User Manual

DE40C
DE46C
DE55C

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

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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.
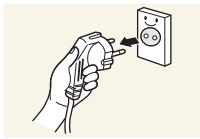
1. Power off the product and computer.

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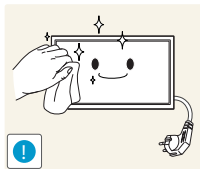
3. Wipe the product with a clean, soft and dry cloth.

   - Do not use detergents that contain alcohol, solvent or surface-active agents.
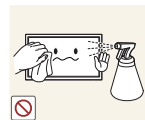
   - Do not spray water or detergent directly on the product.
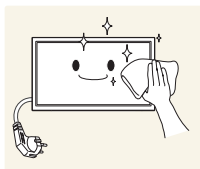
4. Wet a soft and dry cloth in water and wring thoroughly to clean the exterior of the product.
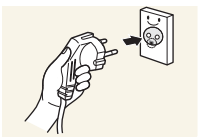
5. Connect the power cord to the product when cleaning is finished.

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 Center if the inside of the product needs cleaning (service fee will be charged).

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 QUALIFIED PERSONNEL.

	This symbol indicates that high voltage is present inside. It is dangerous to make any kind of contact with any internal part of this product.
	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.

Before Using the Product

Before Using the Product

Electricity and Safety

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

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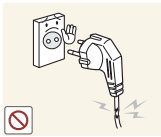
Do not use a damaged power cord or plug, or a loose power socket.

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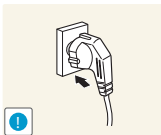
Insert the power plug all the way in so it is not loose.

- An unsecure connection may cause a fire.
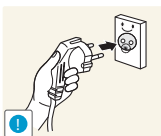
Connect the power plug to a grounded power socket (type 1 insulated devices only).

- An electric shock or injury may result.
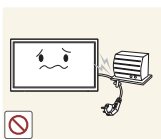
Do not bend or pull the power cord with force. Be careful not to leave the power cord under a heavy object.

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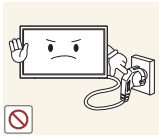
Do not disconnect the power cord while the product is being used.

 ● The product may become damaged by an electric shock.
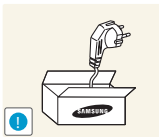
Only use the power cord provided with your product by Samsung. Do not use the power cord with other products.

 ● A fire or electric shock may result.
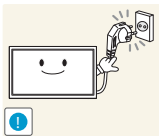
Keep the power socket where the power cord is connected unobstructed.

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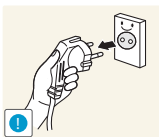
Hold the plug when disconnecting the power cord from the power socket.

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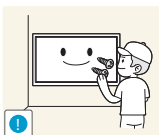
Have a technician install the wall-mount hanger.

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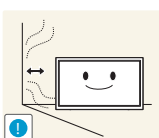
Install the product at least 10 cm away from the wall to allow ventilation.

 ● 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.
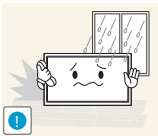
Do not install the product in a vehicle or a place exposed to dust, moisture (water drips, etc.), oil, or smoke.

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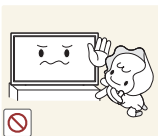
Do not install the product within the reach of young children.

- 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
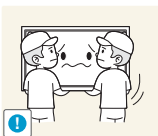
Do not drop the product while moving.

- Product failure or personal injury may result.
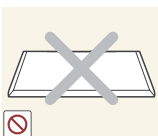
Do not set down the product on its front.

- The screen may become damaged.
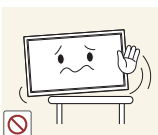
When installing the product on a cabinet or shelf, make sure that the bottom edge of the front of the product is not protruding.

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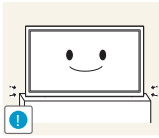
Set down the product gently

- Product failure or personal injury may result.

Installing the product in an unusual place (a place exposed to a lot of fine particles, chemical substances or extreme temperatures, or an airport or train station where the product should operate continuously for an extended period of time) may seriously affect its performance.

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

Operation

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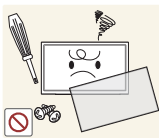
There is a high voltage inside the product. Never disassemble, repair or modify the product yourself.

- A fire or electric shock may result.
- Contact Samsung Customer Service Center 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.
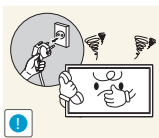
If the product generates abnormal sounds, a burning smell or smoke, disconnect the power cord immediately and contact Samsung Customer Service Center.

- An electric shock or fire may result.
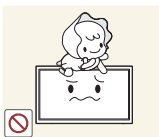
Do not let children hang from the product or climb on top of it.

- Children may become injured or seriously harmed.

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

- Continued use can result in a fire or electric shock.
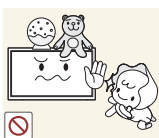
Do not leave heavy objects or items that children like (toys, sweets, etc.) on top of the product.

- The product or heavy objects may fall as children try to reach for the toys or sweets resulting in a serious injury.
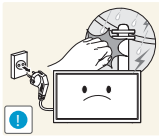
During a lightning or thunderstorm, power off the product and remove the power cable.

● A fire or electric shock may result.
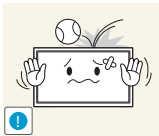
Do not drop objects on the product or apply impact.

● A fire or electric shock may result.
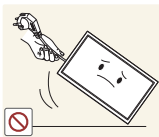
Do not move the product by pulling the power cord or any cable.

● Product failure, an electric shock or fire may result from a damaged cable.
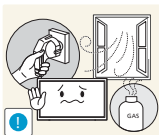
If a gas leakage is found, do not touch the product or power plug. Also, ventilate the area immediately.

● Sparks can cause an explosion or fire.
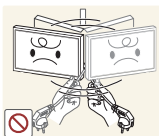
Do not lift or move the product by pulling the power cord or any cable.

● Product failure, an electric shock or fire may result from a damaged cable.
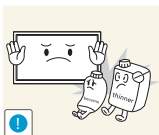
Do not use or keep combustible spray or an inflammable substance near the product.

● 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 Center.

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

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

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

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

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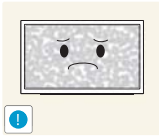
Leaving the screen fixed on a stationary image for an extended period of time may cause afterimage burn-in or defective pixels.

- Activate power-saving mode or a moving-picture screen saver if you will not be using the product for an extended period of time.
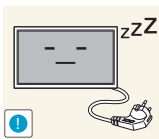
Disconnect the power cord from the power socket if you do not plan on using the product for an extended period of time (vacation, etc).

- Dust accumulation combined with heat can cause a fire, electric shock or electric leakage.
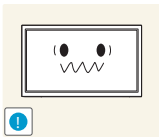
Use the product at the recommended resolution and frequency.

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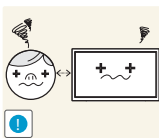
Looking at the screen too close for an extended period of time can deteriorate your eyesight.

Do not use humidifiers or stoves around the product.

- A fire or electric shock may result.
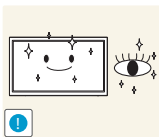
Rest your eyes for more than 5 minutes for every 1 hour of product use.

- Eye fatigue will be relieved.
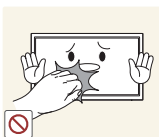
Do not touch the screen when the product has been turned on for an extended period of time as it will become hot.
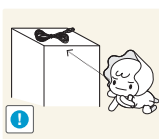
Store small accessories out of the reach of children.
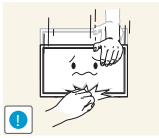
Exercise caution when adjusting the product angle or stand height.

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

Do not place heavy objects on the product.

- Product failure or personal injury may result.

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

- Having the sound too loud may damage your hearing.
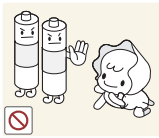
Be careful that children do not place the battery in their mouths when removed from the remote control. Place the battery in a location that children or infants cannot reach.

- If children have had the battery in their mouths, consult your doctor immediately.
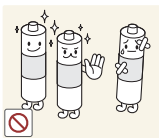
Use only the specified standardized batteries, and do not use a new battery and a used battery at the same time.

- Otherwise, the batteries may be damaged or cause fire, personal injury or damage due to a leakage of the internal liquid.
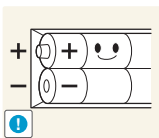
When replacing the battery, insert it with the right polarity (+, -).

- Otherwise, the battery may become damaged or it may cause fire, personal injury or damage due to leakage of the internal liquid.
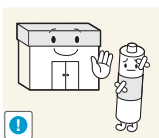
The batteries (and rechargeable batteries) are not ordinary refuse and must be returned for recycling purposes. The customer is responsible for returning the used or rechargeable batteries for recycling.

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

1   Preparations

1.1   Checking the Contents

> 📖 The appearance of the actual product may differ from the images shown.

1.1.1   Removing the Packaging (for DE40C and DE46C models only)

1 Open the packaging box. Be careful not to damage the product when you open the packaging with a sharp instrument.

2 Remove the styrofoam from the product.
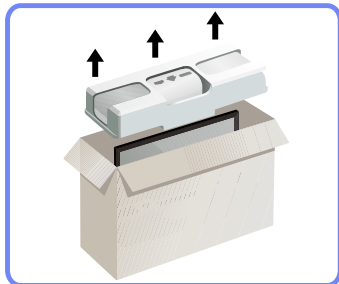
3 Check the product and remove the styrofoam and plastic bag.

> 📖 The appearance of the actual product may differ from the image shown.

> 📖 This image is for reference only.

4 Store the box in a dry area so that it can be used when moving the product in the future.

1 Preparations

1.1.2 Removing the Packaging (for DE55C models only)

1 Remove the black locking device at the bottom of the box.
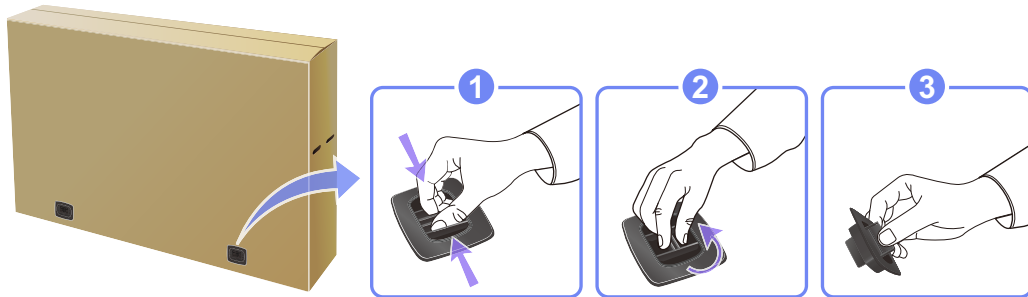
2 Using the grooves in the box, lift and remove the top of the box.
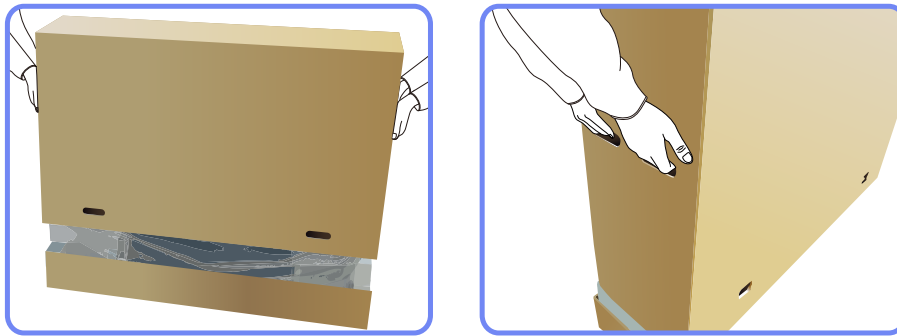
3 Check the components and remove the styrofoam and plastic bag.

> 🖉 The appearance of actual components may differ from the image shown.
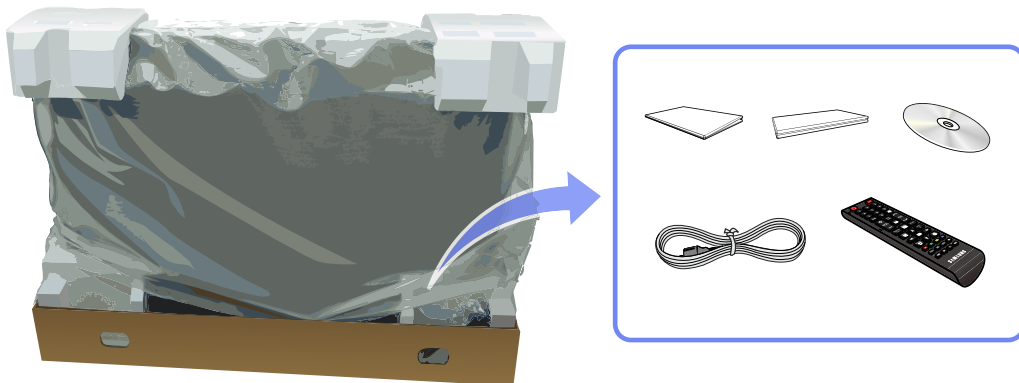
> 🖉 This image is for reference only.

4 Store the box in a dry area so that it can be used when moving the product in the future.

1   **Preparations**

1.1.3   Checking the Components

- Contact the vendor where you purchased the product if any components are missing.
- The appearance of the components and items sold separately may differ from the image shown.
- A stand is not provided with the product. To install a stand, you can purchase one separately.

Components

Components may differ in different locations.
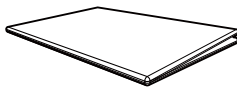
Quick setup guide	Warranty card (Not available in some locations)	User manual
MagicInfo Lite Edition Software CD	Holder-Wire stand	Holder-Ring (4EA)
Power cord	Remote Control	Batteries (Not available in some locations)
D-SUB cable		
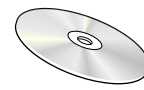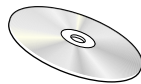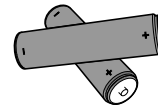
Preparations

1
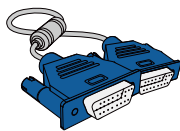
Items sold separately

- The stand is not supplied.
- The following items can be purchased at your nearest retailer.
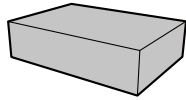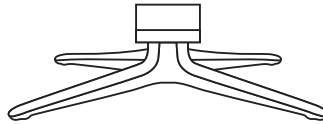
Wall-mount Kit	Stand	RS232C-Stereo cable
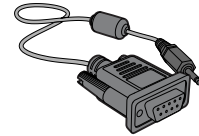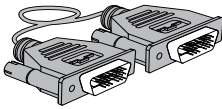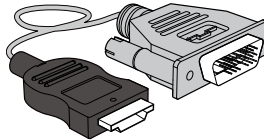
DVI cable	HDMI-DVI cable	DP cable
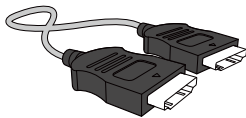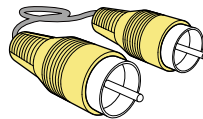
HDMI cable	Video cable	Component cable
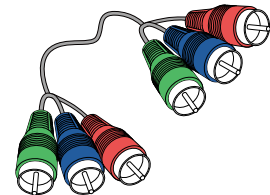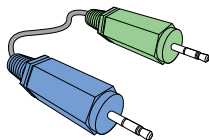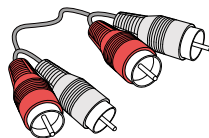
Stereo cable	AV cable	RCA stereo cable
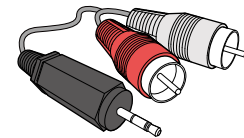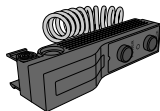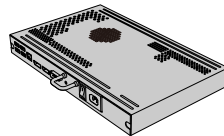
External sensor Kit	Network Box	PIM
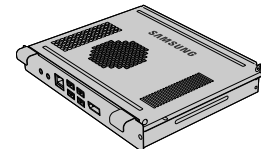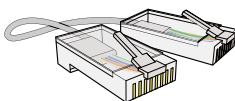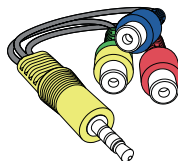
LAN cable	AV/Component Adapter	AUDIO Adapter

Preparations
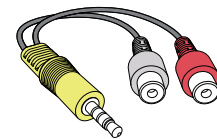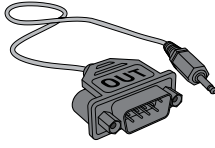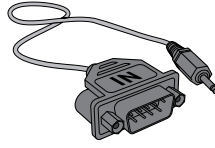
RS232C(OUT) Adapter   RS232C(IN) Adapter
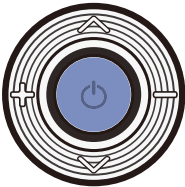
The RS232C adapter can be used to connect to another monitor using the D-SUB (9-pin) type RS232C cable. Ensure you connect each of the adapters to the correct RS232C IN or OUT port on the product.

Preparations

1.2   Parts

1.2.1   Control Panel

Panel Key

Remote sensor

POWER

Speaker
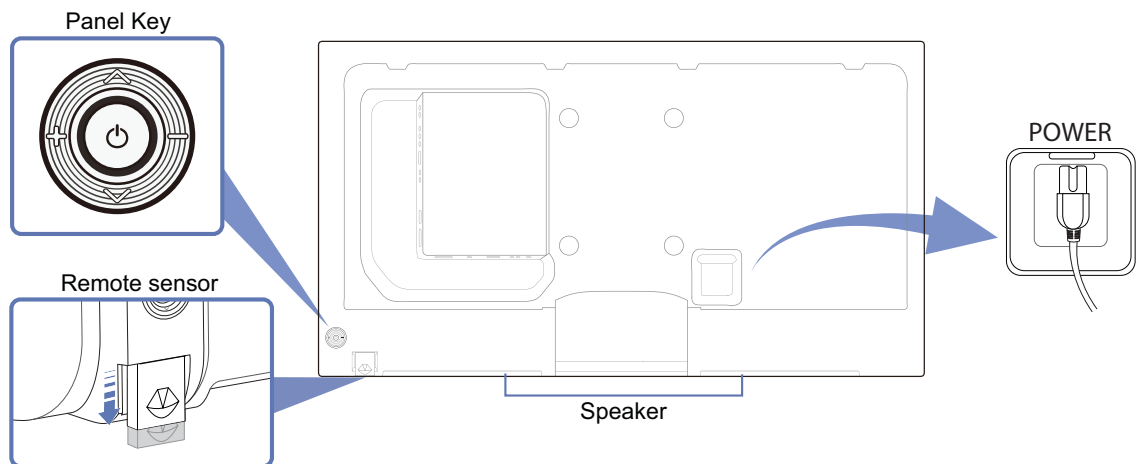
Panel Key

Buttons	Description
	Power on the product. If you press the [⏻] 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.
Remote sensor	To control the remote control in front of the product, lower the remote control sensor in the direction of the arrow.

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

Preparations

Control menu

> If you press the [⏻] button on the panel key ("1.2.1   Control Panel") when the product is turned on, the control menu will be displayed.

Icons	Description
⊡	Select the connected input source. Move the panel key right to select **Source** [⊡] in the control menu. When the list of input sources is displayed, move the panel key up or down to select the desired input source. Next, press the panel key.
▥	Display the OSD menu. Move the panel key left to select menu [▥] in the control menu. The OSD control screen will appear. Move the panel key right to select the desired menu. You can select a sub-menu item by moving the panel key up, down, left, or right. To change settings, select the desired menu and press the panel key.
CONTENT	Enter **Contents Home** mode. Move the panel key up to select **Contents Home** [CONTENT] in the control menu.
⏻	Power off the product. Move the panel key down to select **Power off** [⏻] in the control menu. Next, press the panel key.
↻	Exit the control menu.

