

# SAMSUNG

# USER MANUAL

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OH46F | OH55F

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

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

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# Chapter 01

## Before Using the Product

### Safety Precautions

#### Warning

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

#### Caution

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



Activities marked by this symbol are prohibited.



Instructions marked by this symbol must be followed.

### Cleaning

- Exercise care when cleaning as the panel and exterior of advanced LCDs are easily scratched.
- Take the following steps when cleaning.
  - 1 Power off the product and computer.
  - 2 Disconnect the power cord from the product.
    - Hold the power cable by the plug and do not touch the cable with wet hands. Otherwise, an electric shock may result.
  - 3 Use water and a dry cloth to clean the protection glass.
    - Wipe with a clean wet cloth.
      - To remove tough stains, wipe using a cloth with a small amount of ethanol based cleaner.
    - Use a brush to remove any debris from the inlet and outlet opening.
      - To remove tough stains, wipe using a cloth with a small amount of ethanol based cleaner.
      - If washing with water, keep the pressure below 0.5 bar.
  - 4 Connect the power cord to the product when cleaning is finished.
  - 5 Power on the product and computer.

### Storage

- Due to the characteristics of high-glossy products, using a UV humidifier nearby may create white-colored stains on the product.
- Contact Customer Service Center if the inside of the product needs cleaning (service fee will be charged).

---

## Electricity and Safety

### Warning

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

- An electric shock or fire may result.

Do not use multiple products with a single power socket.

- Overheated power sockets may cause a fire.

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

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

- An unsecure connection may cause a fire.

Connect the power plug to a grounded power socket (type 1 insulated devices only).

- An electric shock or injury may result.

Do not bend or pull the power cord with force. Be careful not to leave the power cord under a heavy object.

- Damage to the cord may result in a fire or electric shock.

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

- A fire or electric shock may result.

Clean any dust around the pins of the power plug or the power socket with a dry cloth.

- A fire may result.

### Caution

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

- The product may become damaged by an electric shock.

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

- A fire or electric shock may result.

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

- The power cord must be disconnected to cut off power to the product when an issue occurs.
- Note that the product is not completely powered down by using only the power button on the remote.

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

- An electric shock or fire may result.

---

## Installation

### Warning

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

- A fire may result.

Have a technician install the wall-mount hanger.

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

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

- An increased internal temperature may cause a fire.

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

— Refer to the Outdoor Installation Guide. (<http://displaysolutions.samsung.com>)

- An increased internal temperature may cause a fire.

Keep the plastic packaging out of the reach of children.

- Children may suffocate.

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

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

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

- The product may fall and injure children.
- As the front is heavy, install the product on a flat and stable surface.

Edible oil, such as soybean oil, can damage or deform the product. Do not install the product in a kitchen or near a kitchen counter.

Precautions during installation and storage

- After opening the cover, install the product within 1 hour under humidity of 60% or below. ([P. 33](#))
- Keep the predefined humidity while opening the cover or assembling the housing (e.g. connection of external device, F/W update).
- During operation and storage of the product, be sure to attach the cover.

---

### Caution

Do not drop the product while moving.

- Product failure or personal injury may result.

Do not set down the product on its front.

- The screen may become damaged.

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

- The product may fall and become damaged and/or cause an injury.
- Install the product only on cabinets or shelves of the right size.

Set down the product gently.

- Product failure or personal injury may result.

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 Center 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.



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## Operation

### Warning

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

- A fire or electric shock may result.
- Contact Samsung Customer Service Center for repairs.

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

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

If the product generates abnormal sounds, a burning smell or smoke, disconnect the power cord immediately and contact Samsung Customer Service Center.

- An electric shock or fire may result.

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

- Children may become injured or seriously harmed.

If the product is dropped or the outer case is damaged, turn off the power switch and disconnect the power cord. Then contact Samsung Customer Service Center.

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

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

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

Do not drop objects on the product or apply impact.

- A fire or electric shock may result.

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.

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

- Sparks can cause an explosion or fire.

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

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

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

- An explosion or fire may result.

Ensure the vents are not blocked by tablecloths or curtains.

- An increased internal temperature may cause a fire.

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

- Be sure to power off the product and disconnect the power cord when water or other foreign substances have entered the product. Then contact Samsung Customer Service Center.

- Product failure, an electric shock or fire may result.

Do not block the vent on the product. The product may not function properly due to potential overheating.

Do not attempt to insert your fingers or objects into the vents.

- Product failure or personal injury may result.

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## Caution

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

- Activate power-saving mode or a moving-picture screen saver if you will not be using the product for an extended period of time.

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

- Dust accumulation combined with heat can cause a fire, electric shock or electric leakage.

Use the product at the recommended resolution and frequency.

- Your eyesight may deteriorate.

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

- The product may fall and become damaged or cause an injury.

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

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

- Eye fatigue will be relieved.

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

Store small accessories out of the reach of children.

Exercise caution when adjusting the product angle or stand height.

- Your hand or finger may get stuck and injured.
- Tilting the product at an excessive angle may cause the product to fall and an injury may result.

Do not place heavy objects on the product.

- Product failure or personal injury may result.

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

- Having the sound too loud may damage your hearing.

Be careful that children do not place the battery in their mouths when removed from the remote control.

Place the battery in a location that children or infants cannot reach.

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

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When replacing the battery, insert it with the right polarity (+, -).

- Otherwise, the battery may become damaged or it may cause fire, personal injury or damage due to leakage of the internal liquid.

Use only the specified standardized 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.

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 center or to a store selling the same type of the battery or rechargeable battery.

# Chapter 02

## Preparations

### Checking the Components

#### Components

- 
- Contact the vendor where you purchased the product if any components are missing.
  - The pictures may look different from the actual components.
  - A stand is not provided with the product. To install a stand, you can purchase one separately.



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QUICK SETUP GUIDE



Warranty card  
(Not available in some locations)

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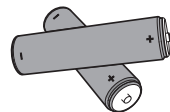
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Regulatory guide



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Power cord



Batteries  
(Not available in some locations)

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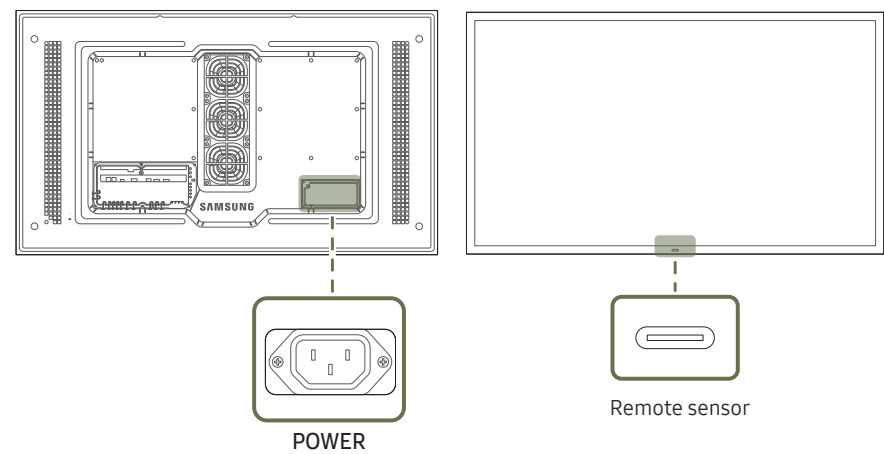
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Remote Control

# Parts

## Parts

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



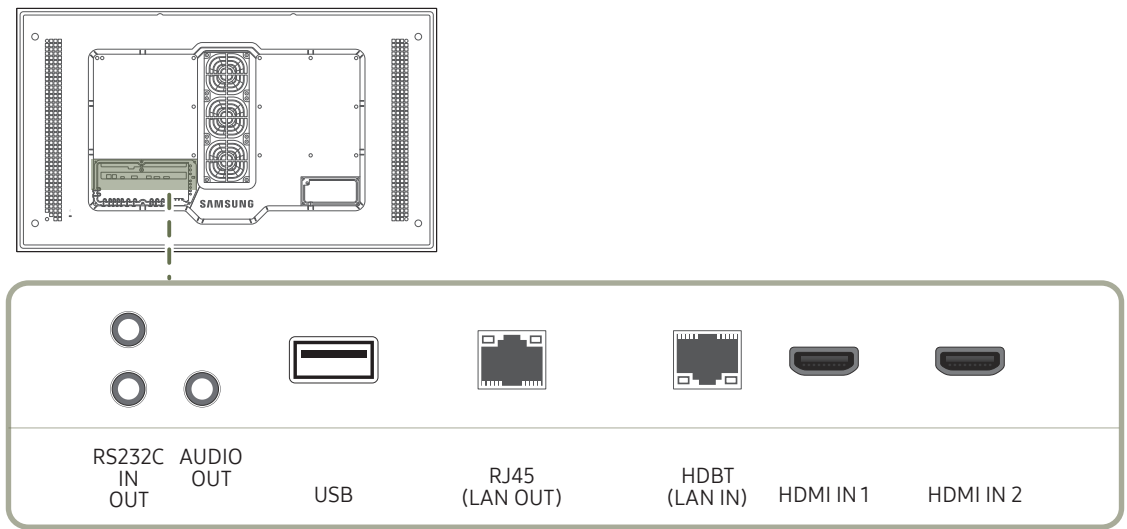
Parts	Description
Remote sensor	Press a button on the remote control pointing at the sensor on the front of the product to perform the corresponding function. — Using other display devices in the same space as the remote control of this product can cause the other display devices to be inadvertently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

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.

# Reverse Side

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



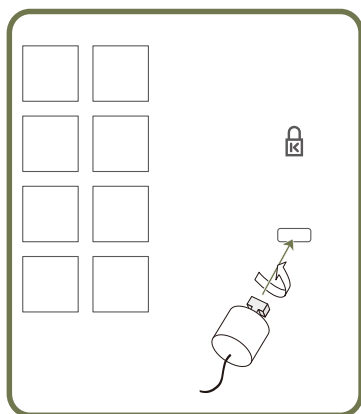
Port	Description
RS232C IN	Connects to MDC using an RS232C adapter.
RS232C OUT	
AUDIO OUT	Outputs sound to an audio device via an audio cable.
USB	Connect to a USB memory device.
RJ45 (LAN OUT)	<div>- Wired LAN connection port used to connect an external device such as a laptop to connect to the Internet.</div> <div>- Connects to MDC using a LAN cable.</div>
HDBT (LAN IN)	<div>- Sends the HDMI signal to a connected LAN cable using an HDBaseT transmitter.</div> <div>- Connects to MDC using a LAN cable.</div>
HDMI IN 1, HDMI IN 2	Connects to a source device using a HDMI cable or HDMI-DVI cable.

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## 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.

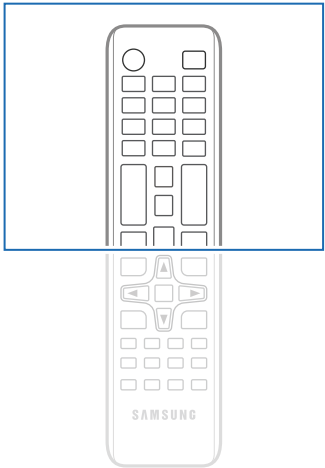
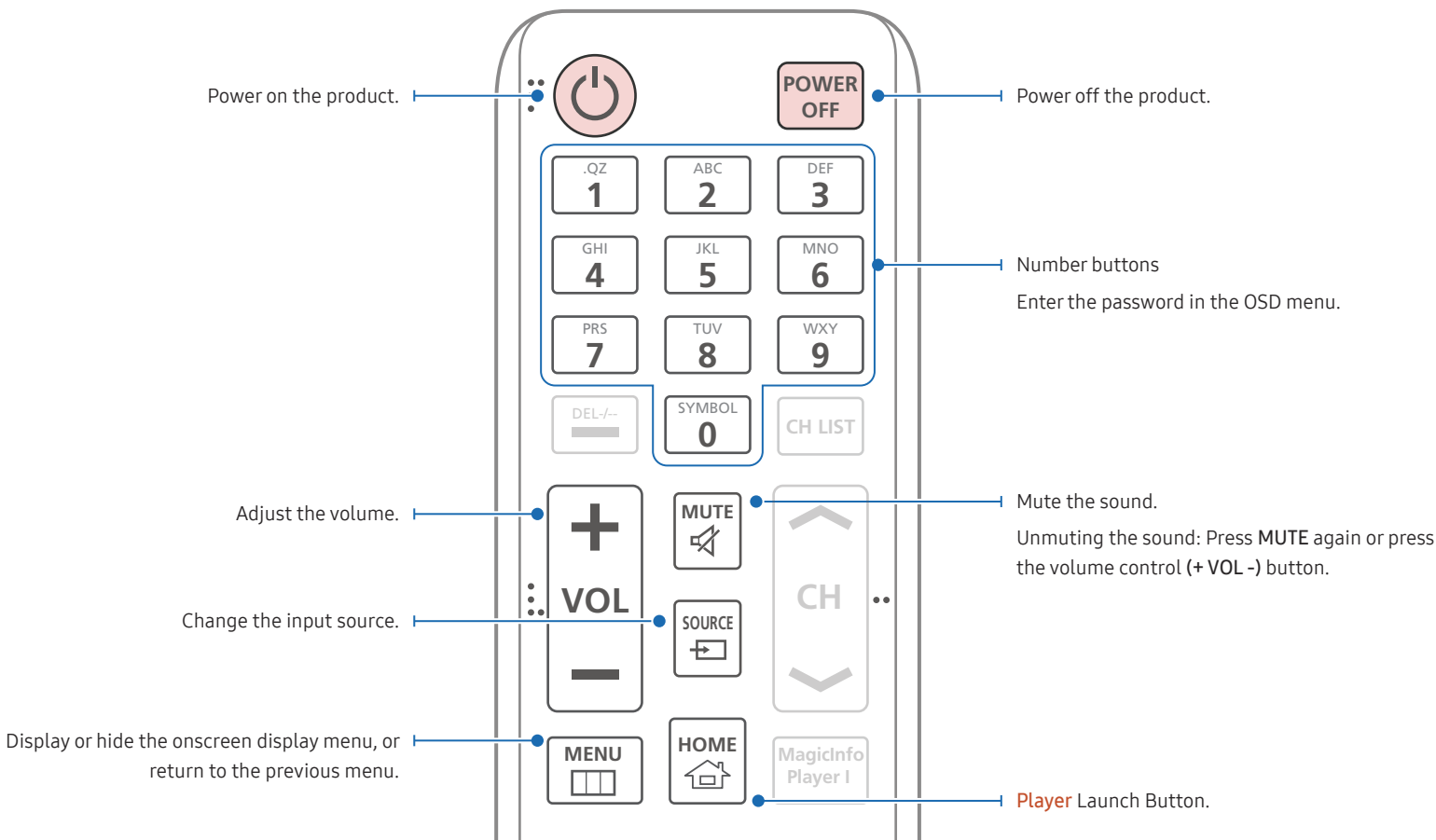
### To lock an anti-theft locking device:



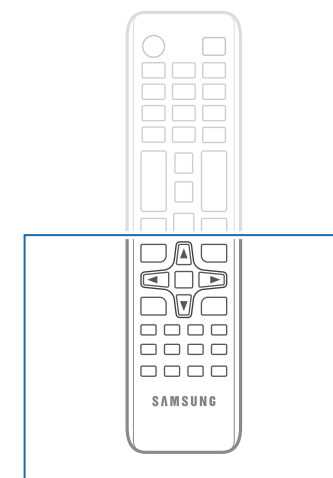
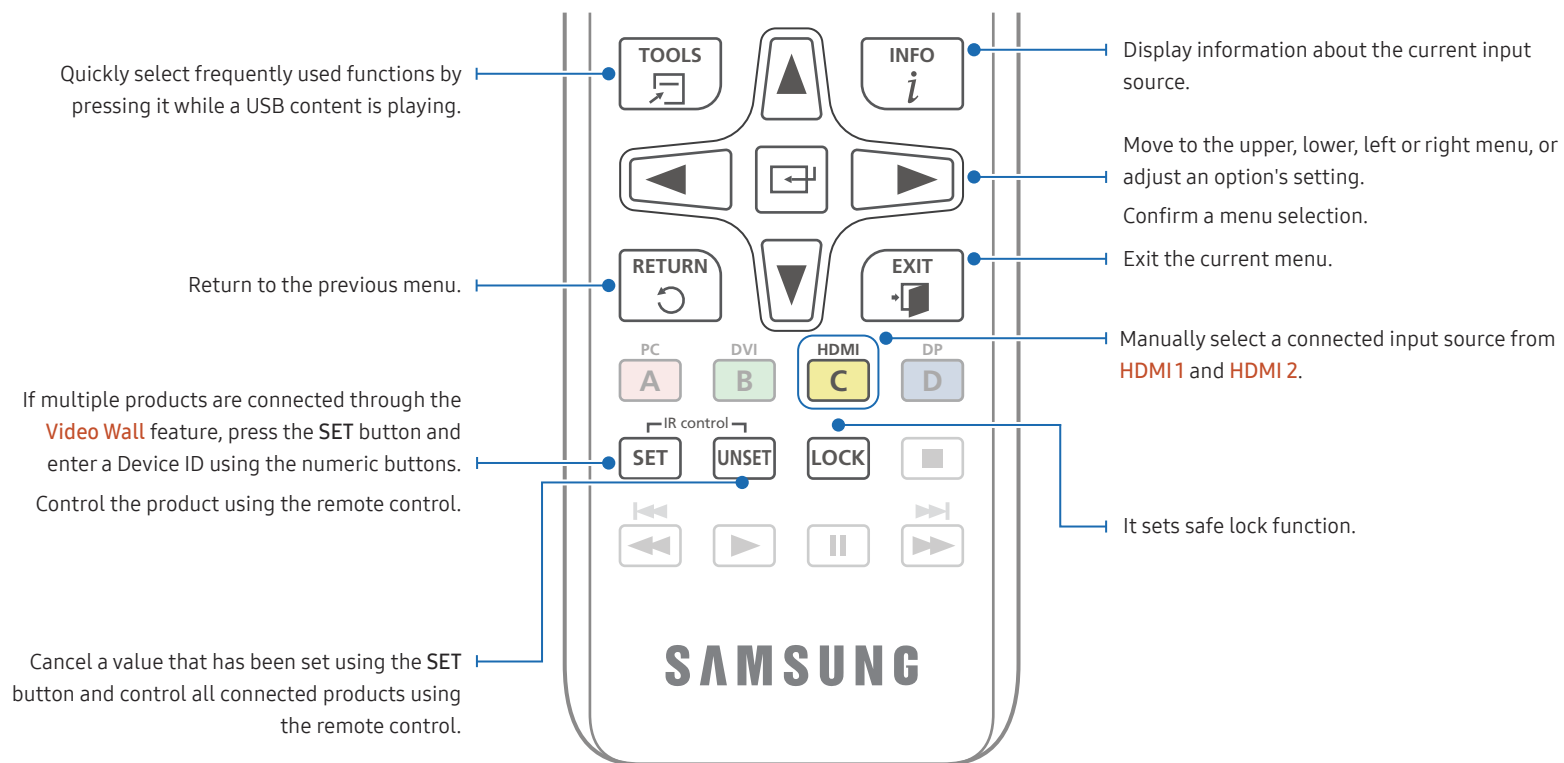
- 1 Fix the cable of your anti-theft locking device to a heavy object such as a desk.
- 2 Put one end of the cable through the loop on the other end.
- 3 Insert the locking device into the anti-theft lock slot at the back of the product.
- 4 Lock the locking device.
  - An anti-theft locking device can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

