED BY THE OWNER OF THE PRODUCT.

THIS PRODUCT MAY NOT BE USED IN CONNECTION WITH HEVC ENCODED CONTENT CREATED BY A THIRD PARTY, WHICH THE USER HAS ORDERED OR PURCHASED FROM A THIRD PARTY, UNLESS THE USER IS SEPARATELY GRANTED RIGHTS TO USE THE PRODUCT WITH SUCH CONTENT BY A LICENSED SELLER OF THE CONTENT.

YOUR USE OF THIS PRODUCT IN CONNECTION WITH HEVC ENCODED CONTENT IS DEEMED ACCEPTANCE OF THE LIMITED AUTHORITY TO USE AS NOTED ABOVE.