Preparations

1.2.2 Reverse Side

> The color and shape of parts may differ from what is shown. Specifications are subject to change without notice to improve quality.
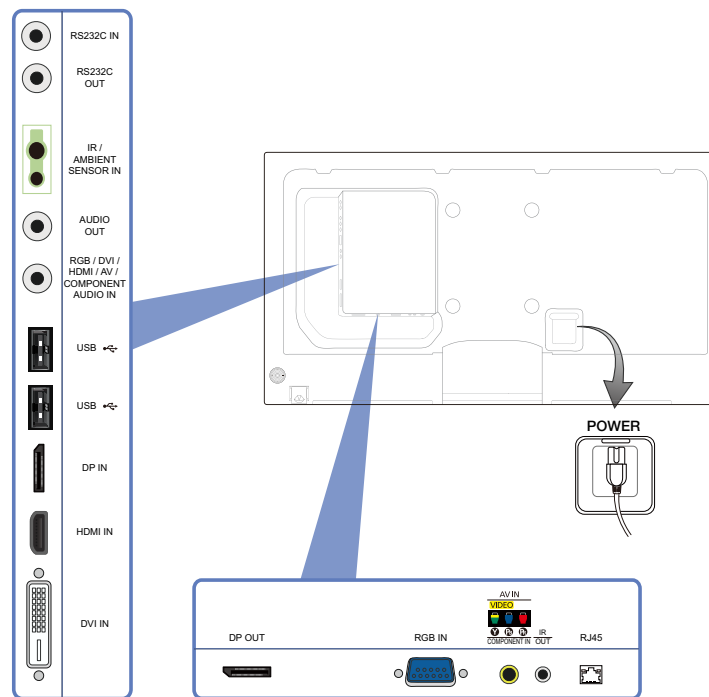
Port	Description
[RS232C IN]	Connects to MDC using an RS232C-stereo cable.
[RS232C OUT]	
[IR / AMBIENT SENSOR IN]	Supplies power to the external sensor board or receives the light sensor signal.
[AUDIO OUT]	Connects to the audio of a source device.
[RGB / DVI / HDMI / AV / COMPONENT AUDIO IN]	Connect to audio input using an audio cable.
[USB]	USB memory device port.
[DP IN]	Connects to a PC using a DP cable.
[HDMI IN]	Connects to a source device using an HDMI cable.
[DVI IN]	Connects to a source device using a DVI cable or HDMI-DVI cable.
[DP OUT]	Connects to another product using a DP cable.
[RGB IN]	Connects to a source device using the D-SUB cable.
[AV IN / COMPONENT IN]	Connects to a source device using the AV/component adapter.

Port	Description
[IR OUT]	Receives the remote control signal via the external sensor board and outputs the signal via LOOPOUT.
[RJ45]	Connects to MDC using a LAN cable.

Assembling the Holder-Wire stand
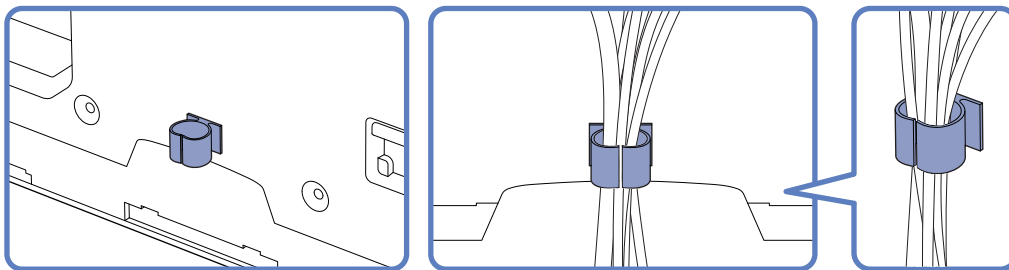
1.2.3 Anti-theft Lock

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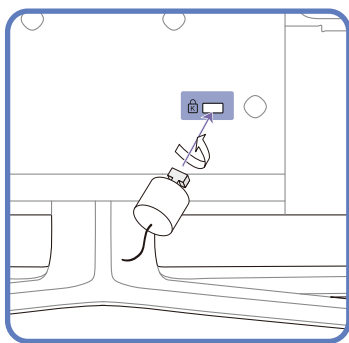
1 Fix the cable of your anti-theft locking device to a heavy object such as a desk.

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.

- Stand: Sold separately

Preparations
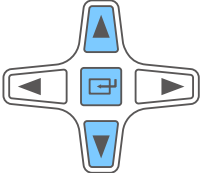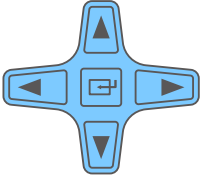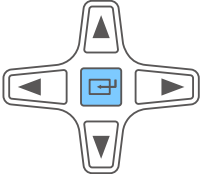
1.2.4 Remote Control

- 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.

- Remote control button functions may differ for different products.

Power on the product.

Power off the product.

Enter the password in the OSD menu.

Not available.

Mute the sound.
Unmuting the sound: Press MUTE again or press the volume control (+ VOL -) button.

Displays the Content View, which includes MagicInfo Lite, AllShare Play, and Source.

Adjust the volume.

Not available.

Select a connected source device.

MagicInfo Lite Launch Button.

Display or hide the onscreen display menu, or return to the previous menu.

Quickly select frequently used functions.

Temporarily turn off the video and mute the audio. Disabling the BLANK function.
- Press BLANK one more time.
- Press SOURCE.
- Turn the product off and then on again.

Display information on the screen.

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

Return to the previous menu.

Exit the current menu.

Manually select a connected input source from PC, DVI, HDMI, or DP.
When using a media-related menu or the HDMI-CEC menu, a function can be selected by pressing a color button on the remote control that corresponds to a button of the same color on the screen.

Not available.

MagicInfo Quick Launch Button. MagicInfo can only be enabled when a network box is connected. This button is disabled for products that do not support MagicInfo.

It sets safe lock function.

Use these buttons in Videos, Photos, Music and Anynet+ modes.

Preparations

Adjusting the OSD with the Remote Control

MENU	1. Open the OSD menu.
	2. Select from **Picture**, **Sound**, **Network**, **System** or **Support** in the displayed OSD menu screen.
	3. Change settings as desired.
	4. Finish setting.
EXIT	5. Close the onscreen display (OSD) menu.

To place batteries in the remote control

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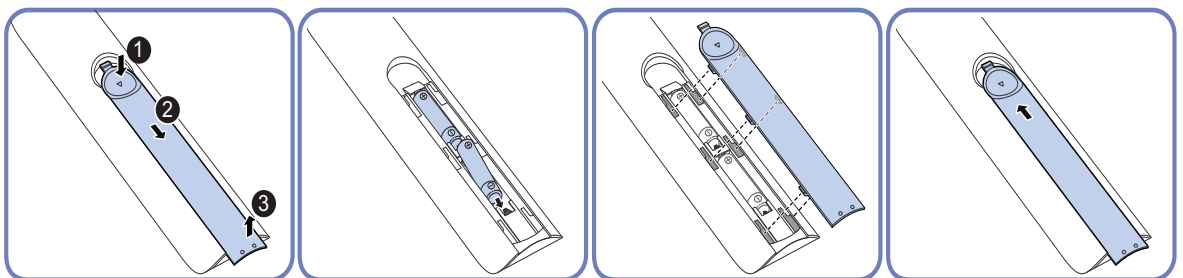
Remote Control Reception Range
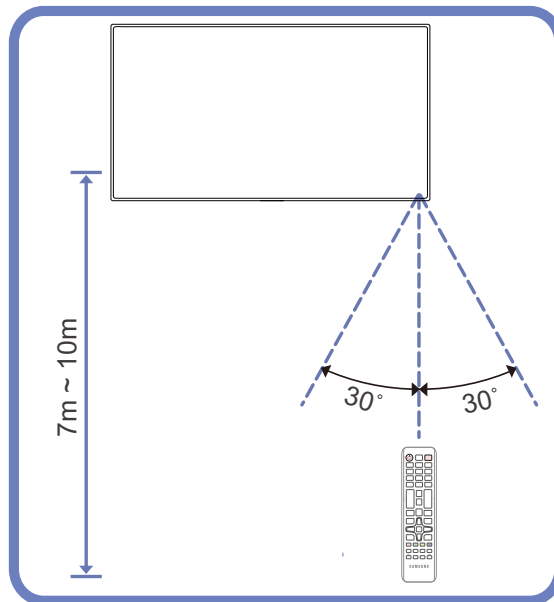
Use the remote control within 7m to 10m from the sensor on the product at an angle of 30° from the left and right.

⚠ ● Store used batteries out of reach of children and recycle.

   ● 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.

1.2.5 Connection Using an IR Stereo Cable

> Turn off the device before connecting the External Sensor Kit. After it is connected, turn on the device.

Controlling more than one display product using your remote control
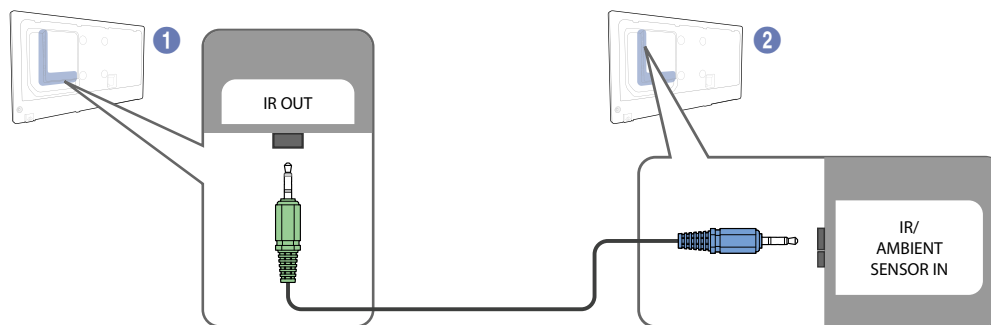
- Connect the [IR OUT] port on the product to the [IR / AMBIENT SENSOR IN] port on the other display product using the dedicated stereo cable.
- A command sent from the remote control pointed at product ❶ will be received by both display products ❶ and ❷.

> The appearance may differ depending on the product.

Controlling more than one display product using an external sensor kit (sold separately)
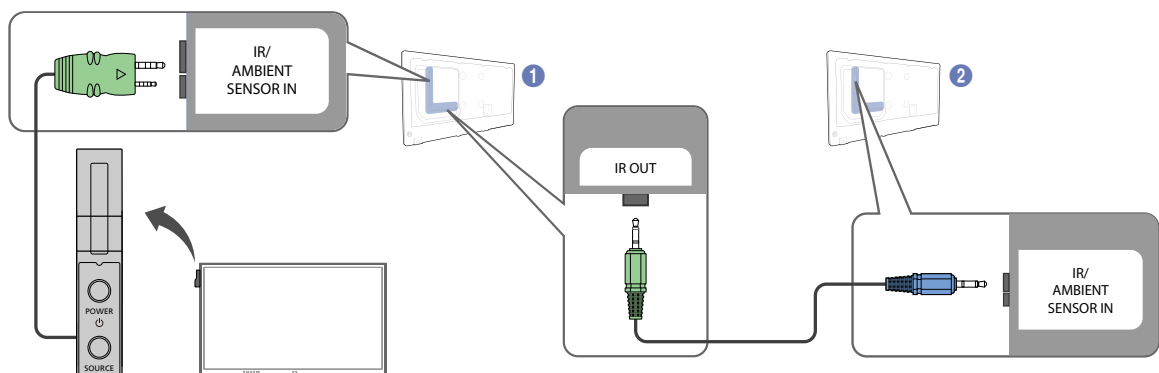
- A command sent from the remote control pointed at product ❶ (to which the external sensor kit is connected) will be received by both display products ❶ and ❷.

> The appearance may differ depending on the product.

1.3 Before Installing the Product (Installation Guide)

> ⚠ To prevent injury, this apparatus must be securely attached to the floor/wall in accordance with the installation instructions.
>
> • Ensure that an authorized installation company installs the wall mount.
>
> • Otherwise, it may fall and cause personal injury.
>
> • Make sure to install the specified wall mount.

1.3.1 Tilting Angle and Rotation

> 📝 Contact Samsung Customer Service Center for further details.
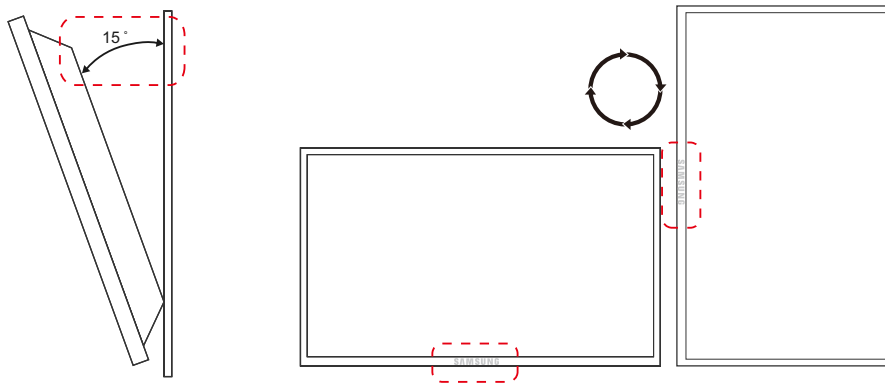
A   The product can be tilted at a maximum angle of 15° from a perpendicular wall surface.

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

1.3.2 Ventilation

1. Installation on a Perpendicular Wall
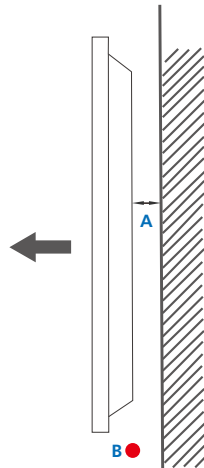
Figure 1.1 Side view

A   Minimum 40 mm

B   Ambient temperature: Under 35˚C

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

2. Installation on an Indented Wall

Contact Samsung Customer Service Center for further details.
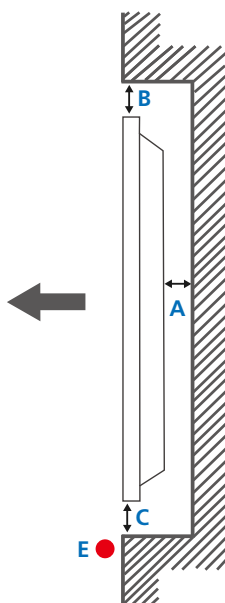
Figure 1.3 Top view

Figure 1.2 Side view
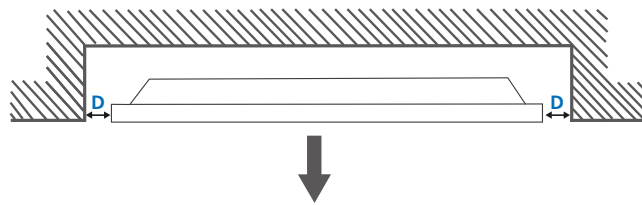
Plane view

A   Minimum 40 mm

B   Minimum 70 mm

C   Minimum 50 mm

D   Minimum 50 mm

E   Ambient temperature: Under 35˚C

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

1 Preparations
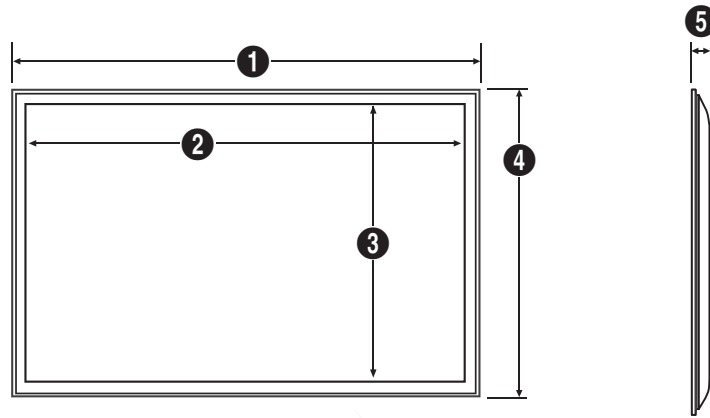
1.4 Dimensions

Unit: mm

Model name	❶	❷	❸	❹	❺
DE40C	919.6	885.6	498.2	532.0	35.1
DE46C	1054.5	1018.1	572.7	608.5	35.1
DE55C	1249.5	1209.6	680.4	721.0	35.1

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.

Preparations

1.5 Installing the Wall Mount

1.5.1 Preparing before installing Wall-Mount

To install a wall-mount from another manufacturer, use the Holder-Ring.
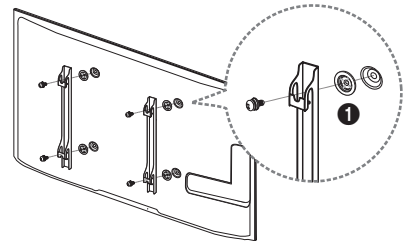
1.5.2 Installing the Wall Mount Kit

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.

1.5.3 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.

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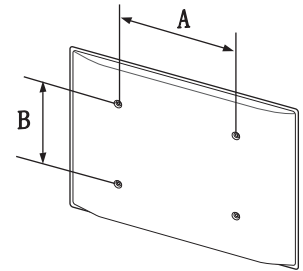
Unit: mm

Model name	VESA screw hole specs (A * B) in millimeters	Standard Screw	Quantity
DE40C	200 X 200	M8, L20	4
DE46C, DE55C	400 X 400		

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

Preparations

1.6   Remote Control

1.6.1   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	15m (only shielded type)

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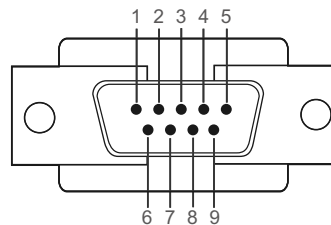
Pin	Signal
1	Detect data carrier
2	Received data
3	Transmitted data
4	Prepare data terminal
5	Signal ground
6	Prepare data set
7	Send request
8	Clear to send
9	Ring indicator

- RS232C cable

  Connector: 9-Pin D-Sub to Stereo Cable
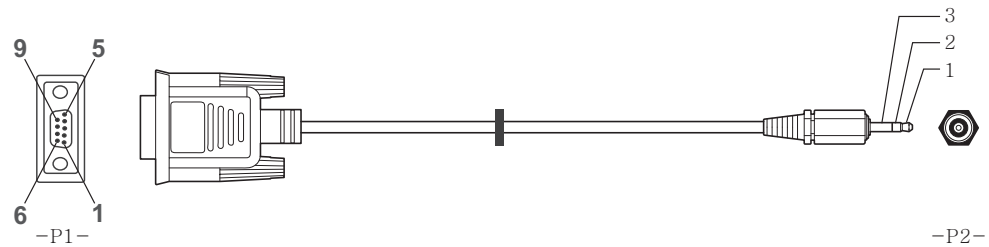
-P1-		-P1-		-P2-		-P2-
Female	Rx	2	-------->	1	Tx	STEREO PLUG (3.5ø)
	Tx	3	<--------	2	Rx	
	Gnd	5	---------	3	Gnd	

LAN Cable

- Pin assignment
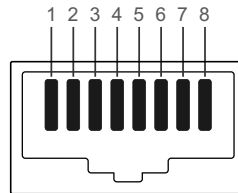
Pin No.	Standard Color	Signal
1	White and orange	TX+
2	Orange	TX-
3	White and green	RX+
4	Blue	NC
5	White and blue	NC
6	Green	RX-
7	White and brown	NC
8	Brown	NC

 Connector: RJ45

Direct LAN cable (PC to HUB)
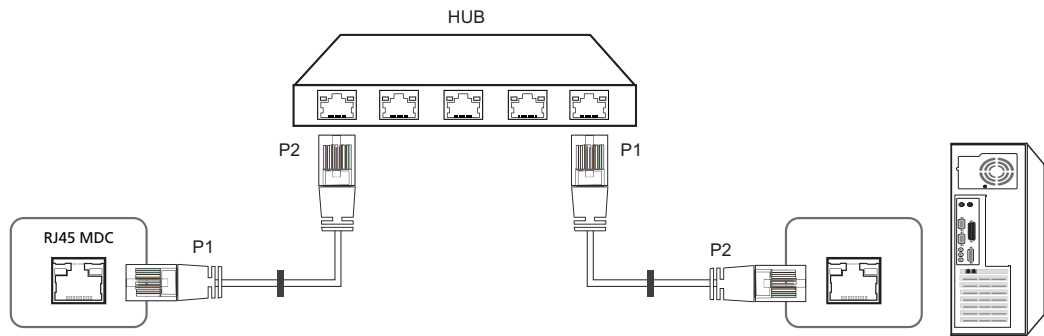
Signal	P1		P2	Signal
TX+	1	<-------->	1	TX+
TX-	2	<-------->	2	TX-
RX+	3	<-------->	3	RX+
RX-	6	<-------->	6	RX-

Cross LAN cable (PC to PC)
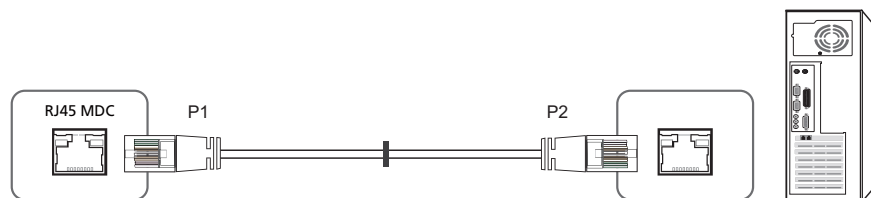
Signal	P1		P2	Signal
TX+	1	<-------->	3	RX+
TX-	2	<-------->	6	RX-
RX+	3	<-------->	1	TX+
RX-	6	<-------->	2	TX-