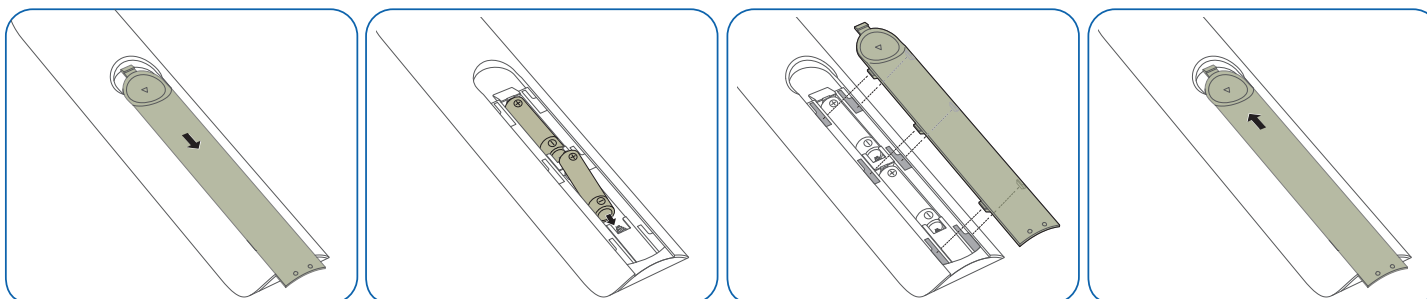


- Remote control button functions may differ for different products.
- Remove batteries when the remote control is not to be used for an extended period of time.



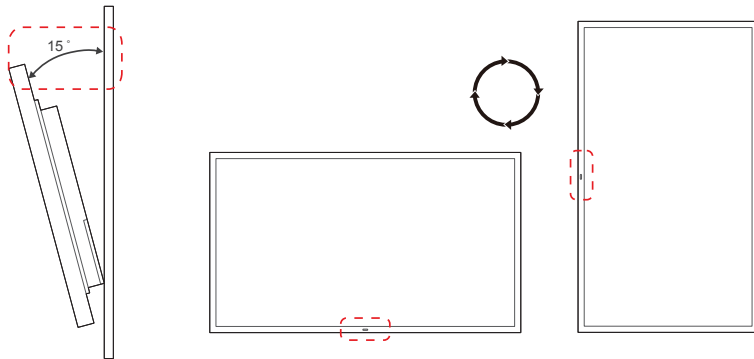
– Remote control button functions may differ for different products.

## To place batteries in the remote control





## 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 authorized installation company installs the wall mount.
- Otherwise, it may fall and cause personal injury.
- Make sure to install the specified wall mount.

### Tilting Angle and Rotation

— Contact Samsung Customer Service Center for further details.

- The product can be tilted at a maximum angle of 15° from a perpendicular wall surface.
- To use the product vertically (portrait), turn it clockwise so that the LED is pointing down.

### Ventilation

#### Installation on a Perpendicular Wall

A Minimum 50 mm

B Ambient temperature: Under 50°C

- When installing the product on a perpendicular wall, allow at least 50 mm of space between the product and wall surface for ventilation and ensure that the ambient temperature is kept below 50°C.

— Do not block the vent on the product.

— Refer to the Outdoor Installation Guide. (<http://displaysolutions.samsung.com>)

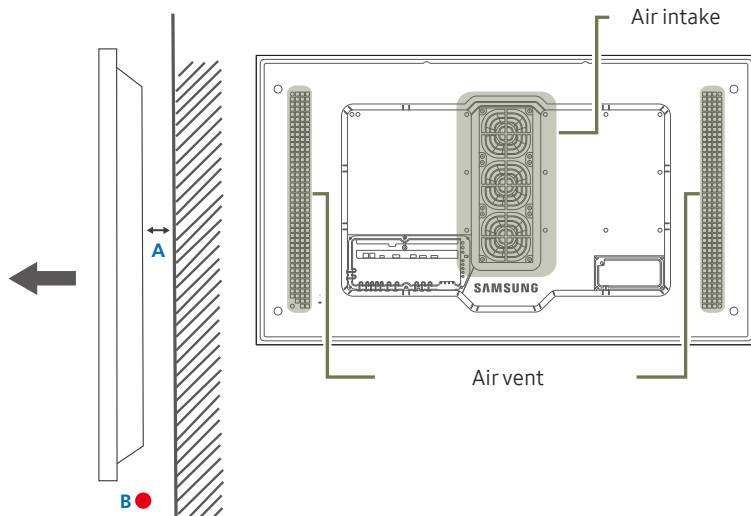


Figure 1.1 Side view

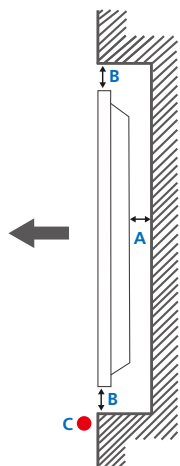
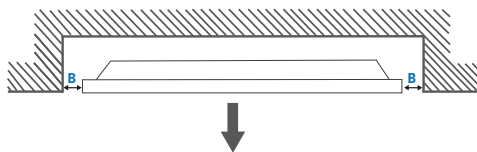


Figure 1.2 Side view

Figure 1.3 Side view



## Installation on an Indented Wall

— Contact Samsung Customer Service Center for further details.

### Plane view

A Minimum 50 mm

B Minimum 50 mm

C Ambient temperature: Under 50°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 50°C.

— Refer to the Outdoor Installation Guide. (<http://displaysolutions.samsung.com>)

# Installing the Wall Mount

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

## Installing the Wall Mount Kit

The wall mount kit (sold separately) allows you to mount the product on the wall.

For detailed information on installing the wall mount, see the instructions provided with the wall mount.

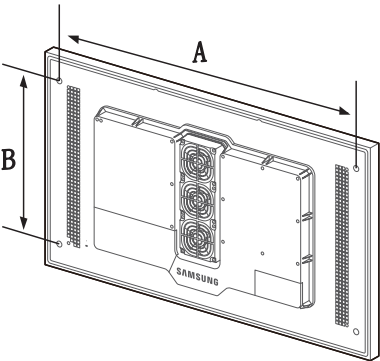
We recommend you contact a technician for assistance when installing the wall mount bracket.

Samsung Electronics 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

— Install your wall mount on a solid wall perpendicular to the floor. If you install the product on a slanted wall, it may fall and result in severe personal injury.

Before attaching the wall mount to surfaces other than plaster board, please contact your nearest service center for additional information.



- 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 wall mount is used or the consumer fails to follow the product installation instructions.
- Do not mount the product at more than a 15 degree tilt.
- Always have two people mount the product on a wall.
- Standard dimensions for wall mount kits are shown in the table below.

Unit: mm (inches)

Model name	Screw hole specs (A * B) in millimeters	Standard Screw	Quantity
OH46F	995 x 500 (39.2 x 19.7)	M8	4
OH55F	1186 x 560 (46.7 x 22.0)		

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

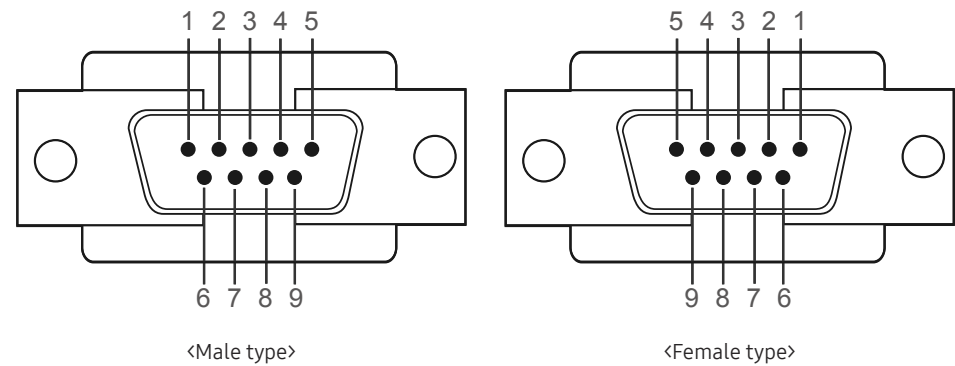
# Remote Control (RS232C)

## Cable Connection

### RS232C Cable

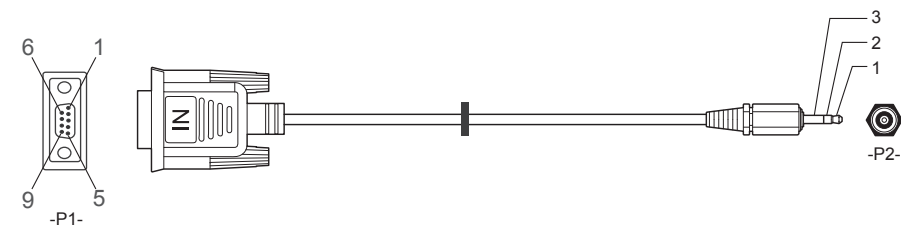
Interface	RS232C (9 pins)
Pin	TxD (No.2), RxD (No.3), GND (No.5)
Bit rate	9600 bps
Data bits	8 bit
Parity	None
Stop bit	1 bit
Flow control	None
Maximum length	15 m (only shielded type)

- Pin assignment



Pin	Signal
1	Detect data carrier
2	Received data
3	Transmitted data
4	Prepare data terminal
5	Signal ground
6	Prepare data set
7	Send request
8	Clear to send
9	Ring indicator

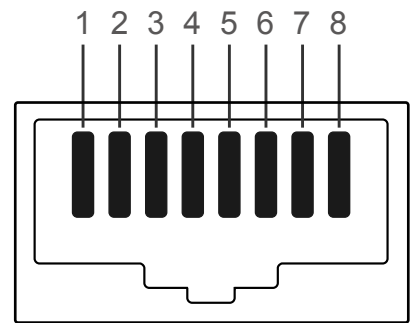
- RS232C cable  
Connector: 9-Pin D-Sub to Stereo Cable



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

### LAN Cable

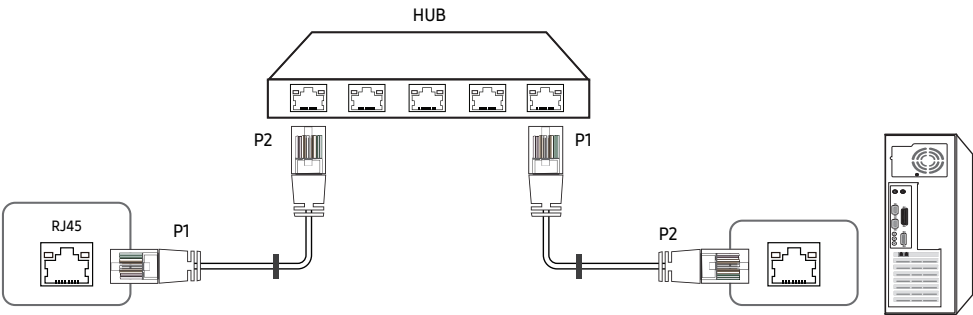
- Pin assignment



Pin No	Standard Color	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

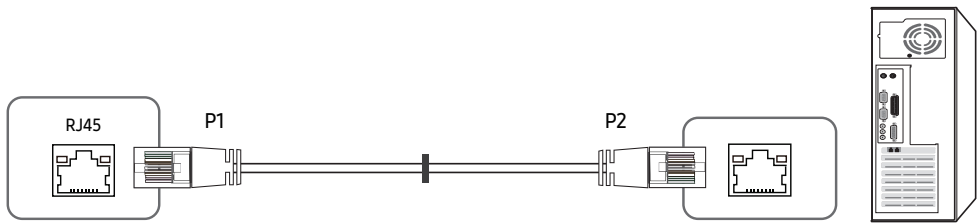
- Connector : RJ45

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)

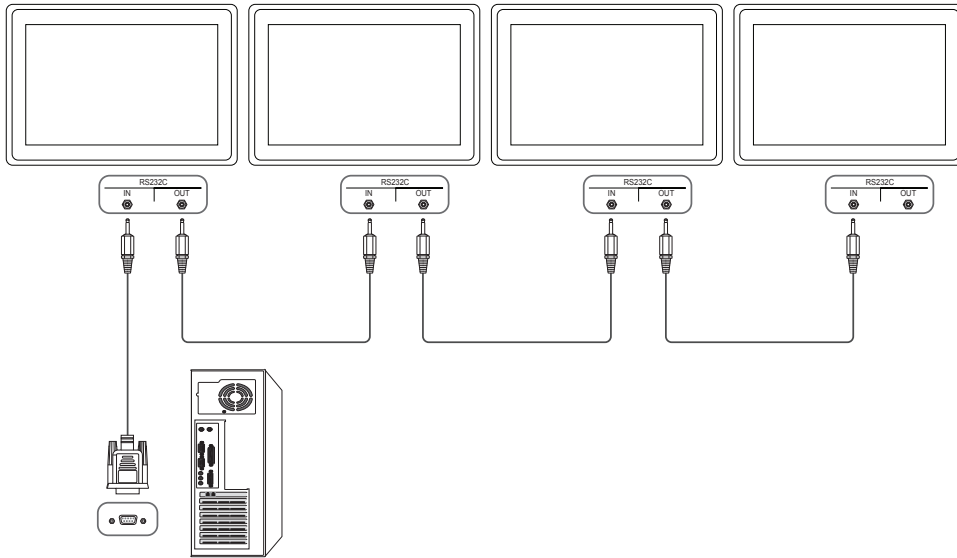


Signal	P1		P2	Signal
TX+	1	<----->	3	RX+
TX-	2	<----->	6	RX-
RX+	3	<----->	1	TX+
RX-	6	<----->	2	TX-

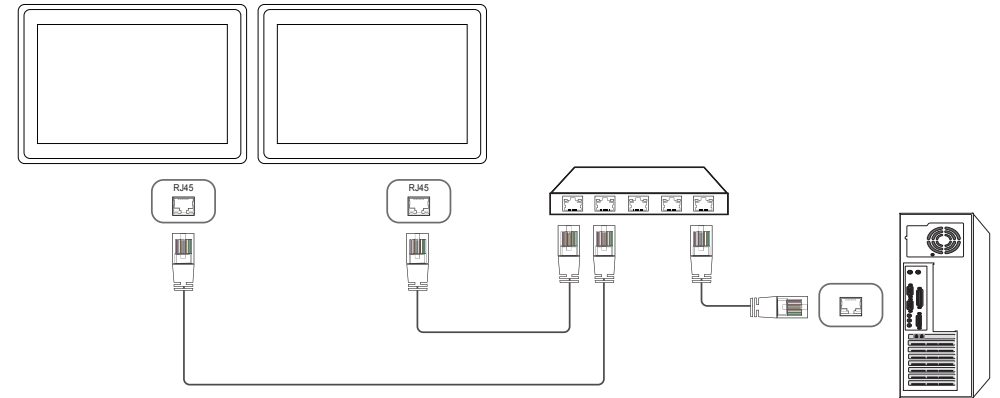
## Connection

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

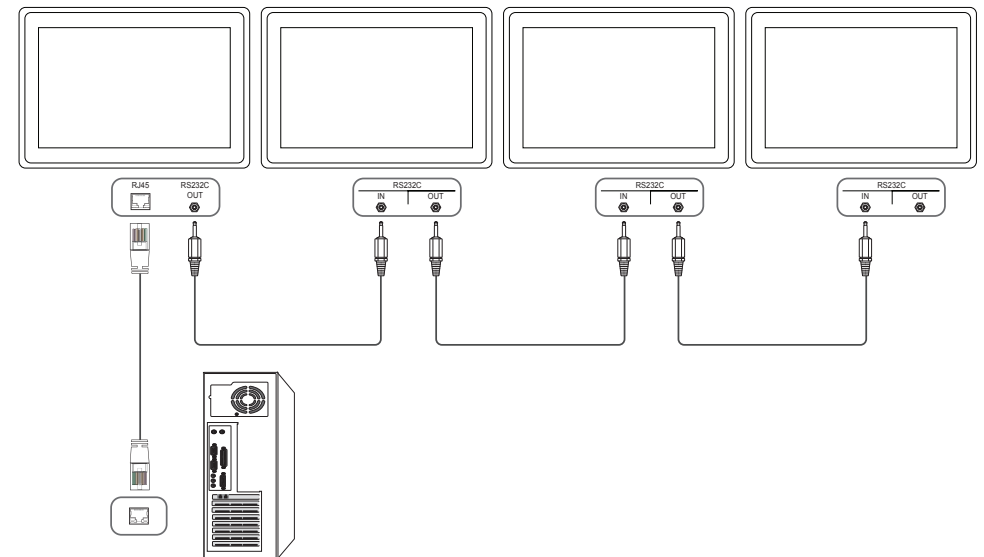
- Connection 1



- 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 mode control	0x18	-
5	Screen size control	0x19	0~255
6	Video wall mode control	0x5C	0~1
7	Safety Lock	0x5D	0~1
8	Video Wall On	0x84	0~1
9	Video Wall User Control	0x89	-

- All communications take place in hexadecimal. 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.

