

# User Manual ED65D ED75D

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

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# Chapter 01 Before Using the Product

# **Copyright**

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Ownership of all other trademarks is attributed to their due owner.

- An administration fee may be charged if either
  - (a) an engineer is called out at your request and there is no defect in the product (i.e. where you have failed to read this user manual).
  - (b) you bring the unit to a repair centre and there is no defect in the product (i.e. where you have failed to read this user manual).
- The amount of such administration charge will be advised to you before any work or home visit is carried out.

# **Safety Precautions**

#### **Caution**

RISK OF ELECTRIC SHOCK DO NOT OPEN

Caution: TO REDUCE THE RISK OF ELECTRIC SHOCK, DO NOT REMOVE COVER. (OR BACK)

THERE ARE NO USER SERVICEABLE PARTS INSIDE.

REFER ALL SERVICING TO OUALIFIED PERSONNEL.



This symbol indicates that high voltage is present inside.

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



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

#### **Symbols**

#### Warning

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.



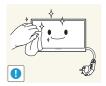
Instructions marked by this symbol must be followed.

#### Cleaning

- Exercise care when cleaning as the panel and exterior of advanced LCDs are easily scratched.
- Take the following steps when cleaning.
- The following images are for reference only. Real-life situations may differ from what is shown in the images.



- 1 Power off the product and computer.
- 2 Disconnect the power cord from the product.
- Hold the power cable by the plug and do not touch the cable with wet hands. Otherwise, an electric shock may result.



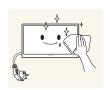
**3** Wipe the product with a clean, soft and dry cloth.



• Do not use detergents that contain alcohol, solvent or surface-active agents.



• Do not spray water or detergent directly on the product.



4 Wet a soft and dry cloth in water and wring thoroughly to clean the exterior of the product.



- 5 Connect the power cord to the product when cleaning is finished.
- 6 Power on the product and computer.

#### Storage

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

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

#### **Electricity and Safety**

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

#### Warning



Do not 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.



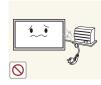
Do not touch the power plug with wet hands. Otherwise, an electric shock may result.



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**



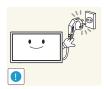
Do not disconnect the power cord while the product is being used.

• 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.



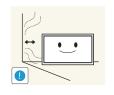
Have a technician install the wall-mount hanger.

- 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.



Install the product at least 10cm away from the wall to allow ventilation.

• 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 in a vehicle or a place exposed to dust, moisture (water drips, etc.), oil, or smoke.

• A fire or electric shock may result.

Do not expose the product to direct sunlight, heat, or a hot object such as a stove.

• The product lifespan may be reduced or a fire may result.

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

- The product may fall and injure children.
- 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.

#### **Caution**



Do not drop the product while moving.

• Product failure or personal injury may result.



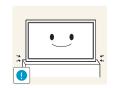
Do not set down the product on its front.

• 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.



Installing the product in an unusual place (a place exposed to a lot of fine dust, chemical substances, extreme temperatures or a significant presence of moisture, or a place where the product will operate continuously for an extended period of time) may seriously affect its performance.

• Be sure to consult Samsung Customer Service Centre if you want to install the product at such a place.

#### 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 Centre for repairs.



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

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



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

• 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 Centre.

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



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

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



During a lightning or thunderstorm, power off the product and remove the power cable.

• A fire or electric shock may result.



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.



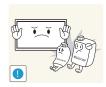
If a gas leakage is found, do not touch the product or power plug. Also, ventilate the area immediately.

• 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.



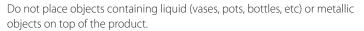
Ensure the vents are not blocked by tablecloths or curtains.

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



- Be sure to power off the product and disconnect the power cord when water or other foreign substances have entered the product. Then contact Samsung Customer Service Centre.
- Product failure, an electric shock or fire may result.

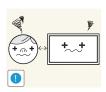
#### **Caution**













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. \\

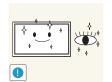
• The product may fall and become damaged or cause an injury.

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

Do not use humidifiers or stoves around the product.

• A fire or electric shock may result.





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

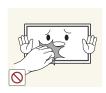
• Eye fatigue will be relieved.



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

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.



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

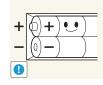


Otherwise, the battery may become damaged or it may cause fire, personal injury or damage due to leakage of the internal liquid.

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



Store small accessories out of the reach of children.



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.



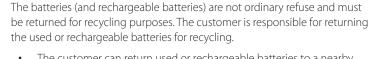
Exercise caution when adjusting the product angle or stand height.

- 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.



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



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

• Having the sound too loud may damage your hearing.

# Chapter 02 Preparations

# - Contact the vendor where you Comp

 The appearance of the components and items sold separately may differ from the image shown.

purchased the product if any components are missing.

- A stand is not provided with the product.
   To install a stand, you can purchase one separately.
- Components may differ in different locations.

#### **Components**



**Checking the Components** 

Quick setup guide



Warranty card (Not available in some locations)



D-SUB cable (P.37)



Power cord



Remote Control (P.20)



Batteries (P.21) (Not available in some locations)



Holder-Wire stand

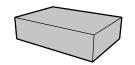


Holder-Ring (4EA)



RS232C(IN) adapter

# Items sold separately



Wall-mount Kit



HDMI cable (<u>P.39</u>)



HDMI-DVI cable (P.38)



PIM



RS232C-Stereo cable



RS232C(OUT) adapter



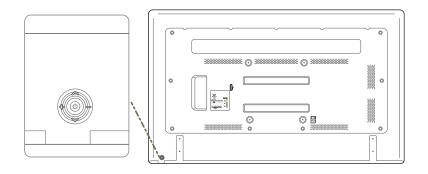
Component cable (P.40)



DVI cable (<u>P.38</u>)

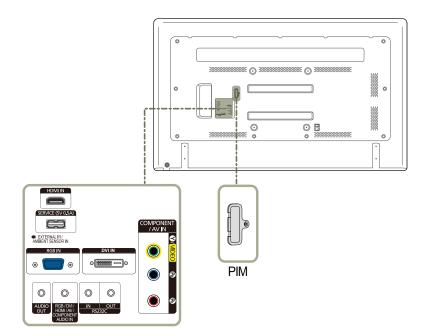
# **Parts**

# **Panel Key**



Buttons	Description
	Power on the product.  If you press the [③] button when the product is turned on, the control menu will be displayed.
	To exit the OSD menu, press and hold the panel key for at least one second.
	Move to the upper or lower menu. You can also adjust the value of an option.
	Move to the left or right menu.  You can adjust the volume by moving the panel key left or right when the control menu is not displayed.

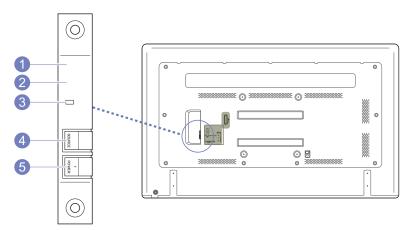
# **Reverse Side**



Port	Description			
HDMIIN	Connects to a source device using an HDMI cable.			
SERVICE (5V 0.5A)	This port is used to upgrade the software.			
EXTERNAL IR / AMBIENT SENSOR IN	Supplies power to the External ambient sensor board or receives the light sensor signal.			
	External ambient sensor: Sold separately			
RGB IN	Connects to a source device using a D-SUB cable.			
DVI IN	Connects to a source device using a DVI cable or HDMI-DVI cable.			
AUDIO OUT	Connects to the audio of a source device.			
RGB / DVI / HDMI / AV / COMPONENT AUDIO IN	Connect to audio input using an audio cable.			
RS232C IN	Connects to MDC using an RS232C-stereo adapter.			
RS232C OUT				
PIM	Connects to a PIM. (Refer to the PIM user manual for details.)			
COMPONENT / AV IN	Connects to a source device using the Component/AV cable.			

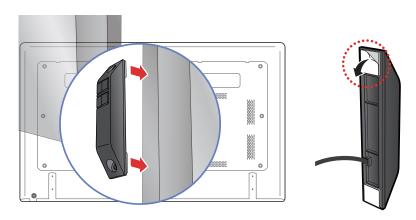
#### **External sensor KIT**

- The External sensor KIT has a remote-control sensor, a brightness sensor and function keys. If mounting the display onto a wall, you can move the External sensor KIT to the side of the display.
- The colour and shape of parts may differ from what is shown. Specifications are subject to change without notice to improve quality.



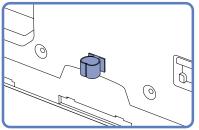
	Aim the remote control towards this spot on the LCD Display.  Keep the area between the remote sensor and remote control obstacle-free.
Remote Control	Use the remote control within 7m to 10m from the sensor on the product at an angle of 30° from the left and right.
	— Store used batteries out of reach of children and recycle.
Sensor	— 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.
Light sensor	Automatically detects the intensity of ambient light around a selected display and adjusts the screen brightness.
Power indicator	Turns off in power-on mode and blinks green in power-saving mode.
COLIDEE L.	Switches from PC mode to Video mode.
SOURCE button	Selects the input source that an external device is connected to.
POWER button	Use this button for turning the LCD Display on and off.
	Power indicator  SOURCE button

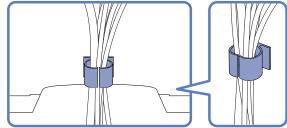
# Attaching the External sensor KIT to the side



- This External sensor KIT can be attached to any part of the display using the double-sided tape provided with the sensor.
- The External sensor KIT can also be attached to a wall near the display.
- Do not attach the External sensor KIT to the display if the display does not have plastic or metal sides. The display can be damaged.

# Assembling the Holder-Wire stand



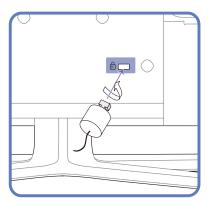


#### **Anti-theft Lock**

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

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

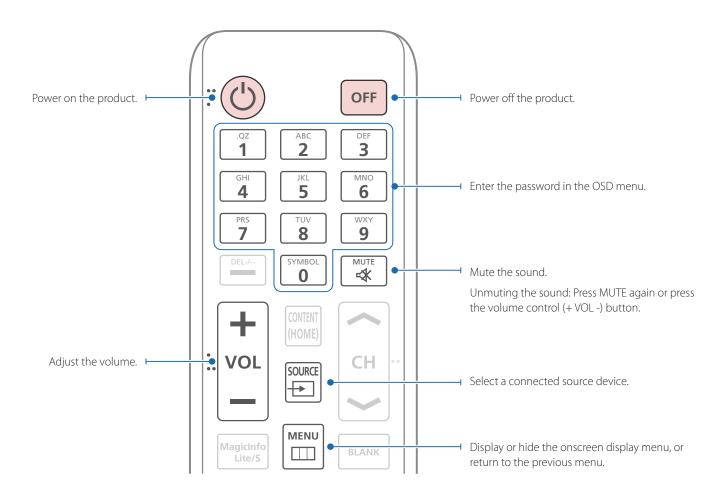
— Stand: Sold separately

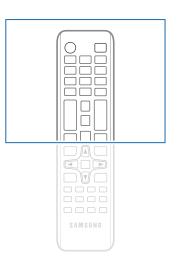


- 1 Fix the cable of your anti-theft locking device to a heavy object such as a desk.
- 2 Put one end of the cable through the loop on the other end.
- 3 Insert the locking device into the anti-theft lock slot at the back of the product.
- 4 Lock the locking device.
  - An anti-theft locking device can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

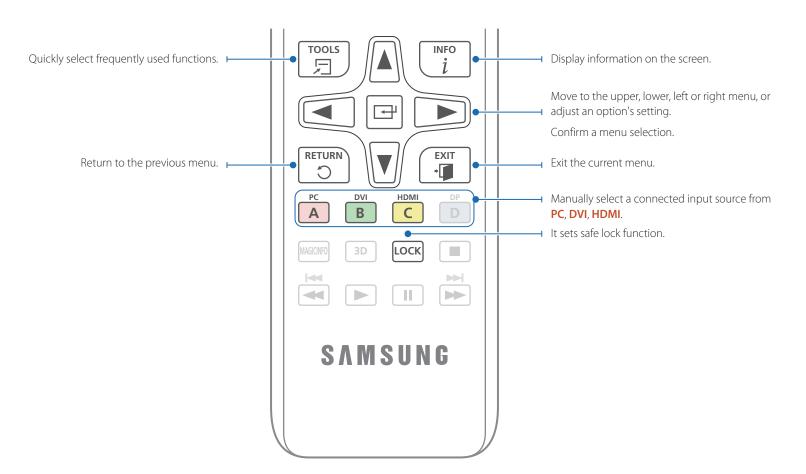
#### **Remote Control**

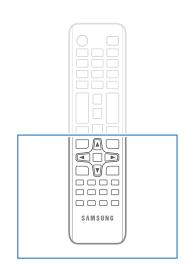
- Using other display devices in the same space as the remote control of this product can cause the other display devices to be inadvertently controlled.
- A button without a description in the image below is not supported on the product.