Preparations

1.6.2 Connection

- Connection 1

- Connection 2

1

- Connection 3

Preparations
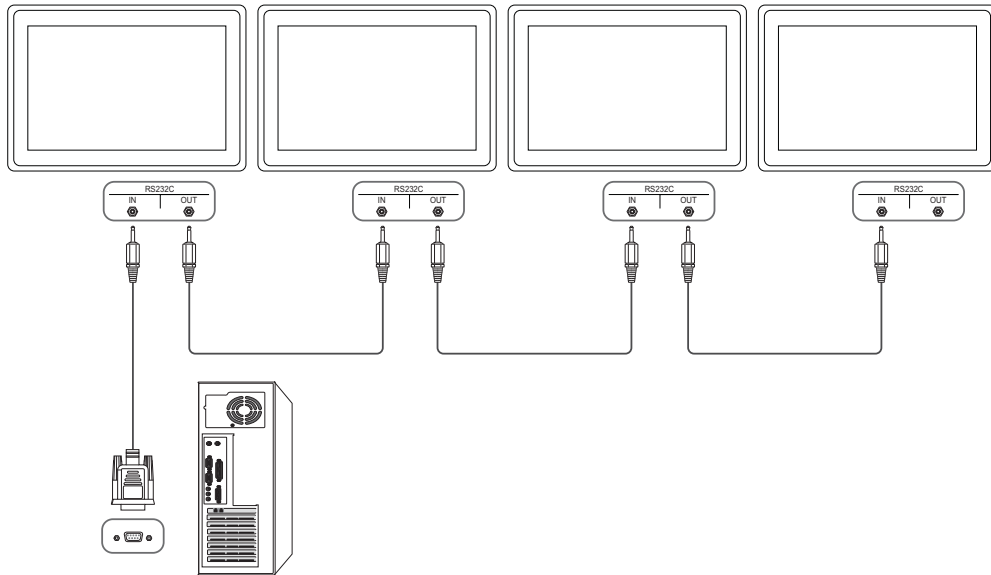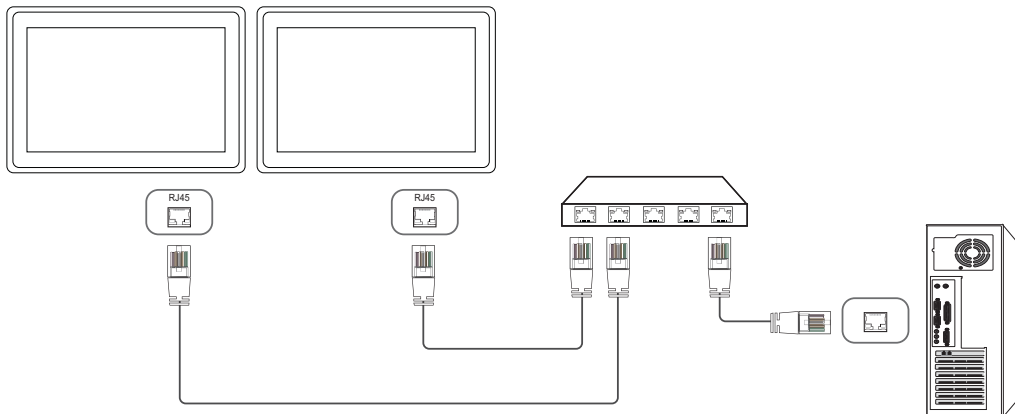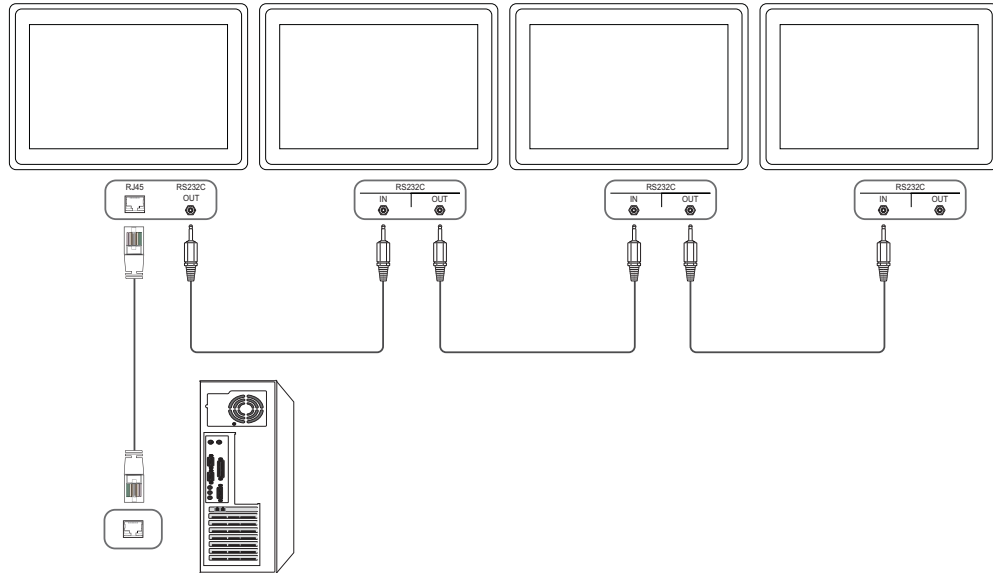
1.6.3 Control Codes

Viewing control state (Get control command)

Header	Command	ID	Data length	Checksum
0xAA	Command type		0	

Controlling (Set control command)

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

Command

No.	Command type	Command	Value range
1	Power control	0x11	0~1
2	Volume control	0x12	0~100
3	Input source control	0x14	-
4	Screen mode control	0x18	-
5	Screen size control	0x19	0~255
6	PIP on/off control	0x3C	0~1
7	Auto adjustment control	0x3D	0
8	Video wall mode control	0x5C	0~1
9	Safety Lock	0x5D	0~1

- Issued IDs can be displayed in hexadecimals. However, ID 0 must be displayed as 0xFF.

- 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	

Preparations

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

Power control

- Function

  A product can be powered on and off using a PC.

- Viewing power state (Get Power ON / OFF Status)

Header	Command	ID	Data length	Checksum
0xAA	0x11		0	

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

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

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

1: Power ON

0: Power OFF

- Ack

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

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

- Nak

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

"ERR": A code showing what error has occurred

Preparations

Volume control

- Function

  The volume of a product can be adjusted using a PC.

- Viewing volume state (Get Volume Status)

Header	Command	ID	Data length	Checksum
0xAA	0x12		0	

- Setting the volume (Set Volume)

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

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

- Ack

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

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

- Nak

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

  "ERR": A code showing what error has occurred

Input source control

- Function

  The input source of a product can be changed using a PC.

- Viewing input source state (Get Input Source Status)

Header	Command	ID	Data length	Checksum
0xAA	0x14		0	

- Setting the input source (Set Input Source)

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

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

0x14	PC
0x18	DVI
0x0C	AV
0x08	Component
0x20	MagicInfo
0x1F	DVI_video
0x40	DTV
0x21	HDMI1
0x22	HDMI1_PC
0x25	DisplayPort

> ▢ DVI_video and HDMI1_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.
>
> ▢ DTV are only available with models that include a TV.

Preparations

- Ack

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

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

- Nak

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

"ERR": A code showing what error has occurred

Preparations

Screen

- 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.

- Viewing screen status (Get Screen Mode Status)

Header	Command	ID	Data length	Checksum
0xAA	0x18		0	

- Setting the picture size (Set Picture Size)

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

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

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

- Ack

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

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

- Nak

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

"ERR": A code showing what error has occurred

Preparations

Screen size control

- Function

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

- Viewing the screen size (Get Screen Size Status)

Header	Command	ID	Data length	Checksum
0xAA	0x19		0	

- Ack

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

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

- Nak

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

"ERR": A code showing what error has occurred

Preparations

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	'N'	0x3C	"ERR"	

"ERR": A code showing what error has occurred

Preparations

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	'N'	0x3D	"ERR"	

  "ERR": A code showing what error has occurred

Preparations

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.

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

- 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	'N'	0x5C	"ERR"	

  "ERR": A code showing what error has occurred

Preparations

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		0	

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

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

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

1: ON

0: OFF

- Ack

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

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

- Nak

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

"ERR": A code showing what error has occurred

2 Connecting and Using a Source Device

2.1 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.
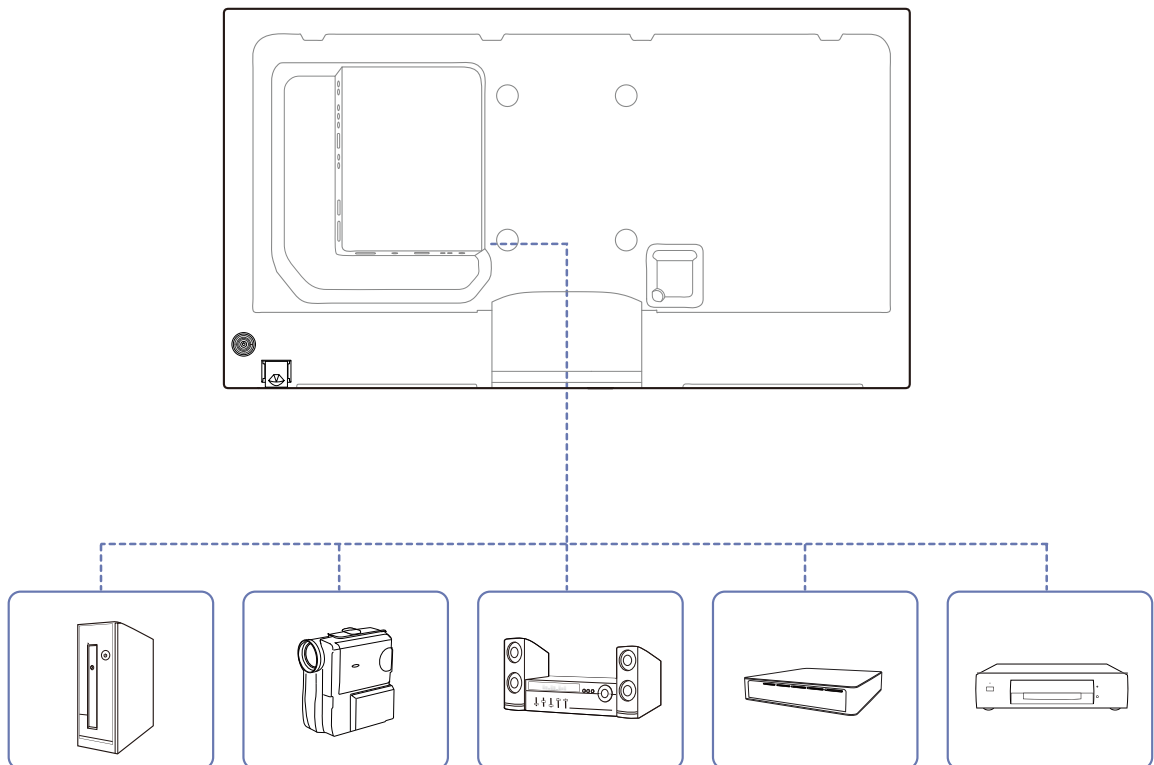
2.1.1 Pre-connection Checkpoints

● 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.

2 Connecting and Using a Source Device

2.2 Connecting and Using a PC

2.2.1 Connecting to a PC

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

  Ensure you connect a source device first before connecting the power cable.

- A PC can be connected to the product in a variety of ways.

  Select a connection method suitable for your PC.

  > Connecting parts may differ in different products.

Connection using the D-SUB cable (analog type)

RGB IN

RGB / DVI / HDMI / AV / COMPONENT AUDIO IN
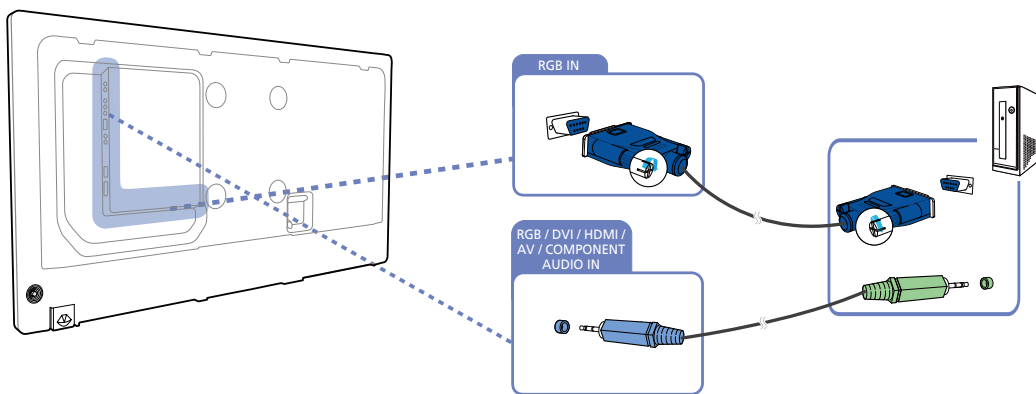
Connection using a DVI cable (digital type)

DVI IN

RGB / DVI / HDMI / AV / COMPONENT AUDIO IN
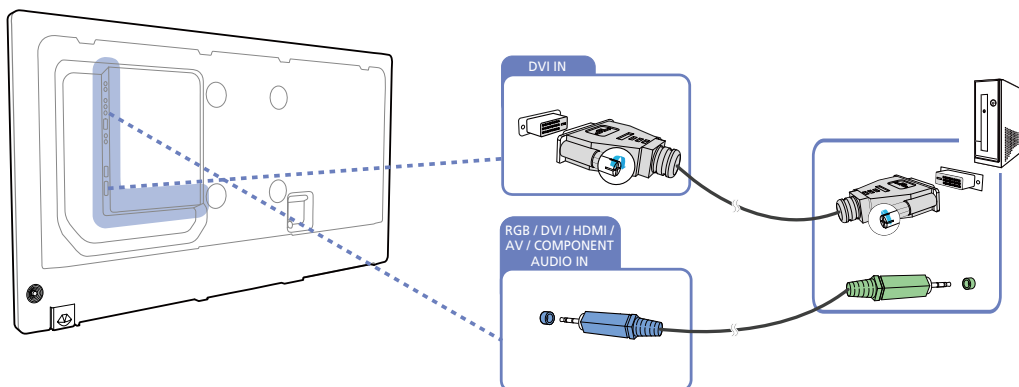
Connection Using an HDMI-DVI Cable
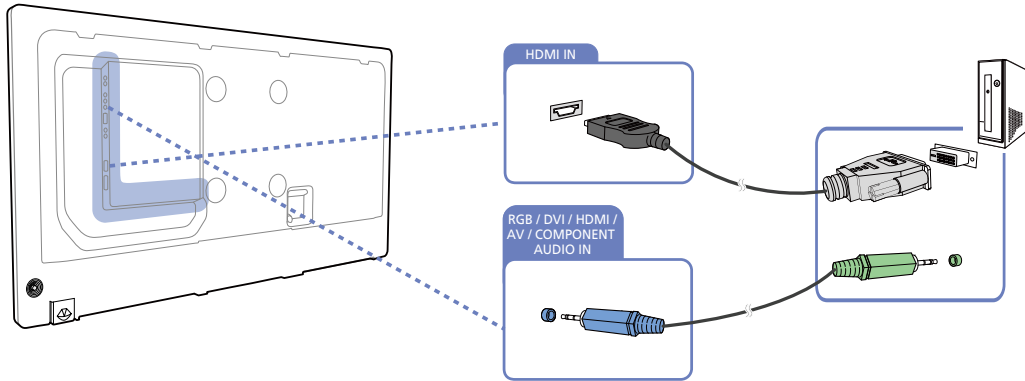
> ✎ When you connect a PC to the product using an HDMI-DVI cable, set **Edit Name** to **DVI PC** to access video and audio content stored on the PC.

Connection Using an HDMI Cable

Connecting and Using a Source Device
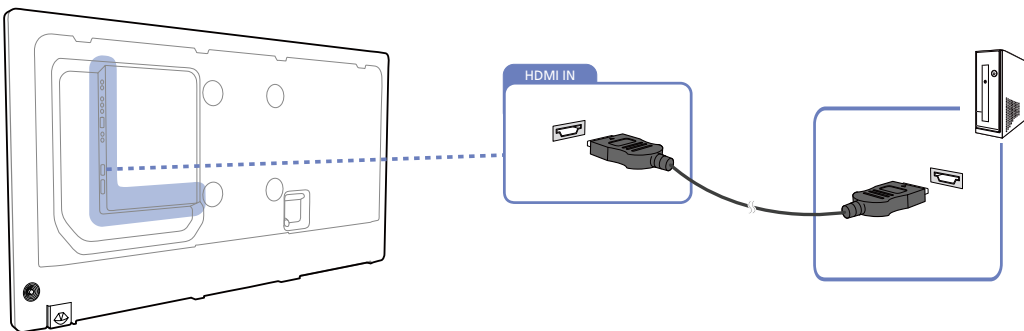
Connection Using an DP Cable

DP IN

Connecting and Using a Source Device
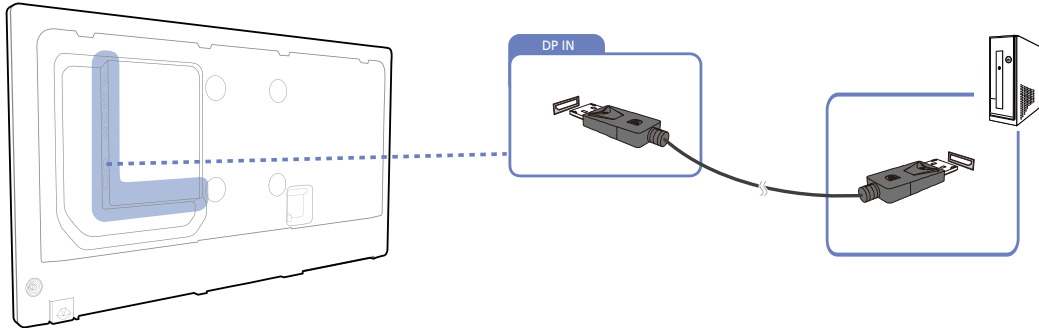
2.2.2   Changing the Resolution

> Adjust the resolution and refresh rate in Control Panel on your PC to obtain optimum picture quality.
>
> The picture quality of TFT-LCDs may degrade if the optimum resolution is not selected.

Changing the Resolution on Windows XP

Go to **Control Panel** → **Display** → **Settings**, and change the resolution.
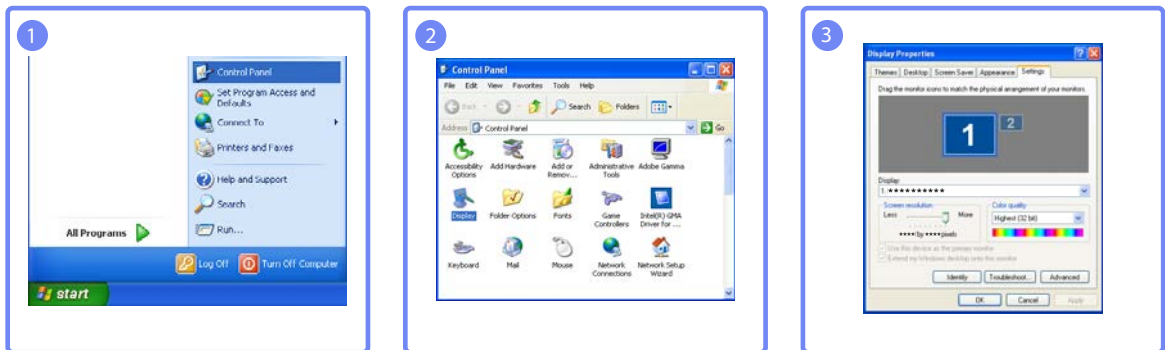
Changing the Resolution on Windows Vista

Go to **Control Panel** → **Personal Settings** → **Display Settings**, and change the resolution.