0x0C	Input source
0x20	MagicInfo
0x21	HDMI1
0x22	HDMI1_PC
0x23	HDMI2
0x24	HDMI2_PC
0x55	HDBT

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

— Available input sources may vary depending on the model.

— **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 mode control

- Function

The screen mode of a product can be changed using a PC.

Screen mode cannot be controlled when the **Video Wall** function is enabled.

- Viewing screen status (Get Screen Mode Status)

Header	Command	ID	Data length	Checksum
0xAA	0x18		0	

- Setting the picture size (Set Picture Size)

Header	Command	ID	Data length	Data	Checksum
0xAA	0x18		1	"Screen Mode"	

"Screen Mode": A code that sets the product status

0x01	16 : 9
0x04	Zoom
0x31	Wide Zoom
0x0B	4 : 3

- Ack

Header	Command	ID	Data length	Ack/Nak	r-CMD	Val1	Checksum
0xAA	0xFF		3	'A'	0x18	"Screen Mode"	

"Screen Mode": A code that sets the product status

- Nak

Header	Command	ID	Data length	Ack/Nak	r-CMD	Val1	Checksum
0xAA	0xFF		3	'N'	0x18	"ERR"	

"ERR": A code showing what error has occurred

## Screen size control

- Function

The screen size of a product can be changed using a PC.

- Viewing the screen size (Get Screen Size Status)

Header	Command	ID	Data length	Checksum
0xAA	0x19		0	

- Ack

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

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

- Nak

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

"ERR": A code showing what error has occurred

## Video Wall Mode Control

- Function

**Video Wall** mode can be activated on a product using a PC.

This control is only available on a product whose **Video Wall** is enabled.

- Viewing video wall mode (Get Video Wall Mode)

Header	Command	ID	Data length	Checksum
0xAA	0x5C		0	

- Setting the video wall (Set Video Wall Mode)

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

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

1: **Full**

0: **Natural**

- Ack

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

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

- Nak

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

"ERR": A code showing what error has occurred

## Safety Lock On

- Function

PC can be used to turn the **Safety Lock On** function on or off on a product.

This control is available regardless of whether or not the power is turned on.

- Viewing the safety lock state (Get Safety Lock Status)

Header	Command	ID	Data length	Checksum
0xAA	0x5D		0	

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

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

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

1: ON

0: OFF

- Ack

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

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

- Nak

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

"ERR": A code showing what error has occurred

## Video Wall On

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

Header	Command	ID	Data length	Checksum
0xAA	0x84		0	

- Set Video Wall On/Off

Header	Command	ID	Data length	Data	Checksum
0xAA	0x84		1	VWall_On	

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

1: Video Wall ON

0: Video Wall OFF

- Ack

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

VWall\_On : Same as above

- Nak

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

"ERR": A code showing what error has occurred

## Video Wall User Control

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

Header	Command	ID	Data length	Checksum
0xAA	0x89		0	

- Set Video Wall

Header	Command	ID	Data length	Val1	Val2	Checksum
0xAA	0x89		2	Wall_Div	Wall_SNo	

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

# 10x10 Video Wall Model

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

---

Wall\_SNo: Product Number code assigned to the product

**10x10 Video Wall Model : ( 1 ~ 100)**

Set Number	Data
1	0x01
2	0x02
...	...
99	0x63
100	0x64

- Ack

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

- Nak

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

"ERR": A code showing what error has occurred

## Before Connecting

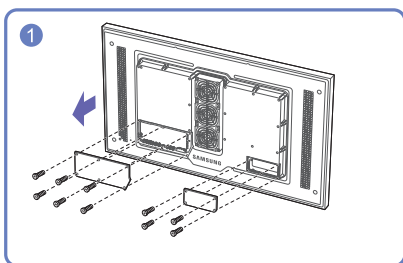
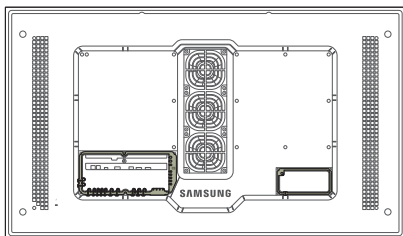
### Pre-connection Checkpoints

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

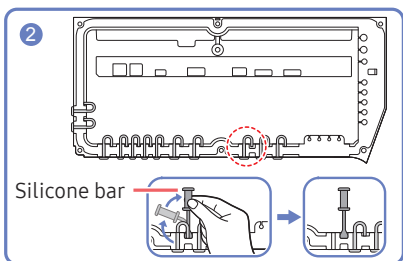


## Before connecting cables

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



Unfasten the screws, then remove the cover.



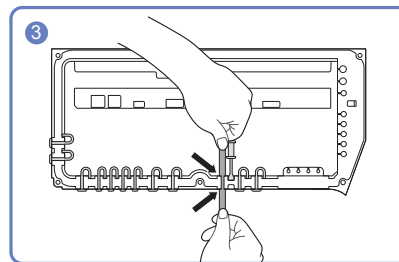
Remove the appropriate silicone bar for the thickness of the cable to connect.  
Different hole sizes and corresponding cable thickness for each:

### \* JACK

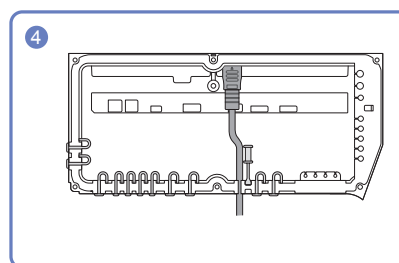
- 7 Ø hole x 2: Insert the 7 Ø cable
- 5.5 Ø hole x 6: Insert the 5.5 Ø cable
- 3 Ø hole x 4: Insert the 3 Ø cable

### \* POWER INLET

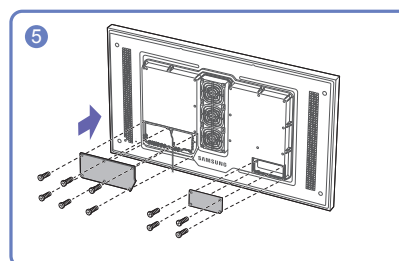
- 7 Ø hole x 1: Insert the 7 Ø cable



Insert the appropriate cable into the hole from which the silicone bar was removed.



The cable should be connected as shown.



Close the cover, then fasten the screws.

- After all the cables are connected, make sure to close the cover and fasten the screws to ensure it is water tight.
- Recommended torque: 10 - 12 kgf.cm

## 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.

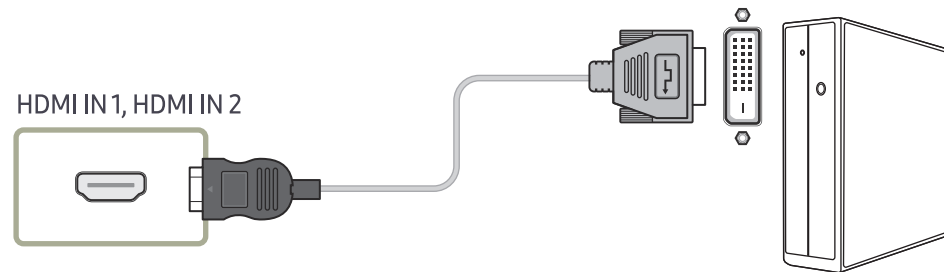
— Connecting parts may differ in different products.

## Connection Using an HDMI-DVI Cable

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.

— The appearance may differ depending on the product.

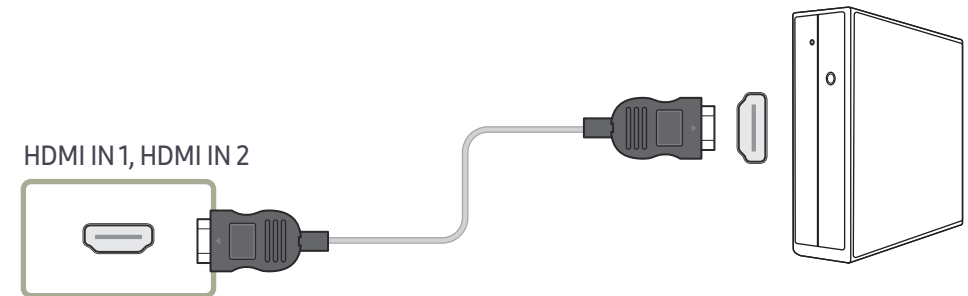
— Connecting parts may differ in different products.



## Connection Using an HDMI Cable

— The appearance may differ depending on the product.

— Connecting parts may differ in different products.



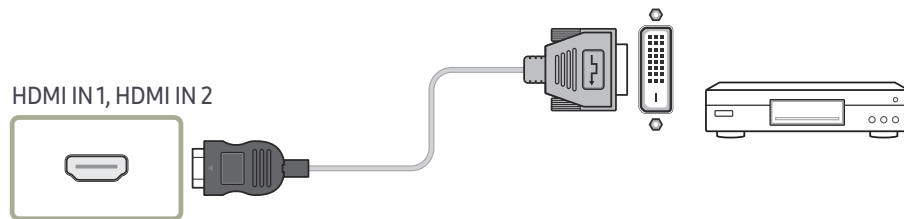
## Connecting to a Video Device

- 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.
  - Connecting parts may differ in different products.
  - Press the **SOURCE** button on the remote control to change the source.

## Connection Using an HDMI-DVI Cable

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

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

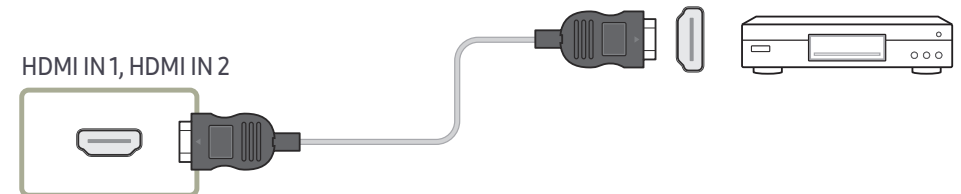


## Connection Using an HDMI Cable

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

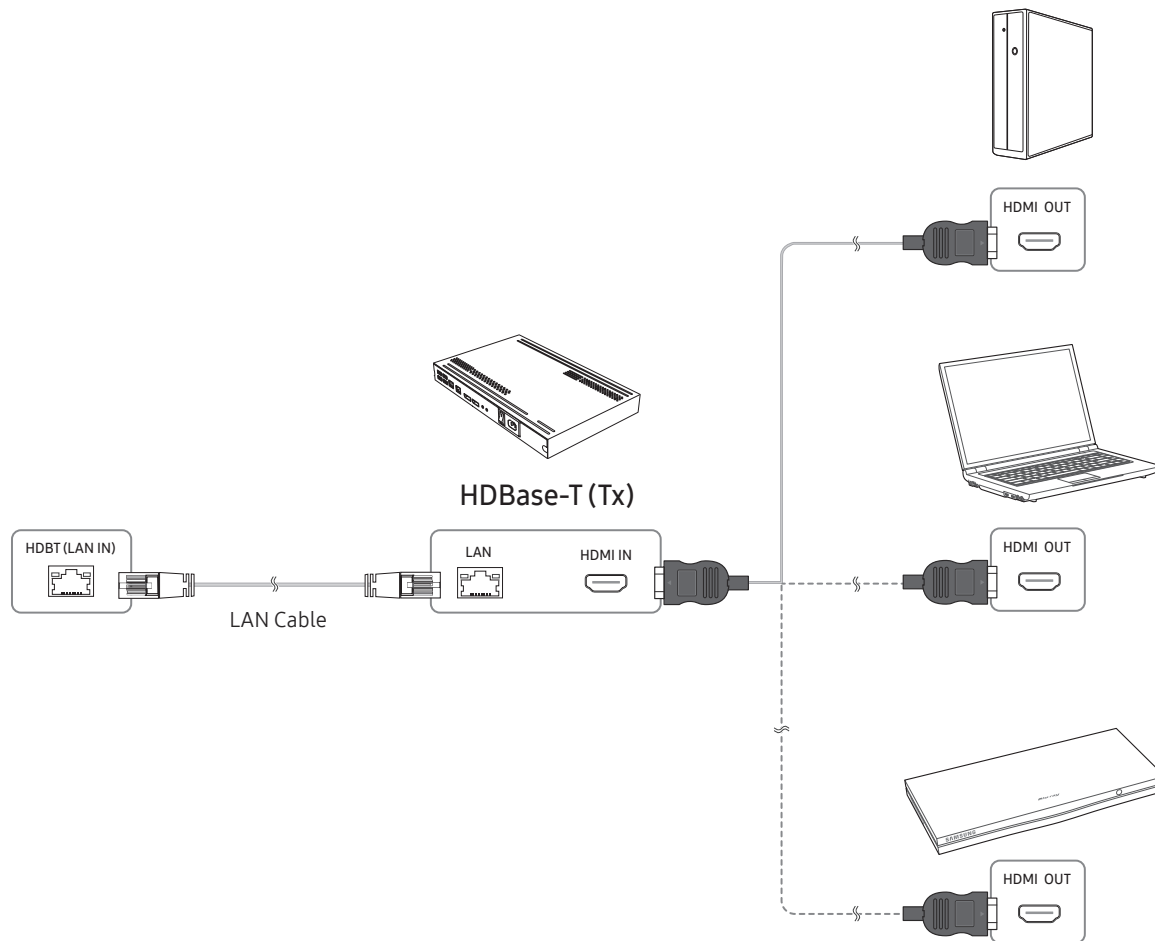
### Using an HDMI cable or HDMI to DVI Cable (up to 1080p)

- For better picture and audio quality, connect to a digital device using an HDMI cable.
- 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.



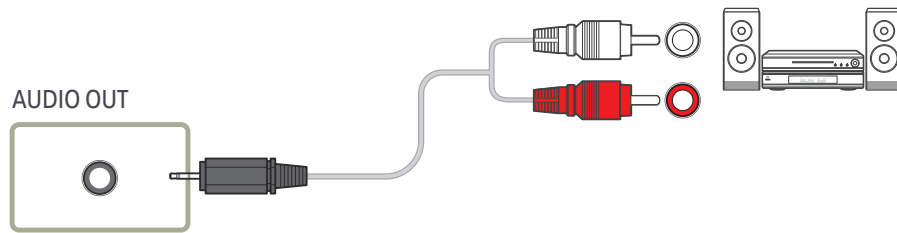
## Connecting the HDBase-T

- The appearance may differ depending on the product.
- Connecting parts may differ in different products.
- HDBase-T (Tx) transmits data from an external device to HDBase-T (Rx). Make sure to connect them directly using a LAN cable.
- Data transmission is not available if HDBase-T (Rx) is connected to HDBase-T (Tx) through a hub.
- HDBase-T works with unshielded twisted pair (UTP) or shielded twisted pair (STP) cables; but, to ensure CE compliance, STP cables and STP Connectors are required. Shielded cable and connectors are recommended to safeguard against unpredictable environmental electrical noise which may impact performance. It is recommended to use an STP cable to maximize performance. Using a UTP cable or patch may decrease performance.



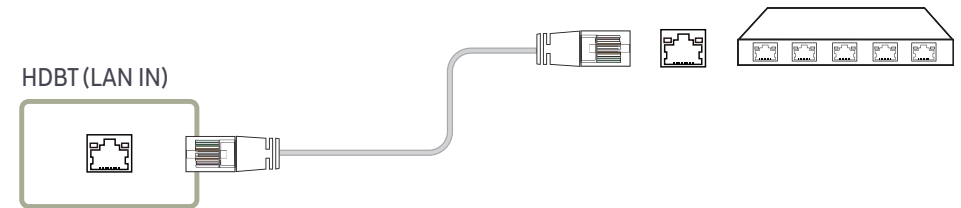
## Connecting to an Audio System

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



## Connecting the LAN Cable

- The appearance may differ depending on the product.
- 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

## Source

SOURCE → Source



— The displayed image may differ depending on the model.

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.

— The input source can also be changed by using the SOURCE button on the remote control.

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

## Edit

SOURCE → Source → ▲ → Edit → ENTER

Edit the name and device type of a connected external device.

- The list can include the following source devices. Source devices on the list differ depending on the selected source.

HDMI 1 / HDMI 2 / HDBT / Cable Box / Game Console / PC / Blu-ray player

- You cannot edit the following sources.

MagicInfo S / URL Launcher / Web Browser

---

## Web Browser

SOURCE → Source → Web Browser → ENTER 



---

— The displayed image may differ depending on the model.

— Connect a LAN cable to access Internet from the product, similar to accessing the Internet from a computer.

## Settings

SOURCE → Source → Web Browser → ▲ → Settings → ENTER 

### 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

#### Pop-up Blocker

Make your browsing experience more pleasant by blocking pop-up windows.

- Use / Do not use

#### Reset Settings

All your customized 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

### Security Mode

Provides warnings about unsafe pages or blocks access to enhance Web Browser security.

This may slow the Web Browser down.

- Use / Do not use

### Private Browsing

When Private Browsing is active, your browsing history won't be recorded.

- Use / Do not use

### Do Not Track

Ask websites not to track you.

- Use / Do not use

### JavaScript

Allow all sites to run JavaScript for a better browsing experience.

- Use / Do not use

### Clear History

Clear your entire browsing history.

- Clear History

### Delete browsing data

Delete all browsing data such as cookies, cached images and data.

Your bookmarks and history won't be affected.

- Delete browsing data

## Blocked pages

### Blocked pages

Blocks access to pages that you have listed in Blocked pages.

- Use / Do not use

### Blocked pages

Block or unblock specific pages.

- Add

## Approved pages

### Approved pages

Enables web access only to pages that you have approved.

- Use / Do not use

### Password for Approved pages

Set a password for managing Approved pages.

- Set Password

### Approved Pages

Approve specific pages or remove them from Approved pages.

- Add




---

## Encoding

Choose an encoding method for web pages. The current setting is Auto.

- Auto / Manual (Current : Unicode)

## Refresh Options

SOURCE → Source → Web Browser → ▲ → Refresh Options → ENTER 

### 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.

### Zoom1

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

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

### 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.

# Chapter 04

## Using MDC

Multiple display control "MDC" is an application that allows you to easily control multiple display devices simultaneously using a PC.  
- For details on how to use the MDC program, refer to Help after installing the program. The MDC program is available on the website.

### MDC Program Installation/Uninstallation

#### Installation

— MDC installation can be affected by the graphics card, mother board and network conditions.