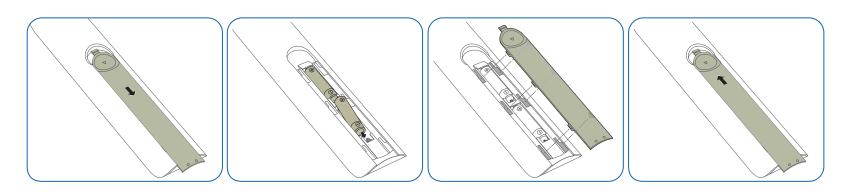
 Remote control button functions may differ for different products.



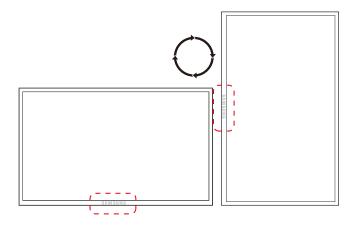


 Remote control button functions may differ for different products.

#### To place batteries in the remote control



# Before Installing the Product (Installation Guide)



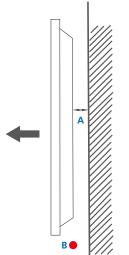


Figure 1.1 Side view

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.

#### Switching between portrait and landscape

— Contact Samsung Customer Service Centre for further details.

• To use the product vertically (portrait), turn it clockwise so that the LED is pointing down.

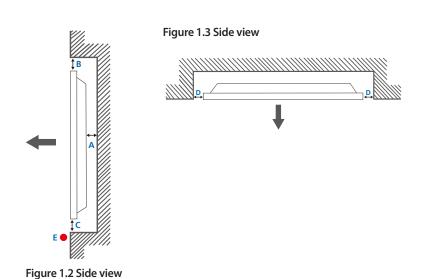
#### **Ventilation**

#### Installation on a Perpendicular Wall

A Minimum 40 mm

B Ambient temperature: Under 35°C

• When installing the product on a perpendicular wall, allow at least 40 mm of space between the product and wall surface for ventilation and ensure that the ambient A temperature is kept below 35°C.



#### **Installation on an Indented Wall**

— Contact Samsung Customer Service Centre for further details.

1675.0 (65.9)

#### Plane view

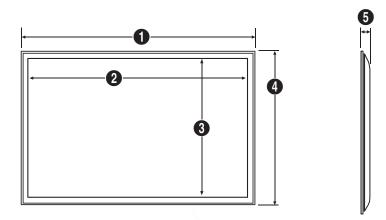
- A Minimum 40 mm
- B Minimum 70 mm
- C Minimum 50 mm
- D Minimum 50 mm

ED75D

E Ambient temperature: Under 35°C

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

#### **Dimensions**



 Model name
 1
 2
 3
 4
 5

 ED65D
 1467.5 (57.8)
 1431.4 (56.4)
 806.5 (31.8)
 848.0 (33.4)
 65.0 (2.6)

931.3 (36.7)

958.5 (37.7)

1653.3 (65.1)

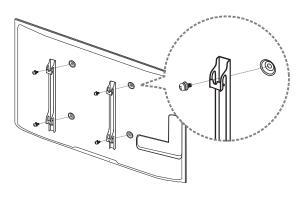
Unit: mm (inches)

65.0 (2.6)

All drawings are not necessarily to scale. Some dimensions are subject to change without prior notice.

Refer to the dimensions prior to performing installation of your product. Not responsible for typographical or printed errors.

# **Installing the Wall Mount**



#### **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.

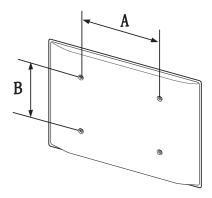
We recommend you contact a technician for assistance when installing the wall mount bracket.

Samsung Electronics is not responsible for any damage to the product or injury to yourself or others if you elect to install the wall mount on your own.

#### Wall Mount Kit Specifications (VESA)

Install your wall mount on a solid wall perpendicular to the floor. Before attaching the wall mount to surfaces other than plaster board, please contact your nearest dealer for additional information.

If you install the product on a slanted wall, it may fall and result in severe personal injury.



- Samsung wall mount kits contain a detailed installation manual and all parts necessary for assembly are provided.
- Do not use screws that are longer than the standard length or do not comply with the VESA standard screw specifications. Screws that are too long may cause damage to the inside of the product.
- For wall mounts that do not comply with the VESA standard screw specifications, the length of the screws may differ depending on the wall mount specifications.
- Do not fasten the screws too firmly. This may damage the product or cause the product to fall, leading to personal injury. Samsung is not liable for these kinds of accidents.
- Samsung is not liable for product damage or personal injury when a non-VESA or non-specified wall mount is used or the consumer fails to follow the product installation instructions.
- 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	VESA screw hole specs (A * B) in millimeters	Standard Screw	Quantity
ED65D	400 x 400 (15.7 × 15.7)	M8, L32	4 EA
ED75D	_		

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

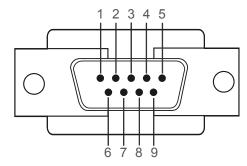
# Remote Control (RS232C)

#### **Cable Connection**

# **RS232C Cable**

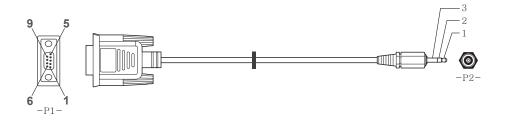
Interface	RS232C (9 pins)
Pin	TxD (No.2), RxD (No.3), GND (No.5)
Bit rate	9600 bps
Data bits	8 bit
Parity	None
Stop bit	1 bit
Flow control	None
Maximum length	15 m (only shielded type)

#### • 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

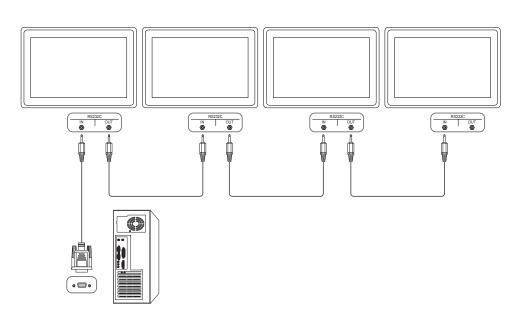
RS232C cable
 Connector: 9-Pin D-Sub to Stereo Cable



-P1-		-P1-		-P2-		-P2-
Female	Rx	2	>	3	Tx	STEREO
	Tx	3	<	2	Rx	PLUG
	Gnd	5		5	Gnd	(3.5ø)

# Connection

• Connection 1



#### **Control Codes**

#### **Viewing control state (Get control command)**

Header	Command	ID	Data length	Checksum
0xAA	Command type	_	0	<del></del> ,

#### **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	PIP on/off control	0x3C	0~1
7	Auto adjustment control (PC and BNC only)	0x3D	0
8	Video wall mode control	0x5C	0~1
9	Safety Lock	0x5D	0~1

No.	Command type	Command	Value range	
10	Video Wall On	0x84	0~1	
11	Video Wall User Control	0x89	-	

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

#### E.g. Power On & ID=0

Header	Command	ID	Data length	Data 1	Checksum
0xAA	0x11		1	"Power"	
Header	Command	ID	Data length	Data 1	12
0xAA	0x11		1	1	

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

#### **Power control**

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

Header	Command	ID	Data length	Checksum
0xAA	0x11	_	0	

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

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

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

1: Power ON

0: Power OFF

Ack

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

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

Nak

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

<sup>&</sup>quot;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 V	olume)			
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"	_

<sup>&</sup>quot;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.

0x14	PC
0x18	DVI
0x0C	Input source
0x08	Component
0x20	MagicInfo
0x1F	DVI_video
0x30	RF(TV)
0x40	DTV
0x21	HDMI
0x22	HDMI_PC

 $<sup>\</sup>overline{\phantom{m}}$  DVI\_video, HDMI\_PC cannot be used with the Set command. They only respond to "Get" commands.

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

RF(TV), DTV are only available with models that include a TV.

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"	_

<sup>&</sup>quot;ERR": A code showing what error has occurred.

This model does not support HDMI, HDMI\_PC ports.

#### 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.

This control can only be used on models that include a TV.

<ul> <li>Viewi</li> </ul>	ing screen status (	Get S	creen N	∧ode Status	5)			
Header	Command		ID	Data leng	th (	Checksum	_	
0xAA	0x18		-	0				
• Settir	ng the picture size	(Set l	Picture	Size)				
Header	Command		ID	Data length	Dat	a	Checksum	
0xAA	0x18			1	"Scr	reen Mode"	_	
"Screen Mc	ode": A code that	sets th	ne prod	luct status				<del></del>
0x01	16:9							
0x04	Zoom							
0x31	Wide Zoom							
0x0B	4:3							
• Ack								
Header	Command	ID	Data	length A	Ack/Nak	r-CMD	Val1	Checksum
0xAA	0xFF		3	'	Α'	0x18	"Screen Mode"	_

<sup>&</sup>quot;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"	

<sup>&</sup>quot;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)

• viewii	ng the screen s	ize (Get	screen size	Status)			
Header	Command		ID Da	ta length	Checksı	um	
0xAA	0x19		0				
• Ack							
Header	Command	ID	Data length	Ack/Nak	r-CMD	Val1	Checksum
0xAA	0xFF	_	3	'A'	0x19	"Screen Size"	_
'Screen Size	e": product scre	en size	(range: 0 – 2	255, unit: inch)	)		
Header	Command	ID	Data length	Ack/Nak	r-CMD	Val1	Checksum
0xAA	0xFF	_	3	'N'	0x19	"ERR"	_

<sup>&</sup>quot;ERR": A code showing what error has occurred

#### PIP On/Off control

Function

The PIP mode of a product can be turned on or off using a PC.

Only available on models that have the PIP function.

The mode cannot be controlled if **Video Wall** is set to **On**.

This function is not available in **MagicInfo**.

• Viewing PIP on/off state (Get the PIP ON / OFF Status)

Header	Command	ID	Data length	Checksum
0xAA	0x3C	_	0	-

• Setting PIP on/off (Set the PIP ON / OFF)

Header	Command	ID	Data length	Data	Checksum
0xAA	0x3C	-	1	"PIP"	-

"PIP": A code used to turn the PIP mode of a product on or off

1: PIP ON

0: PIP OFF

Ack

Header	Command	ID	Data length	Ack/Nak	r-CMD	Val1	Checksum
0xAA	0xFF	_	3	'A'	0x3C	"PIP"	

"PIP": A code used to turn the PIP mode of a product on or off

• Nak

Header	Command	ID	Data length	Ack/Nak	r-CMD	Val1	Checksum
0xAA	0xFF	_	3	'A'	0x3C	"PIP"	_

<sup>&</sup>quot;ERR": A code showing what error has occurred

#### Auto adjustment control (PC and BNC only)

• Function
Automatically adjust the PC system screen using a PC.

• Viewing auto adjustment state (Get Auto Adjustment Status)
None

• Setting auto adjustment (Set Auto Adjustment)

Header	Command	ID	Data length	Data	Checksum
0xAA	0x3D	-	1	"Auto Adjustment"	•

"Auto Adjustment" : 0x00 (at all times)

Ack

Header	Command	ID	Data length	Ack/Nak	r-CMD	Val1	Checksum
0xAA	0xFF	_	3	'A'	0x3D	"Auto Adjustment"	_
• Nak							
Header	Command	ID	Data length	Ack/Nak	r-CMD	Val1	Checksum
0xAA	0xFF	_	3	'A'	0x3D	"ERR"	=

<sup>&</sup>quot;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"	_

<sup>&</sup>quot;ERR": A code showing what error has occurred

#### **Safety Lock**

• Function

PC can be used to turn the **Safety Lock** 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	<u> </u>	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"	

<sup>&</sup>quot;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 Vide	eo Wall On/Off				-
Header	Command	ID	Data length	Data	Checksum
0xAA	0x84		1	V.Wall_On	_

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

1: Video Wall ON

0: Video Wall OFF

Ack

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

V.Wall\_On : Same as above

Nak

0xAA

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**

0x89

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

Header Command		ID	Data length	Chec	ksum	
0xAA	0x89		0			
Set Vid	leo Wall					
Header	Command	ID	Data length	Val1	Val2	Checksum

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														
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						
13	0xD1	0xD2	0xD3	0xD4	0xD5	0xD6	0xD7	N/A							
14	0xE1	0xE2	0xE3	0xE4	0xE5	0xE6	0xE7	N/A							
15	0xF1	0xF2	0xF3	0xF4	0xF5	0xF6	N/A								

Wall\_SNo: Product Number code assigned to the product

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

Set Numbe	er		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	_	

<sup>&</sup>quot;ERR": A code showing what error has occurred

# Chapter 03 Connecting and Using a Source Device

# **Before Connecting**

Check the following before you connect this product with other devices. Devices that can be connected to this product include PCs, camcorders, speakers, set top boxes and DVD/Blu-ray Disc players.