Connecting and Using a Source Device
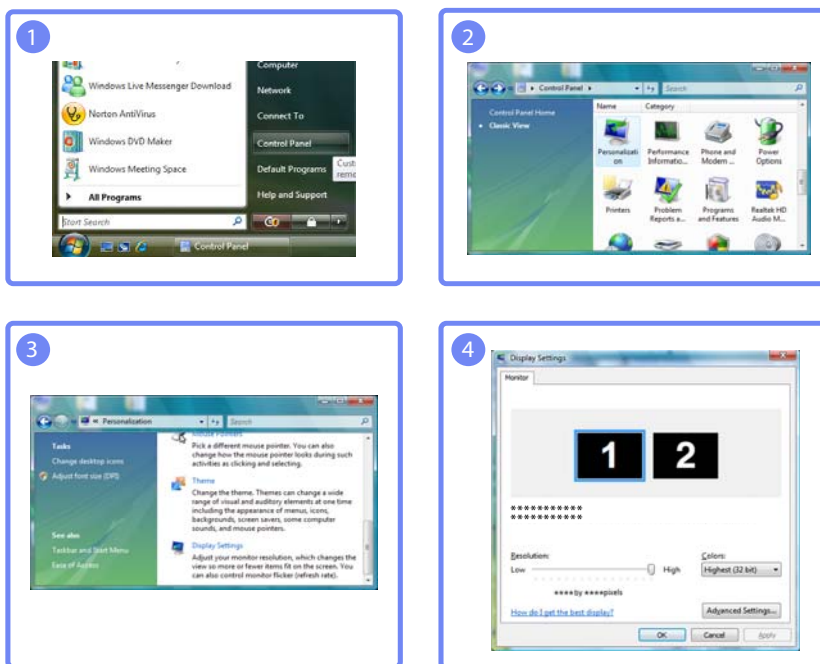
Changing the Resolution on Windows 7

Go to **Control Panel** → **Display** → **Screen Resolution**, and change the resolution.
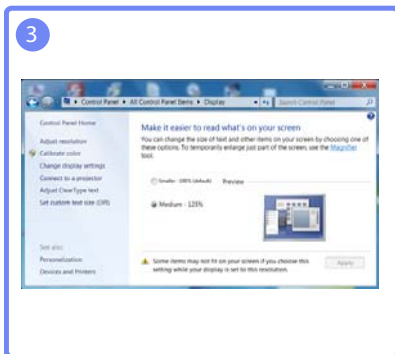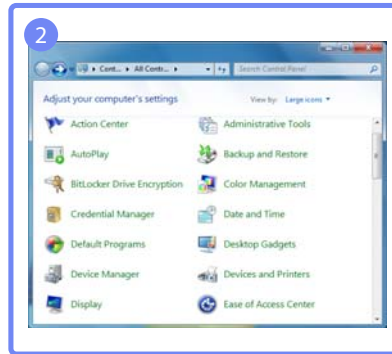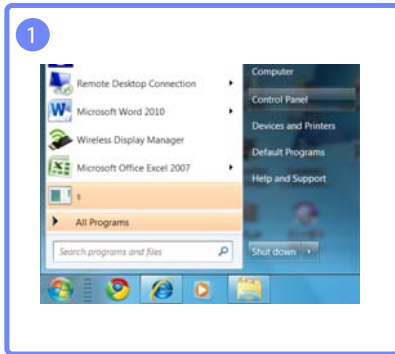
2.3   Connecting an External Monitor
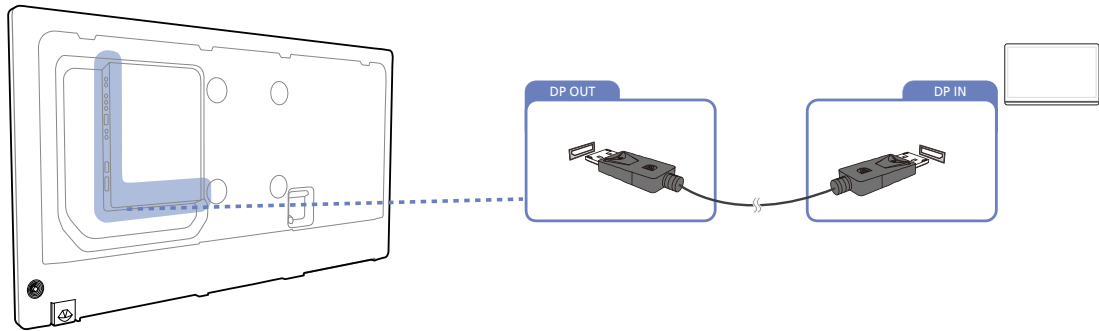
DP OUT   DP IN

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

Connecting and Using a Source Device

2.4   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.
  - □   After connecting a source device, press the **SOURCE** button on the remote control and select the connected source device.

2.4.1   Connection Using the AV Cable
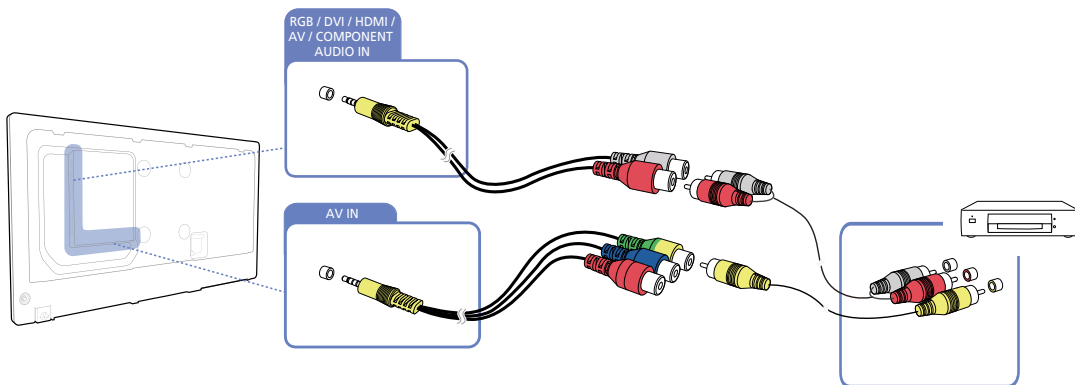
2.4.2   Connection Using the Component Cable

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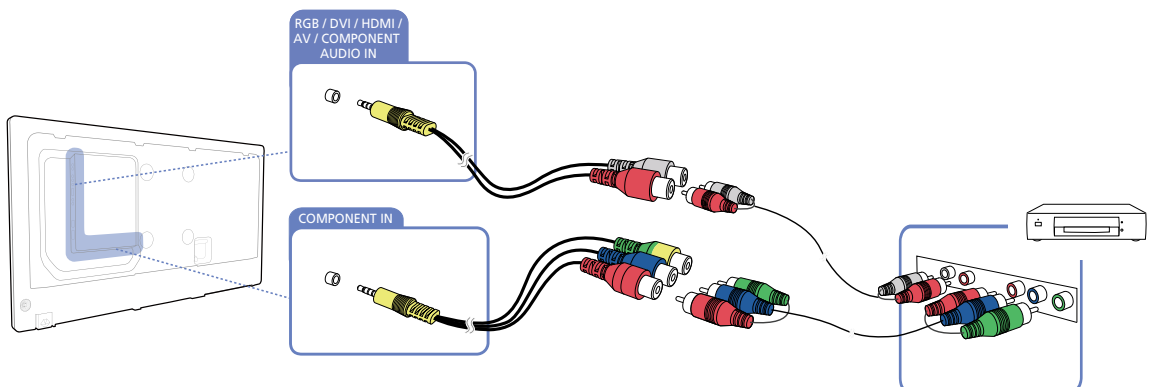
2.4.3 Connection Using an HDMI-DVI Cable
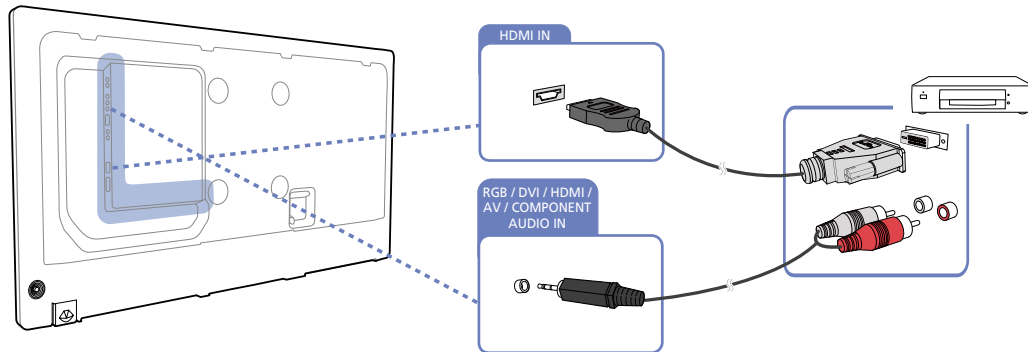
> * Audio will not be enabled if the product is connected to a video device using an HDMI-DVI cable. To resolve this, additionally connect an audio cable to the audio ports on the product and video device. When you connect a video device to the product using an HDMI-DVI cable, set **Edit Name** to **DVI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

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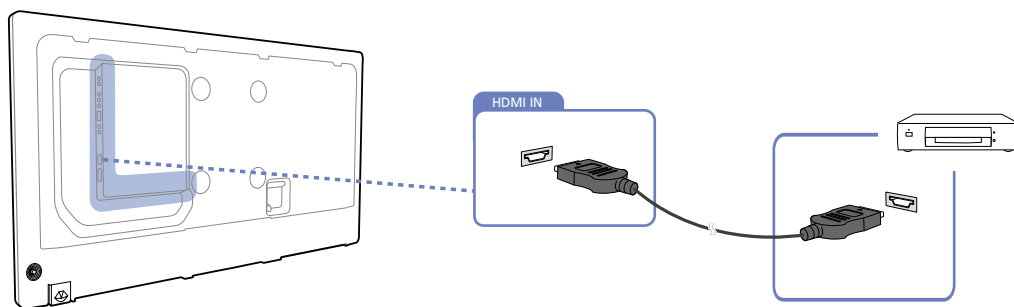
Using an HDMI cable or HDMI to DVI Cable (up to 1080p)

* 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.

Connecting and Using a Source Device

- Be sure to use an HDMI cable with a thickness of 14 mm or less.
- Be sure to purchase a certified HDMI cable. Otherwise, the picture may not display or a connection error may occur.
- A basic high-speed HDMI cable or one with ethernet is recommended. This product does not support the ethernet function via HDMI.

2.4.5 Connecting to an Audio System

2 Connecting and Using a Source Device
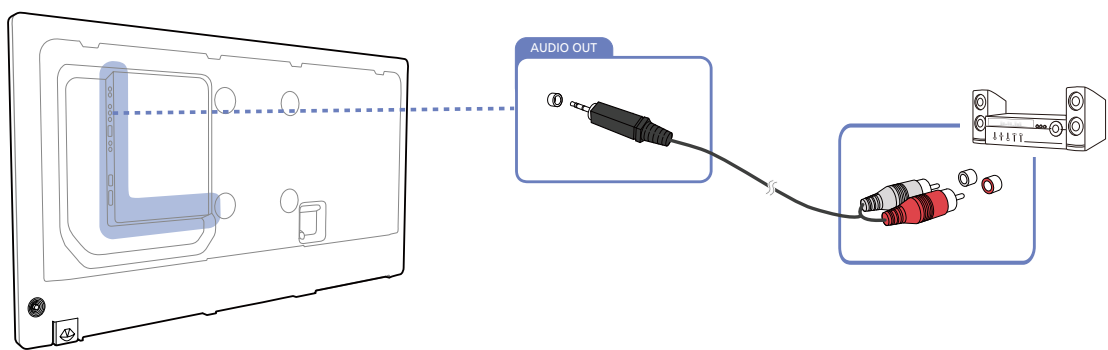
2.5 Connecting the network box (Sold separately)

2.5.1 MagicInfo

To use **MagicInfo**, a network box (sold separately) must be connected to the product.

> For details on how to connect to a network box, refer to the user's manual provided with the network box upon purchase.

> - To change the MagicInfo settings, run "MagicinfoSetupWizard" on the desktop.
> - For details on how to use **MagicInfo**, refer to the DVD provided with the network box.
> - The information in this section is subject to change without notice for quality improvement.
> - If a problem occurs after installing an operating system other than the one provided with the network box, restoring the previous version of the operating system, or installing software that is not compatible with the operating system provided, you will not be able to benefit from technical support and will be charged a fee for a visit from a service technician. A product exchange or refund will also not be available.

Entering MagicInfo mode

1 After installing and connecting the network box (sold separately) to the product, power on the product.

2 Press **SOURCE** on the remote control, and select **MagicInfo**.

> Connecting the network box to the [HDMI IN] port on the product will change **Source** from **HDMI** to **MagicInfo**.

Connecting and Using a Source Device

3 Select the default application you want to run when MagicInfo starts.

```
MagicInfo Setup Wizard - v.1.12                              ✕

            Select Application - step 1

         □  MagicInfo Pro (LAN, WAN based version)

         □  MagicInfo-i Premium (Web-based version)

         □  Select Later



   < Back(B)      Next(N) >      Finish        Cancel
```
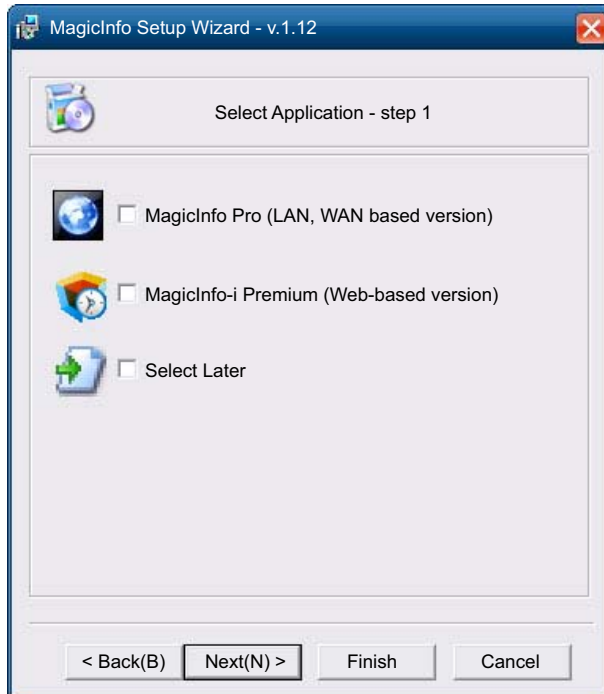
4 Enter the IP information.

```
MagicInfo Setup Wizard - v.1.12                              ✕

            Select TCP/IP - step 2

   □  Obtain an IP address automatically
   ☑  Use the following IP address:

   IP address:              192 . 168 .  0  . 102

   Subnet mask:             255 . 255 . 255 .  0

   Default gateway:         192 . 168 .  0  .  1


   □  Obtain DNS server address automatically
   ☑  Use the following DNS server address:

   Preferred DNS server:        10 . 44 . 33 . 22

   Alternate DNS server:        10 . 33 . 22 . 11


   < Back(B)      Next(N) >      Finish        Cancel
```

Connecting and Using a Source Device

5 Select a language. (The default language is English.)

MagicInfo Setup Wizard - v.1.12

Select Language -step 3

Select the language you want to install on the system for menus and dialogs.

Current Language : Engilsh

☐ Chinese [Traditional]
☐ German
☐ English
☐ French
☐ Italian
☐ Japanese
☐ **Korean**
☐ Russian
☐ Swedish
☐ Turkish
☐ Chinese [Simplified]
☐ Portuguese

| < Back(B) | Next(N) > | Finish | Cancel |

6 Select a display mode.

MagicInfo Setup Wizard - v.1.12

Select Screen Type - step 4

☑ Landscape

☐ Portrait

| < Back(B) | Next(N) > | Finish | Cancel |

7 Double-check the settings you have just configured.

```
┌─────────────────────────────────────────────────┐
│  MagicInfo Setup Wizard - v.1.12              ✕  │
├─────────────────────────────────────────────────┤
│                                                 │
│    ┌──┐              Setup Information           │
│    └──┘                                          │
│   ┌──────────────────────────────────────────┐  │
│   │ 1. Application :   MagicInfo Pro [LAN,WAN │  │
│   │                    based version\         │  │
│   │ 2. Internet Protocol [TCP/IP]             │  │
│   │       IP :    192.168.0.102               │  │
│   │ 3. Language :   English                   │  │
│   │ 4. Screen Type :   Landscape              │  │
│   │                                           │  │
│   └──────────────────────────────────────────┘  │
│                                                 │
│   ☑ Do not show again                           │
│                                                 │
│   < Back(B)    Apply      Finish     Cancel     │
└─────────────────────────────────────────────────┘
```
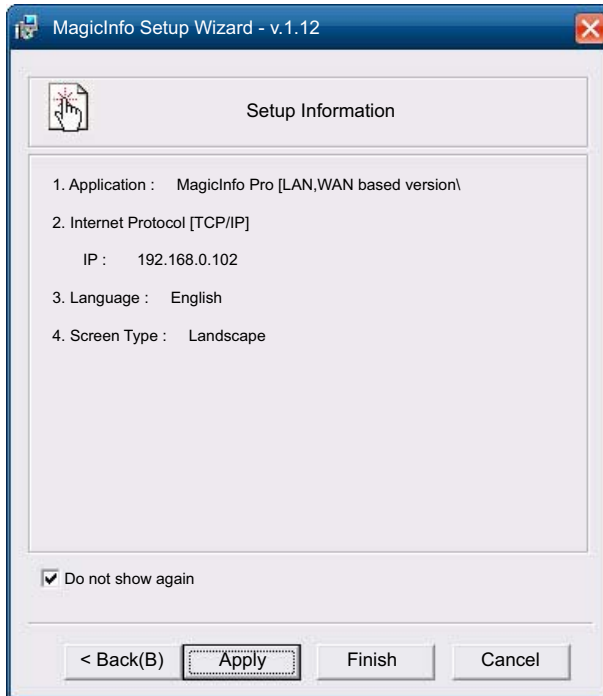
 If the execution icon does not appear, double-click the **MagicInfo** icon on the desktop. The icon will appear at the bottom right of the screen.

2 Connecting and Using a Source Device

2.6 Changing the Input source

2.6.1 Source

⌨ MENU [▥] → **Support** → **Contents Home** → **Source** → ENTER [⏎]

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

Source

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.
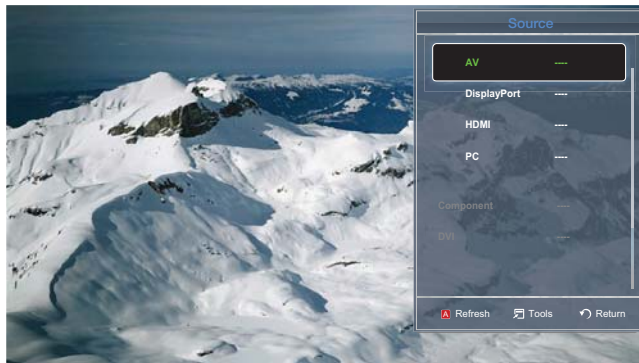
The displayed image may differ depending on the model.

🖎 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.

3 Using MDC

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

3.1   Configuring Settings for Multi Control

MENU [□] → **System** → **Multi Control** → **ENTER** [↵]

Assign an individual ID to your product.

3.1.1   Configuring settings for Multi Control

- **ID Setup**

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

  Press ▲ or ▼ to select a number, and press [↵].

- **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.

- **MDC Connection**

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

  □ **RS232C MDC**

    Communicate with MDC via the RS232C-stereo cable.

  □ **RJ45 MDC**

    Communicate with MDC via the RJ45 cable.

- **DisplayPort Daisy Chain**

  To display the [DP IN] video input through the [DP OUT] output port, select a device connection method from Single Stream Transport (SST) and Multi Stream Transport (MST).

  □ **Clone**: In this Single Stream Transport (SST) output mode, the same screen output is displayed on two display devices connected.

    - If **Clone** is selected, the PC recognizes the two displays as a single monitor.
    - **Clone** mode is enabled if the input source is a digital input other than **DisplayPort**, such as **DVI**, **HDMI**, **MagicInfo**, or PIM.

  □ **Expand**: In this Multi Stream Transport (MST) mode, a different screen output is displayed on two display devices connected.

    - If **Expand** is selected, the PC recognizes the two displays as separate monitors.
    - The mode functions only on a PC that supports DisplayPort 1.2 MST.
    - For Full HD resolution (1920x1080) displays, a maximum of four displays can be connected.

3 Using MDC

3.2 MDC Program Installation/Uninstallation

3.2.1 Installation

1 Insert the installation CD into the CD-ROM drive.

2 Click the **MDC Unified** installation program.

> If a software installation window is not displayed on the main screen, install with the **MDC Unified** execution file in the MDC folder on the CD.

3 Select a language for installation. Next, click "OK".

4 When the "Welcome to the InstallShield Wizard for MDC_Unified" screen appears, click "Next".

5 In the "License Agreement" window displayed, select "I accept the terms in the license agreement" and click "Next".

6 In the displayed "Customer Information" window, fill out all the information fields and click "Next".

7 In the displayed "Destination Folder" window, select the directory path you want to install the program in and click "Next".

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

8 In the displayed "Ready to Install the Program" window, check the directory path to install the program in and click "Install".

9 Installation progress will be displayed.

10 Click "Finish" in the displayed "InstallShield Wizard Complete" window.

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

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

> - The MDC execution icon may not be displayed depending on the PC system or product specifications.
> - Press F5 if the execution icon is not displayed.

3.2.2 Uninstallation

1 Select **Settings** > **Control Panel** on the **Start** menu and double-click **Add/Delete Program**.

2 Select **MDC Unified** from the list and click **Change/Remove**.

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

Using MDC

3.3   What is MDC?

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

3.3.1   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.