- 1 Click the **MDC Unified** installation program.
- 2 Select a language for installation. Next, click **"OK"**.
- 3 When the **"Welcome to the InstallShield Wizard for MDC\_Unified"** screen appears, click **"Next"**.
- 4 In the **"License Agreement"** window displayed, select **"I accept the terms in the license agreement"** and click **"Next"**.
- 5 In the displayed **"Customer Information"** window, fill out all the information fields and click **"Next"**.
- 6 In the displayed **"Destination Folder"** window, select the directory path you want to install the program in and click **"Next"**.

— If the directory path is not specified, the program will be installed in the default directory path.

- 7 In the displayed **"Ready to Install the Program"** window, check the directory path to install the program in and click **"Install"**.
- 8 Installation progress will be displayed.
- 9 Click **"Finish"** in the displayed **"InstallShield Wizard Complete"** window.

— Select **"Launch MDC Unified"** and click **"Finish"** to run the MDC program immediately.

- 10 The **MDC Unified** shortcut icon will be created on the desktop after installation.

— The MDC execution icon may not be displayed depending on the PC system or product specifications.

— Press F5 if the execution icon is not displayed.

#### Uninstallation

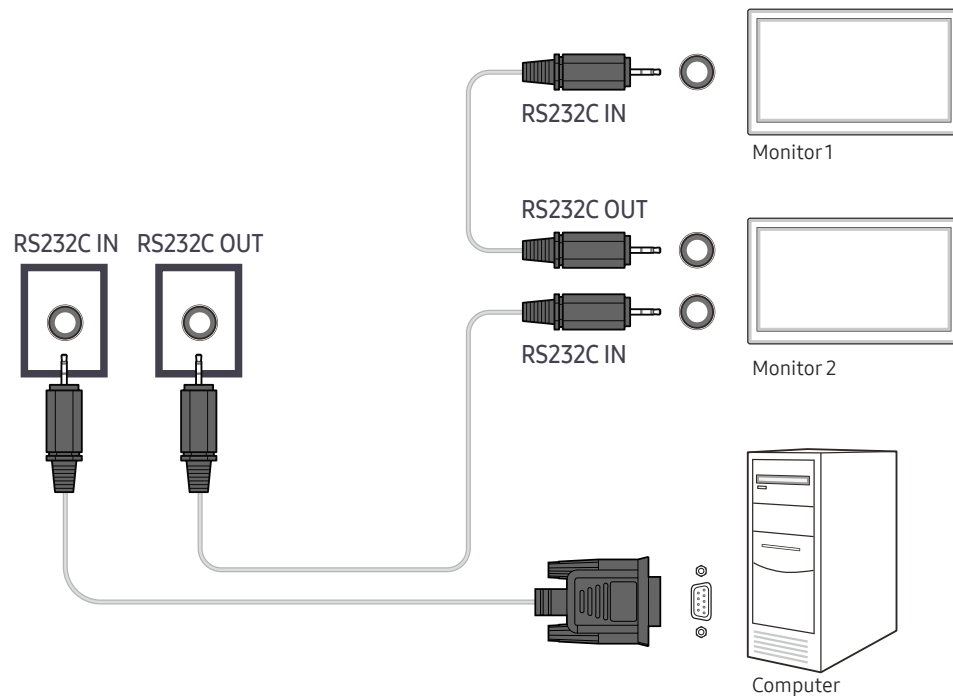
- 1 Select **Settings > Control Panel** on the **Start** menu and double-click **Add/Delete Program**.
- 2 Select **MDC Unified** from the list and click **Change/Remove**.

## Connecting to MDC

### Using MDC via RS-232C (serial data communications standards)

An RS-232C serial cable must be connected to the serial ports on the PC and monitor.

— The appearance may differ depending on the product.

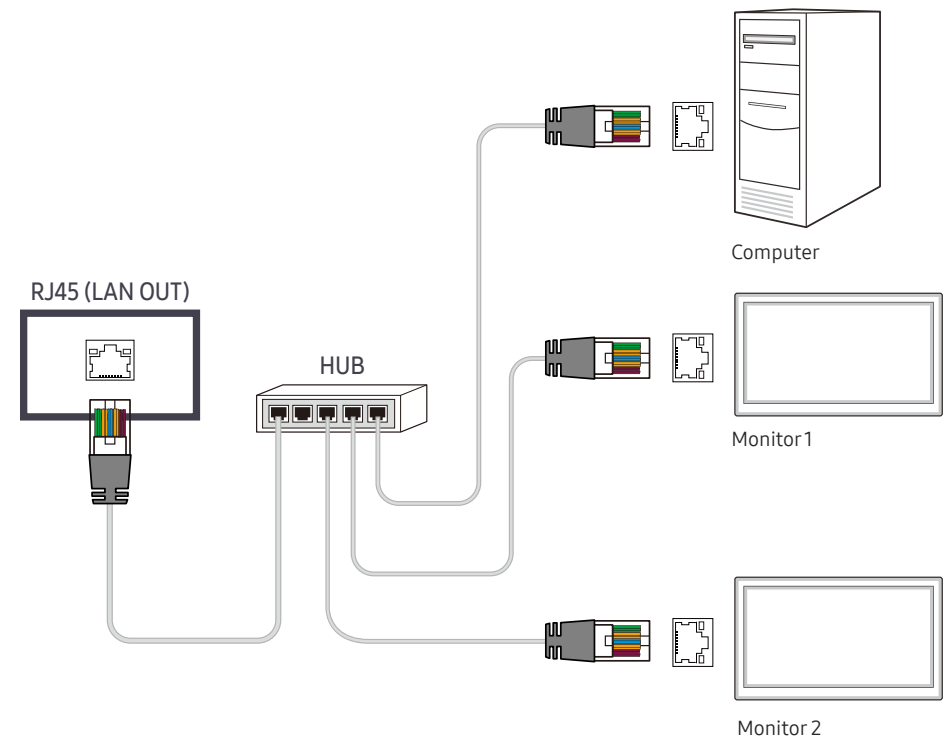


## Using MDC via Ethernet

Enter the IP for the primary display device and connect the device to the PC. Display devices can be connected to each other using a LAN cable.

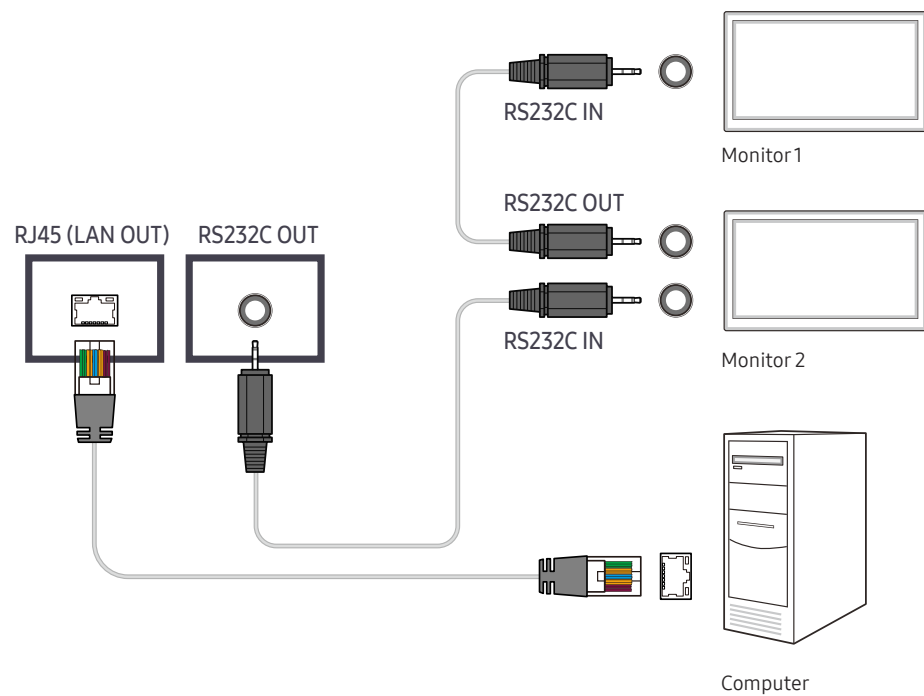
### Connection using a direct LAN cable

- The appearance may differ depending on the product.
- Multiple products can be connected using the RJ45 (LAN OUT) port on the product and the LAN ports on the HUB.



## Connection using a cross LAN cable

- The appearance may differ depending on the product.
- Multiple products can be connected using the RS232C IN / OUT port on the product.



# Chapter 05

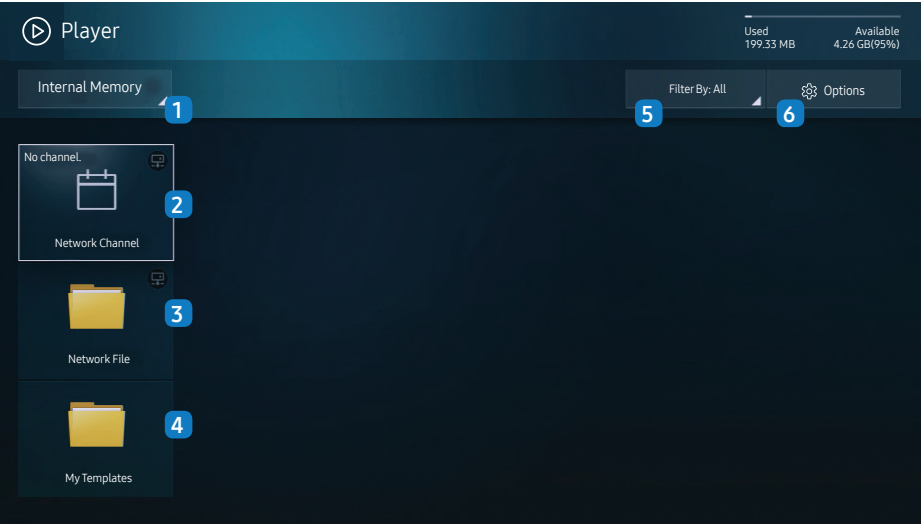
## Player feature

Accessible using the HOME button on the remote control.

### Player

HOME → **Player** → ENTER

Play a range of content such as channels with schedules assigned, templates or files.



— The displayed image may differ depending on the model.

— To use the **Player** feature, set **Play via** to **MagicInfo** in **System**.

No.	Description
1	Select between internal or external memory.
2	Play content, templates and schedules configured on the server. <ul style="list-style-type: none"><li>You can view whether the server is connected (approval) in the <b>Player</b> screen. To view whether the server is connected when a Network Channel is running, press <b>INFO</b> on the remote.</li></ul> <ol style="list-style-type: none"><li>Select <b>Network Channel</b> from the <b>Player</b> screen. The <b>No channel.</b> message appears if no channel has been registered in <b>Network Channel</b>.</li><li><b>Network Channel</b> will run.</li></ol>
3	Play content stored on the server.
4	Play a template stored in the internal memory.
5	Select a content type as criterion to search for a desired content list.
6	Set different options for <b>Player</b> .

### Viewing content

- Select either internal or external memory. The files saved in the selected memory appear.
- Select the desired file. The content appears on the screen. (For more information on compatible file formats, see the “File formats compatible with Player” section.)

## When content is running

### Control buttons on the remote

You can use buttons on your remote control to play, pause, or skip between content on the playlist.

Button	Function
TOOLS	Brings up the menu bar.
INFO	Displays the information of the content.
▶	Goes to next file or page.
◀	Goes to previous file or page.
🖱️ / ▶ / ⏸	Plays or pauses slide show or video content.
■	Stops displaying content and goes to the <b>Player</b> screen.
◀◀	Rewinds the video content.
▶▶	Fast forwards the video content.

## Available menu

Press the **TOOLS** button on the remote control during content playback to configure settings.

Menu	Description
<b>Playlist</b>	View a list of content items currently playing.
<b>Picture Mode</b>	Customizes the screen settings for the content currently playing.
<b>Sound Mode</b>	Customizes the audio settings for the content currently playing.
<b>Repeat</b>	Set the repeat mode.
<b>Background Music</b>	Set the background music to be played when content is running.
<b>Reset</b>	Reset the background music.
<b>Pause</b>	Pause the background music.
<b>Prev</b>	Play the previous background music on the list.
<b>Next</b>	Play the next background music on the list.

— **Reset, Pause, Prev, Next** only appear when the background music is set.

---

## File Formats Compatible with Player

- Supported file systems include FAT32 and NTFS.
- A file with a vertical and horizontal resolution larger than the maximum resolution cannot be played. Check the vertical and horizontal resolution of the file.
- Check the supported video and audio Codec types and Versions.
- Check the supported file versions.
  - PowerPoint version up to 97 – 2007 is supported
- Only the last USB device that was connected is recognized.

### Network Schedule Multiframe

#### Playback restrictions

- A maximum of two video files (**Video**) can be played simultaneously.
- In portrait playback mode, only one video file can be played at a time.
- For **Office** files (PPT and Word files) and **PDF** files, only one file type is supported at a time.
- LFD(.lfd) files are not supported.

#### Sound output restrictions

- More than one sound output cannot be used.
- Playback priority: network BGM > local BGM > video file in the main frame selected by the user
  - Network BGM: Settings can be configured in step 1 when creating a server schedule.
  - Local BGM: BGM settings can be configured using the tools displayed after the **TOOLS** button is pressed during **Player** playback.
  - User-selected main frame: Main frame settings can be configured in step 2 when creating a server schedule.

### Template files and LFD(.lfd) files

#### Restrictions

- Ensure a distributed folder (content / schedules) exists in **Internal** / **USB** memory.

#### Playback restrictions

- A maximum of two video (**Video**) files can be played.
- For **Office** files (PPT and Word files) and **PDF** files, only one file type is supported at a time.
- Multiple videos (**Video**) cannot be played on a single display of a video wall simultaneously.

#### Sound output restrictions

- More than one sound output cannot be used.
- Playback priority: network BGM > local BGM > video file in the main frame selected by the user

## Contents

File Extension	Container	Video Codec	Resolution	Frame rate (fps)	Bit rate (Mbps)	Audio Codec
*.avi	AVI	H.264 BP/MP/HP	4096x2160	4096X2160: 24	40	AC3
*.mkv	MKV			3840X2160: 30		LPCM
*.asf	ASF	HEVC (H.265 - Main, Main10, Main4:2:2 10)		60	80	ADPCM(IMA, MS)
*.wmv	MP4	Motion JPEG		30	80	AAC
*.mp4	3GP		1920 x1080	60	20	HE-AAC
*.mov	MOV	MVC				WMA
*.3gp	FLV	Divx 3.11 / 4 / 5 / 6				DD+
*.vro	VRO	MPEG4 SP/ASP				MPEG(MP3)
*.mpg	VOB	Window Media Video v9 (VC1)				DTS (Core , LBR)
*.mpeg	PS	MPEG2				G.711(A-Law, $\mu$ -Law)
*.ts	TS	MPEG1				
*.tp	SVAf	MPEG1				
*.trp		Microsoft MPEG-4 v1, v2, v3		30	20	
*.mov		Window Media Video v7(WMV1),v8(WMV2)				
*.flv						
*.vob						
*.svi		H 263 Sorenson				
*.m2ts		VP6				
*.mts						
*.divx						
*.webm	WebM	VP8	1920x1080	90	20	Vorbis
		VP9	4096x2160	4096X2160: 24 3840X2160: 30	20	
*.rmvb	RMVB	RV8/9/10 (RV30/40)	1920x1080	60	20	RealAudio 6



Video	Audio	Image
<ul style="list-style-type: none"> <li>• 3D video is not supported.</li> <li>• Content with a resolution larger than the resolution specified in the table above is not supported.</li> <li>• Video content with a Bit rate or Frame rate larger than the rate specified in the table above can cause choppy video during playback.</li> <li>• Video content will not play, or not play correctly, if there is an error in the content or the container.</li> <li>• Some USB/digital camera devices may not be compatible with the player.</li> <li>• Supports up to H.264, Level 4.1</li> <li>• H.264 FMO / ASO / RS, VC1 SP / AP L4 and AVCHD are not supported.</li> <li>• For all Video codecs except MVC, VP8, VP6: <ul style="list-style-type: none"> <li>– Below 1280 x 720: 60 frame max</li> <li>– Above 1280 x 720: 30 frame max</li> </ul> </li> <li>• GMC 2 or higher is not supported.</li> <li>• Supports only BD MVC Spec.</li> <li>• Only one video file can play at a time if video files on the monitor use incompatible codecs or the resolution is 1080 x 1920.</li> <li>• When a single video file is playing, Seamless mode is not supported under the following conditions: <ul style="list-style-type: none"> <li>– Incompatible codec (MVC, VP3, MJPEG) ↔ Incompatible codec</li> <li>– Incompatible codec ↔ Compatible codec</li> <li>– The resolution is different from that of the monitor</li> <li>– The frequency is different from that of the monitor</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>• Audio content with a Bit rate or Frame rate larger than the rate specified in the table above can cause choppy audio during playback.</li> <li>• Audio content will not play, or not play correctly, if there is an error in the content or the container.</li> <li>• Some USB/digital camera devices may not be compatible with the player.</li> <li>• Supports up to WMA 10 Pro 5.1 channel. WMA lossless audio is not supported.</li> <li>• QCELP, AMR NB/WB are not supported.</li> </ul>	<ul style="list-style-type: none"> <li>• Compatible image file format : JPEG, PNG, BMP <ul style="list-style-type: none"> <li>– 32-bit, 24-bit and 8-bit BMP files are supported.</li> </ul> </li> <li>• Supported maximum resolution : 4096 x 4096</li> <li>• Supported maximum file size: 20MB</li> <li>• Supported image effects : 9 effects (<b>Fade1, Fade2, Blind, Spiral, Checker, Linear, Stairs, Wipe, Random</b>)</li> </ul>

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**Power Point****PDF****WORD**

- Compatible document file formats
  - Extension : ppt, pptx
  - Version : Office 97 ~ Office 2007
- Functions not supported
  - Animation effect
  - 3D shapes (which will be displayed in 2D)
  - Header and footer (some subitems are not supported)
  - Word Art
  - Align
    - A group alignment error may occur
  - Office 2007
    - SmartArt is not fully supported. 97 out of 115 subitems are supported.
  - Object insertion
  - Half-width characters
  - Letter spacing
  - Charts
  - Vertical text
    - Some subitems are not supported
  - Slide notes and handout