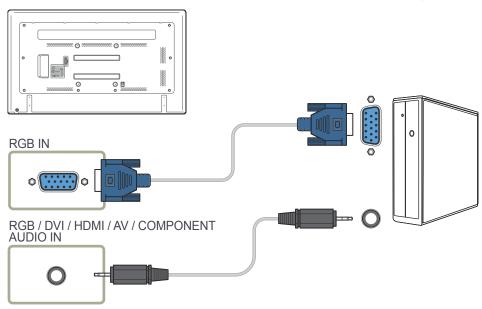
### **Pre-connection Checkpoints**

- 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.

# Connecting to a PC

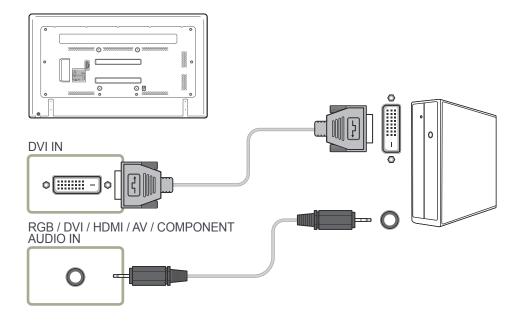
- Do not connect the power cable before connecting all other cables.
   Ensure you connect a source device first before connecting the power cable.
- A PC can be connected to the product in a variety of ways.
   Select a connection method suitable for your PC.

### Connection using the D-SUB cable (Analogue type)



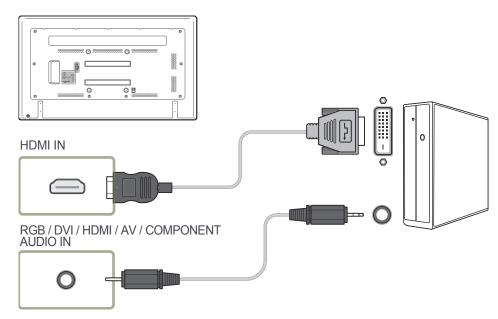
Connecting parts may differ in different products.

# Connection using a DVI cable (Digital type)

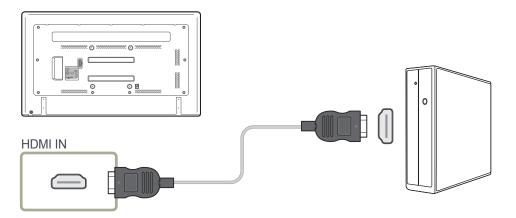


# Connection Using an HDMI-DVI Cable

When you connect a PC to the product using an HDMI-DVI cable, set **Edit Name** to **DVI PC** to access video and audio content stored on the PC.



# **Connection Using an HDMI Cable**

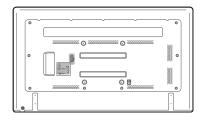


# **Connecting to a Video Device**

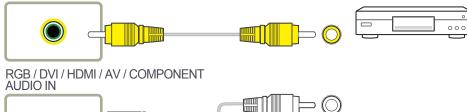
- Do not connect the power cable before connecting all other cables.

  Ensure you connect a source device first before connecting the power cable.
- You can connect a video device to the product using a cable.
  - Connecting parts may differ in different products.
  - Press the **SOURCE** button on the remote control to change the source.

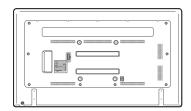
# **Connection Using an AV Cable**



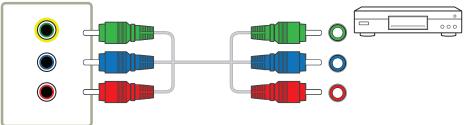




### **Connection Using the component Cable**





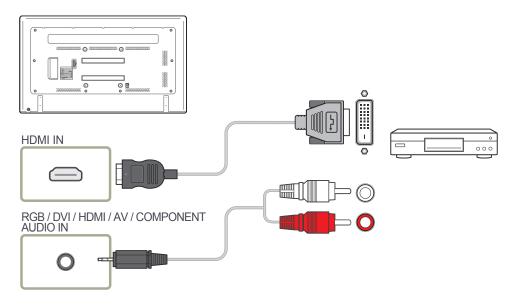


# RGB / DVI / HDMI / AV / COMPONENT AUDIO IN



### **Connection Using an HDMI-DVI Cable**

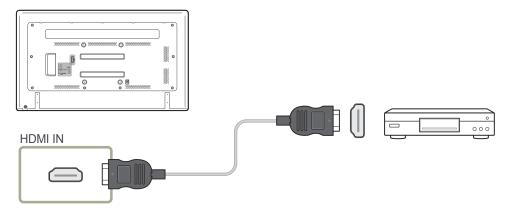
- Audio will not be enabled if the product is connected to a video device using an HDMI-DVI cable. To resolve this, additionally connect an audio cable to the audio ports on the product and video device. When you connect a video device to the product using an HDMI-DVI cable, set **Edit Name** to **DVI Devices** to access video and audio content stored on the video device.
- Supported resolutions include 1080p (50/60Hz), 720p (50/60Hz), 480p, and 576p.



### **Connection Using an HDMI Cable**

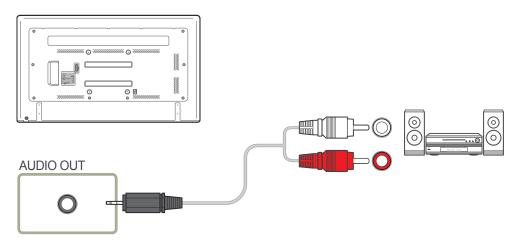
### Using an HDMI cable or HDMI to DVI Cable (up to 1080p)

- 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.
  - To connect the product to a digital device that does not support HDMI output, use an HDMI-DVI and audio cables.
- 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 purchase a certified HDMI cable. Otherwise, the picture may not display or a connection error may occur.
- A basic high-speed HDMI cable or one with ethernet is recommended. This product does not support the ethernet function via HDMI.



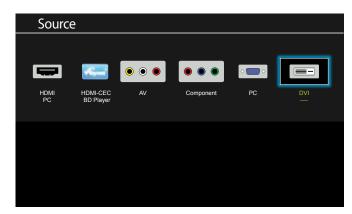
# **Connecting to an Audio System**

— Connecting parts may differ in different products.



# **Changing the Input source**

The displayed image may differ depending on the model.



### Source

MENU  **→ Applications** → **Source List** → **ENTER** 

**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.

# Chapter 04 Using MDC

MDC (Multiple Display Control) is an application that allows you to easily control multiple display devices simultaneously using a PC.

# **Configuring Settings for Multi Control**

 $\mathsf{MENU} \hspace{0.1cm} \overset{}{\longleftarrow} \hspace{0.1cm} \mathsf{System} \overset{}{\rightarrow} \hspace{0.1cm} \mathsf{Multi} \hspace{0.1cm} \mathsf{Control} \overset{}{\rightarrow} \hspace{0.1cm} \mathsf{ENTER} \hspace{0.1cm} \overset{}{\blacktriangleleft} \hspace{0.1cm}$ 

Assign an individual ID to your product.

### **Configuring settings for Multi Control**

ID Setup

Assign an ID to a set. (Range: 0~99)

Press  $\triangle/\nabla$  to select a number, and press  $\bigcirc$ .

ID Input

Enter the ID number of the product connected to the input cable for input signal reception.

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

For details on how to use the MDC programme, refer to Help after installing the programme. The MDC programme is available on the website.

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

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

Select "Launch MDC Unified" and click "Finish" to run the MDC programme immediately.

- 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.

# MDC Programme Installation/Uninstallation

### Installation

- 1 Click the MDC Unified installation programme.
- Select a language for installation. Next, click "OK".
- When the "Welcome to the InstallShield Wizard for MDC\_Unified" screen appears, click "Next".
- 4 In the "Licence Agreement" window displayed, select "I accept the terms in the licence agreement" and click "Next".
- 5 In the displayed "Customer Information" window, fill out all the information fields and click "Next".
- 6 In the displayed "Destination Folder" window, select the directory path you want to install the programme in and click "Next".
- 7 In the displayed "Ready to Install the Programme" window, check the directory path to install the programme in and click "Install".
- 8 Installation progress will be displayed.
- 9 Click "Finish" in the displayed "InstallShield Wizard Complete" window.
- 10 The MDC Unified shortcut icon will be created on the desktop after installation.

### Uninstallation

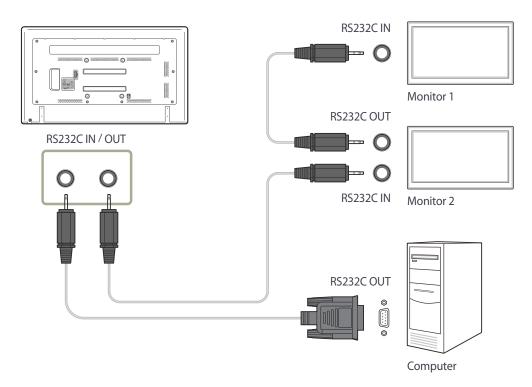
- 1 Select Settings > Control Panel on the Start menu and double-click Add/Delete Programme.
- 2 Select MDC Unified from the list and click Change/Remove.

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

# **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.



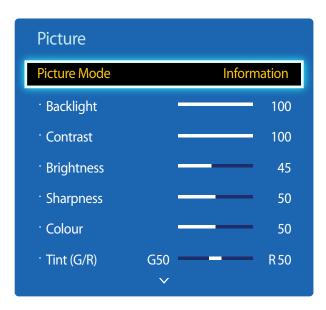
# Chapter 05 Screen Adjustment

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

- The layout of the **Picture** menu options may vary depending on the produc

### **Picture Mode**

 $\mathsf{MENU} \hspace{0.1cm} \longrightarrow \hspace{0.1cm} \mathsf{Picture} \longrightarrow \hspace{0.1cm} \mathsf{Picture} \hspace{0.1cm} \longrightarrow \hspace{0.1cm} \mathsf{ENTER} \hspace{0.1cm} \longrightarrow \hspace{0.1cm}$ 



- 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.

Different Picture Mode options are displayed depending on the current input source.

### If the input source is PC, DVI, HDMI(PC)

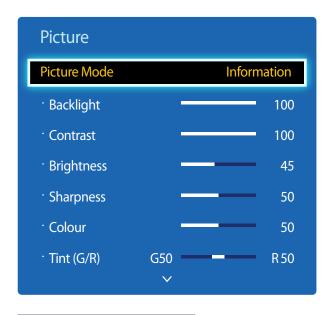
- **Information**: This mode reduces eye fatigue and is suitable for displaying information to the public.
- Advertisement: This mode is suitable for displaying video content and indoor/outdoor advertisements.

### If the input source is AV, Component, HDMI(AV)

- **Dynamic**: This mode is suitable when the ambient light is bright.
- **Standard**: This mode is generally suitable for any environment.
- Natural: Suitable for reducing eye strain.
- **Movie**: This mode reduces eye fatigue.

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





<sup>-</sup> The displayed image may differ depending on the model.

Your product has several options for adjusting picture quality.

Input source	Picture Mode	Adjustable options
PC, HDMI, DVI (when a PC is connected)	Information / Advertisement	Backlight / Contrast / Brightness / Sharpness
<b>AV, Component, HDMI</b> (720p, 1080i, 1080p)	Dynamic / Standard / Natural / Movie	Backlight / Contrast / Brightness / Sharpness / Colour / Tint (G/R)

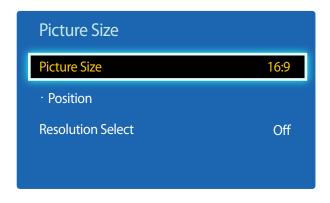
When you make changes to **Backlight**, **Contrast**, **Brightness**, **Sharpness**, **Colour** or **Tint** (**G/R**), the OSD will be adjusted accordingly.

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.