RS232C IN / OUT
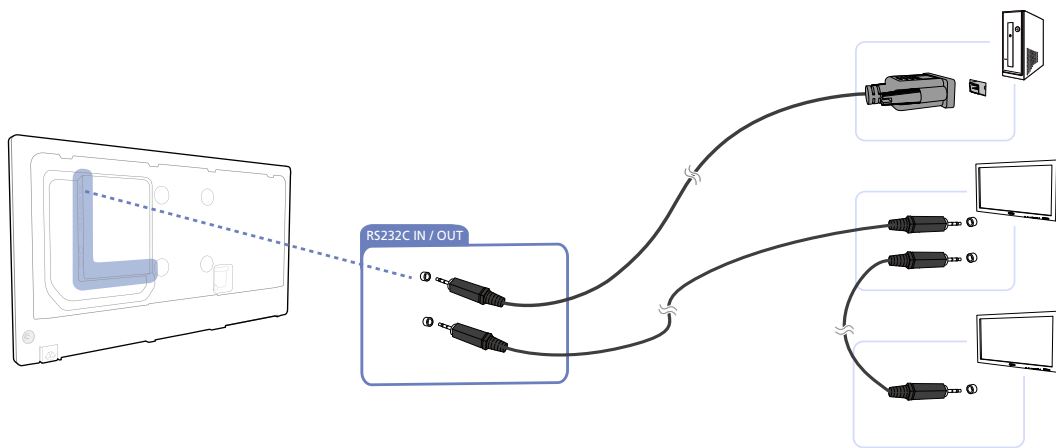
3 **Using MDC**

Using MDC via Ethernet

Enter the IP for the primary display device and connect the device to the PC. One display device can connect to another using an RS-232C serial cable.

Connection using a direct LAN cable
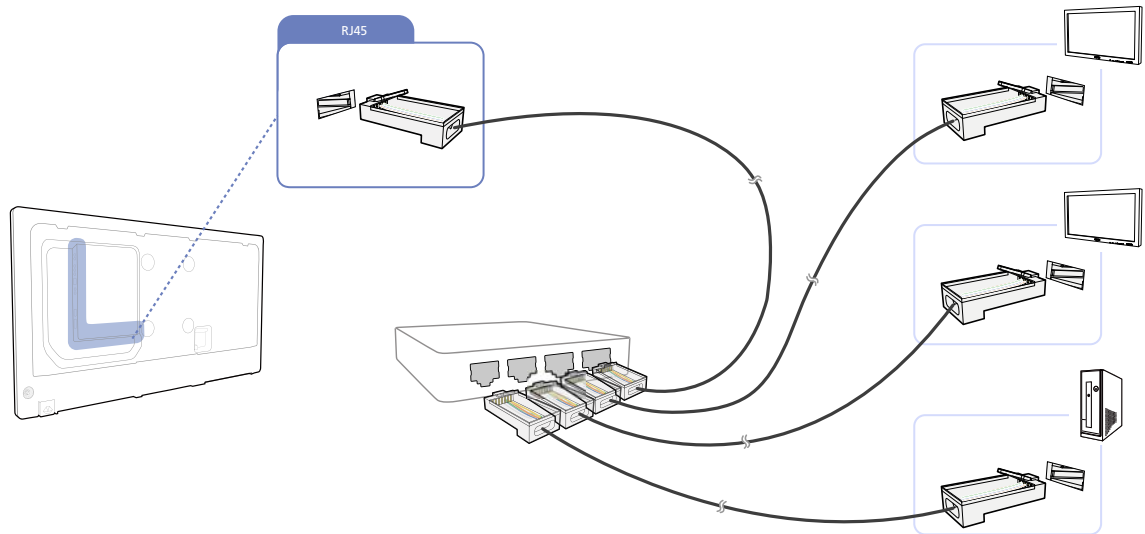
 Multiple products can be connected using the [RJ45] port on the product and the LAN ports on the HUB.

Connection using a cross LAN cable
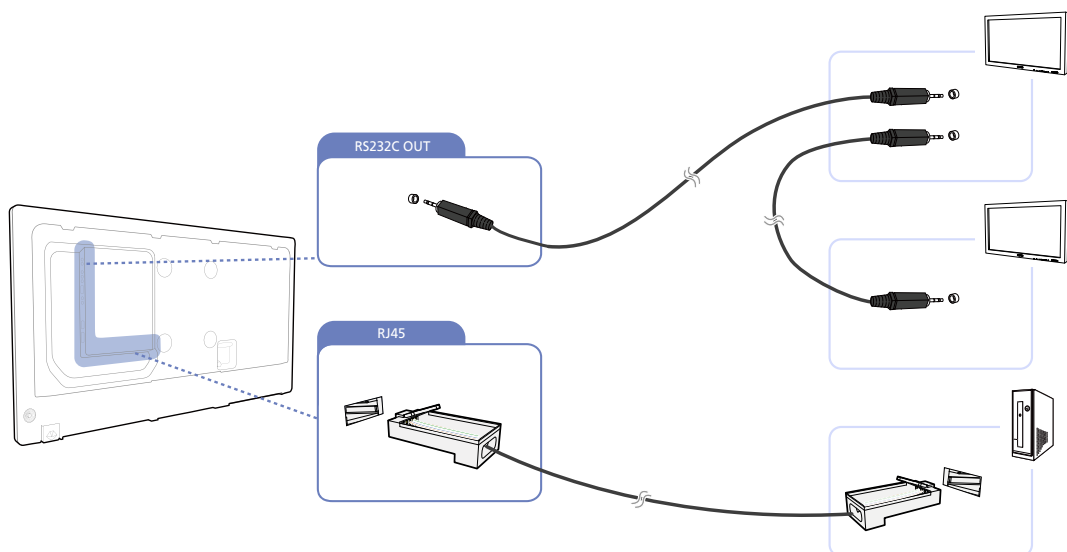
 Multiple products can be connected using the [RS232C IN / OUT] port on the product.

Using MDC

3.3.2   Connection Management

Connection management includes the **Connection list** and **Connection list modification options**.

Connection list - Connection list shows the details of the connections such as connection setting (IP/ COM, Port No, MAC, and **Connection Type**), connection status, **Set ID Range**, and detected devices. Each connection can contain a maximum of 100 devices connected in serial daisy-chain fashion. All the LFDs detected in a connection are displayed in the Device list, where the user can make groups and send commands to detected devices.

Connection list modification options - Connection modification options includes **Add**, **Edit**, **Delete**, and **Refresh**.
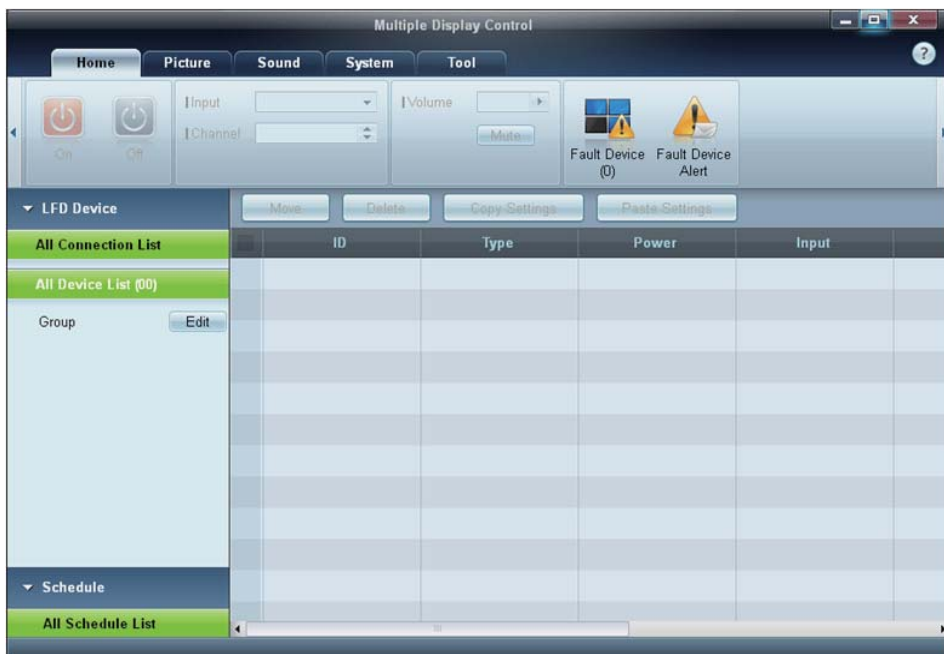
3.3.3   Auto Set ID

Auto Set ID feature assigns a Set ID for all the LFDs connected in daisy-chain of a selected connection. There can be a maximum of 100 LFDs in a connection. The Set ID is assigned sequentially in the daisy-chain running from 1 to 99, and then finally to Set ID 0.

Using MDC
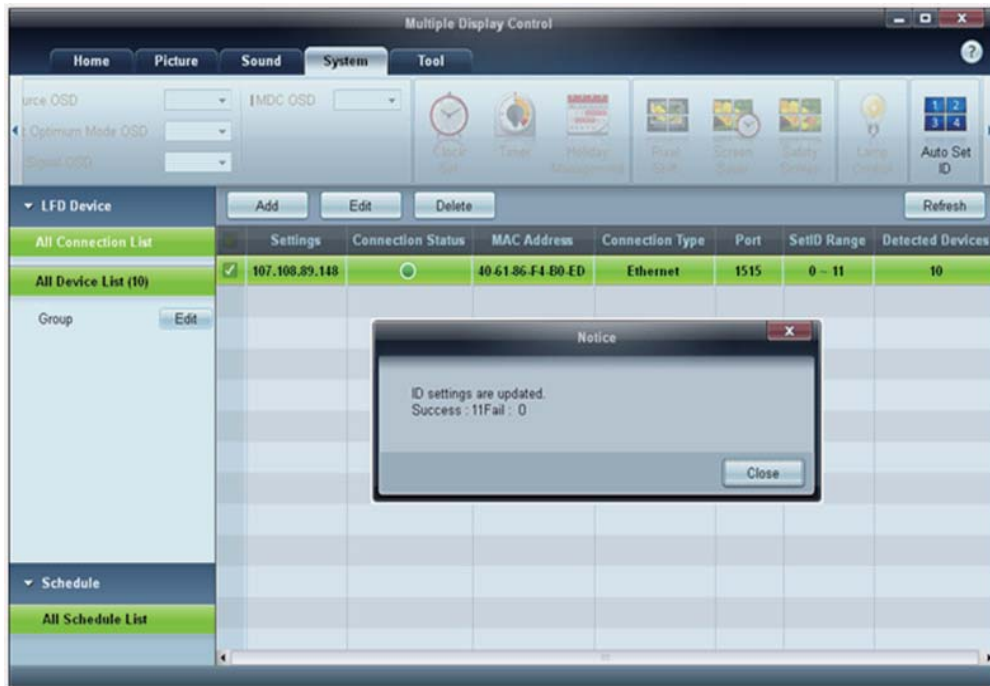
3.3.4   Cloning

Using the Cloning feature, you can copy the setting of one LFD and apply it to multiple selected LFDs. You can select specific tab categories or all tab categories for cloning, using the copy setting option window.

Using MDC
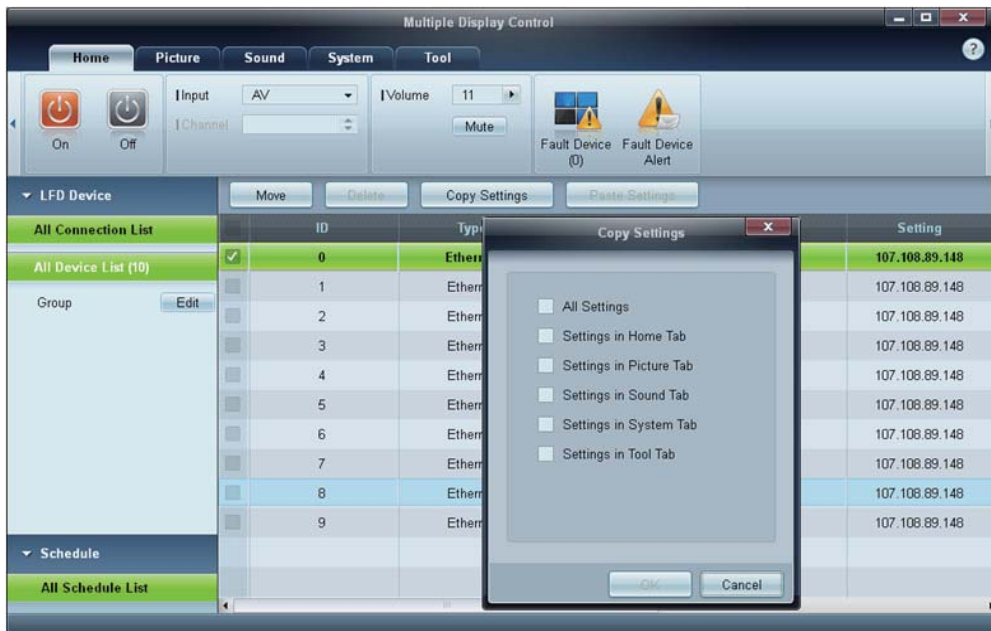
3.3.5   Command Retry

This feature is used to specify the maximum number of times the MDC command will be retried in case of there being no reply or a corrupted reply from an LFD. The retry count value can be set using the MDC options window. The retry count value must be between 1-10. The default value is 1.
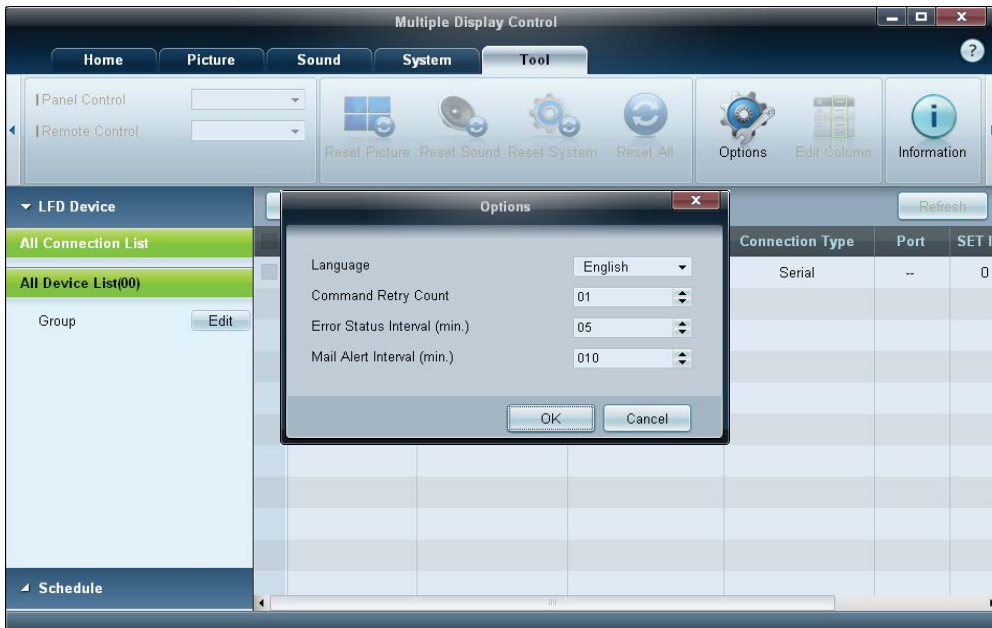
3.3.6 Getting Started with MDC

1 To start the program, click **Start** → **Programs** → **Samsung** → **MDC Unified**.
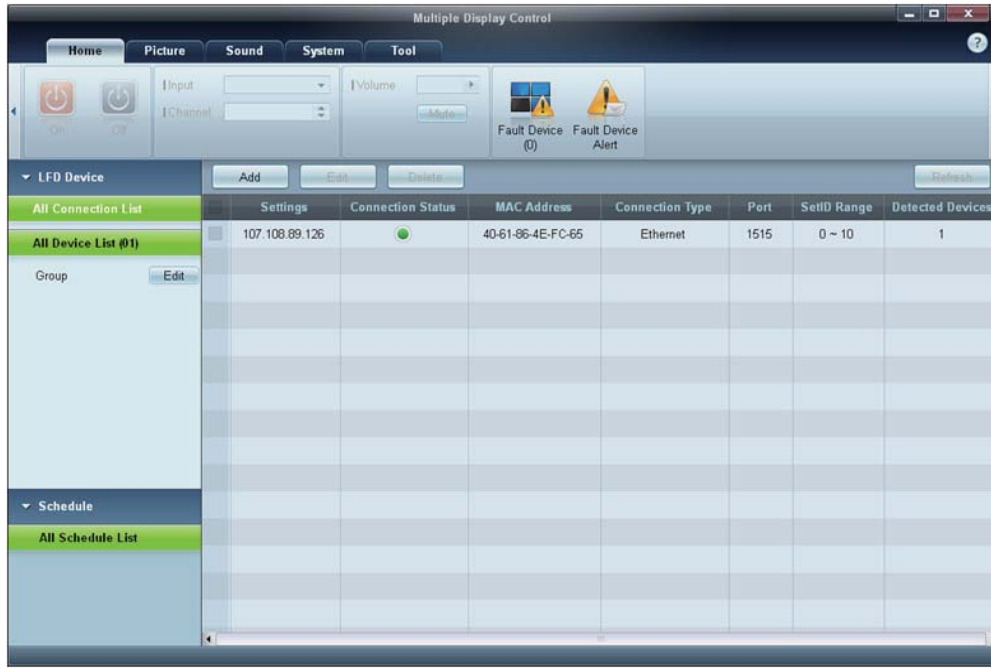
2 Click **Add** to add a display device.

- If the connection is established via RS232C, go to **Serial** and specify the **COM Port**.

Using MDC
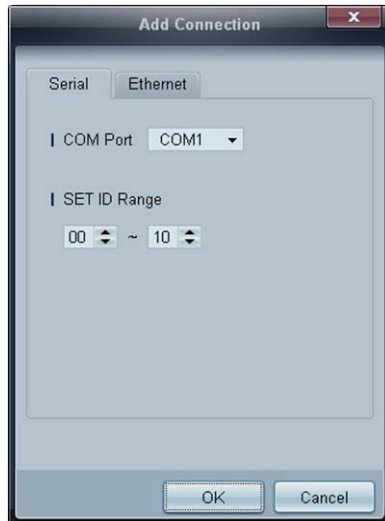
- If the connection is established via **Ethernet**, enter the IP that was entered for the display device.

Using MDC
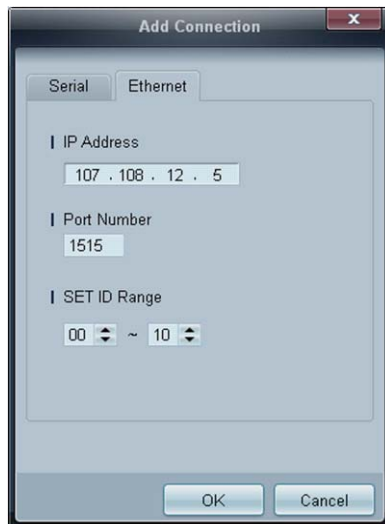
3.3.7   Main Screen Layout
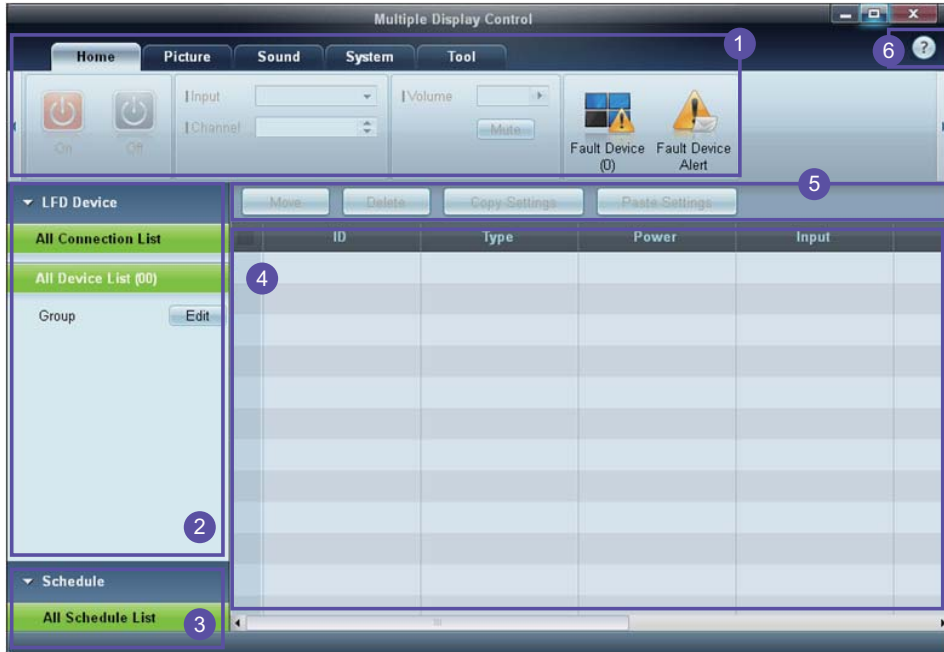
① Menu Bar	Change the status of a display device or the properties of the program.
② Device Category	View a list of connected display devices or device groups.
③ Schedule Category	View a list of schedules for display devices.
④ Set List	Select the display device you want to adjust.
⑤ Modify the Set List	Add, edit, regroup or delete sets.
⑥ Help Topics	Display help topics for the program.