- Compatible document file formats
  - Extension : pdf
- Functions not supported
  - Content less than 1 pixel not supported because of performance degradation issue.
  - Masked Image, Tiled Image content not supported.
  - Content with Rotated Text, not supported.
  - 3D Shadow Effects not supported.
  - Some characters not supported
    - (Special characters may be corrupted)

- Compatible document file formats
  - Extension : .doc, .docx
  - Version : Office 97 ~ Office 2007
- Functions not supported
  - Page background effect
  - Some paragraph styles
  - Word Art
  - Align
    - A group alignment error may occur
  - 3D shapes (which will be displayed in 2D)
  - Office 2007
    - SmartArt is not fully supported. 97 out of 115 subitems are supported.
  - Charts
  - Half-width characters
  - Letter spacing
  - Vertical text
    - Some subitems are not supported
  - Slide notes and handout

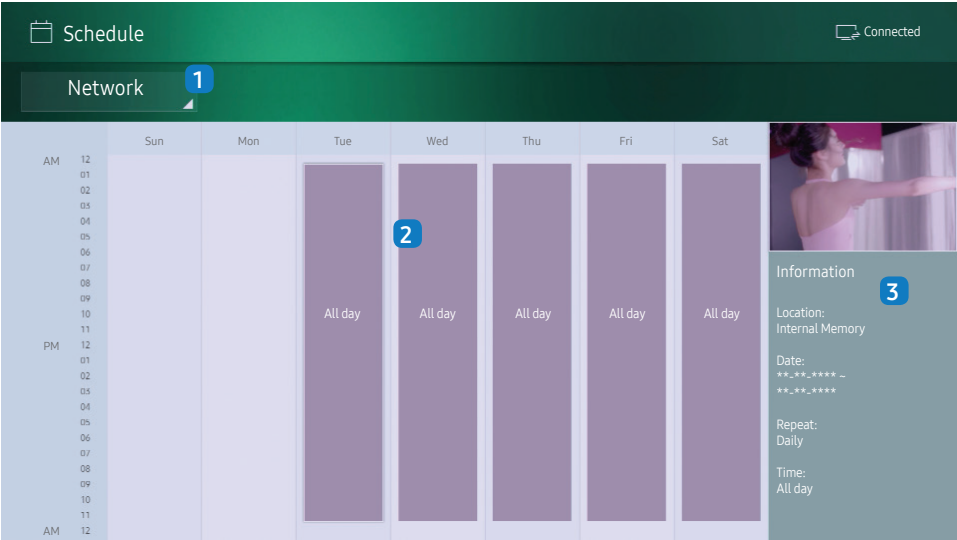
Template files

LFD

<ul style="list-style-type: none"><li>Creation/editing/playback are only available in <b>Template</b>.</li></ul>	<ul style="list-style-type: none"><li>Supported in <b>Network Channel</b></li><li>Compatible document file formats<ul style="list-style-type: none"><li>Extension : .lfd</li></ul></li></ul>
--	--

# Schedule

HOME  → Schedule → ENTER 



— The displayed image may differ depending on the model.

You can check the content's playback schedule on the server, imported from an external storage, or on a mobile device.

No.	Description
1	Select between server and external memory.
2	View weekly schedule of content playback. Select to view detailed information of each event.
3	View a thumbnail image and brief information of the content.

---

## Clone Product

HOME  → Clone Product → ENTER 



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— The displayed image may differ depending on the model.

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

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

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

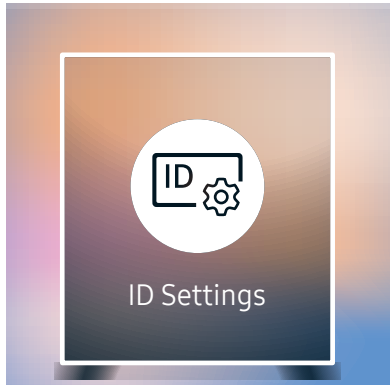
- 1 Connect the external storage device, then run the **Clone Product** function.
- 2 The **No cloning file found on the external storage device. Export this device's settings to the external storage device?** message appears.
- 3 Select **Export** to export the settings.

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

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

## ID Settings

HOME  → ID Settings → ENTER 




— The displayed image may differ depending on the model.

Assign an ID to a set.

### Device ID

Enter the ID number of the product connected to the input cable for input signal reception. (Range: 0~224)

- Press ▲/▼ to select a number, and press .
- Enter the number you want using the number buttons on the remote control.

### Device ID Auto Set

This feature automatically allots an ID number to a device connected via an RS232C cable.

When multiple devices are connected, enable the feature on either the first or last device.

- This function is only available on the first device within an RS-232C daisy chain.

### PC Connection Cable

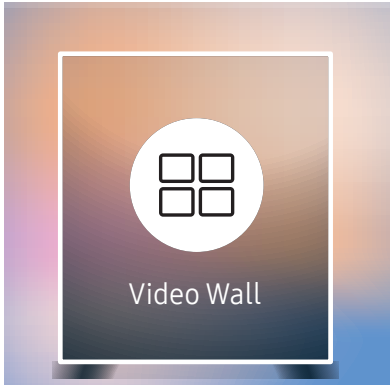
Select a method to connect to MDC to receive the MDC signal.

- **RS232C cable**  
Communicate with MDC via the RS232C-stereo cable.
- **RJ-45 (LAN)/Wi-Fi Network**  
Communicate with MDC via the RJ45 cable or a Wi-Fi network.

- For the models (LH550HFPVBC, LH460HFPVBC) that do not support wireless communication, only the RJ-45(LAN) menu appears.

# Video Wall

HOME  → Video Wall → ENTER 



— The displayed image may differ depending on the model.

Customize the layout of multiple displays that are connected to form a video wall.

In addition, display part of a whole picture or repeat the same picture on each of the connected multiple displays.

To display multiple images, refer to MDC Help or the MagicInfo user guide. Some models may not support the MagicInfo function.

## Video Wall

You can activate or deactivate **Video Wall**.

To organize a video wall, select **On**.

- **Off / On**

## Horizontal x Vertical

This feature automatically splits a videowall display based on a videowall matrix configuration.

Enter the videowall matrix.

The videowall display is split based on the configured matrix. The number of vertical or horizontal display devices can be set within the range 1 and 15.


— A videowall display can be split into a maximum of 100 screens.

— The **Horizontal x Vertical** option is only enabled when **Video Wall** is set to **On**.

## Screen Position

To rearrange split screens, adjust the number for each product in the matrix using the **Screen Position** feature.

Selecting **Screen Position** will display the videowall matrix with the numbers assigned to the products that form the videowall.

To rearrange products, use the direction buttons on the remote control to move a product to another desired number. Press the  button.

— **Screen Position** allows you to split the screen into a maximum of 100 views (15x15).

— The **Screen Position** option is only enabled when **Video Wall** is set to **On**.

— To use the function, make sure **Horizontal x Vertical** is configured.

---

## Format

Select how to display images on the videowall display.

- **Full:** Display images in full screen with no margin.
- **Natural:** Display images in the original aspect ratio without enlarging or reducing the size.

— The **Format** option is only enabled when **Video Wall** is set to **On**.

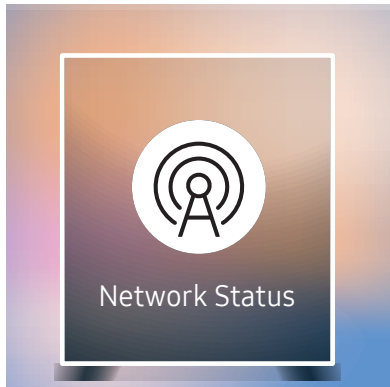


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## Network Status

Check the current network and Internet connection.

HOME  → Network Status → ENTER 

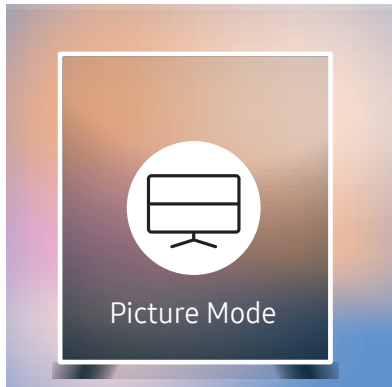


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— The displayed image may differ depending on the model.

# Picture Mode

HOME  → **Picture Mode** → ENTER 



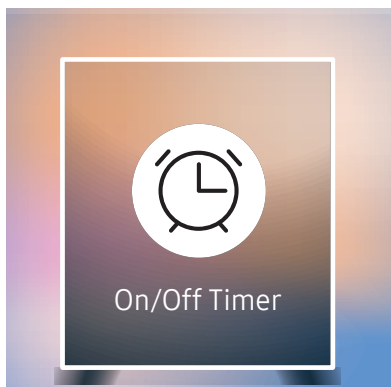
— The displayed image may differ depending on the model.

Select a picture mode (**Picture Mode**) suitable for the environment where the product will be used. **Video/Image** mode improves the picture quality of the video device. **Text** mode improves the picture quality of the computer.

- **Shop & Mall**  
Suitable for shopping malls.
  - Select either **Video/Image** or **Text** depending on the picture mode.
- **Office & School**  
Suitable for offices and schools.
  - Select either **Video/Image** or **Text** depending on the picture mode.
- **Terminal & Station**  
Suitable for bus terminals and train stations.
  - Select either **Video/Image** or **Text** depending on the picture mode.
- **Video Wall**  
Suitable for environments where videowall display are used.
  - Select either **Video/Image** or **Text** depending on the picture mode.
- **Calibration**  
In this mode, the brightness, color, gamma and uniformity settings customized using the color calibration program **Color Expert** are applied.
  - To apply the **Calibration** mode properly, make sure you configure the picture quality settings, such as brightness, color, gamma and uniformity, using the color calibration program **Color Expert**.
  - To download the **Color Expert** program, visit [www.samsung.com/displaysolutions](http://www.samsung.com/displaysolutions).

# On/Off Timer

HOME  → On/Off Timer → ENTER 



— The displayed image may differ depending on the model.

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

## On Timer

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

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

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

(On Timer1 ~ On Timer 7)

- **Setup**: Select **Off**, **Once**, **Everyday**, **Mon~Fri**, **Mon~Sat**, **Sat~Sun** or **Manual**. If you select **Manual**, you can choose the days you want **On Timer** to turn on your product.
  - The check mark indicates days you've selected.
- **Time**: Set the hour and minute. Use the number buttons or the up and down arrow keys to enter numbers. Use the left and right arrow buttons to change entry fields.
- **Volume**: Set the desired volume level. Use the up and down arrow buttons to change the volume level.
- **Source**: Select the input source of your choice.
- **Content** (when the **Source** is set to **Internal/USB**): From the USB device or internal memory, select a file (e.g. music, photo, or video) to play just after the product is turned on.

— This function is available only when a USB device is connected.

— If there is no music file on the USB device or you don't select a folder containing a music file, the Timer function does not operate correctly.

— If there is only one photo file in the USB, the **Slide Show** will not play.

— If a folder name is too long, the folder cannot be selected.

— Each USB you use is assigned its own folder. When using more than one of the same type of USB, make sure the folders assigned to each USB have different names.

— We recommend that you use a USB memory stick and a multi card reader when using **On Timer**.

— The **On Timer** function may not work with USB devices with a built-in battery, MP3 players, or PMPs made by some manufacturers because the product can take too long to recognize these devices.

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## Off Timer

Set the off timer (**Off Timer**) by making a selection from one of the seven options. (**Off Timer1 ~ Off Timer 7**)

- **Setup:** Select **Off**, **Once**, **Everyday**, **Mon~Fri**, **Mon~Sat**, **Sat~Sun** or **Manual**. If you select **Manual**, you can choose the days you want **Off Timer** to turn off your product.
  - The check mark indicates days you've selected.
- **Time:** Set the hour and minute. Use the number buttons or the up and down arrow keys to enter numbers. Use the left and right arrow buttons to change entry fields.

## Holiday Management

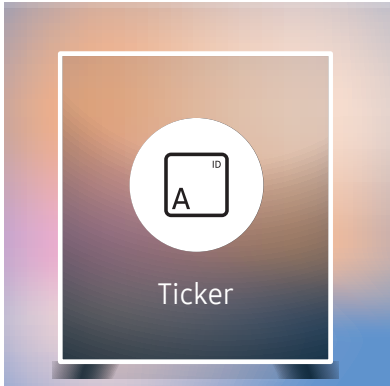
Timer will be disabled during a period specified as a holiday.

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

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# Ticker

HOME  → Ticker → ENTER 



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— The displayed image may differ depending on the model.

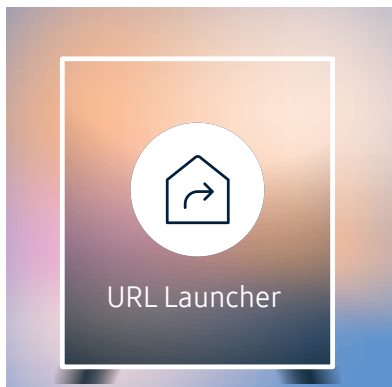
Input text while a video or image is displayed and display the text on the screen.

- **Off / On**
- **Message:** Enter a message to display on the screen.
- **Time:** Set the **Start Time** and **End Time** to display a **Message**.
- **Font Options:** Specify the text font and color for the message.
- **Position:** Select an orientation to display a **Message**.
- **Scroll:** Specify the scroll **Direction** and **Speed** for the message.
- **Preview:** Preview configured caption settings.

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## URL Launcher

HOME  → URL Launcher → ENTER 



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— The displayed image may differ depending on the model.

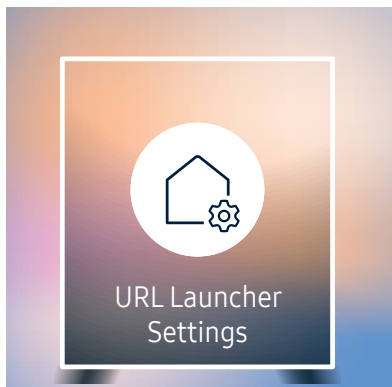
For details on how to use the **URL Launcher** feature, contact the dealer the product was purchased from.

— To use the **URL Launcher** feature, set **Play via** to **URL Launcher** in **System**.

---

## URL Launcher Settings

HOME  → URL Launcher Settings → ENTER 



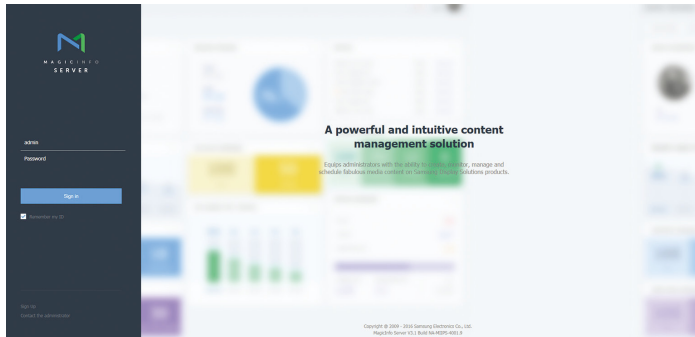
- **Install Web App:** Enter URL to install the web application.
- **Install from USB Device:** Install the web application from the USB storage device.
- **Uninstall:** Remove the installed web application.
- **Timeout Setting:** Set the timeout period for connecting to the URL.
- **Developer Mode:** Enable developer mode.

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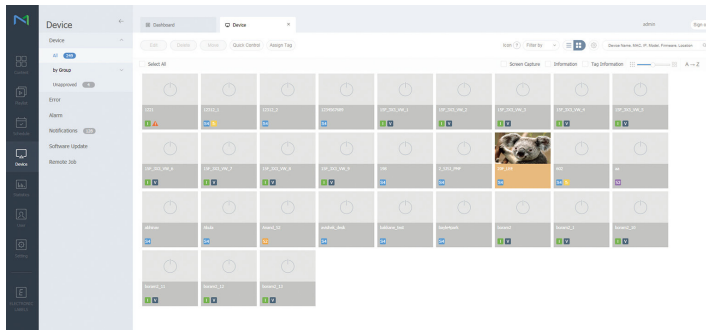
— The displayed image may differ depending on the model.

# Approving a connected device from the server

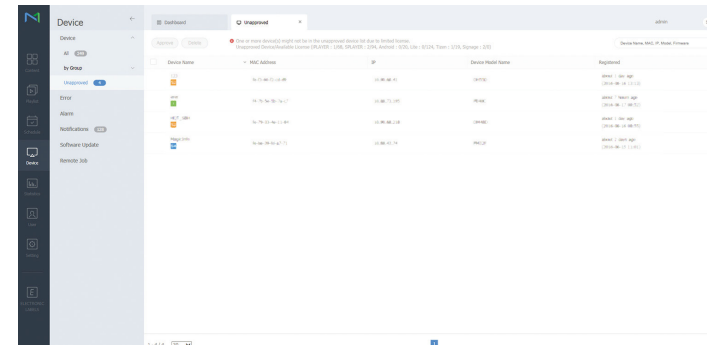
First configure the server **Server Network Settings** before device approval.



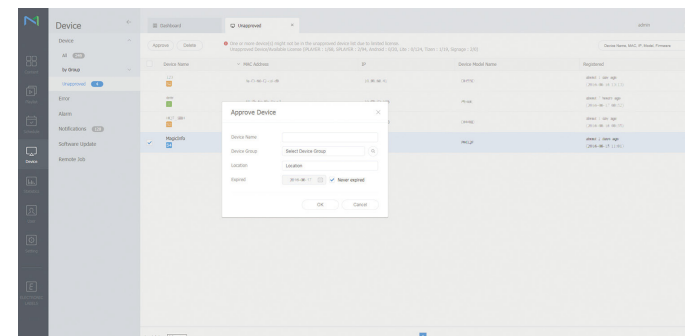
- 1 Access the server you have assigned to your device.
- 2 Enter your ID and password to log in.



- 3 Select **Device** from the top menu bar.