### **Picture Size**





<sup>-</sup> The displayed image may differ depending on the model.

### **Picture Size**

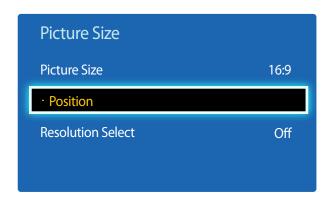
If you have a cable box or satellite receiver, it may have its own set of screen sizes as well. However, we highly recommend you use your product's 16:9 mode most of the time.

- 16:9: Sets the picture to 16:9 wide mode.
- **Zoom1**: Use for moderate magnification. Cuts off the top and sides.
- **Zoom2**: Use for a stronger magnification.
- Smart View 1: Reduces the 16:9 picture by 50%.
- Smart View 1 is enabled only in HDMI mode.
- Smart View 2: Reduces the 16:9 picture by 25%.
  - Smart View 2 is enabled only in HDMI mode.
- Wide Fit: Enlarges the aspect ratio of the picture to fit the entire screen.
- 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.
- Screen Fit: Displays the full image without any cut-off when HDMI(720p / 1080i / 1080p) or Component (1080i / 1080p) signals are inputted.
- **Custom**: Changes the resolution to suit the user's preferences.
- Original Ratio: If the input source is PC, DVI, HDMI(PC connection) the video will display in the original aspect ratio.
  - Available ports may differ depending on the model.
  - You can adjust and store settings for each external device you have connected to an input on the product.

# Picture Sizes available by Input Source.

Picture Size	
16:9 / 4:3 / Zoom1 / Zoom2 / Custom	
16:9 / 4:3 / Wide Fit / Screen Fit / Custom	
16:9 / 4:3 / Smart View 1 / Smart View 2/ Custom/ Wide Fit / Screen Fit	
16:9 / 4:3 / Zoom1 / Zoom2 / Smart View 1 / Smart View 2 / Custom	
16:9 / 4:3 / Original Ratio	

### **Position**



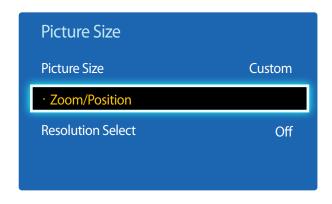
- The displayed image may differ depending on the model.

Adjusts the picture position. Position is only available if Picture Size is set to Zoom1, Zoom2, Wide Fit, Screen Fit.

To use the **Position** function after selecting **Zoom1**, **Zoom2**, **Wide Fit**, **Screen Fit** or **Original Ratio**, follow these steps.

- 2 Press the  $\triangle$  or  $\nabla$  button to move the picture up or down.
- 3 Press the 4 button.

### **Zoom/Position**



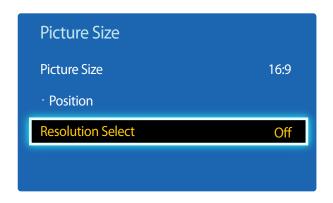
- The displayed image may differ depending on the model.

To use the **Zoom/Position** function after selecting **Custom** in **HDMI** (1080i/1080p) or **Component** (1080i/1080p) or **Custom**, follow these steps.

- 1 Press the **▼** button to select **Zoom/Position**. Press the **◄** button.
- 2 Select the **Zoom** or **Position**. Press the **4** button.
- Press the  $\triangle/\nabla/\triangle$  button to move the picture up or down.
- 4 Press the button.

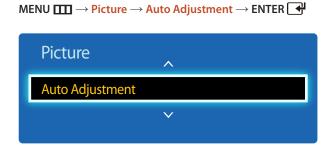
If you want to reset the picture to its original position, select **Reset** in the **Zoom/Position** screen. The picture will be set to its default position.

### **Resolution Select**



- Available in PC mode only.
- The displayed image may differ depending on the model.

# **Auto Adjustment**



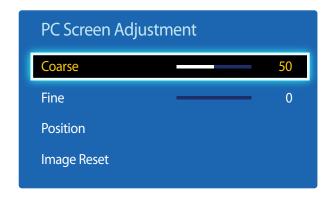
- Available in **PC** mode only.
- The displayed image may differ depending on the model.

If the picture is not normal even when the resolution of the graphics card is one of the following, you can optimize the picture quality by selecting the same resolution for the product as the PC using this menu.

Available resolutions: Off / 1024x768 / 1280x768 / 1360x768 / 1366x768

 $\label{positions} \mbox{Adjust frequency values/positions and fine tune the settings automatically}.$ 

# **PC Screen Adjustment**



<sup>-</sup> The displayed image may differ depending on the model.

### Coarse / Fine

Removes or reduces picture noise.

If the noise is not removed by Fine-tuning alone, use the **Coarse** function to adjust the frequency as best as possible (**Coarse**) and Fine-tune again. After the noise has been reduced, re-adjust the picture so that it is aligned with the centre of screen.

#### Position

To adjust the PC's screen position if it is not centreed or does not fit the product screen.

Press the ▲ or ▼ button to adjust the Vertical Position. Press the ◀ or ▶ button to adjust the Horizontal Position.

### Image Reset

Resets the image to the default settings.

### PIP

### $\mathsf{MENU} \hspace{0.1cm} \overset{\longrightarrow}{\longrightarrow} \hspace{0.1cm} \mathsf{System} \hspace{0.1cm} \overset{\longrightarrow}{\longrightarrow} \hspace{0.1cm} \mathsf{PIP} \hspace{0.1cm} \overset{\longrightarrow}{\longrightarrow} \hspace{0.1cm} \mathsf{ENTER} \hspace{0.1cm} \overset{\blacktriangleleft}{\longleftarrow} \hspace{0.1cm}$



- The displayed image may differ depending on the model.
- For **PIP** sound, refer to the **Sound Select** instructions.
- If you turn the product off while watching in the PIP mode, the PIP function is reset to off.
   When you turn your product on, you must turn PIP on again to watch in the PIP mode.
- You may notice that the picture in the PIP screen becomes slightly unnatural when you use the main screen to view a game or karaoke.

### **PIP Settings**

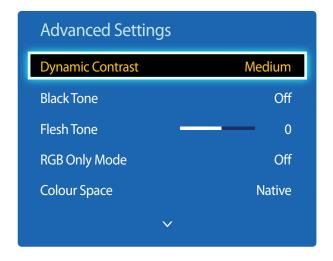
The picture from the external video source will be in the main screen and the picture from the product will be in the PIP sub-picture screen.

Main picture	Sub picture	
AV	PC, DVI, HDMI	
Component	DVI, HDMI	
PC	AV, DVI, HDMI	
DVI, HDMI	AV, PC, Component	

- PIP (Off / On): Activate or deactivate the PIP function.
- Source: You can select a source of the sub picture.
- Size , , , , Select a size for the subpicture.
- Position ( , Select a position for the sub-picture.
  - In ( ) mode, you cannot select **Position**.
- Sound Select (Main / Sub): You can choose to listen to the sound from the Main picture or the Sub picture.

# **Advanced Settings**

 $MENU \hspace{0.1cm} \longrightarrow \hspace{0.1cm} \textbf{Picture} \longrightarrow \textbf{Advanced Settings} \longrightarrow \textbf{ENTER} \hspace{0.1cm} \textcircled{\blacksquare}$ 



<sup>-</sup> The displayed image may differ depending on the model.

Input Source	Picture Mode	Advanced Settings
PC, DVI, HDMI (when a PC is connected)	Information	White Balance / Gamma
	Advertisement	White Balance / Gamma
AV, Component, HDMI	Natural / Dynamic	Not available
AV, Component, HDMI	Standard	Dynamic Contrast / Black Tone / Flesh Tone / RGB Only Mode / Colour Space / White Balance / Gamma / Motion Lighting
	Movie	Dynamic Contrast / Black Tone / Flesh Tone / RGB Only Mode / Colour Space / White Balance / Gamma

### **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

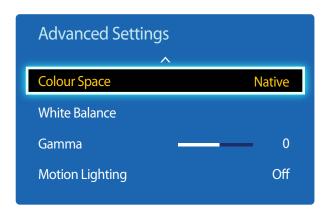
### Flesh Tone

Emphasize pink Flesh Tone.

# **RGB Only Mode**

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

Off / Red / Green / Blue



<sup>-</sup> The displayed image may differ depending on the model.

# **Colour Space**

Adjusts the range and variety of colours (the colour space) available to create images.

Auto / Native

### **White Balance**

Adjust the colour temperature for a more natural picture.

- R-Offset / G-Offset / B-Offset: Adjust each colour's (red, green, blue) darkness.
- R-Gain / G-Gain / B-Gain: Adjust each colour's (red, green, blue) brightness.
- Reset: Resets the White Balance to its default settings.

### Gamma

Adjust the primary colour intensity.

# **Motion Lighting**

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

• Off / On

# **Picture Options**

 $\mathsf{MENU} \hspace{0.1cm} \overset{}{\longleftarrow} \hspace{0.1cm} \overset{}{\mathsf{Picture}} \overset{}{\to} \hspace{0.1cm} \overset{}{\mathsf{Picture}} \overset{}{\to} \hspace{0.1cm} \mathsf{ENTER} \hspace{0.1cm} \overset{}{\longleftarrow} \hspace{0.1cm}$ 

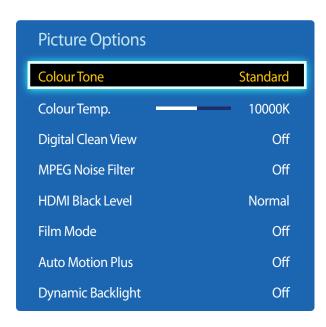
Picture Options	
Colour Tone	Standard
Colour Temp.	10000K
Digital Clean View	Off
MPEG Noise Filter	Off
HDMI Black Level	Normal
Film Mode	Off
Auto Motion Plus	Off
Dynamic Backlight	Off

<sup>-</sup> The displayed image may differ depending on the model.

Select an option using the ▲ and ▼ arrow keys, and the press 록.

Use the arrow keys to change the setting, and then press 록.

Input source	Picture Mode	Picture Options
PC	Information	Colour Tone / Colour Temp. / Dynamic Backlight
	Advertisement	Colour Tone / Colour Temp. / Dynamic Backlight
<b>DVI</b> , <b>HDMI</b> (when a PC is connected)	Information	Colour Tone / Colour Temp. / HDMI Black Level / Dynamic Backlight
	Advertisement	Colour Tone / Colour Temp. / HDMI Black Level / Dynamic Backlight
AV, Component, HDMI	Dynamic / Standard / Natural / Movie	Colour Tone / Colour Temp. / Digital Clean View / MPEG Noise Filter / Film Mode / Dynamic Backlight



<sup>-</sup> The displayed image may differ depending on the model.

### **Colour Tone**

If the input source is PC, DVI, HDMI(PC connection).

Off / Cool / Standard / Warm

If the input source is AV, Component, HDMI.

- Off / Cool / Standard / Warm1 / Warm2
  - Warm1 or Warm2 will be deactivated when the Picture Mode is Dynamic.
  - Settings can be adjusted and stored for each external device connected to an input on the product.

## Colour Temp.

Adjust the colour temperature (Red/Green/Blue). (Range: 3000K-15000K)

This option is available when **Colour Tone** is set to **Off**.

### **Digital Clean View**

If the broadcast signal received by your product is weak, you can activate the **Digital Clean View** feature to reduce any static and ghosting that may appear on the screen.

Off / Low / Medium / High / Auto

### **MPEG Noise Filter**

Reduces MPEG noise to provide improved picture quality.

Off / Low / Medium / High / Auto

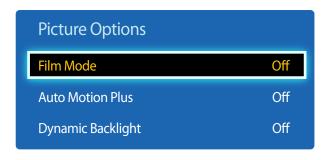
### **HDMI Black Level**

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

Normal / Low

When the signal is weak, try all the options until the the product displays the best picture.

Available only in **HDMI** mode (AV Timing: 480p, 576p, 720p, 1080i, 1080p).



<sup>-</sup> The displayed image may differ depending on the model.

### Film Mode

This mode is suitable to view movies.

Sets the product to automatically sense and process film signals from all sources and adjust the picture for optimum quality.

Off / Auto1 / Auto2

— Available in HDMI(1080i).

### Auto Motion Plus (for ED75D models only)

Removes blur and judder from scenes with larger amounts of rapid movement to provide a clearer picture.

The menu names may vary depending on the country.

Off: Switches Auto Motion Plus off.

Clear: Sets Auto Motion Plus to Clear (suitable for viewing moving images clearly) mode.

Standard: Sets Auto Motion Plus to Standard mode.