Using MDC

3.3.8   Menus

You can power on or off a selected device or change the input source or volume of the device.

Choose display devices from the list of sets, and select the **Home** tab.

❶ Home

Select an item and change the corresponding setting.

Power

- **On**: Power on a selected display.
- **Off**: Power off a selected display.

Input

- Input Source : Change the input source.

  > ❑ Input sources available can vary depending on the Display Device Models.
  > ❑ The input source can be changed only for displays that are turned on.

- **Channel** : Change the channel.

  > ❑ The TV channel can be changed by using the up/down arrow keys.
  > ❑ The channel can be changed only when the input source is **TV**.
  > ❑ Only registered channels can be selected.

❷ Volume

> The volume can be changed or the sound can be muted only for displays that are turned on.

Volume
❑ The volume can be adjusted using the slider bar in the range of 0 to 100.

Adjust the volume of a selected display.

Mute
❑ Enable or disable **Mute** for a selected display.

Mute will automatically be disabled if **Volume** is adjusted when **Mute** is on.

3   Using MDC

3 Alert

- **Fault Device**
  - □ This menu shows a list of display devices which have following errors - fan error, temperature error, brightness sensor error, or lamp error.

    Select a display device from the list. The **Repair** button will be enabled. Click the refresh button to refresh the error status of the display device. The recovered display device will disappear from the **Fault Device List**.

- **Fault Device Alert**
  - □ Display device in which error is detected will be reported by email.

    Fill in all required fields. The **Test** and **OK** buttons will be enabled. Ensure the **Sender** information and at least one **Recipient** are entered.

Using MDC

3.3.9 Screen Adjustment

The screen settings (contrast, brightness, etc.) can be adjusted.

Choose display devices from the list of sets, and select the **Picture** tab.

Custom

Select an item and change the corresponding screen setting.

Picture Mode Dyn... ▼	**Color** 0 ▶	**Red** ▶	**Dynamic Contrast** Off ▼
Contrast 0 ▶	**Tint (G/R)** 100/0 ▶	**Green** ▶	**Gamma Control** 0 (Natural) ▼
Brightness 0 ▶		**Blue** ▶	

> ● **Color** and **Tint** are not available if the input source is **PC**.
> ● **Red**, **Green**, **Blue** and **PC Screen Adjustment** are not available if the input source is **Video**.
> ● **Color**, **Tint**, **Color Tone**, **Color Temp**, **Red**, **Green**, **Blue** and **PC Screen Adjustment** are not available if both **PC Source** and **Video Source** are selected.

Picture Mode

● Adjust the picture mode for the selected display device.

Contrast

● Adjust the contrast for the selected display device.

Brightness

● Adjust the brightness for the selected display device.

Color

● Adjust the colors for the selected display device.

Tint (G/R)

● Adjust the tint for the selected display device.

Color Tone

● Adjust the background color tone for the selected display device.

Color Temp

● Adjust the color temperature for the selected display device.

> This option is enabled if **Color Tone** is set to **Off**.

Red

● Customize the intensity of red color for the selected display device.

Using MDC

Green

- Customize the intensity of green color for the selected display device.

Blue

- Customize the intensity of blue color for the selected display device.

Options

Dynamic Contrast

Adjust the **Dynamic Contrast** for the selected display device.

Gamma Control

Change the gamma value for the selected display.

Auto Motion Plus

This option is used to view dynamic images.

- **Off**: Disable the **Auto Motion Plus** function.
- **Clear**: Set the level of **Auto Motion Plus** to clear. This mode is suitable to display vivid images.
- **Standard**: Set the level of **Auto Motion Plus** to standard.
- **Smooth**: Set the level of **Auto Motion Plus** to smooth. This mode is suitable to display smooth images.
- **Custom**: Customize the level of screen burn-in or flickering.
- **Demo**: This function demonstrates the technology of **Auto Motion Plus**. The result when the mode is changed can be previewed on the left side of the window.

  > **Auto Motion Plus** may not be available depending on the product.

Brightness Sensor

Enable or disable the **Brightness Sensor** for the selected display device.

The **Brightness Sensor** detects the ambient light intensity and automatically adjusts the screen brightness.

> **Brightness Sensor** may not be available depending on the product.

Using MDC

HDMI Black Level

Adjust the **HDMI Black Level** for the selected display device.

Size

Picture Size

Adjust the screen size for the selected display device.

The **Detail** item will be disabled if **Picture Size** is set to a mode that does not support detailed configuration.

The -/+ buttons can be used to adjust **Zoom**.

The screen can be relocated using the up/down/left/right buttons.

Detail

You can view details of the selected screen size.

PC Screen Adjustment

Frequency adjustment or fine-tuning is available by using the -/+ buttons in **Coarse** or **Fine**.

To relocate the screen, click one of the four images below **Position**.

To automatically adjust the frequency, fine-tune or relocate the screen, click **Auto Adjustment**.

3 Using MDC

3.3.10   Sound Adjustment

You can change the sound settings.

Choose display devices from the list of sets, and select the **Sound** tab.

   The **Bass** or **Treble** item will be disabled if the item is not supported by the selected set.

Bass

Adjust the bass for the selected display.

Treble

Adjust the treble for the selected display.

Balance(L/R)

Adjust the volume of the left and right speakers of the selected display device.

SRS TS XT

Enable or disable the **SRS TS XT** effect for the selected display device.

3.3.11 System Setup

Choose display devices from the list of sets, and select the **System** tab.

Video Wall

The **Video Wall** function can be used to display part of a whole picture or repeat the same picture on each of connected multiple display devices.

> ✎ **Video Wall** is enabled only when devices are in the group.

Video Wall

Enable or disable **Video Wall**.

Format

Select the format to display the split screen.

Full   Natural

Using MDC
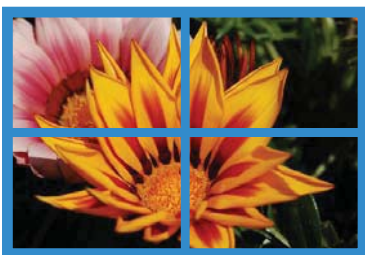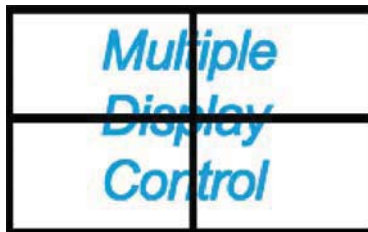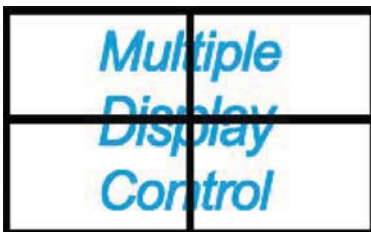
H

Select the number of horizontal display devices.

A maximum of 15 displays can be arranged in a row.

  A maximum of 6 can be assigned to V if 15 is assigned to H.

V

Select the number of vertical display devices.

A maximum of 15 displays can be arranged in a row.

  A maximum of 6 can be assigned to V if 15 is assigned to H.

Screen Position

View the layout of displays (configured by the screen divider) or change the layout as required.

Screen Position and **Preview** are enabled when **Video Wall** is set to on.

Note that if multiple sets are selected, **Preview** is enabled only if the settings for H and V match the layout of the selected sets.

To change the **Position**, select a set and drag it to a new position.

  The range of screen divider settings may differ depending on the model.

Using MDC

PIP

Basic information required to adjust **PIP** will appear in the menu screen.

- **PIP** will be disabled when **Video Wall** is **ON**.
- Note that **Picture Size** is disabled when **PIP** is **ON**.

Home	Picture	Sound	System	Tool

			Channel	
PIP Size	Large			
PIP Source	PC			
Sound Select	Sub			

PIP Size

View the **PIP Size** of the current display.

PIP Source

Select a PIP input source.

Sound Select

Select and enable the sound from either the primary screen or secondary screen.

Channel

The channel can be changed if **PIP Source** is **TV**.

3   Using MDC

General

User Auto Color

Automatically adjust the screen colors.

>   Available only in **PC** mode.

Auto Power

Set the product to automatically power on.

Standby Control

Set the standby mode to activate if an input source is not detected.

Fan & Temperature

Configure the settings required to detect the fan speed and internal temperature for the product's protection.

Fan Control

Select a method to configure the fan speed.

Fan Speed

Configure the fan speed.

Temperature

Detect the internal temperature by specifying the range of temperature.

Using MDC

Security

Safety Lock

Lock the on-screen menus.

> To unlock the menus, set **Safety Lock** to **Off**.

Button Lock

Lock the buttons on the display device.

> To unlock the buttons, set **Button Lock** to **Off**.

OSD Display

Source OSD

Select whether to display a message when the **Source** is changed.

Not Optimum Mode OSD

Select whether to display a message when a non-compatible mode is selected.

No Signal OSD

Select whether to display a message when there is no input signal.

MDC OSD

Select whether to display a message when settings are changed by the MDC.

3 Using MDC

Time

Clock Set

Change the current time on the selected display device according to the time set on a PC.

If the time is not set on the display device, null values will be displayed.

Timer
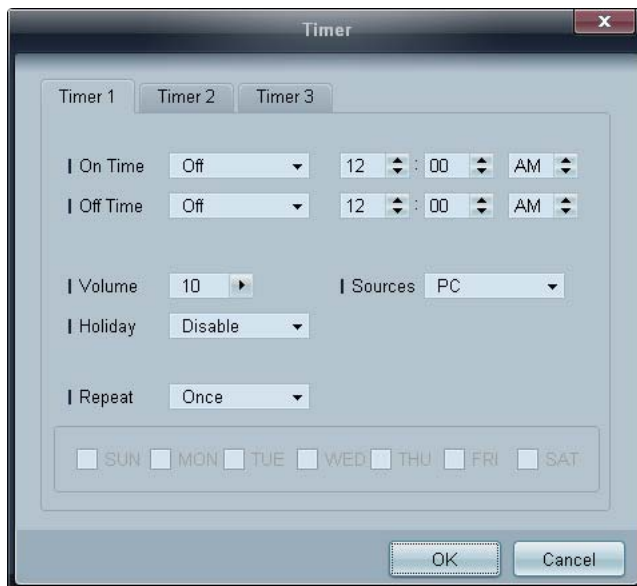
- **On Time**: Set the time to power on the selected display device.
- **Off Time**: Set the time to power off the selected display device.
- **Volume**: Specify the volume of the display device when it is powered on by **On Time**.
- **Source**: Specify the input source of the display device when it is powered on by **On Time**.
- **Holiday**: The **Holiday Management** settings can be applied to the **Timer**.
- **Repeat**: Specify the period for which you want to repeat the selected **Timer**.

3   Using MDC

❑   **Once**: Activate the timer only one time.

❑   **EveryDay**: Activate the timer every day.

❑   **Mon~Fri**: Activate the timer from Monday through Friday.

❑   **Mon~Sat**: Activate the timer from Monday through Saturday.

❑   **Sat~Sun**: Activate the timer on Saturdays and Sundays.

❑   **Manual**: Customize days of the week.

>   The checkboxes to select days of the week below **Repeat** are enabled only if **Manual** is selected.

Holiday Management

Holiday Management allows you to prevent devices that are set to be powered on by the **Timer** from turning on at a specified date.

>   The **Holiday Management** function can be enabled or disabled in the **Timer** settings menu.
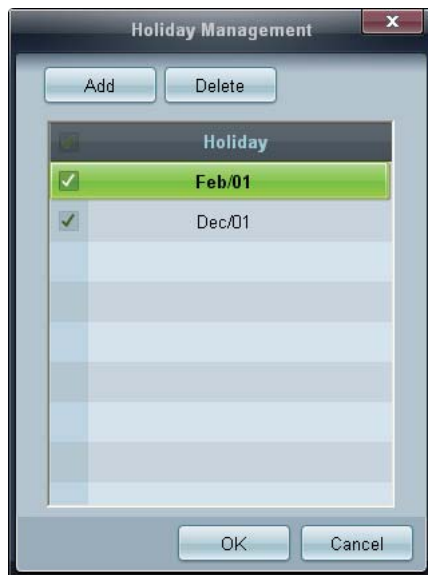
- **Add**: You can specify holidays:

    Click the **Add** button in the **Holiday Management** window.
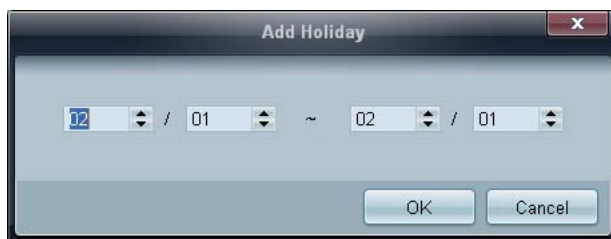
- **Delete**: Delete holidays. check the corresponding checkboxes and click this button.

- List of holidays: View a list of holidays you have added.

Using MDC

Screen Burn Protection
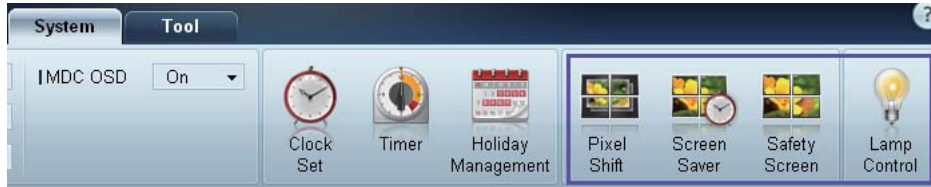
Pixel Shift

Move the screen slightly at specified time intervals to prevent screen burn-in.

Screen Saver

This function prevents screen burn-in when the screen of the selected display device is left idle for an extended period of time.

- **Interval**: Set the interval to activate the **Screen Saver**.
- **Mode**: The **Time** setting can vary for each **Mode**.

Using MDC

Safety Screen

The **Safety Screen** function can be used to prevent screen burn-in when a stationary image displays on the screen of a display device for an extended period of time.

Lamp Control

Lamp Control is used to adjust the backlight to reduce power consumption.
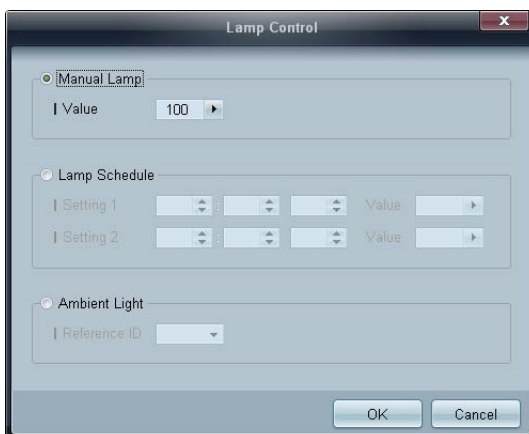
Automatically adjust the backlight of the selected display device at a specified time.

If **Manual Lamp Control** is adjusted, **Auto Lamp Control** will automatically switch to **Off**.

Manually adjust the backlight for the selected display.

If **Auto Lamp Control** is adjusted, **Manual Lamp Control** will automatically switch to **Off**.

 Ambient Light: **Ambient Light** detects ambient light intensity and automatically adjusts the screen brightness of all the LFDs in the same serial chain.

Using MDC

3.3.12   Tool Settings

❶ Security

Panel Control

Turn on or off the screen of a display device.

Remote Control

Enable or disable the remote control.

❷ Reset

Reset Picture

Reset the screen settings.

Reset Sound

Reset the sound settings.

Reset System

Reset the system settings.

Reset All

Reset the screen, sound and system settings at the same time.

(**Language**, **Security**, **Time**, **Multi Control** and **Anynet+** will not be initialized.)

Using MDC

3 Edit Column

Options
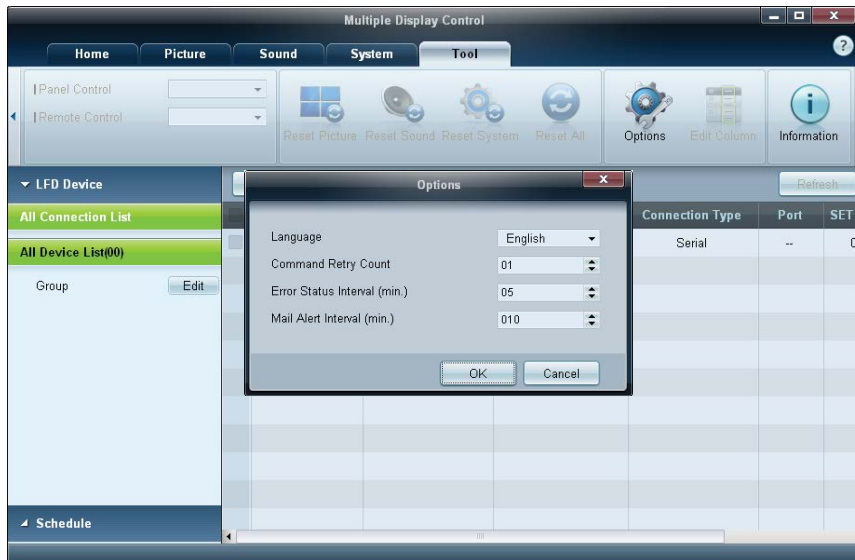
Language: Select a language to use in the MDC program. After selecting a language, restart the MDC program to use the selected language.

Command Retry Count: Specify the number of retry attempts when a command fails.

Error Status Interval: Specify the time interval to query the display device in order to check if "**Fault Device**" has occurred.

Mail Alert Interval: Specify the time interval for email notifications in the event when "**Fault Device**" occurs.

Using MDC

Edit Column
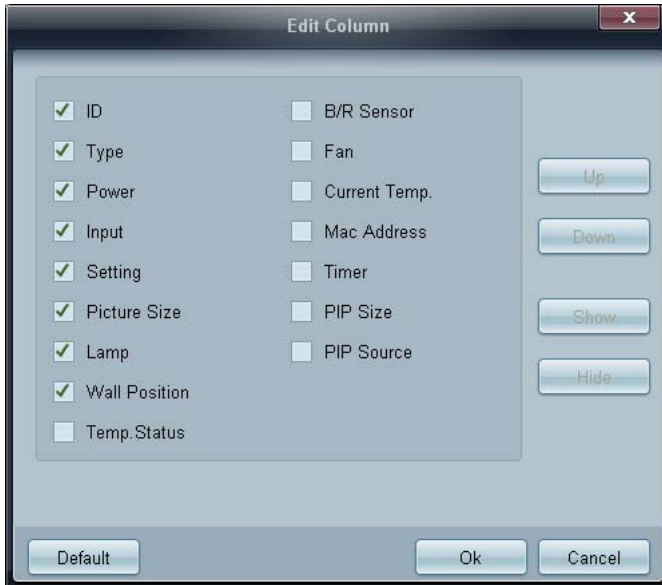
Select the items you want to display in the list of sets.

4 Information

View the program information.

Using MDC

3.3.13   Other Functions

Resizing a Window

Place the mouse pointer on a corner of the program window. An arrow will appear. Move the arrow to customize the size of the program window.

Using MDC
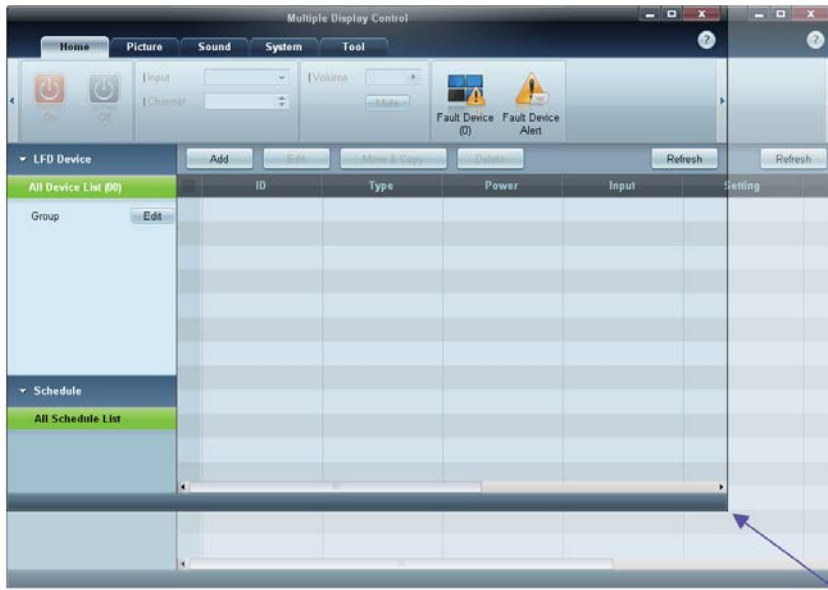
Group Management

Creating Groups
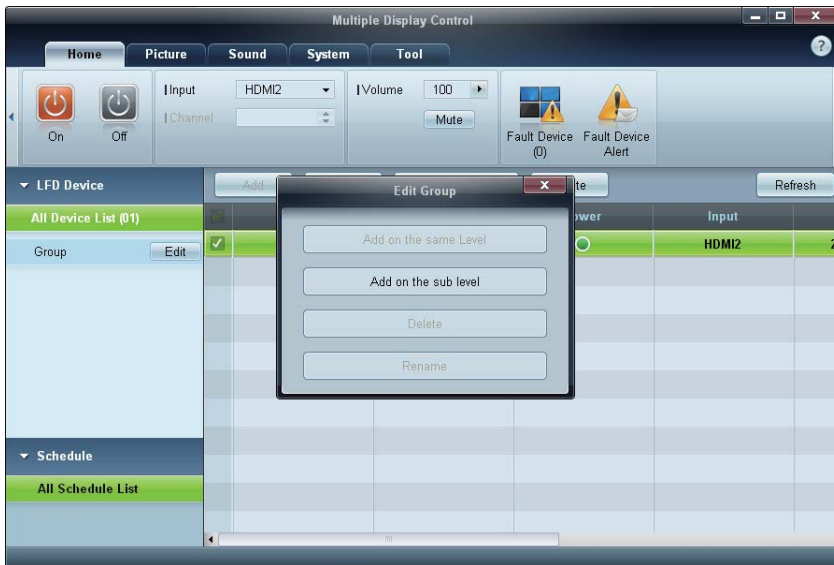
Create groups and manage the list of sets on a group basis.