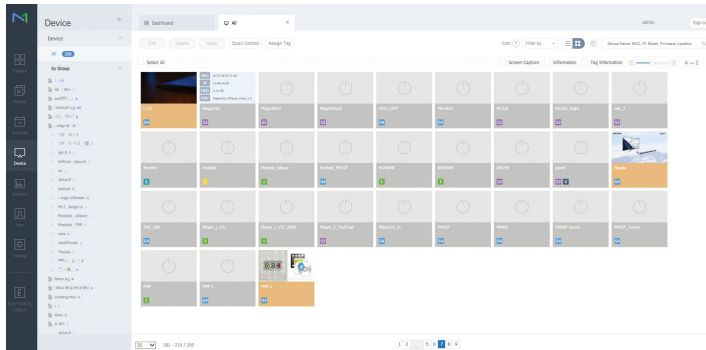


- 4 Select **Unapproved** from the sub-menus.
- 5 Select the device from the list and click the **Approve** button.



- 6 Enter the information required to approve the device.
  - **Device Name:** Enter the device name.
  - **Device Group:** Select **Q** to specify the group.
  - **Location:** Enter the current location of the device.
  - **Expired:** Set expiry date for the device's approval. If you do not want to set the expiry date, select **Never expired**.
  - Pressing the **INFO** button on the remote when a network schedule is running will display the details of the schedule. Check that the correct device has been selected by viewing the device ID in the details.

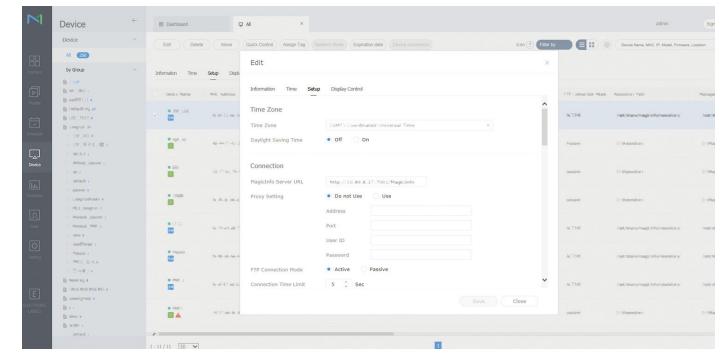




- 7 Select the **All** menu to check that the device has been registered.
- 8 When the device is approved by the server, the schedule registered in the selected group will be downloaded to the device. The schedule will run after it is downloaded.
  - For further details on how to configure a schedule, refer to the <MagicInfo Lite Server user's manual>.
  - If a device is deleted from the list of devices approved by the server, the device will reboot to reset its settings.

## Setting the current time

A schedule may not run if the time set on the device is different from the server's current time.



- 1 Select **Device** from the side menu bar.
  - 2 Select your device.
  - 3 Select **Edit** → **Setup**.
  - 4 Select **Time Zone**.
    - When connecting to the server for the first time, the time on the product is set using the GMT time of the region where the server is installed.
    - The time on the product can be changed from the server as shown in step 3.
    - Turning the product off and then on again will restore the time setting on the product to the last time that was set from the server.
- For further details on how to manage the time (scheduling, holiday management, etc.), refer to the <MagicInfo Lite Server user's manual>.







# Chapter 06

## Screen Adjustment

Configure the **Picture** settings (**Backlight**, **ColorTone**, etc.).  
The layout of the **Picture** menu options may vary depending on the product.

### Picture Mode

MENU  → **Picture** → **Picture Mode** → ENTER 

Picture		
Picture Mode	Shop & Mall	
· Backlight		100
· Contrast		70
· Brightness		45
· Sharpness		65
· Color		50
· Tint (G/R)	G50  R50	

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

**Video/Image** mode improves the picture quality of the video device. **Text** mode improves the picture quality of the computer.

- **Shop & Mall**  
Suitable for shopping malls.
  - Select either **Video/Image** or **Text** depending on the picture mode.
- **Office & School**  
Suitable for offices and schools.
  - Select either **Video/Image** or **Text** depending on the picture mode.
- **Terminal & Station**  
Suitable for bus terminals and train stations.
  - Select either **Video/Image** or **Text** depending on the picture mode.
- **Video Wall**  
Suitable for environments where videowall display are used.
  - Select either **Video/Image** or **Text** depending on the picture mode.
- **Calibration**  
In this mode, the brightness, color, gamma and uniformity settings customized using the color calibration program **Color Expert** are applied.
  - To apply the **Calibration** mode properly, make sure you configure the picture quality settings, such as brightness, color, gamma and uniformity, using the color calibration program **Color Expert**.
  - To download the **Color Expert** program, visit [www.samsung.com/displaysolutions](http://www.samsung.com/displaysolutions).

— The displayed image may differ depending on the model.

# Backlight / Contrast / Brightness / Sharpness / Color / Tint (G/R)

MENU  → Picture → ENTER 

Picture		
Picture Mode	Shop & Mall	
· Backlight	<div><div></div></div>	100
· Contrast	<div><div></div></div>	70
· Brightness	<div><div></div></div>	45
· Sharpness	<div><div></div></div>	65
· Color	<div><div></div></div>	50
· Tint (G/R)	G50 <div><div></div></div> R50	

— The displayed image may differ depending on the model.

- Your product has several options for adjusting picture quality.
- When you make changes to **Backlight**, **Contrast**, **Brightness**, **Sharpness**, **Color** or **Tint (G/R)**, the OSD will be adjusted accordingly.
  - You can adjust and store settings for each external device you have connected to an input on the product.
  - Lowering picture brightness reduces power consumption.

## Color Temperature

MENU  → Picture → Color Temperature → ENTER 



— The displayed image may differ depending on the model.

## White Balance

MENU  → Picture → White Balance → 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 **Color Tone** is set to **Off**.

— **Color Temperature** is disabled if **Picture Mode** is set to **Calibration**.

## 2 Point

Adjust the color temperature for a more natural picture.

- **R-Offset / G-Offset / B-Offset**: Adjust each color's (red, green, blue) darkness.
- **R-Gain / G-Gain / B-Gain**: Adjust each color's (red, green, blue) brightness.
- **Reset**: Suitable for environments where videowall display are used.

## 10 Point

Controls the white balance in 10 point interval by adjusting the red, green, and blue brightness.

- **Off / On**

**Interval**: Select interval to adjust.

**Red**: Adjust the red level.

**Green**: Adjust the green level.



**Blue**: Adjust the blue level.

**Reset**: Suitable for environments where videowall display are used.

— Some external devices may not support this function.

— Enabled when **Picture Mode** is set to **Office & School (Video/Image)**.

## Gamma

MENU  → Picture → Gamma → ENTER 



— The displayed image may differ depending on the model.

Adjust the primary color intensity.

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

## Calibrated Value

MENU  → Picture → Calibrated Value → ENTER 



— The displayed image may differ depending on the model.

Select whether to apply the brightness, color, gamma and uniformity settings customized using the color calibration program **Color Expert** to the Information and Advertisement modes.


- **Don't Apply / Apply**

— To download the Color Expert program, visit [www.samsung.com/displaysolutions](http://www.samsung.com/displaysolutions).

— If **Picture Mode** is set to **Calibration**, **Calibrated Value** is disabled.

# Advanced Settings

MENU  → Picture → Advanced Settings → ENTER 

Advanced Settings	
Dynamic Contrast	High
Black Tone	Darkest
Flesh Tone	 0
RGB Only Mode	Off
Color Space	Native
HDMI UHD Color	
Motion Lighting	On

— The displayed image may differ depending on the model.

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

## Dynamic Contrast

Adjust the screen contrast.

- Off / Low / Medium / High

## Black Tone

Select the black level to adjust the screen depth.

- Off / Dark / Darker / Darkest

## Flesh Tone

Emphasize pink **Flesh Tone**.

## RGB Only Mode

Displays the **Red**, **Green** and **Blue** color for making fine adjustments to the hue and saturation.

- Off / Red / Green / Blue

## Color Space

Adjusts the range and variety of colors (the color space) available to create images.

- Auto / Native / Custom

— To adjust **Color**, **Red**, **Green**, **Blue** and **Reset**, set **Color Space** to **Custom**.

## Advanced Settings

Dynamic Contrast High

Black Tone Darkest

Flesh Tone  0

RGB Only Mode Off

Color Space Native

HDMI UHD Color

Motion Lighting On

## HDMI UHD Color

Enable to optimize picture quality for HDMI UHD connection.

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

## Motion Lighting

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

- Off / On

— Enabled when **Picture Mode** is set to **Shop & Mall (Text)**.

— The displayed image may differ depending on the model.

# Picture Options

MENU  → Picture → Picture Options → ENTER 

Picture Options	
Color Tone	Off
Digital Clean View	Auto
HDMI Black Level	Auto
Film Mode	Off
Dynamic Backlight	Off

— The displayed image may differ depending on the model.

## Color Tone

If **Picture Mode** is set to **Text**

- Off / Cool / Standard / Warm

If **Picture Mode** is set to **Video/Image**

- Off / Cool / Standard / Warm1 / Warm2

— If **Picture Mode** is set to **Calibration**, **Color 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 / Auto



## Picture Options

Color Tone	Off
Digital Clean View	Auto
HDMI Black Level	Auto
Film Mode	Off
Dynamic Backlight	Off

## HDMI Black Level

Selects the black level on the screen to adjust the screen depth.

- Auto / Low / Normal

— Available only in HDMI 1 and HDMI 2 mode (AV Timing : 480p, 576p, 720p, 1080i, 1080p).

## Film Mode

Make frame transitions from older video sources smoother. This function is only available when the input signal is TV, AV, Component (480i, 1080i), or HDMI (1080i).

- Off / Auto1 / Auto2

## Dynamic Backlight

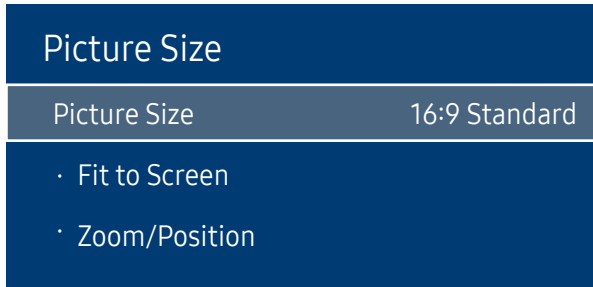
Automatically adjust the backlight to provide the best possible screen contrast under the current conditions.

- Off / On

— The displayed image may differ depending on the model.

## Picture Size

MENU  → **Picture** → **Picture Size** → 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 ports may differ depending on the model.

- **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

Adjusts the picture position. When selected, the full program image will be displayed. No part of the image will be cut off.

- **Off / On / Auto**

### Zoom/Position

Adjusts the picture zoom and position. This option is available when the input source is set to **HDMI 1**, **HDMI 2** (1080i/1080p). **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/Position** screen. The picture will be set to its default position.

# Picture Off

MENU  → Picture → Picture Off → ENTER 



— The displayed image may differ depending on the model.

Selecting **Picture Off** switches off the screen. The volume is not disabled.  
To switch the screen on, press any button other than the volume button.

# 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

### Display Orientation

MENU  → OnScreen Display → Display Orientation → ENTER 

Display Orientation	
Onscreen Menu Orientation	Landscape
Source Content Orientation	Landscape
Aspect Ratio	Full Screen

— The displayed image may differ depending on the model.

### Onscreen Menu Orientation

Configure the menu screen.

- **Landscape**: Display the menu in landscape mode (default).
- **Portrait**: Display the menu in portrait mode on the right side of the product screen.

### Source Content Orientation

Rotate the product screen orientation.

- **Landscape**: Display the screen in landscape mode (default).
- **Portrait**: Display the screen in portrait mode.



### Aspect Ratio

Set the rotated screen to be either full screen or original.

- **Full Screen**: Display the rotated screen in full screen.
- **Original Ratio**: Display the rotated screen in the original aspect ratio.

— Available only when **Source Content Orientation** is set to **Portrait**.

# 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 / 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.

The Screen Burn Protection Time setting allows you to program the time between movements of the picture in minutes.

### 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 min. ~ 4 min.	4 min.

— The Pixel Shift value may differ depending on the product size (inches) and mode.

— 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.

## Screen Burn Protection

Pixel Shift

Timer

Immediate Display

Off

— 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**.

## Screen Burn Protection

Pixel Shift

Timer

Immediate Display

Off



## Immediate Display

Select the screen saver you want to display immediately.

- Off / Pixel / Rolling Bar / Fading Screen

— The displayed image may differ depending on the model.

## Message Display

MENU  → OnScreen Display → Message Display → ENTER 

Message Display	
Source Info	On
No Signal Message	On
MDC Message	On
Download Status Message	Off

— 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

### No Signal Message

Select whether to display the no-signal OSD when no signal is detected.

- Off / On

### MDC Message

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

- Off / On

### Download Status Message

Select to display the status when downloading content from a server or other device.

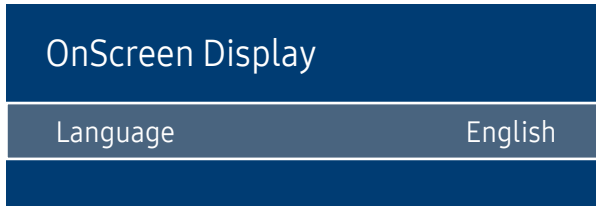
- Off / On



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## Language

MENU  → OnScreen Display → Language → ENTER 



Set the menu language.

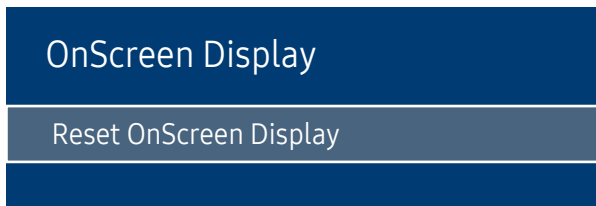
- A change to the language setting will only be applied to the onscreen menu display. It will not be applied to other functions on your PC.

---

— The displayed image may differ depending on the model.

## Reset OnScreen Display

MENU  → OnScreen Display → Reset OnScreen Display → ENTER 



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

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— The displayed image may differ depending on the model.

# Chapter 08

## Network

### 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 use various smart hub features such as Internet search, content sharing through a home network and feature updates.

### Network type

- Wireless / Wired

— For the models (LH55OHFPVBC, LH46OHFPVBC) that do not support wireless communication, the **Wired Network Settings** menu appears.

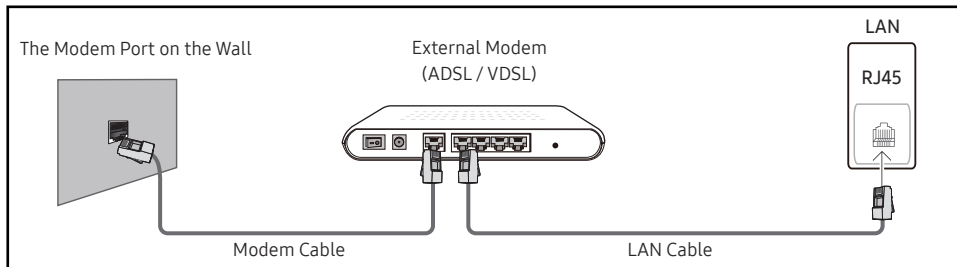
## Network Settings (Wired)

### Connecting to a Wired Network

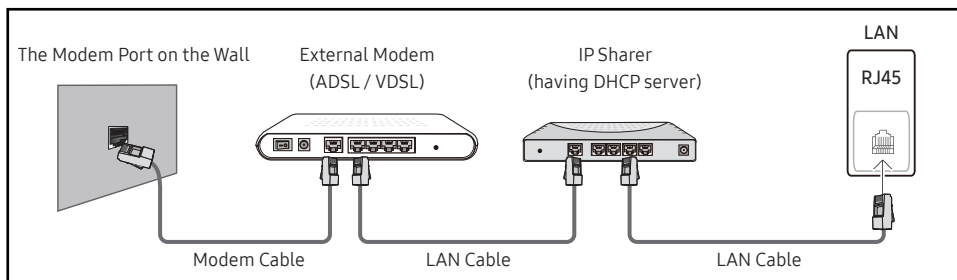
There are three ways to attach your product to your LAN using cable.

- 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.

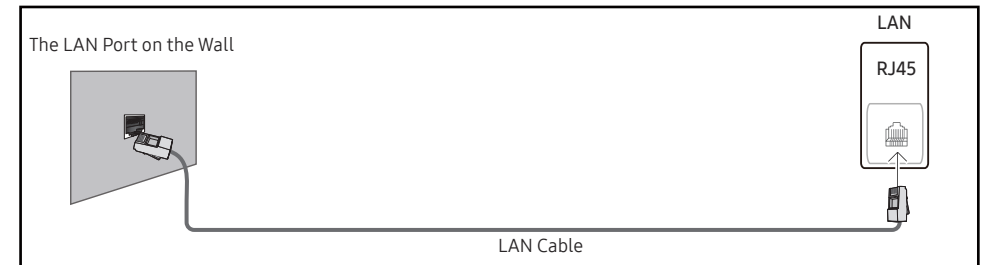


- You can attach your product to your LAN by connecting the LAN port on the back of your product to an IP Sharer which is connected to an external modem. Use LAN cable for the connection. See the diagram below.



- 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 Cable Setup Screen when you set up the network connection. To get the IP address, subnet mask, gateway, and DNS values, contact your Internet Service Provider (ISP).

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

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

---

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 Press the **Connect** button to start **Open Network Settings**.
  - The **Connect** button is only enabled when the LAN cable is properly connected.
- 3 The network test screen appears and verifies the network connection.  
When the connection has been verified, the “**Wired network and Internet connection completed.**” 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, network setup.

## 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.

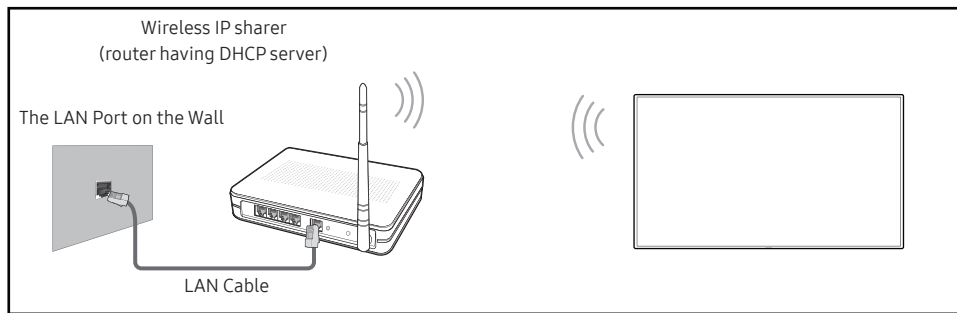
### How to set up manually

- 1 Set **Network type** to **Wired** from the **Open Network Settings** page.
- 2 Press the **Connect** button to start **Open Network Settings**.
  - The **Connect** button is only enabled when the LAN cable is properly connected.
- 3 The network test screen appears and the verification process starts. Press **Stop**. The verification process stops.
- 4 Select **IP Settings** on network connection screen. The **IP Settings** screen appears.
- 5 Select the field at the top, press , and then set **IP Settings** to **Enter manually**. Repeat the entry process for each field in the **IP Address**.
  - Setting **IP Settings** to **Enter manually** automatically changes **DNS Setting** to **Enter manually**.
- 6 When done, select **OK** at the bottom of the page, and then press . The network test screen appears and the verification process starts.
- 7 When the connection has been verified, the “**Wired network and Internet connection completed.**” message appears.