Smooth: Sets Auto Motion Plus to Smooth (suitable for viewing moving images naturally) mode.

**Custom**: Use to reduce the afterimage and judder as much as you want.

- Blur Reduction: Use to reduce the afterimage as much as you want.
  - This is only supported if the **Auto Motion Plus** is set to **Custom**.
- **Judder Reduction**: Use to reduce the judder as much as you want.
  - This is only supported if the **Auto Motion Plus** is set to **Custom**
- LED Clear Motion: Make moving images look more clear.
  - This is only supported if the **Auto Motion Plus** is set to **Custom**.
- **Reset**: Restore **Auto Motion Plus** settings to default values.
  - The colour on screen may vary with this option unintentionally.
  - Disabled when PIP is set to On.

### **Dynamic Backlight**

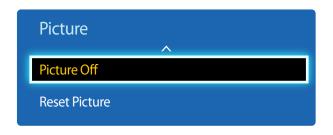
Automatically adjust the backlight to provide the best possible screen contrast under the current conditions.

Off / On

This function may differ depending on the model.

The **Dynamic Backlight** is not available when the input source is set to **PC** while **Video Wall** is **On**.

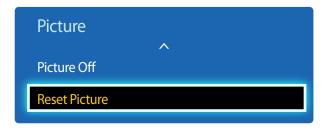
# **Picture Off**



- The displayed image may differ depending on the model.

The product screen is turned off but the audio will continue. Press any key on your remote to turn the screen back on.

# **Reset Picture**



- The displayed image may differ depending on the model.

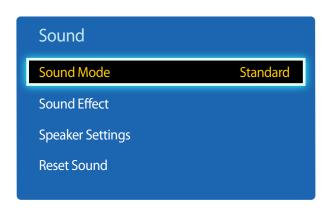
Resets your current picture mode to its default settings.

# Chapter 06 Sound Adjustment

Configure the sound (**Sound**) settings for the product.

### **Sound Mode**





<sup>-</sup> The displayed image may differ depending on the model.

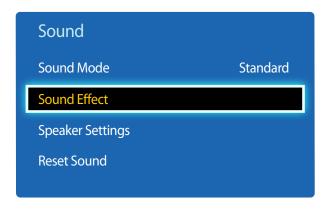
You can select a sound mode to suit your personal preferences.

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

If **Speaker Select** is set to **External**, **Sound Mode** is disabled.

# **Sound Effect**





<sup>-</sup> The displayed image may differ depending on the model.

Configure your preferred sound effect for output sound.

If **Speaker Select** is set to **External**, **Sound Effect** is disabled.

Available only when **Sound Mode** is set to **Standard**.

### • DTS TruSurround (Off / On)

This function provides a virtual 5.1 channel surround sound experience through a pair of speakers using HRTF(Head Related Transfer Function) technology.

### • DTS TruDialog (Off / On)

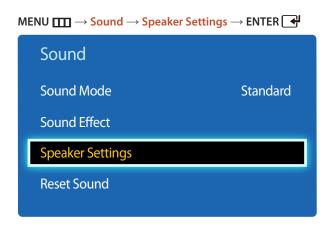
This function allows you to increase the intensity of a voice over background music or sound effects so that dialog can be heard more clearly.

### Equalizer

Use **Equalizer** to customize sound setting for each speaker.

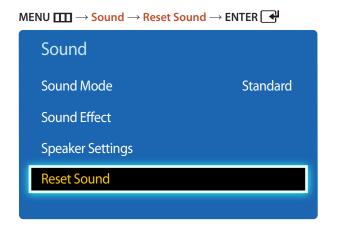
- Balance L/R: Adjusts the balance between the right and left speaker.
- 100Hz / 300Hz / 1kHz / 3kHz / 10kHz (Bandwidth Adjustment): Adjusts the level of specific bandwidth frequencies.
- **Reset**: Resets the equalizer to its default settings.

# **Speaker Settings**



<sup>-</sup> The displayed image may differ depending on the model.

### **Reset Sound**



If you are listening to the sound track of a broadcast or movie through an external receiver, you may hear a sound echo caused by the difference in decoding speed between the products speakers and the speakers attached to your audio receiver. If this occurs, set the product to **External**.

When you set **Speaker Select** to **External**, the products speakers are turned off.

You will hear sound through the external speakers only. When the **Speaker Select** is set to **Internal**, both the product speakers and the external speakers are on. You will hear sound through both.

Reset all sound settings to the factory defaults.

<sup>•</sup> Speaker Select (External / Internal / Receiver)

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

<sup>-</sup> The displayed image may differ depending on the model.

# **Chapter 07 Applications**

### **Source List**

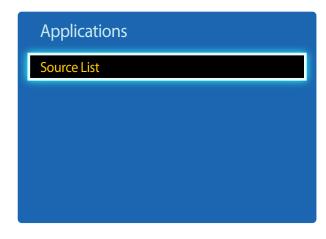
**Source** allows you to select a variety of sources and change source device names.

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.

MENU  $\longrightarrow$  Applications  $\rightarrow$  Source List  $\rightarrow$  ENTER



<sup>-</sup> The displayed image may differ depending on the model.

### Refresh

 $\mathsf{MENU} \hspace{0.1cm} \longrightarrow \hspace{0.1cm} \mathsf{Applications} \longrightarrow \hspace{0.1cm} \mathsf{Source} \hspace{0.1cm} \mathsf{List} \longrightarrow \hspace{0.1cm} \mathsf{TOOLS} \longrightarrow \hspace{0.1cm} \mathsf{Refresh} \longrightarrow \hspace{0.1cm} \mathsf{ENTER} \hspace{0.1cm} \longrightarrow \hspace{0.1cm} \mathsf{FORM} \longrightarrow \hspace{0.1cm} \mathsf{Refresh} \longrightarrow \hspace{0.1cm} \mathsf{ENTER} \hspace{0.1cm} \longrightarrow \hspace{0.1cm} \mathsf{Refresh} \longrightarrow \hspace{0.1cm} \mathsf{ENTER} \hspace{0.1cm} \longrightarrow \hspace{0.1cm} \mathsf{Refresh} \longrightarrow \hspace{0.1cm} \mathsf{ENTER} \hspace{0.1cm} \longrightarrow \hspace{0.1cm} \mathsf{ENTER} \hspace{0.1cm} \longrightarrow \hspace{0.1cm} \mathsf{Refresh} \longrightarrow \hspace{0.1cm} \mathsf{ENTER} \hspace{0.1cm} \longrightarrow \hspace{0.1cm} \mathsf{ENTER} \hspace{0.1cm}$ 

If you cannot find a device you want, select **Refresh** to refresh the list.

### **Edit Name**

MENU  $\longrightarrow$  Applications  $\rightarrow$  Source List  $\rightarrow$  TOOLS  $\rightarrow$  Edit Name  $\rightarrow$  ENTER

Sometimes the screen will not display properly unless the name of a source device is specified in Edit Name.

In addition, it is best to rename the source device in **Edit Name** to obtain optimal picture quality.

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

VCR / DVD / Cable STB / Satellite STB / PVR STB / AV Receiver / Game / Camcorder / PC / DVI PC/ DVI Devices / TV / IPTV / Blu-ray / HD DVD / DMA

Available settings in the **Picture** menu depend on the current source and settings made in **Edit Name**.

- When connecting a PC to the **HDMI IN** port with HDMI cable, you should set the product to **PC** mode under **Edit Name**.
- When connecting a PC to the HDMI IN port with HDMI to DVI cable, you should set the product to DVI PC mode under Edit Name.
- When connecting an AV devices to the HDMI IN port with HDMI to DVI cable, you should set the product to DVI Devices
  mode under Edit Name.

### Information

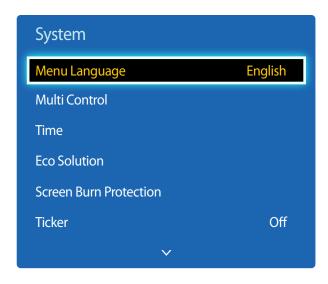
 $MENU \longrightarrow Applications \rightarrow Source \ List \rightarrow \ TOOLS \rightarrow Information \rightarrow ENTER \bigcirc$ 

You can see detailed information about the selected external device.

# Chapter 08 System

# **Menu Language**





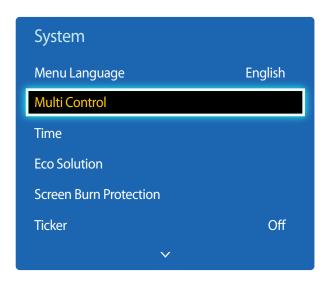
<sup>-</sup> The displayed image may differ depending on the model.

### Set the menu language.

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

# **Multi Control**





<sup>-</sup> The displayed image may differ depending on the model.

# **Configuring settings for Multi Control**

ID Setup

Assign an ID to a set. (Range: 0~99)

Press  $\triangle$  or  $\nabla$  to select a number, and press  $\square$ .

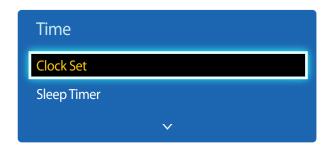
ID Input

Enter the ID number of the product connected to the input cable for input signal reception.

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

### Time

 $MENU \coprod \rightarrow \underbrace{System} \rightarrow \underline{Time} \rightarrow ENTER \blacktriangleleft$ 



<sup>-</sup> The displayed image may differ depending on the model.

You can configure **Clock Set** or **Sleep Timer**. You can also set the product to automatically turn on or off at a specified time using the **Timer** function.

### **Clock Set**

Set the clock to use the various various timer features of the product.

Clock Set

Set the **Date** and **Time**.

Select Clock Set. Select Date or Time, and then press 4.

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.

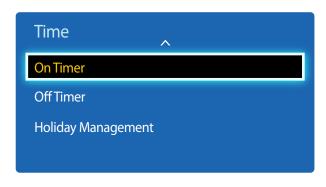
You can set the **Date** and **Time** directly by pressing the number buttons on the remote control.

### **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**.



<sup>-</sup> The displayed image may differ depending on the model.

### **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.

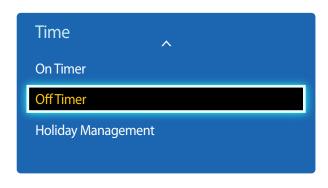
(On Timer1 ~ On Timer7)

You must set the clock before you can use **On Timer**.

• 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 left and right arrow buttons to change the volume level.
- **Source**: Select the input source of your choice.



<sup>-</sup> The displayed image may differ depending on the model.

### **Off Timer**

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

You must set the clock before you can use **Off Timer**.

- 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: 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 Save 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 all items from the list of holidays.
     Select Delete. The message "Delete all holidays?" will appear.
     Select Yes. All holidays will be deleted.
- Apply: 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.

# **Eco Solution**

MENU  $\longrightarrow$  System  $\rightarrow$  Eco Solution  $\rightarrow$  ENTER  $\bigcirc$ 



<sup>-</sup> The displayed image may differ depending on the model.

## **Energy Saving**

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**.

- Min. Backlight: When Eco Sensor is On, you can manually adjust the minimum screen brightness.
  - If **Eco Sensor** is **On**, the display brightness may change (become slightly darker or brighter) depending on the surrounding light intensity. You can control the screen's minimum brightness with the **Min. Backlight** function.

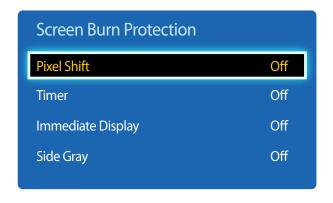
### **Auto Power Off**

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 4 hours to prevent overheating.

Off / On

### **Screen Burn Protection**

 $\mathsf{MENU} \overset{\longrightarrow}{\longrightarrow} \mathsf{System} \overset{\rightarrow}{\longrightarrow} \mathsf{Screen} \, \mathsf{Burn} \, \mathsf{Protection} \overset{\rightarrow}{\longrightarrow} \mathsf{ENTER} \, \overset{\blacktriangleleft}{\longleftarrow} \,$ 



<sup>-</sup> The displayed image may differ depending on the model.

To reduce the possibility of screen burn, this unit is equipped with **Pixel Shift** screen burn prevention technology.

Pixel Shift moves the picture slightly on the screen.

The Pixel Shift Time setting allows you to programme the time between movements of the picture in minutes.

### **Pixel Shift**

Minimize image retention by finely moving pixels horizontally or vertically.

- Horizontal: Sets how many pixels the screen moves horizontally.
- **Vertcal**: 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	
Vertcal (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.

This function is not available in the **Screen Fit** mode.