> 📝 Duplicate group names cannot be used.

1 Right-click and select **Group** → **Edit** in the display device list section on the left side of the program window.

2 In the **Edit Group** window displayed, click **Add on the same level** or **Add on the sub level**.

- **Add on the same level**: Create a group on the same level as the selected group.

> 📝 The **Add on the same level** button is enabled only if at least one group is created.

Using MDC

- **Add on the sub level**: Create a sub-group under the selected group.

3 Enter the group name.

Deleting Groups

1 Select a group name, and click **Edit**.

2 In the **Edit Group** window displayed, click **Delete**.

3 Click **Yes**. The group will be deleted.

Renaming Groups

1 Select a group name, and click **Edit**.

2 In the **Edit Group** window displayed, click **Rename**.
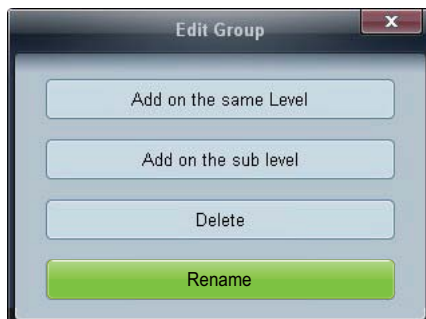
3 If a cursor appears in the old group name, enter a new group name.

Using MDC

Schedule Management

Creating Schedules

Create and register a schedule on a group basis.

1 Click **All Schedule List** in the schedule section on the left side of the program window. The **Add** button will be enabled in the middle.
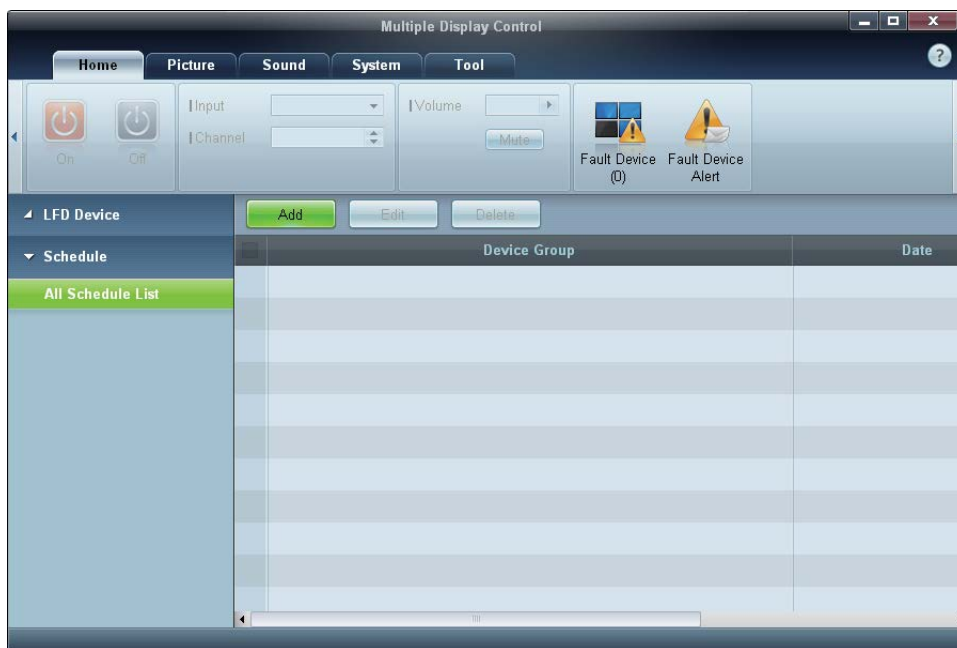
2 Click the **Add** button. The **Add Schedule** window will appear.

Using MDC
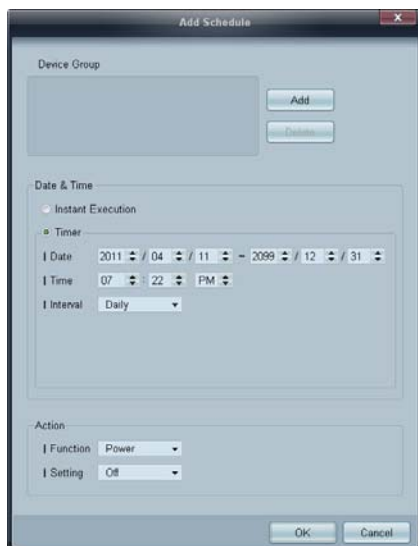
3 Click **Add** below the **Device Group** item, and select the group you want to add a schedule to.

4 Select **Date&Time/Action** and click **OK**. The schedule will be added and a list of schedules will
appear in the set list window.

- **Device Group**: Select a group.
- **Date&Time**
  □ **Instant Execution**: Run the schedule immediately.
  □ **Timer**: Set the date, time and interval to run the schedule.
- **Action**: Select a function that will activate at the specified time and interval.

Schedule Modification

To modify a schedule, select the schedule and click **Edit**.

Deleting a Schedule

To delete a schedule, select the schedule and click **Delete**.

3.3.14 Troubleshooting Guide

Issue		Solution
The display you want to control does not appear on the system information chart.	1.	Check the connection of the RS232C cable (check that the cable is properly connected to appropriate serial port).
	2.	Check that another display with a duplicate **ID** is not connected. Connecting displays with a duplicate **ID** can cause the displays not to be shown due to data collision.
	3.	Check that the display **ID** is within the range of 0 and 99. (Change the ID using the Display menu.) For a display that supports the ID in a range of 0 to 99, the **ID** should be set between 0 and 99.
The display you want to control does not appear on the other Control Info Grids.		Check that the display is powered on. (See the power status in the system information chart.)
		Ensure you select the input source the display is connected to.
The following message appears repeatedly. 		Check that the display you want to control is selected.
Displays power on or off at different time from one another even though **On Time** or **Off Time** is set.		Adjust the time on the PC to synchronize the time between the connected displays.
The remote control does not work.		The remote control may not work if the RS-232C cable is removed or the program is closed abnormally while the **Remote Control** function is **Disable**. To resolve this, run the program again and set **Remote Control** to **Enable**.

 This program may malfunction sometimes due to a communication problem between the PC and display or electromagnetic waves emitted from nearby electronic devices.

3 Using MDC

How display properties are shown when multiple displays are used

1 When no display is selected: The default value is displayed.

2 When one display is selected: Settings for the selected display are displayed.

3 When two displays are selected (e.g. in sequence of **ID** 1 and **ID** 3): The settings for **ID** 1 are displayed before the settings for **ID** 3.

4 When the **All**+**Select** checkbox is checked and all displays are selected: The default settings are displayed.

4 Screen Adjustment

Configure the **Picture** settings (**Brightness**, **Colo(u)r Tone**, etc.).

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

4.1 Picture Mode

⬚ MENU [▥] → **Picture** → **Picture Mode** → **ENTER** [↵]

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.

Picture	
Picture Mode	Information
· Backlight	100
· Contrast	95
· Brightness	45
· Sharpness	50
· Colour	50
· Tint (G/R)	G 50 R 50
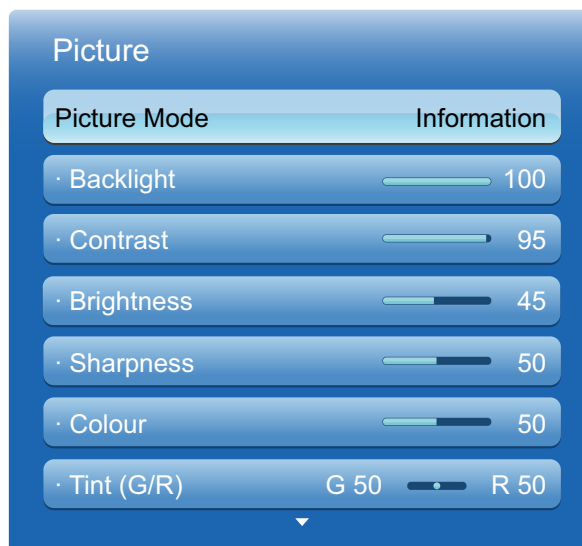
The displayed image may differ depending on the model.

4.1.1 If the input source is PC, DVI or DisplayPort

- **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.
- **Calibration**: In this mode, the brightness, color, gamma and uniformity settings customized using the color calibration program **Advanced Color Management** are applied.

> - To apply the **Calibration** mode properly, make sure you configure the picture quality settings, such as brightness, color, gamma and uniformity, using the color calibration program **Advanced Color Management**.
> - To download the **Advanced Color Management** program, visit www.samsunglfd.com.

4 Screen Adjustment

4.1.2   If the input source is AV, Component, HDMI

- **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.

4.2   Backlight / Contrast / Brightness / Sharpness / Colo(u)r / Tint (G/R)

MENU [▥] → **Picture** → **ENTER** [↵]

Your product has several options for adjusting picture quality. Select an option using the ▲ and ▼ arrow keys, and then press [↵]. Use the arrow keys to adjust the option value or select an option setting. When done, press [↵].

Input source	Picture Mode	Adjustable options
PC, **DVI**, **DisplayPort**, **HDMI** (when a PC is connected)	**Information**	**Backlight** / **Contrast** / **Brightness** / **Sharpness**
	Advertisement	**Backlight** / **Contrast** / **Brightness** / **Sharpness** / **Colo(u)r**
	Calibration	**Backlight**
AV, **Component**, **HDMI**	**Dynamic**, **Standard**, **Natural**, **Movie**	**Backlight** / **Contrast** / **Brightness** / **Sharpness** / **Colo(u)r** / **Tint (G/R)**

- When you make changes to **Backlight**, **Contrast**, **Brightness**, **Sharpness**, **Colo(u)r** or **Tint (G/R)**, the OSD will be adjusted accordingly.
- You can adjust and store settings for each external device connected to the product.
- Lowering picture brightness reduces power consumption.

4 Screen Adjustment

4.3 Screen Adjustment

MENU [⊞] → **Picture** → **Screen Adjustment** → **ENTER** [↵]

Screen Adjustment provides various picture size and aspect ratio options. Select an option using the ▲ and ▼ arrow keys, and the press [↵]. Use the arrow keys to select an option in the sub-menu, and then press [↵].

Different **Screen Adjustment** options are displayed depending on the current input source.

Screen Adjustment	
Picture Size	Custom
· Zoom/Position	
PC Screen Adjustment	
Resolution Select	Off
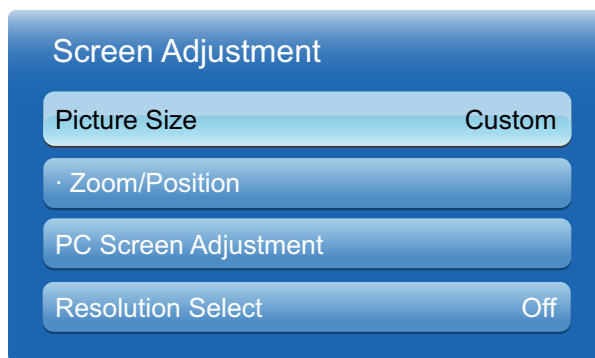
The displayed image may differ depending on the model.

4.3.1 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.
  - □ The picture size can vary depending on the input resolution when you play content from **Videos** in **Media**.

- **Smart View 2**: Reduces the 16:9 picture by 25%.

  - □ **Smart View 2** is enabled only in **HDMI** mode.
  - □ The picture size can vary depending on the input resolution when you play content from **Videos** in **Media**.

- **Wide Fit**: Enlarges the aspect ratio of the picture to fit the entire screen.
- **4:3**: Sets the picture to basic (4:3) mode.

Screen Adjustment

> 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), or **DisplayPort**, the video will display in the original aspect ratio.

  > Available ports may differ depending on the model. (page 29)

> 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.

Input Source	Picture Size
AV, **Component** (480i, 480p)	**16:9**, **Zoom1**, **Zoom2**, **4:3**, **Custom**
Component (1080i, 1080p)	**16:9**, **Wide Fit**, **4:3**, **Screen Fit**, **Custom**
HDMI (720p, 1080i, 1080p)	**16:9**, **Smart View 1**, **Smart View 2**, **Wide Fit**, **4:3**, **Screen Fit**, **Custom**
PC, **DVI**, **DisplayPort**, **HDMI**(when a PC is connected)	**16:9**, **4:3**, **Original Ratio**

4.3.2   Zoom/Position

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

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

1 Press the ▼ button to select **Position**.

2 Press the [ ] button.

3 Press the ▲ or ▼ button to move the picture up or down.

4 Press the [ ] button.

5 Select **Close** by pressing the ▲ and ▼ buttons sequentially. To reset the picture position, press **Reset**.

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

4 Screen Adjustment

1 Press the ▼ button to select **Zoom/Position**.

2 Select the **Zoom** or **Position**.

3 Press the [⏎] button.

4 Press the ▲/▼/◀/▶ button to move the picture.

5 Press the [⏎] button.

6 Select **Close** by pressing the ▲ and ▼ buttons sequentially.

> 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.

4.3.3   PC Screen Adjustment

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 center of screen.

Position: To adjust the PC's screen position if it is not centered 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.

> This option is available when the input source is **PC**.

4.3.4   Resolution Select

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** / **1024 x 768** / **1280 x 768** / **1360 x 768** / **1366 x 768**

> This option is available when the input source is **PC**.

4.4   Auto Adjustment

MENU [▥] → **Picture** → **Auto Adjustment** → **ENTER** [⏎]

Adjust frequency values/positions and fine tune the settings automatically.

> This option is available when the input source is **PC**.

4 Screen Adjustment

4.5 Advanced Settings

[⌒] MENU [▥] → **Picture** → **Advanced Settings** → **ENTER** [↵]

To use, select an option using the up and down arrow keys, and then press [↵]. Use the arrow keys to change the value or setting, and then press [↵].
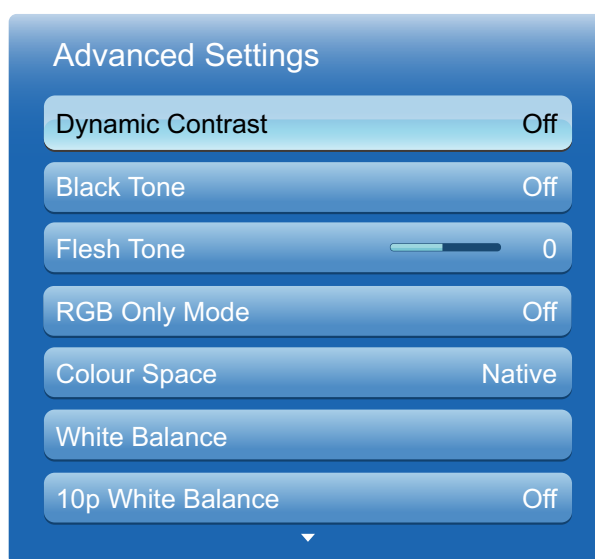
Advanced Settings	
Dynamic Contrast	Off
Black Tone	Off
Flesh Tone	0
RGB Only Mode	Off
Colour Space	Native
White Balance	
10p White Balance	Off

The displayed image may differ depending on the model.

Input Source	Picture Mode	Advanced Settings
PC, **DVI**, **DisplayPort**, **HDMI** (when a PC is connected)	**Information**, **Calibration**	**White Balance** / **Gamma**
	Advertisement	**Dynamic Contrast** / **Black Tone** / **Flesh Tone** / **Colo(u)r Space** / **White Balance** / **Gamma**
AV, **Component**, **HDMI**	**Natural**, **Dynamic**	Not available
AV	**Standard**	**Dynamic Contrast** / **Black Tone** / **Flesh Tone** / **RGB Only Mode** / **Colo(u)r Space** / **White Balance** / **Gamma** / **Motion Lighting**
	Movie	**Dynamic Contrast** / **Black Tone** / **Flesh Tone** / **RGB Only Mode** / **Colo(u)r Space** / **White Balance** / **10p White Balance** / **Gamma**

Screen Adjustment

Input Source	Picture Mode	Advanced Settings
Component, HDMI	Standard	Dynamic Contrast / Black Tone / Flesh Tone / RGB Only Mode / Colo(u)r Space / White Balance / Gamma / Expert Pattern / Motion Lighting
	Movie	Dynamic Contrast / Black Tone / Flesh Tone / RGB Only Mode / Colo(u)r Space / White Balance / 10p White Balance / Gamma / Expert Pattern

4.5.1   Dynamic Contrast

Adjust the screen contrast.

- Off / Low / Medium / High

4.5.2   Black Tone

Select the black level to adjust the screen depth.

- Off / Dark / Darker / Darkest

4.5.3   Flesh Tone

Emphasize pink Flesh Tone.

4.5.4   RGB Only Mode

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

- Off / Red / Green / Blue

4.5.5   Colo(u)r Space

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

- Auto / Native / Custom

  To adjust Colo(u)r, Red, Green, Blue and Reset, set Colo(u)r Space to Custom.

4.5.6   White Balance

Adjust the color temperature for a more natural picture.

- R-Offset / G-Offset / B-Offset: Adjust each color's (red, green, blue) darkness.
- R-Gain / G-Gain / B-Gain: Adjust each color's (red, green, blue) brightness.

- **Reset**: Resets the **White Balance** to its default settings.

4.5.7 10p White Balance (Off / On)

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

- **Interval**: Select interval to adjust.
- **Red**: Adjust the red level.
- **Green**: Adjust the green level.
- **Blue**: Adjust the blue level.
- **Reset**: Resets the **10p White Balance** to its default settings.

> - Available when the **Picture Mode** is set to **Movie** and when the external input is set to all input.
> - Some external devices may not support this function.

4.5.8 Gamma

Adjust the primary color intensity.

4.5.9 Expert Pattern

Use the **Expert Pattern** function to calibrate the picture. If the OSD menu disappears or a menu other than the Picture menu is opened, the product saves the calibration and the **Expert Pattern** screen disappears.

- **Off**

  Turns the **Expert Pattern** function off.

- **Pattern1**

  This test screen demonstrates the effect of the display settings on shades of grey and black.

- **Pattern2**

  This test screen demonstrates the effect of the display settings on colors.

> - After selecting **Pattern1** or **Pattern2**, you can adjust any of the advanced settings for desired effect.
> - While the **Expert Pattern** is running, sound is not outputted.
> - Only enabled on **Component**, **HDMI** modes.

4.5.10 Motion Lighting (Off / On)

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

Screen Adjustment

4.6 Picture Options

MENU [⫲] → **Picture** → **Picture Options** → ENTER [↵]

Select an option using the ▲ and ▼ arrow keys, and the press [↵]. Use the arrow keys to change the setting, and then press [↵].
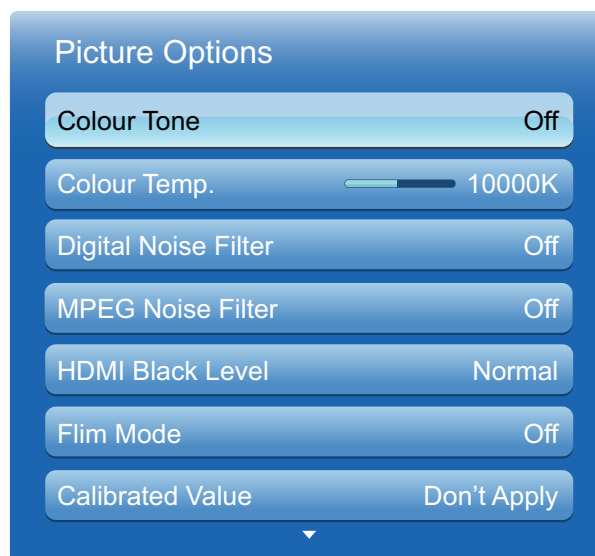
Picture Options	
Colour Tone	Off
Colour Temp.	10000K
Digital Noise Filter	Off
MPEG Noise Filter	Off
HDMI Black Level	Normal
Flim Mode	Off
Calibrated Value	Don't Apply

The displayed image may differ depending on the model.