## Network Setting (Wireless)

— Models that do not support wireless communication: LH550HFPVBC, LH460HFPVBC

### 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, **WPS(PBC)**

### 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.
- 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 password.** 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 password.** (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.
  - A connection with the router is established, but the Internet cannot be accessed.
- 7 When the connection has been verified, the "**Your wireless network and Internet connection are setup and ready to use.**" 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.
- 4 If the **Enter password** 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 password**. (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 **Stop** 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 Settings** to **Enter manually**. Repeat the entry process for each field in the **IP Address**.
  - Setting **IP Settings** 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 “**Your wireless network and Internet connection are setup and ready to use.**” message appears.

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## WPS(PBC)

### How to set up using WPS(PBC)

If your router has a **WPS(PBC)** button, follow these steps.

- 1 Set **Network type** to **Wireless** from the **Open Network Settings** page.
- 2 Select **WPS(PBC)**, press , and then press  again.
- 3 Press the **WPS(PBC)** button on your router within 2 minutes. Your product automatically acquires all the network setting values it needs and connects to your network.
- 4 The network connection screen appears, and network setup is done.

---

## Server Network Settings

MENU  → Network → Server Network Settings → ENTER 

### Connect to Server

To run **Player** connect to a network.

- **Server Address / SSL / Port**

— If the **SSL** option is enabled, the server is configured to use **https** and data transfer is encrypted.

— Enter the server IP address and port number. Use 7001 as the port number. (If unable to connect to the server using port number 7001, check with your server administrator to find the correct port number and then change the port number.)

### MagicInfo Mode

Select the appropriate **MagicInfo Mode** depending on the environment where you are using the product.

- **Lite / Premium**

### Server Access

Select a method to connect the server network.

- **Allow / Deny**

### FTP Mode

Specify the FTP operating mode.

- **Active / Passive**

## Proxy Server

Set up your proxy server connection and related functions.


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



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To use this function, your mobile device should be supported by the **Wi-Fi Direct**.

## Wi-Fi Direct

MENU  → **Network** → **Wi-Fi Direct** → ENTER 

Set to connect the product to wireless mobile devices. Using this function, you can connect wireless mobile devices with your product directly without a router.

— Models that do not support wireless communication: LH550HFPVBC, LH460HFPVBC

### To connect your mobile device with your product using Wi-Fi Direct, follow these steps:

- 1 Go to **Wi-Fi Direct** screen. The product starts to search devices.
- 2 Turn on the **Wi-Fi Direct** function on your device. Select the desired Wi-Fi device.
  - **PBC** (Push Button Configuration): Press the **WPS(PBC)** button on your Wi-Fi device within 2 minutes. Your product automatically acquires all the network setting values it needs and connects to your network.
  - **PIN**: Input the displayed **PIN** on your device.

— If you want to disconnect the device, select the connected Wi-Fi device, and then select **Disconnected**.

---

## Mobile Device Manager

Allow other devices on your network, like smart phones and tablets, to share content with your product.

— Models that do not support wireless communication: LH55OHFPVBC, LH46OHFPVBC

## Access Notification

Display a notification when a device is connected for the first time.

Turn off Access Notification to connect devices automatically.

— The **Wi-Fi Direct** feature is not supported currently.

- **Off / First Time Only / Always On**

## Mobile Device List

View and manage connected devices.

## Device Name

MENU  → **Network** → **Device Name** → ENTER 

Select or enter a device name.

This name can be shown on network remote controls over the network.

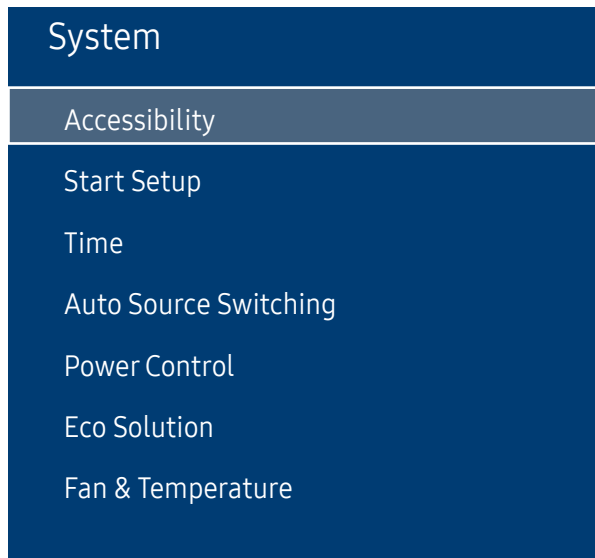
- **[Signage]Display1 ~ 6 / User Input**

# Chapter 09

## System

### Accessibility

MENU  → System → Accessibility → ENTER 



— The displayed image may differ depending on the model.

### Voice Guide

Switch **Voice Guide** on or off. The language used for **Voice Guide** will be the same as the current menu language.

- Off / On

### Menu Transparency

Adjust transparency of menu box.

- High / Low

### High Contrast

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

- Off / On

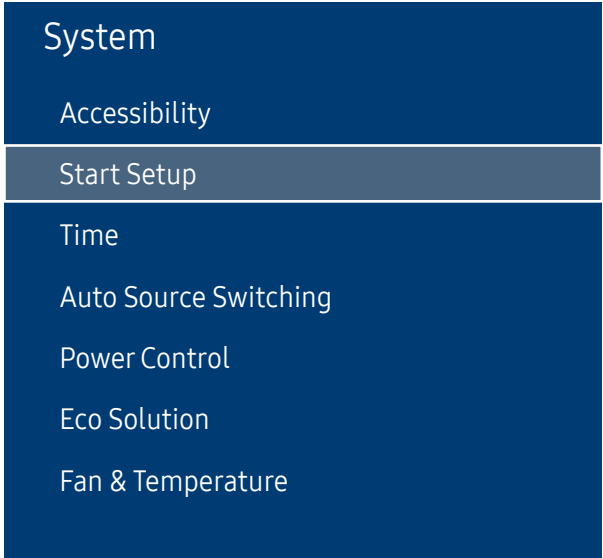
### Enlarge

Set whether to enlarge highlighted item in Menu.

- Off / On

# Start Setup

MENU  → System → Start Setup → ENTER 





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.

— The displayed image may differ depending on the model.

# Time

MENU  → System → Time → ENTER 

Time	
Clock Set	
NTP Settings	
DST	On
Sleep Timer	Off
Power On Delay	0


— The displayed image may differ depending on the model.

You can configure **Clock Set** or **Sleep Timer**. Configure various time-related settings.

— Press the INFO button if you want to view the current time.

## 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 **Date** and **Time** directly by pressing the number buttons on the remote control.

## NTP Settings

Set up the server URL and time zone to use the network time.

## DST

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

**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 your timezone.

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

## Sleep Timer

Automatically shuts off the product after a preset period of time.

**(Off / 30 min. / 60 min. / 90 min. / 120 min. / 150 min. / 180 min.)**

— Use the up and down arrows to select a period of time, and then press . To cancel **Sleep Timer**, select **Off**.

## 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).

# Auto Source Switching

MENU  → System → Auto Source Switching → ENTER 

Auto Source Switching	
Auto Source Switching	Off
Primary Source Recovery	Off
Primary Source	All
Secondary Source	HDMI 1

— The displayed image may differ depending on the model.

Turning on the display with **Auto Source Switching On**, and the previous video source selection is not active, the display will automatically search the different video input sources for active video.

## Auto Source Switching

When the **Auto Source Switching** is **On**, the display video source will automatically be searched for active video.

The **Primary Source** selection will be activated, if the current video source is not recognized.

**Secondary Source** selection will become active, if no primary video source is available.

If both the primary and secondary input sources are not recognized, the display will perform two searches for an active source, each search checking the primary and then secondary source. If both searches fail, the display will return to the first video source and display a message indicating that there is no signal.

## Primary Source Recovery

Select whether to restore the selected primary input source when a primary input source is connected.

— The **Primary Source Recovery** function is disabled if **Primary Source** is set to **All**.

## Primary Source

Specify **Primary Source** for the automatic input source.

## Secondary Source

Specify **Secondary Source** for the automatic input source.

— The **Secondary Source** function is disabled if **Primary Source** is set to **All**.

## Power Control

MENU  → System → Power Control → ENTER 

Power Control	
Auto Power On	Off
Max. Power Saving	On
Standby Control	On
Network Standby	Off
Power Button	Power On Only

— 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

## Standby Control

You can set the screen standby mode to be applied when an input signal is received.

- Auto

Power-saving mode will activate if no input signals are detected even though a source device is connected to the display.

The message **No Signal** will appear if no source device is connected.

- Off

The message **No Signal** will appear if no input signals are detected.

— If **No Signal** is displayed although a source device is connected, check the cable connection.

— If **No Signal Message** is set to **Off**, the **No Signal** message does not appear.

If this is the case, set **No Signal Message** to **On**.

- On

Power-saving mode will activate if no input signals are detected.

## Power Control

Auto Power On Off

Max. Power Saving On

Standby Control On

Network Standby Off


Power Button Power On Only



## Network Standby

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

- Off / On

## Power Button

The power button on the remote control  can be set to turn on the power or turn on or off the power.

- **Power On Only:** Set the power button on the remote control  only to turn on the power.
- **Power On/Off:** Set the power button on the remote control  to turn on or off the power.

— The displayed image may differ depending on the model.



## Eco Solution

MENU  → System → Eco Solution → ENTER 

Eco Solution	
Energy Saving Mode	Off
Eco Sensor	Off
Screen Lamp Schedule	Off
No Signal Power Off	Off
Auto Power Off	Off

— 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

## Eco Sensor

To enhance your power savings, the picture settings will automatically adapt to the light in the room.

- Off / On

— Adjusting the **Backlight** setting under **Picture** while **Eco Sensor** is on will disable the **Off**.

— If the screen contrast is not sufficient, set the **Eco Sensor** to **Off**. If the **Eco Sensor** is **Off**, it may not comply with energy standards.

## Min. Backlight

When **Eco Sensor** is **On**, you can manually adjust the minimum screen brightness. **Min. Backlight** is the darkest backlight mode. Make sure the **Min. Backlight** setting is lower than the **Backlight** setting.

— If **Eco Sensor** is **On**, the display brightness may change (become slightly darker or brighter) depending on the surrounding light intensity.

## Eco Solution

Energy Saving Mode Off

Eco Sensor Off

Screen Lamp Schedule Off

No Signal Power Off Off

Auto Power Off Off

## Screen Lamp Schedule

### Screen Lamp Schedule

Enable or disable the lamp schedule.

- Off / On

### Schedule1, Schedule2

### 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

## No Signal Power Off

Save power by turning the device off when no signal is received from any source.

- Off / 15 min. / 30 min. / 60 min.

— Disabled when an attached PC is in power saving mode.

— The product will automatically power off at a specified time. The time can be changed as required.

## Auto Power Off

The product will automatically turn off if you don't press a button on the remote or touch a button on product front panel within select hours to prevent overheating.

- Off / 4 hours / 6 hours / 8 hours

— The displayed image may differ depending on the model.

# Fan & Temperature

MENU  → System → Fan & Temperature → ENTER 



— The displayed image may differ depending on the model.

Protects the product by detecting the fan speed and internal temperature.

## Fan Control

Selects auto or manual for the fan speed settings.

- Auto / Manual

## Fan Speed Setting

Sets the fan speed within a range of 0 and 100.

— Enabled when Fan Control is set to Manual.

## Outdoor Mode

To use the product at a low temperature below 0 °C, make sure to set Outdoor Mode to "On."

This feature keeps the internal temperature of the product steady so that the product can start properly when it is powered on.

- Off / On

— Do not disconnect the power cable when this feature is set to "On."

— The product consumes more power when it is turned off if this feature is set to "On" rather than to "Off."

## Temperature Control

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

The default temperature is set to 90 °C.

The recommended operating temperature for this product is 75 to 90 °C (based on an ambient temperature of 50 °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.

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## Input Device Manager



MENU  → System → Input Device Manager → ENTER 



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 The displayed image may differ depending on the model.

## Play via

MENU  → System → Play via → ENTER 



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 The displayed image may differ depending on the model.

Configure options for external input devices connected to the product.

### Keyboard Language

Configure the key combination used to change the input language.

### Keyboard Type

Specify the keyboard type.

### Input Language Shortcut

Select shortcut keys for switching between input languages.

Select the appropriate **Play via** mode depending on the environment where you are using the product.

The home screen may be different depending on the setting.

- **MagicInfo / URL Launcher**

---

## Change PIN

MENU  → System → Change PIN → ENTER 



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— The displayed image may differ depending on the model.


The **Change PIN** screen will appear.

Choose any 4 digits for your PIN and enter it in **Enter New PIN**. Reenter the same 4 digits in **Confirm New PIN**.

The product has memorized your new PIN.

— Default password: 0 - 0 - 0 - 0

# Security

MENU  → System → Security → ENTER 

Security	
Safety Lock On	
· Power On Button	On
USB Auto Play Lock	On
Mobile Connection Lock	Off
Remote Management	

— 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.

All the menus and buttons of the product and remote control, except for the **LOCK** button on the remote control, will be locked by the **Safety Lock On** function.

To unlock the menus and buttons, press the **LOCK** button and then enter the password (default password: 0-0-0-0).

### Power On Button

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

- **Off / On**

## USB Auto Play Lock

Select whether to automatically play **MagicInfo** content saved on a connected USB device.

- **Off**  
Play **MagicInfo** content saved on the USB device automatically.
- **On**  
Do not play **MagicInfo** content saved on the USB device automatically.

— Connecting a USB device containing **MagicInfo** content displays "**USB Auto Play Lock : On**" for five seconds.

## Mobile Connection Lock

Restrict other devices on your network, such as smart phones and tablets, to share content with your signage.

- **Off / On**



— Models that do not support wireless communication: LH550HFPVBC, LH460HFPVBC

## Remote Management


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

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

## General

MENU  → System → General → ENTER 

General	
Smart Security	
Anynet+ (HDMI-CEC)	On
HDMI Hot Plug	On
Custom Logo	
Game Mode	Off
Empty Storage	

 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.

### Real-Time Monitoring

Scans for viruses by monitoring the display device in real time.

### Monitoring Results

Check the list of files, networks, and processes that have been blocked.

General	
Smart Security	
Anynet+ (HDMI-CEC)	On
HDMI Hot Plug	On
Custom Logo	
Game Mode	Off
Empty Storage	

— The displayed image may differ depending on the model.

## Anynet+ (HDMI-CEC)

Anynet+ is a function that enables you to control all connected Samsung devices that support Anynet+ with your Samsung product remote. The Anynet+ system can be used only with Samsung devices that have the Anynet+ feature. To be sure your Samsung device has this feature, check if there is an Anynet+ logo on it.

- Off / On

- You can only control **Anynet+** devices using the product remote control, not the buttons on the product.
- The product remote control may not work under certain conditions. If this occurs, reselect the **Anynet+** device.
- **Anynet+** works when the AV device supporting **Anynet+** is in the standby or on status.
- **Anynet+** supports up to 12 AV devices in total. Note that you can connect up to 3 devices of the same type.



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## Troubleshooting for Anynet+

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

## General

### Smart Security

Anynet+ (HDMI-CEC) On

HDMI Hot Plug On

### Custom Logo

Game Mode Off

Empty Storage

## HDMI Hot Plug

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

- Off / On

## 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 128x64 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.

## General

Smart Security

Anynet+ (HDMI-CEC) On

HDMI Hot Plug On

Custom Logo

Game Mode Off

Empty Storage

## 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

— Precautions and limitations for **Game Mode**

To disconnect the game console and connect another external device, set **Game Mode** to **Off** in the setup menu.

## Empty Storage

Delete files to make space for new content. Recently played files will not be deleted.

— The displayed image may differ depending on the model.

## Reset System

MENU  → System → Reset System → ENTER 

System

Reset System

This option returns the current settings under system to the default factory settings.

— The displayed image may differ depending on the model.

# Chapter 10

## 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.

### Auto Update

This feature automatically updates the product when not in use.

- **Off / On**

### Contact Samsung



MENU  → Support → Contact Samsung → ENTER 

View this information when your product does not work properly or when you want to upgrade the software.

You can find information regarding our call centers and how to download products and software.

- **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 11

## Troubleshooting Guide

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

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

### Requirements Before Contacting Samsung Customer Service Center

#### Testing the Product

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

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

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

#### Checking the Resolution and Frequency

**Not Optimum Mode** will briefly be displayed if a mode that exceeds a supported resolution is selected (refer to Supported Resolutions).

---

## Check the followings.

### Installation issue (PC mode)

The screen keeps switching on and off.	Check the cable connection between the product and PC, and ensure the connection is secure.
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

No Signal is displayed on the screen.	Check that the product is connected correctly with a cable.
	Check that the device connected to the product is powered on.
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 the Additional Information on the product menu and the Standard Signal Mode Table.
There are shadows or ghost images left on the screen.	
The screen is too bright. The screen is too dark.	Adjust <b>Brightness</b> and <b>Contrast</b> .
Screen color is inconsistent.	Go to <b>Picture</b> and adjust the <b>Color Space</b> settings.
White does not really look white.	Go to <b>Picture</b> and adjust the <b>White Balance</b> settings.