<sup>-</sup> The displayed image may differ depending on the model.

### **Timer**

You can set the timer for **Screen Burn Protection**.

The Pixel Shift feature stops automatically after a specified period of time.

- Off
- Repeat: Display the image retention-preventive pattern set in Mode at specified time intervals(Period).
  - Period and Time can be configured when Repeat is selected.
- Interval: Display the image retention-preventive pattern set in **Mode** for a specified period of time (from **Start Time** to **End Time**).

The option is enabled only when **Clock Set** is configured.

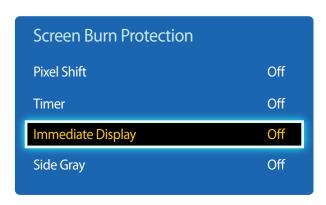
- Mode: Select a screen protective pattern to display.
  - **Pixel**: Pixels on the screen alternate black continuously.
  - Rolling Bar: A vertical bar moves left to right.
  - **Fading Screen**: The entire screen becomes brighter, then darker.

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.
  - Hour 1 ~ Hour 10

The option is enabled when **Repeat** is selected for **Timer**.

- Time: Specify the duration to keep the Screen Burn Protection function on.
  - − 10 sec ~ 50 sec
  - The option is enabled when **Pixel** is selected for **Mode**.
- **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**.



<sup>-</sup> The displayed image may differ depending on the model.

# **Immediate Display**

Select the screen saver you want to display immediately.

• Off / Pixel / Rolling Bar / Fading Screen

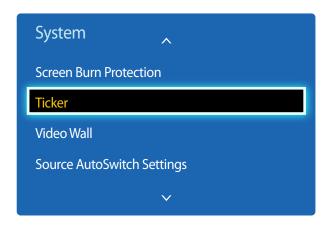
# **Side Gray**

When the screen is set to **4:3** aspect ratio, adjust the brightness of white margins on sides to protect the screen.

Off / Light / Dark

### **Ticker**

 $\mathsf{MENU} \longrightarrow \mathsf{System} \longrightarrow \mathsf{Ticker} \longrightarrow \mathsf{ENTER} \longrightarrow$ 

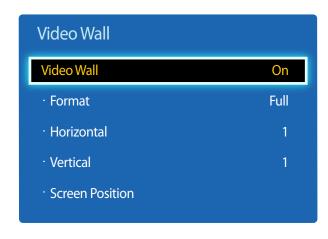


- The displayed image may differ depending on the model.
- The **Ticker** function is only available when **Menu Language** is set to **English**.

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

- Off / On
  - Message, Time, Position, Motion, and Font Style are enabled only when Ticker is set to On.
- Message: Enter a message to display on the screen.
- Time: Set the **Start Time** and **End Time** to display a **Message**.
- Position: Select an orientation to display a Message from Horizontal and Vertical.
  - Horizontal (Left / Centre / Right)
  - Vertical (Up / Middle / Down)
- Motion: Specify the Direction and Speed to display a Message.
  - Motion (Off / On)
  - Direction (Left / Right / Up / Down)
  - Speed (Slow / Normal / Fast)
  - Direction and Speed are enabled only when Motion is set to On.
- Font Style: Specify the message Size and Font Colour.

### **Video Wall**



- The displayed image may differ depending on the model.
- Some models may not support the MagicInfo function.
- The Video Wall option is only enabled when PIP is set to Off.
- If more than four displays are connected horizontally and vertically, it is recommended that
  you use an input resolution of XGA (1024 x 768) level or higher to prevent a dark picture due
  to degradation in the contrast or colour intensity.

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.

#### **Video Wall**

You can activate or deactivate Video Wall.

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

#### **Format**

Select a format to display images on multiple displays.

- Full: Display images in full screen.
- Natural: Display images at the original resolution without enlarging or reducing.

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

#### Horizontal

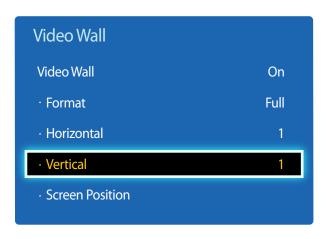
This function automatically divides the screen according to the specified number of horizontal displays.

Enter the number of horizontally arranged displays.

The horizontal screen will automatically be divided according to the number entered.

A maximum of 15 displays can be assigned to the horizontal arrangement.

- The screen can be divided into a maximum of 100 screens (horizontal and vertical screens multiplied). For example, if the horizontal arrangement is set to 15, a maximum of 6 displays can be assigned to the vertical arrangement. Conversely, if the vertical arrangement is set to 15, a maximum of 6 displays can be assigned to the horizontal arrangement.
- The Horizontal option is only enabled when Video Wall is set to On.



<sup>-</sup> The displayed image may differ depending on the model.

#### **Vertical**

This function automatically divides the screen according to the specified number of vertical displays.

Enter the number of vertically arranged displays.

The vertical screen will automatically be divided according to the number entered.

A maximum of 15 displays can be assigned to the vertical arrangement.

The screen can be divided into a maximum of 100 screens (horizontal and vertical screens multiplied). For example, if the horizontal arrangement is set to 15, a maximum of 6 displays can be assigned to the vertical arrangement. Conversely, if the vertical arrangement is set to 15, a maximum of 6 displays can be assigned to the horizontal arrangement.

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

#### **Screen Position**

You can customize the arrangement of split screens by moving displays identified with a number using the **Screen Position** function.

Select **Screen Position** to display the arrangement of displays (identified with a number) specified according to the **Horizontal** or **Vertical** settings. To customize the arrangement, move a number (display) using the direction buttons on the remote control and press

A maximum of 100 displays can be arranged in **Screen Position**.

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

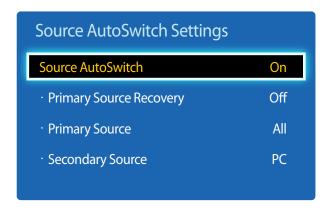
The **Screen Position** window is only displayed when **Horizontal** and **Vertical** are configured.

### **Source AutoSwitch Settings**

MENU 

→ System → Source AutoSwitch Settings → ENTER 

→ ENTER



<sup>-</sup> The displayed image may differ depending on the model.

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

#### Source AutoSwitch

When the Source AutoSwitch 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.

When the **Primary Source** selection is set to **All**, the display will search all the video source inputs twice in sequence looking for an active video source, returning back to the first video source in the sequence if no video is found.

### **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.

### **Change PIN**

 $\mathsf{MENU} \hspace{0.1cm} \overset{\longrightarrow}{\mathsf{System}} \hspace{0.1cm} \overset{\longrightarrow}{\mathsf{Change}} \hspace{0.1cm} \overset{\mathsf{PIN}}{\longrightarrow} \hspace{0.1cm} \overset{\longrightarrow}{\mathsf{ENTER}} \hspace{0.1cm} \overset{\blacktriangleleft}{\longleftarrow} \hspace{0.1cm}$ 



<sup>-</sup> 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**.

When the Confirm screen disappears, press the **Close** button. The product has memorized your new PIN.

### **General**

 $\mathsf{MENU} \longrightarrow \mathsf{System} \rightarrow \mathsf{General} \rightarrow \mathsf{ENTER} \bigcirc \bigcirc$ 



<sup>-</sup> The displayed image may differ depending on the model.

### **Max. Power Saving**

Turns off the product to reduce power consumption after the PC has been left idle for a specified period of time.

Off / On

— Available only **PC**, **DVI**, **HDMI** mode.

#### **Game Mode**

When connecting to a game console such as PlayStation $^{\text{m}}$  or Xbox $^{\text{m}}$ , 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.

**Game Mode** is not available when the input source is set to **PC**.

If Game Mode is On. Picture Mode is set to Standard and Sound Mode is set to Movie.

#### **Auto Power**

Enabling this option will automatically power on the product if the power cable is connected.

• Off / On

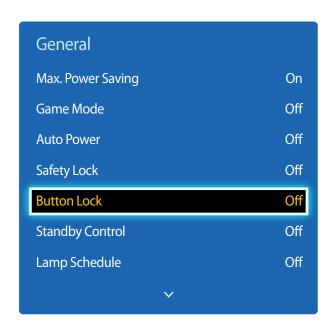
### **Safety Lock**

It sets safe lock function.

Off / On

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** function.

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



<sup>-</sup> The displayed image may differ depending on the model.

### **Button Lock**

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

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

• Off / On

### **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.

• On

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

Off

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

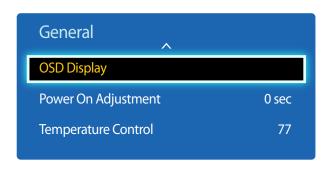
The **Standby Control** option is only enabled when **Source List** is set to **PC**, **DVI**, **HDMI**.

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

### **Lamp Schedule**

Enables the lamp value to be adjusted to a user-specified value at a specified time in MDC mode.

Off / On



<sup>-</sup> The displayed image may differ depending on the model.

### **OSD Display**

Displays or hides a menu item on the screen.

— Source OSD / No Signal OSD / MDC OSD

### **Power On Adjustment**

You can set the warm-up time for the screen to turn on after the power button is pressed. (Range: 0 – 50 seconds)

A warm-up time that is too short may damage the product due to overvoltage.

### **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 77°C.

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

The screen will become darker if the current temperature exceeds the specified temperature limit. If the temperature continues to rise, the product will power off to prevent overheating.

### Anynet+ (HDMI-CEC)

 $\mathsf{MENU} \overset{\longrightarrow}{\longrightarrow} \mathsf{System} \overset{\rightarrow}{\longrightarrow} \mathsf{Anynet+} (\mathsf{HDMI-CEC}) \overset{\rightarrow}{\longrightarrow} \mathsf{ENTER} \overset{\longrightarrow}{\longrightarrow}$ 



- The displayed image may differ depending on the model.
- The **Anynet+ (HDMI-CEC)** functions do not operate with other manufacturers' products.
- For instructions explaining how to connect Anynet+ external devices, refer to the device's user manual.
- You can connect only one receiver (home theatre).

### 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.

- 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.
- While in **PIP** mode, **Anynet+** functions only when an AV device is connected as the primary display. It does not work if the AV device is connected as a secondary display.
- Anynet+ supports up to 12 AV devices in total. Note that you can connect up to 3 devices of the same type.

#### **Anynet+ Menu**

The Anynet+ menu changes depending on the type and status of the Anynet+ devices connected to the product.

Anynet+ Menu	Description
View PC	Changes <b>Anynet+</b> mode to <b>PC</b> mode.
Device List	Shows the Anynet+ device list.
(device_name) MENU	Shows the menu of the connected device menus. E.g. if a DVD player is connected, the disc menu of the DVD player will appear.
(device_name) Tools	Shows the tools menu of the connected device. E.g. if a DVD player is connected, the tools menu of the DVD player will appear.
	Depending on the device, this menu may not be available.
(device_name) Title Menu	Shows the title menu of the disc in the connected device. E.g. If a DVD player is connected, the title menu of the movie in the DVD player will appear.
	Depending on the device, this menu may not be available.



<sup>-</sup> The displayed image may differ depending on the model.

#### **Auto Turn Off**

Setting an Anynet+ Device to turn Off automatically when the product is turned off.

- No / Yes
- If **Auto Turn Off** is set to **Yes**, running external devices will turn off at the same time as the product powers off.
- May not be enabled depending on the device.

#### **Switching between Anynet+ Devices**

- 1 Press the **TOOLS** button, select **Anynet+ (HDMI-CEC)**, and then press **4**.
- 2 Select **Device List**, and then press the **4** button.

If you cannot find a device you want, select **Refresh** to refresh the list.

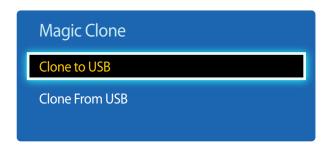
- 3 Select a device, and then press the 4 button. You can switch to the selected device.
- The **Device List** menu appears only when you set **Anynet+** (**HDMI-CEC**) to **On** in the **System** menu.
- Switching to the selected device may take up to 2 minutes. You cannot cancel the switching operation while switching is in progress.
- If you have selected an Anynet+ device by pressing the **SOURCE** button and then selecting its input source, you cannot use the Anynet+ function.
- Make sure to switch to an **Anynet+** device by using the **Device List**.