---

## Screen issue

There is no image on the screen and the power LED blinks every 0.5 to 1 second.	The product is in power-saving mode.
	Press any key on the keyboard or move the mouse to return to the previous screen.
The product will turn off automatically.	Go to <b>System</b> and make sure <b>Sleep Timer</b> is set to <b>Off</b> .
	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.
Picture quality of the product is different from the dealer shop where it was purchased.	Use an HDMI cable to obtain high-definition (HD) picture quality.
The screen display does not look normal.	Encoded video content may cause the display to appear corrupted in scenes featuring fast moving objects such as in a sports event or action video.
	Low signal level or low picture quality may cause the display to appear corrupted. This does not mean the product is defective.
	A cell phone within a distance of one-meter radius may cause static on analog and digital products.
The brightness and color do not look normal.	Go to <b>Picture</b> and adjust the screen settings such as <b>Picture Mode</b> , <b>Color</b> , <b>Brightness</b> and <b>Sharpness</b> .
	Go to <b>System</b> and adjust the <b>Energy Saving Mode</b> settings.
	Reset the screen settings to the default settings.
Lines (red, green or blue) are displayed on the screen.	These lines are displayed when there is a defect in DATA SOURCE DRIVER IC on the monitor. Contact a Samsung Service Center 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.
The screen cannot be displayed in full screen.	A scaled SD (4:3) content file can cause black bars on both sides of an HD channel screen.
	A video with an aspect ratio different from the product can cause black bars at the top and bottom of the screen.
	Change the screen size setting to full screen on the product or source device.

---

### 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.

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### 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.

---

### Other issue

The product smells like plastic.

The plastic smell is normal and disappears over time.

Audio or video cuts out intermittently.

Check the cable connection and connect it again if required.

Using a very hard or thick cable may corrupt audio and video files.

Make sure cables are flexible enough to ensure durability. When mounting the product onto a wall, it is recommended to use right-angle cables.

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 currently supported.** appears.

The message **The defined resolution is not currently 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.

**HDMI Black Level** is not functioning properly on an HDMI device with YCbCr output.

This function is available only when a source device, such as a DVD player and STB, is connected to the product via an HDMI (RGB signal) cable.



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## Other issue

### There is no sound in HDMI mode.

Displayed picture colors 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.

Some PC graphics cards may not automatically recognize HDMI signals that do not include sound. In this case, manually select a sound input.

	Sound input	Screen mode
PC	Auto	PC settings

### The IR sensor is not functioning.

Make sure the sensor light turns on when a button is pressed on the remote control.

If the sensor light does not turn on, turn the power switch off and then on again on the back of the product.

(The power LED lights up red when the screen is switched off.)

If the sensor light still does not turn on after the power switch is turned off and then on again, an internal jack may be disconnected.

Contact your nearest service center to have the product serviced.

If the sensor light that is on does not flash red when a button is pressed on the remote control, the IR sensor may be defective.

Contact your nearest service center to have the product serviced.

- This function is available only when a source device, such as a DVD player and STB, is connected to the product via an HDMI (RGB signal) cable.

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## Q & A

### Question

How can I change the frequency?

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

### Answer

Set the frequency on your graphics card.

- Windows XP: Go to **Control Panel** → **Appearance and Themes** → **Display** → **Settings** → **Advanced** → **Monitor** and adjust the frequency in **Monitor Settings**.
- Windows ME/2000: Go to **Control Panel** → **Display** → **Settings** → **Advanced** → **Monitor** and adjust the frequency in **Monitor Settings**.
- Windows Vista: Go to **Control Panel** → **Appearance and Personalization** → **Personalize** → **Display Settings** → **Advanced Settings** → **Monitor** and adjust the frequency in **Monitor Settings**.
- Windows 7: Go to **Control Panel** → **Appearance and Personalization** → **Display** → **Adjust resolution** → **Advanced Settings** → **Monitor** and adjust the frequency in **Monitor Settings**.
- Windows 8: Go to **Settings** → **Control Panel** → **Appearance and Personalization** → **Display** → **Adjust resolution** → **Advanced Settings** → **Monitor** and adjust the frequency in **Monitor Settings**.
- Windows 10: Go to **Settings** → **System** → **Display** → **Advanced display settings** → **Display adapter properties** → **Monitor**, and adjust **Screen refresh rate** under **Monitor settings**.

How can I change the resolution?

- Windows XP: Go to **Control Panel** → **Appearance and Themes** → **Display** → **Settings** and adjust the resolution.
  - Windows ME/2000: Go to **Control Panel** → **Display** → **Settings** and adjust the resolution.
  - Windows Vista: Go to **Control Panel** → **Appearance and Personalization** → **Personalize** → **Display Settings** and adjust the resolution.
  - Windows 7: Go to **Control Panel** → **Appearance and Personalization** → **Display** → **Adjust Resolution** and adjust the resolution.
  - Windows 8: Go to **Settings** → **Control Panel** → **Appearance and Personalization** → **Display** → **Adjust Resolution** and adjust the resolution.
  - Windows 10: Go to **Settings** → **System** → **Display** → **Advanced display settings**, and adjust the resolution.
-

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## Question

How do I set powersaving mode?

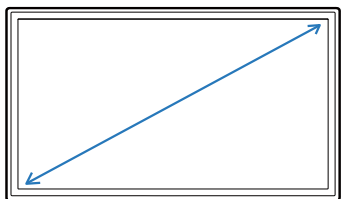
## Answer

- Windows XP: Set power-saving mode in **Control Panel** → **Appearance and Themes** → **Display** → **Screen Saver Settings** or BIOS SETUP on the PC.
  - Windows ME/2000: Set power-saving mode in **Control Panel** → **Display** → **Screen Saver Settings** or BIOS SETUP on the PC.
  - Windows Vista: Set power-saving mode in **Control Panel** → **Appearance and Personalization** → **Personalize** → **Screen Saver Settings** or BIOS SETUP on the PC.
  - Windows 7: Set power-saving mode in **Control Panel** → **Appearance and Personalization** → **Personalize** → **Screen Saver Settings** or BIOS SETUP on the PC.
  - Windows 8: Set power-saving mode in **Settings** → **Control Panel** → **Appearance and Personalization** → **Personalize** → **Screen Saver Settings** or BIOS SETUP on the PC.
  - Windows 10: Set power-saving mode in **Settings** → **Personalization** → **Lock screen** → **Screen timeout settings** → **Power & sleep** or BIOS SETUP on the PC.
-

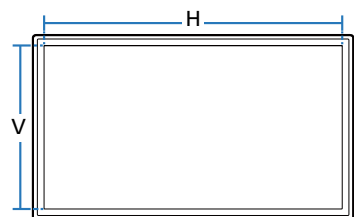
# Chapter 12

## Specifications

– Size



– Display area



### General

Model Name		OH46F	OH55F
Panel	Size	46 CLASS (45.9 inches / 116 cm)	55 CLASS (54.6 inches / 138 cm)
	Display area	1018.08 mm (H) x 572.67 mm (V) / 40.1 inches (H) x 22.5 inches (V)	1209.6 mm (H) x 680.4 mm (V) / 47.6 inches (H) x 26.8 inches (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: -22 °F - 122 °F ( -30 °C - 50 °C) * For installing the enclosure, keep the internal temperature at 40 °C or below.	
		Humidity: 10% - 80%, non-condensing	
	Storage	Temperature: -22 °F - 122 °F (-30 °C - 50 °C)	
		Humidity: 5% - 95%, non-condensing	

- Plug-and-Play  
This monitor can be installed and used with any Plug-and-Play compatible systems. Two-way data exchange between the monitor and PC system optimizes the monitor settings. Monitor installation takes place automatically. However, you can customized 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 Electronics 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.
- Check the frequency when you exchange a CDT product (connected to a PC) for an LCD product. If the LCD product does not support 85 Hz, change the vertical frequency to 60 Hz using the CDT product before you exchange it with the LCD product.

### – 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.

### Model Name

OH46F / OH55F

Synchronization	Horizontal Frequency	30 – 81 kHz
	Vertical Frequency	48 – 75 Hz
Resolution	Optimum Resolution	1920 x 1080 @ 60 Hz
	Maximum Resolution	1920 x 1080 @ 60 Hz

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

Resolution	Horizontal Frequency (kHz)	Vertical Frequency (Hz)	Pixel Clock (MHz)	Sync Polarity (H/V)
IBM, 720 x 400	31.469	70.087	28.322	-/+
MAC, 640 x 480	35.000	66.667	30.240	-/-
MAC, 832 x 624	49.726	74.551	57.284	-/-
MAC, 1152 x 870	68.681	75.062	100.000	-/-
VESA, 640 x 480	31.469	59.940	25.175	-/-
VESA, 640 x 480	37.861	72.809	31.500	-/-
VESA, 640 x 480	37.500	75.000	31.500	-/-
VESA, 800 x 600	37.879	60.317	40.000	+/+

Resolution	Horizontal Frequency (kHz)	Vertical Frequency (Hz)	Pixel Clock (MHz)	Sync Polarity (H/V)
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(RB), 1600 x 900	60.000	60.000	108.000	+/+
VESA, 1680 x 1050	65.290	59.954	146.250	-/+
VESA, 1920 x 1080	67.500	60.000	148.500	+/+

# Chapter 13

## Appendix

### Responsibility for the Pay Service (Cost to Customers)

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

#### Not a product defect

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

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

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

Product damage caused by customer's mishandling or wrong repair

If a product damage is caused by;

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

### Others

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

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

# Optimum Picture Quality and Afterimage Burn-in Prevention

## Optimum Picture Quality

- Due to the nature of the manufacturing of this product, approximately 1 pixel per million (1ppm) may be brighter or darker on the panel. This does not affect product performance.
  - The number of sub-pixels by panel type: 6,220,800
- Leaving the screen fixed on a stationary image for an extended period of time may cause afterimage burn-in or defective pixels.
  - Activate power-saving mode or a dynamic screen saver if you will not be using the product for an extended period of time.

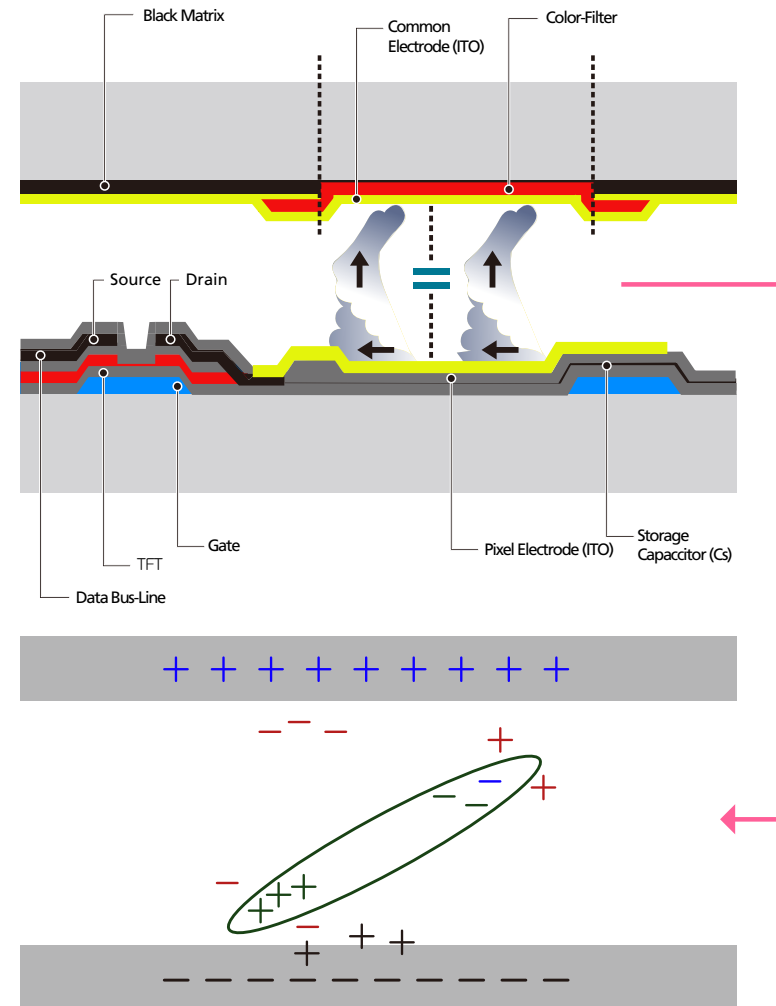
## Prevention of Afterimage Burn-in

### What is afterimage burn-in?

Afterimage burn-in should not occur when the LCD panel is operating normally. Normal operation refers to a continuously changing video pattern. If the LCD 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. To prevent this, the accumulated voltage difference should be reduced.

— Afterimage burn-in should not occur when an LCD panel is operating in proper conditions.

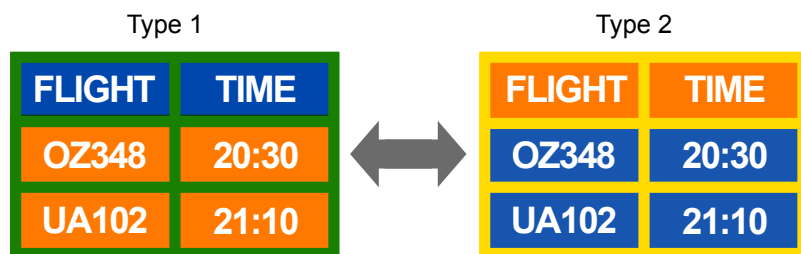




## Preventing afterimage burn-in

— The best way to protect the product from afterimage burn-in is switching the power off or setting the PC or system to run a screen saver when not in use. Also, Warranty service may be limited depending on instruction guide.

- Powering Off, Screen Saver and Power Saving Mode
  - Power off the product for 2 hours after using it for 12 hours.
  - Go to Display Properties > Power Supply on your PC and set the product to power off as required.
  - Using a screen saver is recommended.  
It is best to use a single-color or moving-image screen saver.
- Regular color Change
  - Use 2 colors  
Switch between 2 colors every 30 minutes as shown above.



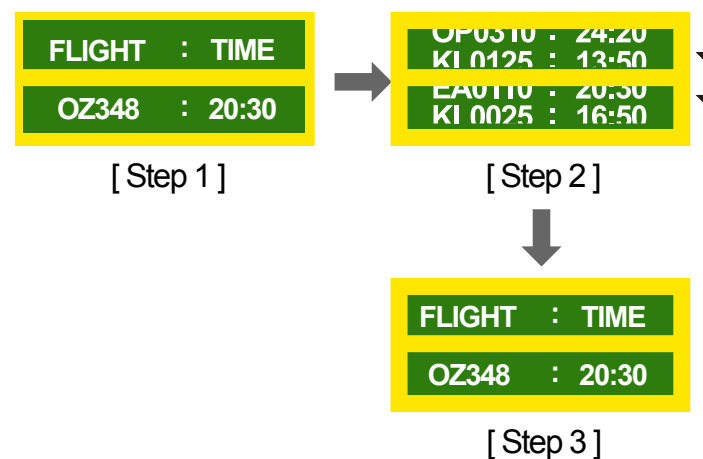
- Avoid combinations of a text color and background color of contrasting brightness.  
(Brightness: refers to the lightness or darkness of a color which varies depending on the amount of light emitted.)
- Avoid using gray as it may contribute to afterimage burn-in.
- Avoid using colors of contrasting brightness (black and white; gray).



- Regular Text color Change
  - Use bright colors of similar brightness.  
Interval: Change text color and background color every 30 minutes



- Move and change text every 30 minutes as shown below.



- Regularly display a moving image along with a logo.  
Interval: Display a moving image along with a logo for 60 seconds after using for 4 hours.

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## Terminology

**480i / 480p / 720p / 1080i /**

**1080p**\_\_\_\_\_ Each of the scanning rates above refers to the number of effective scanning lines that decides the screen resolution. The scanning rate may be indicated in i (interlaced) or p (progressive), depending on the scanning method.

### - Scanning

Scanning refers to a process of sending pixels that form an image progressively. A larger number of pixels will deliver a clearer and more vivid picture.

### - Progressive

In progressive scan mode, all lines of pixels are scanned one by one (progressively) on the screen.

### - Interlaced

In interlaced scan mode, every other line of pixels is scanned from top to bottom first and then the remaining lines of pixels (that were not scanned) are scanned.

**Non-interlace Mode and Interlace**

**Mode**\_\_\_\_\_ Non-interlace mode (progressive scan) displays a horizontal line from the top to the bottom of a screen progressively. Interlace mode displays the odd number lines first and the even number lines next. Non-interlace mode is mainly used in monitors as it produces screen clarity and interlace mode is mainly used in TVs.

**Dot Pitch**\_\_\_\_\_ The screen consist of red, green and blue dots. A shorter distance between the dots produces a higher resolution. Dot pitch refers to the distance between the shortest distance between dots of the same color. Dot pitch is measured in millimeters.

**Vertical Frequency**\_\_\_\_\_ The product displays a single image many times per second (like a fluorescent light that flickers) to display an image for a viewer to see. The rate of a single image being displayed repeatedly per second is called vertical frequency or refresh rate. Vertical frequency is measured in Hz.

E.g. 60Hz refers to a single image being displayed 60 times in one second.

**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.

**Source**\_\_\_\_\_ Input source refers to a video source device connected to the product such as a camcorder or video or DVD player.

**Plug & Play**\_\_\_\_\_ Plug & Play is a function that allows the automatic exchange of information between a monitor and PC to produce an optimum display environment. The product uses VESA DDC (international standard) to execute Plug & Play.

**Resolution**\_\_\_\_\_ Resolution is the number of horizontal dots (pixels) and vertical dots (pixels) that form a screen. It represents the level of display detail. A higher resolution enables more data to be displayed on the screen and is useful to perform multiple tasks simultaneously.

E.g. A resolution of 1920 X 1080 consists of 1,920 horizontal pixels (horizontal resolution) and 1,080 vertical pixels (vertical resolution).

**DVD (Digital Versatile Disc)**\_\_\_\_\_ DVD refers to a CD-sized mass storage disk where you can save multimedia (audio, video or game) applications using MPEG-2 video compression technology.

**HDMI (High Definition Multimedia Interface)**\_\_\_\_\_ It is an interface that can be connected to a digital audio source as well as a high-definition video source by using a single cable without compression.

**Multiple Display Control (MDC)**\_\_\_\_\_ MDC (Multiple Display Control) is an application that allows multiple display devices to be controlled simultaneously using a PC. Communication between a PC and monitor takes place using RS232C (serial data transmission) and RJ45 (LAN) cables.