### Troubleshooting for Anynet+

Problem	Possible Solution
Anynet+ does not work.	Check if the device is an Anynet+ device. The Anynet+ system supports Anynet+ devices only.
	You can connect only one receiver (home theatre).
	Check if the Anynet+ device power cord is properly connected.
	Check the Anynet+ device's Video/Audio/HDMI cable connections.
	• Check whether <b>Anynet+ (HDMI-CEC)</b> is set to <b>On</b> in the Anynet+setup menu.
	Check whether the remote control is Anynet+ compatible.
	Anynet+ doesn't work in certain situations. (initial setup)
	• 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.
	Check if the Anynet+ function of the Anynet device is set on.
I want to start Anynet+.	<ul> <li>Check if the Anynet+ device is properly connected to the product and check if the Anynet+ (HDMI-CEC) is set to On in the Anynet+ System menu.</li> </ul>
	<ul> <li>Press the TOOLS button to display the Anynet+ menu and select a menu you want.</li> </ul>
I want to exit Anynet+.	Select View PC in the Anynet+ menu.
	• Press the <b>SOURCE</b> button on the product remote control and select a non- Anynet+ device.
The message "Connecting to	You cannot use the remote control when you are configuring Anynet+ or switching to a view mode.
Anynet+ device" appears on the	• Use the remote control after the product has completed Anynet+ configuration or has finished switching to Anynet+.
screen.	
The Anynet+ device does not play.	You cannot use the play function when initial setup is in progress.

Problem	Possible Solution
The connected device is not	Check whether or not the device supports Anynet+ functions.
displayed.	Check whether or not the HDMI cable is properly connected.
	• Check whether <b>Anynet+ (HDMI-CEC)</b> is set to <b>On</b> in the <b>Anynet+ System</b> menu.
	Search Anynet+ devices again.
	• Anynet+ requires an HDMI connection. Make sure the device is connected to your product with an HDMI cable.
	Some HDMI cables may not support Anynet+ functions.
	• If the connection is terminated because there has been a power failure or the HDMI cable has been disconnected, please repeat the device scan.

### **Magic Clone**



- The displayed image may differ depending on the model.

Export the product settings to a USB device or load the settings via a USB device.

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

- Clone to USB: Copy the product settings to a USB device.
- Clone From USB: Assign the settings saved in a USB device to the product.
  - After configuration is complete, the product is rebooted automatically.
- The option may not work properly if the USB device contains a file other than a settings file.
- Confirm that the USB device functions properly before running the option.
- The option is available for products with the same **Model Code** and **Software Version**.

  Go to **Support** → **Contact Samsung** and find the product **Model Code** and **Software Version**.

**Reset System** 



- The displayed image may differ depending on the model.

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

### **Reset All**

 $\mathsf{MENU} \hspace{0.1cm} \longrightarrow \hspace{0.1cm} \mathsf{System} \hspace{0.1cm} \longrightarrow \hspace{0.1cm} \mathsf{Reset} \hspace{0.1cm} \mathsf{All} \hspace{0.1cm} \longrightarrow \hspace{0.1cm} \mathsf{ENTER} \hspace{0.1cm} \blacksquare$ 



- The displayed image may differ depending on the model.

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

# Chapter 09 Support

### **Software Update**

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

### By USB

To perform a software update from a USB device, contact the customer service centre.

### **Contact Samsung**

MENU **III** → 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 centres and how to download products and software.

Contact Samsung and find the product Model Code and Software 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.

## Chapter 10 Troubleshooting Guide

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

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

### **Requirements Before Contacting Samsung Customer Service Centre**

### **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	The blank spaces found on the screen have nothing to do with the product.
an HDMI or HDMI-DVI cable is connected to the product and PC.	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.)
PC is shown in Source when a PC is not connected.	PC is always shown in Source irrespective of whether or not a PC is connected.

### Screen issue

The power LED is off. The screen will not switch on.	Make sure that the power cord is connected.
No Signal is displayed on the screen (refer to "Connecting to	Check that the product is connected correctly with a cable.
a PC").	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.

### Screen issue

The screen is not clear. The screen is blurry.	Adjust Coarse and Fine.
	Remove any accessories (video extension cable, etc) and try again.
	Set the resolution and frequency to the recommended level.
The screen appears unstable and shaky.	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
There are shadows or ghost images left on the screen.	Information on the product menu and the Standard Signal Mode Table.
The screen is too bright. The screen is too dark.	Adjust Brightness and Contrast.
Screen colour is inconsistent.	Go to <b>Picture</b> and adjust the <b>Colour Space</b> settings.
White does not really look white.	Go to <b>Picture</b> and adjust the <b>White Balance</b> settings.
There is no image on the screen and the power LED blinks	The product is in power-saving mode.
every 0.5 to 1 second.	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.

### Screen issue

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 analogueue and digital products.
The brightness and colour do not look normal.	Go to <b>Picture</b> and adjust the screen settings such as <b>Picture Mode, Colour, Brightness</b> and <b>Sharpness</b> .
	Refer to page 46 for details about the <b>Picture</b> menu.
	Go to <b>System</b> and adjust the <b>Energy Saving</b> settings.
	Refer to page 69 for details about the <b>System</b> menu.
	Reset the screen settings to the default settings.
	Refer to page 59 for details about the <b>Reset Picture</b> menu.
Broken lines are displayed on the edges of the screen.	If <b>Picture Size</b> is set to <b>Screen Fit</b> , change the setting to <b>16:9</b> .
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 Centre to resolve the issue.
The display looks unstable and then freezes.	The screen may freeze when a resolution other than the recommended resolution is used or if the signal is not stable. To resolve the issue, change the PC resolution to the recommended resolution.
The screen cannot be displayed in full screen.	A scaled SD (4:3) content file can cause black bars on both sides of an HD channel screen.
	A video with an aspect ratio different from the product can cause black bars at the top and bottom of the screen.
	Change the screen size setting to full screen on the product or source device.

### Sound issue

There is no sound.	Check the connection of the audio cable or adjust the volume.
	Check the volume.
he volume is too low.	Adjust the volume.
	If the volume is still low after turning it up to the maximum level, adjust the volume on your PC sound card or software programme.
ideo is available but there is no sound.	If an HDMI cable is connected, check the audio output settings on the PC.
	Go to <b>Sound</b> and change <b>Speaker Select</b> to <b>Internal</b> .
	If a source device is used
	Make sure the audio cable is properly connected to the audio input port on the product.
	Check the audio output settings for the source device.
	(For example, if an HDMI cable is connected to the monitor, the audio setting for the cable box may need to be changed to HDMI.)
	If a DVI-HDMI cable is used, a separate audio cable is required.
	If the product has a headphone port, make sure nothing is connected to it.
	Reconnect the power cable to the device and then reboot the device.
There is static coming from the speakers.	Check the cable connection. Make sure a video cable is not connected to an audio input port.
	Check the signal strength after connecting a cable.
	Low signal level can cause corrupted sound.

Sound issue	
There is audible sound when the volume is muted.	When <b>Speaker Select</b> is set to <b>External</b> , the volume button and mute function are disabled.
	Adjust the volume for the external speakers.
	Audio settings for main speakers are separate from the internal speakers on the product.
	Changing or muting the volume on the product does not affect an external amplifier(decoder).
Sound from the monitor does not change after Sound Mode	Audio settings for main speakers are separate from the internal speakers on the product.
is changed.	Audio settings on a source device do not affect the internal speaker settings on the product.
There is an echo sound coming from the speakers.	Different decoding speeds between the product speakers and external speakers can cause an echo.
	In this case, set <b>Speaker Select</b> to <b>External</b> .
Remote control issue	
Remote control issue	
Remote control issue  The remote control does not work.	Make sure that the batteries are correctly in place (+/-).
	Make sure that the batteries are correctly in place (+/-).  Check if the batteries are flat.
	Check if the batteries are flat.
	Check if the batteries are flat.  Check for power failure.
	Check if the batteries are flat.  Check for power failure.  Make sure that the power cord is connected.

### Other issue

Small particles are found on the edges of the product.	The particles are par	rt of the product design. The product is n	ot defective.	
The PIP menu is not available.	The menu is enable	d or disabled depending on the <b>Source</b> i	mode.	
	Refer to page 53	for details about the <b>PIP</b> menu.		
When I try to change the PC resolution, a message "The	The message " <b>The</b> d	lefined resolution is not currently suppo	orted." appears if the input source	
defined resolution is not currently supported." appears.	resolution exceeds t	the maximum resolution of the display.		
	To resolve the issue, change the PC resolution to a resolution supported on the display.			
There is no sound from the speakers in HDMI mode when a	DVI cables do not transmit sound data.			
DVI-HDMI cable is connected.	Make sure to conne	ct the audio cable to the correct input jac	ck to enable audio.	
HDMI Black Level is not functioning properly on an HDMI device with YCbCr output.	This function is avail product via an HDM	,	a DVD player and STB, is connected to the	
There is no sound in HDMI mode.			nd may not be available. This can occur if DMI standard is connected to the product.	
	If these issues occur	, connect an audio cable along with the I	HDMI cable.	
	Some PC graphics cards may not automatically recognize HDMI signals that do not include sound. In this case, manually select a sound input.			
		Sound input	Screen mode	
	PC	Auto	PC settings	
	DVI PC	Audio In(Stereo ports)	PC settings	

### Other issue

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, ar internal jack may be disconnected.
	Contact your nearest service centre 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 centre to have the product serviced.
	If there is no change on the screen when a button is pressed on the remote control although the sensor light flashes red, the mainboard may be defective.
	Contact your nearest service centre to have the product serviced.

### Q&A

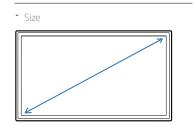
Refer to the user manual for your PC or graphics card for further instructions on

adjustment.

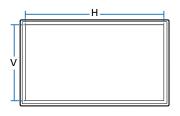
Question	Answer		
How can I change the frequency?	Set the frequency on your graphics card.		
	<ul> <li>Windows XP: Go to Control Panel → Appearance and Themes → Display → Settings → Advanced → Monitor and adjust the frequency in Monitor Settings.</li> </ul>		
	<ul> <li>Windows ME/2000: Go to Control Panel → Display → Settings → Advanced → Monitor and adjust the frequency in Monitor Settings.</li> </ul>		
	<ul> <li>Windows Vista: Go to Control Panel → Appearance and Personalization → Personalize →         Display Settings → Advanced Settings → Monitor and adjust the frequency in Monitor         Settings.</li> </ul>		
	<ul> <li>Windows 7: Go to Control Panel → Appearance and Personalization → Display → Adjust resolution → Advanced Settings → Monitor and adjust the frequency in Monitor Settings.</li> </ul>		
	<ul> <li>Windows 8: Go to Settings → Control Panel → Appearance and Personalization → Display         → Adjust resolution → Advanced Settings → Monitor and adjust the frequency in Monitor         Settings.</li> </ul>		
How can I change the resolution?	<ul> <li>Windows XP: Go to Control Panel → Appearance and Themes → Display → Settings and adjust the resolution.</li> </ul>		
	<ul> <li>Windows ME/2000: Go to Control Panel → Display → Settings and adjust the resolution.</li> </ul>		
	<ul> <li>Windows Vista: Go to Control Panel → Appearance and Personalization → Personalize →         Display Settings and adjust the resolution.</li> </ul>		
	<ul> <li>Windows 7: Go to Control Panel → Appearance and Personalization → Display → Adjust Resolution and adjust the resolution.</li> </ul>		
	<ul> <li>Windows 8: Go to Settings → Control Panel → Appearance and Personalization → Display</li> <li>→ Adjust Resolution and adjust the resolution.</li> </ul>		

Question	Answer
How do I set powersaving mode?	<ul> <li>Windows XP: Set power-saving mode in Control Panel → Appearance and Themes → Display</li> <li>→ Screen Saver Settings or BIOS SETUP on the PC.</li> </ul>
	<ul> <li>Windows ME/2000: Set power-saving mode in Control Panel → Display → Screen Saver Settings or BIOS SETUP on the PC.</li> </ul>
	<ul> <li>Windows Vista: Set power-saving mode in Control Panel → Appearance and Personalization</li> <li>→ Personalize → Screen Saver Settings or BIOS SETUP on the PC.</li> </ul>
	<ul> <li>Windows 7: Set power-saving mode in Control Panel → Appearance and Personalization → Personalize → Screen Saver Settings or BIOS SETUP on the PC.</li> </ul>
	<ul> <li>Windows 8: Set power-saving mode in Settings → Control Panel → Appearance and Personalization → Personalize → Screen Saver Settings or BIOS SETUP on the PC.</li> </ul>

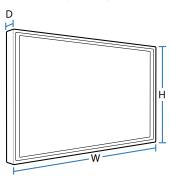
# Chapter 11 Specifications



#### - Display area



- Dimensions (W x H x D)



### General

Model Name		ED65D	ED75D		
Panel	Size	65 Class (64.5 inches / 163 cm)	75 Class (75 inches / 189 cm)		
	Display area	1428.48 (H) x 803.52 (V) mm	1650.24 (H) x 928.26 (V) mm		
		56.24 (H) x 31.63 (V) inches	64.97 (H) x 36.55 (V) inches		
Dimensions (W x H x	( D)	1467.4 x 848.0 x 64.9 mm	1675.0 x 959.1 x 64.8 mm		
		57.8 x 33.4 x 2.6 inches	65.9 x 37.8 x 2.6 inches		
Weight (without stand)		26.8 kg / 59.1 lbs	28.8 kg / 63.5 lbs		
Power Supply		This product uses 100 to 240V. Refer to the label at the back of the product as the standard voltage can vary in different countries.			
Environmental	Operating	Temperature : 32 °F ~ 104 °F (0 °C ~ 40 °C)			
considerations		Humidity: 10 % ~ 80 %, non-condensing			
	Storage	Temperature : -4 °F ~ 113 °F (-20 °C ~ 45 °C)			
		Humidity: 5 % ~ 95 %, non-condensing			

— Plug-and-Play

This monitor can be installed and used with any Plug-and-Play compatible systems. Two-way data exchange between the monitor and PC system optimizes the monitor settings.

Monitor installation takes place automatically. However, you can customize the installation settings if desired.

— Panel Dots (Pixels)

Due to the nature of the manufacturing of this product, approximately 1 pixel per million (1ppm) may appear brighter or darker on the panel. This does not affect product performance.

This device is a Class A digital apparatus.

### **PowerSaver**

The power-saving function of this product reduces power consumption by switching off the screen and changing the colour of the power LED if the product is not used for a specified period of time. The power is not turned off in power-saving mode. To switch the screen back on, press any key on the keyboard or move the mouse. Power-saving mode only functions when the product is connected to a PC with a power-saving function.

PowerSaver		Normal Operation			Power saving — mode	Power off	Power off
		Rating	Typical	Max	(SOG Signal : Not Support the DPM Mode)		(Power Button off)
Power Indicator		Off			Blinking	On	Off
Power Consumption	ED65D	215 Watts	180 Watts	235 Watts	1 Watts	1 Watts	0 Watts
	ED75D	280 Watts	247 Watts	310 Watts	1 Watts	1 Watts	0 Watts

The displayed power consumption level can vary in different operating conditions or when settings are changed.

<sup>—</sup> SOG(Sync On Green) is not supported.

To reduce the power consumption to 0, turn off the switch at the back or disconnect the power cord. Disconnect the power cable if you will not be using the product for an extended period of time (during vacation, etc.).

### **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 85Hz, change the vertical frequency to 60Hz using the CDT product before you exchange it with the LCD product.

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	-/-

- 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.

Resolution	Horizontal Frequency (kHz)	Vertical Frequency (Hz)	Pixel Clock (MHz)	Sync Polarity (H/V)
VESA, 800 x 600	35.156	56.250	36.000	+/+
VESA, 800 x 600	37.879	60.317	40.000	+/+
VESA, 800 x 600	48.077	72.188	50.000	+/+
VESA, 800 x 600	46.875	75.000	49.500	+/+
VESA, 1024 x 768	48.363	60.004	65.000	-/-
VESA, 1024 x 768	56.476	70.069	75.000	-/-
VESA, 1024 x 768	60.023	75.029	78.750	+/+
VESA, 1280 x 720	45.000	60.000	74.250	+/+
VESA, 1280 x 1024	63.981	60.020	108.000	+/+
VESA, 1280 x 1024	79.976	75.025	135.000	+/+
VESA, 1366 x 768	47.712	59.790	85.500	+/+
VESA,1440 x 900	55.935	59.887	106.500	-/+
VESA,1600 x 900	60.000	60.000	108.000	+/+
VESA,1680 x 1050	65.290	59.954	146.250	-/+
VESA,1920 x 1080	67.500	60.000	148.500	+/+

## Chapter 12 Appendix

### **Contact SAMSUNG WORLD WIDE**

Web site: www.samsung.com/displaysolutions

If you have any questions or comments relating to Samsung products, please contact the SAMSUNG customer care centre.

#### **NORTH AMERICA**

U.S.A	1-800-SAMSUNG (726-7864)
CANADA	1-800-SAMSUNG (726-7864)

#### **LATIN AMERICA**

ARGENTINE	0800-333-3733
BOLIVIA	800-10-7260
BRAZIL	0800-124-421 (Demais cidades e regiões) 4004-0000 (Capitais e grandes centros)
CHILE	800-SAMSUNG (726-7864)
COLOMBIA	Bogotá 600 12 72 Gratis desde cualquier parte del país 01 8000 112 112 ó desde su celular #SAM(726)

### LATIN AMERICA

0-800-507-7267
00-800-1-SAMSUNG (726-7864)
1-800-751-2676
1 300 731 2070
1-800-10-72670
1-800-SAMSUNG (72-6786)
800-6225
1-800-299-0013
1-800-299-0033
800-27919267
800-2791-9111
1-800-234-7267
1-800-SAMSUNG (726-7864)
01-800-SAMSUNG (726-7864)
001-800-5077267
800-7267
800-0101
009-800-542-0001
0-800-777-08
1-800-682-3180
1-800-SAMSUNG (726-7864)

### LATIN AMERICA

VENEZUELA	0-800-SAMSUNG (726-7864)	
EUROPE		
AUSTRIA	0800 - SAMSUNG (0800 - 7267864)	
BELGIUM	02-201-24-18	
BOSNIA	051 331 999	
BULGARIA	800 111 31, Безплатна телефонна линия	
CROATIA	072 726 786	
CYPRUS	8009 4000 only from landline, toll free	
CZECH	800 - SAMSUNG (800-726786)	
CZECH	Samsung Electronics Czech and Slovak, s.r.o. V Parku 2343/24, 148 00 - Praha 4	
DENMARK	70 70 19 70	
EIRE	0818 717100	
ESTONIA	800-7267	
FINLAND	030-6227 515	
FRANCE	01 48 63 00 00	
GERMANY	0180 6 SAMSUNG bzw. 0180 6 7267864* (*0,20 €/Anruf aus dem dt. Festnetz, aus dem Mobilfunk max. 0,60 €/Anruf)	

### **EUROPE**

GREECE	80111-SAMSUNG (80111 726 7864) only from land line
GREECE	(+30) 210 6897691 from mobile and land line
HUNGARY	0680SAMSUNG (0680-726-786)
HONGARI	0680PREMIUM (0680-773-648)
ITALIA	800-SAMSUNG (800.7267864)
LATVIA	8000-7267
LITHUANIA	8-800-77777
LUXEMBURG	261 03 710
MONTENEGRO	020 405 888
NETHERLANDS	0900-SAMSUNG (0900-7267864) (€ 0,10/Min)
NORWAY	815 56480
	0 801-172-678*
POLAND	lub +48 22 607-93-33 * * (koszt połączenia według taryfy operatora)
PORTUGAL	808 20 7267
ROMANIA	08008 726 78 64 (08008 SAMSUNG) Apel GRATUIT
SERBIA	011 321 6899
SLOVAKIA	0800 - SAMSUNG (0800-726 786)
SLOVENIA	080 697 267
JEOVERNA	090 726 786
SPAIN	0034902172678
	I .

### **EUROPE**

SWEDEN	0771 726 7864 (SAMSUNG)
SWITZERLAND	0800 726 78 64 (0800-SAMSUNG)
UK	0330 SAMSUNG (7267864)

### CIS

	T
ARMENIA	0-800-05-555
AZERBAIJAN	0-88-555-55
BELARUS	810-800-500-55-500
GEORGIA	0-800-555-555
KAZAKHSTAN	8-10-800-500-55-500 (GSM: 7799, VIP care 7700)
KYRGYZSTAN	8-10-800-500-55-500
MOLDOVA	0-800-614-40
MONGOLIA	7-495-363-17-00
RUSSIA	8-800-555-55
TADJIKISTAN	8-10-800-500-55-500
UKRAINE	0-800-502-000
UZBEKISTAN	8-10-800-500-55-500

### CHINA

CHINA	400-810-5858
HONG KONG	(852) 3698 4698
MACAU	0800 333

### S.E.A

AUSTRALIA	1300 362 603
INDONESIA	021-56997777
	08001128888
JAPAN	0120-363-905
MALAYCIA	1800-88-9999
MALAYSIA	603-77137477 (Overseas contact)
MYANMAR	01-2399888
NEW ZEALAND	0800 726 786
	1-800-10-7267864 [PLDT]
PHILIPPINES	1-800-8-7267864 [Globe landline and Mobile]
	02-4222111 [Other landline]
SINGAPORE	1800-SAMSUNG (726-7864)
TAIWAN	0800-329999
THAILAND	0-2689-3232,
	1800-29-3232
VIETNAM	1800 588 889

### S.W.A

BANGLADESH	09612300300
INDIA	1800 3000 8282 - Toll Free 1800 266 8282 - Toll Free
SRI LANKA	0094117540540 0094115900000

#### **MENA**

ALGERIA	021 36 11 00
BAHRAIN	8000-GSAM (8000-4726)
EGYPT	08000-726786
	16580
IRAN	021-8255
JORDAN	0800-22273
JORDAN	06 5777444
KUWAIT	183-CALL (183-2255)
MOROCCO	080 100 22 55
OMAN	800-SAMSUNG (800 - 726 7864)
PAKISTAN	0800-Samsung (72678)
QATAR	800-CALL (800-2255)
SAUDI ARABIA	920021230
	·

### MENA

SYRIA	18252273
TUNISIA	80-1000-12
TURKEY	444 77 11
U.A.E	800-SAMSUNG (800 - 726 7864)

### **AFRICA**

BOTSWANA	8007260000
BURUNDI	200
CAMEROON	7095-0077
COTE D'IVOIRE	8000 0077
DRC	499999
	0800-10077
GHANA	0302-200077
KENYA	0800 545 545
MOZAMBIQUE	847267864 / 827267864
NAMIBIA	08 197 267 864
NIGERIA	0800-726-7864
RWANDA	9999

### AFRICA

SENEGAL	800-00-0077
SOUTH AFRICA	0860 SAMSUNG (726 7864)
SUDAN	1969
TANZANIA	0800 755 755
UGANDA	0800 300 300
ZAMBIA	0211 350370

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

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

Product damage caused by customer's mishandling or wrong repair

If a product damage is caused by;

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

#### **Others**

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

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

### **Correct Disposal**

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



(Applicable in countries with separate collection systems)

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

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

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

### Correct disposal of batteries in this product



(Applicable in countries with separate collection systems)

The marking on the battery, manual or packaging indicates that the battery in this product should not be disposed of with other household waste. Where marked, the chemical symbols Hg, Cd or Pb indicate that the battery contains mercury, cadmium or lead above the reference levels in EC Directive 2006/66.

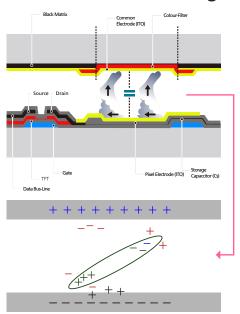
The battery incorporated in this product is not user replaceable. For information on its replacement, please contact your service provider. Do not attempt to remove the battery or dispose it in a fire. Do not disassemble, crush, or puncture the battery. If you intend to discard the product, the waste collection site will take the appropriate measures for the recycling and treatment of the product, including the battery.

# 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
- Run Auto Adjustment to improve the picture quality. If noise is still found even after auto adjustment, adjust Coarse or Fine.
- 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 (more than 12 hours), a slight voltage difference may occur between the electrodes in pixels that control the liquid crystals.

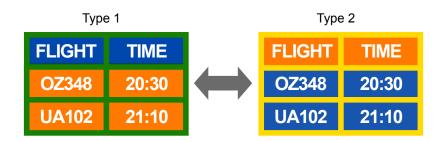
Such a voltage difference between electrodes increases with time and makes the liquid crystals thinner. When this occurs, a previous image can remain on the screen when the pattern changes. To prevent this, the accumulated voltage difference should be reduced.

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-colour or moving-image screen saver.
- Regular colour Change
  - Use 2 colours
     Switch between 2 colours every 30 minutes as shown above.



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

FLIGHT : TIME

OZ348 : 20:30

FLIGHT : TIME

OZ348 : 20:30

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



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 product and 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 colour. 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.

#### Component ports (green, blue and

**red)**\_\_\_\_ The component ports, which identify, transmit and receive contrast signals, provide superior picture quality to any other video connection methods.

**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).

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.