Input source	Picture Mode	Picture Options
PC, **DVI**	**Information**	**Colo(u)r Tone** / **Colo(u)r Temp** / **Calibrated Value** / **Dynamic Backlight**
	Advertisement	**Colo(u)r Tone** / **Colo(u)r Temp** / **Digital Noise Filter** / **MPEG Noise Filter** / **Calibrated Value** / **Dynamic Backlight**
	Calibration	**Dynamic Backlight**
HDMI (when a PC is connected)	**Information**	**Colo(u)r Tone** / **Colo(u)r Temp** / **HDMI Black Level** / **Dynamic Backlight**
	Advertisement	**Colo(u)r Tone** / **Colo(u)r Temp** / **Digital Noise Filter** / **MPEG Noise Filter** / **HDMI Black Level** / **Dynamic Backlight**
	Calibration	**HDMI Black Level** / **Dynamic Backlight**

Screen Adjustment

Input source	Picture Mode	Picture Options
DisplayPort	Information	Colo(u)r Tone / Colo(u)r Temp / Dynamic Backlight
	Advertisement	Colo(u)r Tone / Colo(u)r Temp / Digital Noise Filter / MPEG Noise Filter / Dynamic Backlight
	Calibration	Dynamic Backlight
HDMI	Dynamic, Natural, Movie, Standard	Colo(u)r Tone / Colo(u)r Temp / Digital Noise Filter / MPEG Noise Filter / HDMI Black Level / Dynamic Backlight
AV, Component, HDMI(1080i)	Dynamic, Natural, Movie, Standard	Colo(u)r Tone / Colo(u)r Temp / Digital Noise Filter / MPEG Noise Filter / Film Mode / Dynamic Backlight

4.6.1   Colo(u)r Tone

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

- **Off** / **Cool** / **Standard** / **Warm**

If the input source is **AV**, **Component** or **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.

4.6.2   Colo(u)r Temp.

Adjust the color temperature (**Red**/**Green**/**Blue**). (Range: 3000K–15000K)

> This option is available when **Colo(u)r Tone** is set to **Off**.

4.6.3   Digital Noise Filter

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

- **Off** / **Low** / **Medium** / **High** / **Auto**

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

4.6.4   MPEG Noise Filter

Reduces MPEG noise to provide improved picture quality.

- Off / Low / Medium / High / Auto

4.6.5   HDMI Black Level

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

- Normal / Low

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

4.6.6   Film Mode

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 AV, COMPONENT(480i / 1080i) or HDMI(1080i).

4.6.7   Calibrated Value

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

- Don't Apply / Apply

> To download the Advanced Color Management program, visit www.samsunglfd.com.

4.6.8   Dynamic Backlight

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

- Off / On

> The Dynamic Backlight is not available when the input source is set to PC, AV or Component while Video Wall is On.

4.7   Reset Picture

MENU [⊞] → Picture → Reset Picture → ENTER [↵]

Resets your current picture mode to its default settings.

Sound Adjustment

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

5.1 Sound Mode

☞ **MENU** [Ⅲ] → **Sound** → **Sound Mode** → **ENTER** [↵]

Use the up and down arrow keys to select an option, and then press [↵].

Sound	
Sound Mode	Standard
Sound Effect	
Speacker Settings	
Reset Sound	
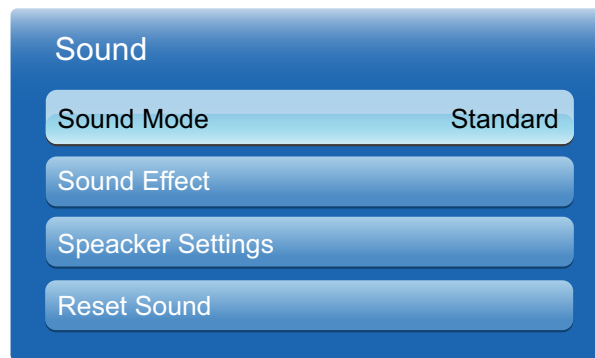
The displayed image may differ depending on the model.

- **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 Adjustment

5.2 Sound Effect

 MENU [□] → **Sound** → **Sound Effect** → **ENTER** [ ]

- If **Speaker Select** is set to **External**, **Sound Effect** is disabled.
- Available only when **Sound Mode** is set to **Standard**.

- **Virtual Surround** (**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.

- **Dialog Clarity** (**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**

  The Equalizer displays a series of sliders. Use the up and down arrow keys to select a slider. Use the left and right arrow keys to change the slider's value. To **Reset** the **Equalizer**, select **Reset** and press [ ], then select **Yes** and press [ ]. To exit, select **Close**, and then press [ ].

  □ **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.

5   Sound Adjustment

5.3   Speaker Settings

◈ MENU [▥] → Sound → Speaker Settings → ENTER [↵]

- **Speaker Select** (**External** / **Internal**)

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

- **Auto Volume** (**Off** / **Normal** / **Night**)

  Normal equalizes the volume level on each channel, so that when you change channels, the volume level is the same.

  Night equalizes and decrease the volume level on each channel, so each channel is quieter. **Night** is useful at night, when you may want to keep the volume low.

  > To use the volume control of a connected source device, set **Auto Volume** to **Off**. A change to the volume control of the connected source device may not be applied if **Auto Volume** is set to **Normal** or **Night**.

5.4   Reset Sound

◈ MENU [▥] → Sound → Reset Sound → ENTER [↵]

Reset all sound settings to the factory defaults. Select **Reset Sound**, press [↵], select **Yes** in the pop-up, and then press [↵] again.

6   Network

6.1   Network Setting

6.1.1   Connecting to a Wired Network

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

- You can attach your product to your LAN by connecting the LAN port on the back of your product to an external modem using a LAN cable. See the diagram below.
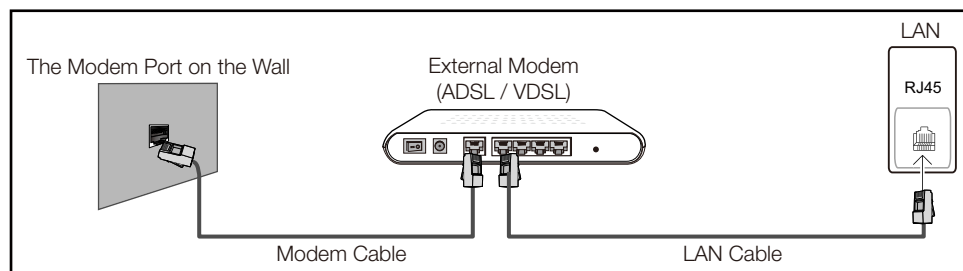
- You can attach your product to your LAN by connecting the LAN port on the back of your product to an IP Sharer which is connected to an external modem. Use LAN cable for the connection. See the diagram below.
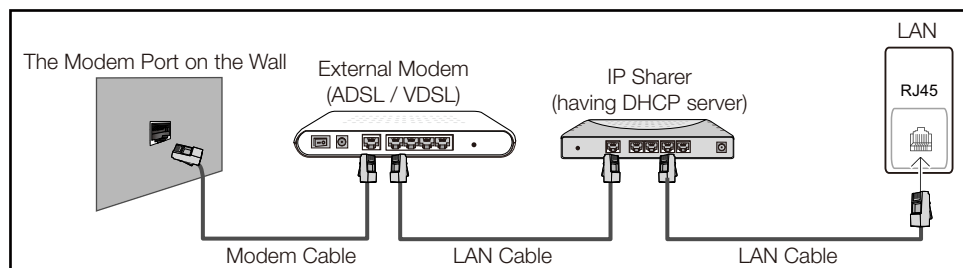
- Depending on how your network is configured, you may be able to attach your product to your LAN by connecting the LAN port on the back of your product directly to a network wall outlet using a LAN cable. See the diagram below. Note that the wall outlet is attached to a modem or router elsewhere in your house.
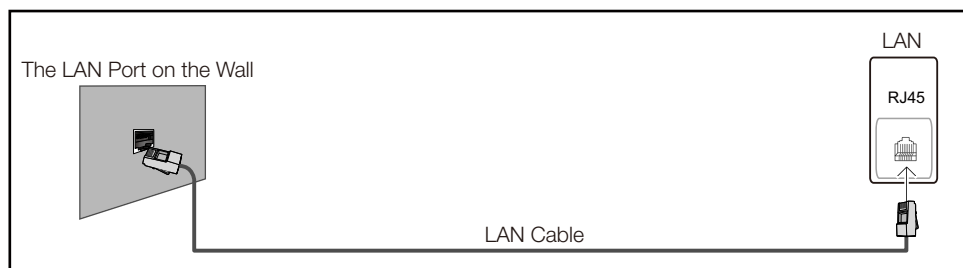
- If you have a Dynamic Network, you should use an ADSL modem or router that supports the Dynamic Host Configuration Protocol (DHCP). Modems and routers that support DHCP automatically provide the IP address, subnet mask, gateway, and DNS values your product needs to

Network

access the Internet so you do not have to enter them manually. Most home networks are Dynamic Networks.

Some networks require a Static IP address. If your network requires a Static IP address, you must enter the IP address, subnet mask, gateway, and DNS values manually on your product Cable Setup Screen when you set up the network connection. To get the IP address, subnet mask, gateway, and DNS values, contact your Internet Service Provider (ISP). If you have a Windows computer, you can also get these values through your computer.

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

6.1.2   Wired Network Settings

MENU [▥] → **Network** → **Network Settings** → ENTER [↵]

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

Network Settings

No network cable or Samsung Wireless LAN Adapter connected.

Please plug in a network cable or a Samsung Wireless LAN Adapter.

Start
Cancel
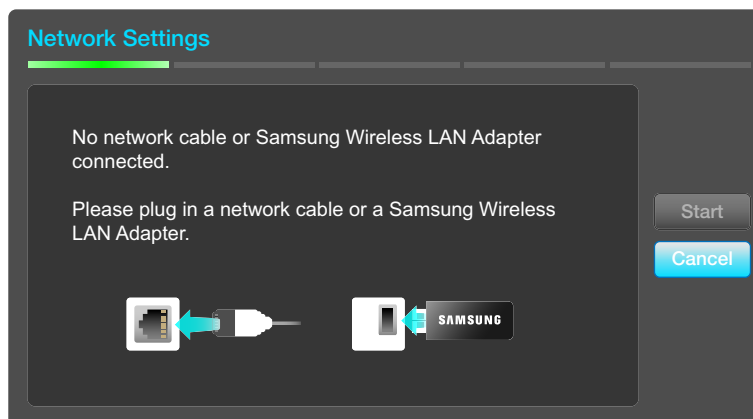
The displayed image may differ depending on the model.

Automatic Network Settings

Use the Automatic **Network Settings** when connecting your product to a network that supports DHCP. To set up your product cable network connection automatically, follow these steps.

How to set up automatically

1 Go to the **Network Settings** screen.

2 Select **Start**, press [ ], and then press [ ] again.

3 The network test screen appears and verifies the network connection. When the connection has been verified, the "**Internet is connected successfully.**" message appears.

> * If the connection process fails, check the LAN port connection.
> * If the automatic process cannot find the network connection values or if you want to set the connection manually, go to the next section, Manual Network Setup.

Manual Network Settings

Use the Manual **Network Settings** when connecting your product to a network that requires a Static IP address.

Getting the Network Connection Values

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

1 Right click the Network icon on the bottom right of the screen.

2 In the pop-up menu that appears, click Status.

3 On the dialog that appears, click the Support tab.

4 On the Support Tab, click the Details button. The Network connection values are displayed.

How to set up manually

To set up your product cable network connection manually, follow these steps.

1 Go to the **Network Settings** screen.

2 Select **Start**, press [ ], and then press [ ] again. The network test screen appears and the verification process starts.

3 Press [ ]. The verification process stops. Select **IP Settings** on network connection screen. The **IP Settings** screen appears.

4 Select the field at the top, press [ ], and then set **IP Settings** to **Enter manually**.

5 Press the ▼ button on your remote to go to the **IP Address** entry field, and then press [ ].

6 Enter the first portion of the **IP Address** (for example, 105) into the first entry field using the number keys on your remote. Press the right arrow button to go to the next field.

7 Enter the next portion of the **IP Address**. Press the right arrow button to go to the next field.

8 Repeat the entry process for each field in the **IP Address**.

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> If you make a mistake when entering a number, re-enter the number to correct it. You can also press the up or down arrow button to change the number one unit at a time.

9 When done entering the **IP Address**, press [ ].

10 Press the down arrow key to go to the **Subnet Mask** fields, and then press [ ].

11 Repeat the same entry process for **Subnet Mask**, **Gateway**, and **DNS Server**.

12 When done, select **OK** at the bottom of the page, and then press [ ]. The network test screen appears and the verification process starts. When the connection has been verified, the "**Internet is connected successfully**." message appears.

6 Network

6.1.3   Connecting to a Wireless Network

To connect your product to your network wireless, you need a wireless router or modem and a Samsung Wireless LAN adapter (WIS10ABGN, WIS12ABGNX) , which you connect to your product back or side panel USB port. See the illustration below.
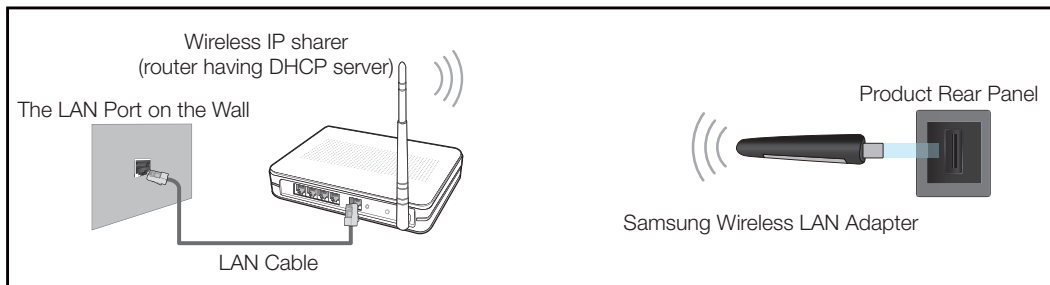
Samsung's Wireless LAN adapter is sold separately and is offered by selected retailers, Ecommerce sites, and Samsungparts.com. Samsung's Wireless LAN adapter supports the IEEE 802.11a/b/g and n communication protocols. Samsung recommends using IEEE 802.11n. When you play video over a network connection, the video may not play smoothly.

- You must use the "Samsung Wireless LAN adapter" (WIS10ABGN, WIS12ABGNX) to use a wireless network.

- The Samsung Wireless LAN Adapter and the USB extension Cable are sold separately and are offered by select retailers, Ecommerce sites, and Samsungparts.com.

- To use a wireless network, your product must be connected to a wireless IP sharer (either a router or a modem). If the wireless IP sharer supports DHCP, your product can use a DHCP or static IP address to connect to the wireless network.

- Select a channel for the wireless IP sharer that is not currently being used. If the channel set for the wireless IP sharer is currently being used by another device nearby, this will result in interference and communication failure.

- Your product supports only the following wireless network security protocols.

  □ Authentication Mode: WEP, WPAPSK, WPA2PSK

  □ Encryption Type: WEP, TKIP, AES.

- If you select the Pure High-throughput (Greenfield) 802.11n mode and the Encryption type is set to WEP, TKIP or TKIP AES (WPS2Mixed) on your AP or wireless router, Samsung TVs will not support a connection in compliance with new Wi-Fi certification specifications.

- If your wireless router supports WPS (Wi-Fi Protected Setup), you can connect to the network via PBC (Push Button Configuration) or PIN (Personal Identification Number). WPS will automatically configure the SSID and WPA key in either mode.

- If your router, modem, or device is not certified, it may not connect to the product via the "Samsung Wireless LAN adapter".

- Ensure the product is turned on before you connect the "Samsung Wireless LAN adapter".

- Connection Methods: You can setup the wireless network connection in three ways.

  □ Auto Setup (Using the Auto Network Search function)

  □ Manual Setup

  □ **WPS (PBC)**

- The product may not recognize the "Samsung Wireless LAN adapter" if you connect it to the product with a USB hub or USB extension cable other than the cable supplied with the product.

6.1.4   Wireless Network Setting

Automatic Network Setup

Most wireless networks have an optional security system that requires devices that access the network to transmit an encrypted security code called an Access or Security Key. The Security Key is based on a Pass Phrase, typically a word or a series of letters and numbers of a specified length you were asked to enter when you set up security for your wireless network. If you use this method of setting up the network connection, and have a Security Key for your wireless network, you will have to enter the Pass Phrase during the the automatic or manual setup process.

How to set up automatically

1 Go to the Network Settings screen.

2 Select Start, press [ ].

3 The Network function searches for available wireless networks. When done, it displays a list of the available networks.

4 In the list of networks, press the ▲ or ▼ button to select a network, and then press the [ ] button twice.

> If the wireless router is set to Hidden (Invisible), you have to select Add Network and enter the correct Network Name (SSID) and Security key to establish the connection.

5 If the Enter security key screen appears, go to step 6. If you select a wireless router that does not have security, go to step 8.

6 If the router has security, enter the Security key (Security key or PIN).

> - When you enter the Security key (Security key or PIN), use ◄/►/▲/▼ buttons on your remote to select number/ characters. Press the [ ] button to enter the characters.
> - You can also enter numbers by pressing the number buttons on your remote.

7 When done, use the right arrow button to move the cursor to Next, and then press [ ].

8 The network connection screen appears and the verification process starts. When the connection has been verified, the "Your wireless network and Internet connection are setup and ready to use." message appears.

> - If the network does not accept the Security key (Security key or PIN), select Retry or select IP Settings to enter the settings manually.
> - If you want to set up the connection manually, select IP Settings. Then, go to the next section, "How to set up manually".

6   Network

Manual Network Setup

Use the Manual **Network Settings** when connecting your product to a network that requires a Static IP address or if the automatic connection process has failed.

Getting the Network Connection Values

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

1   Right click the Network icon on the bottom right of the screen.

2   In the pop-up menu that appears, click Status.

3   On the dialog that appears, click the Support tab.

4   On the Support Tab, click the Details button. The Network connection values are displayed.

How to set up manually

To set up your product cable network connection manually, follow these steps.

1   Go to the **Network Settings** screen.

2   Select **Start**, press [ ].

3   The **Network** function searches for available wireless networks. When done, it displays a list of the available networks.

4   In the list of networks, press the ▲ or ▼ button to select a network, and then press the [ ] button twice.

> If the wireless router is set to Hidden (Invisible), you have to select **Add Network** and enter the correct **Network Name (SSID)** and **Security key** to establish the connection.

5   If the Enter security key screen appears, go to step 6. If you selected an wireless router that does not have security, go to step 8.

6   Enter the **Security key** (**Security key** or **PIN**).

> - When you enter the **Security key** (**Security key** or **PIN**), use the ◄/►/▲/▼ buttons on your remote to select number/characters. Press [ ] to enter the characters.
> - You can also enter numbers by pressing the number buttons on your remote.
> - You should be able to find the Pass Phrase on one of the set up screens you used to set up your router or modem.

7   When done, use the ► button to move the cursor to **Next**, and then press the [ ] button.

8   The network connection screen appears and the verification process starts. Press [ ] to cancel. Select **IP Settings** on the network connection screen. The **IP Settings** screen appears.

9   Select the field on the top, press [ ], and then set **IP Settings** to **Manual**.

10 Press the ▼ button on your remote to go to the **IP Address** entry field, and then press [ ].

11 Enter the first portion of the **IP Address** (for example, 105) into the first entry field using the number keys on your remote. Press the ► button to go to the next field.

12 Enter the next portion of the **IP Address**. Press the ► button to go to the next field.

13 Repeat the entry process for each field in the **IP Address**.

> ✎ If you make a mistake when entering a number, re-enter the number to correct it. You can also press the ▲ or ▼ button to change the number one unit at a time.

14 When done entering the **IP Address**, press [⏎].

15 Press the ▼ button to go to the **Subnet Mask** fields, and then press [⏎].

16 Repeat the same entry process for **Subnet Mask**, **Gateway**, and **DNS Server**.

17 When done, select **OK** at the bottom of the page, and then press [⏎]. The network connection screen appears and the verification process starts. When the connection has been verified, the "**Your wireless network and Internet connection are setup and ready to use.**" message appears.

6.1.5   WPS(PBC)

How to set up using WPS(PBC)

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

1 Go to **Network Setting** screen.

2 Select **Start**, press [⏎], and then press [⏎] again.

3 Press the **WPS(PBC)** button on your router within 2 minutes. Your product automatically acquires all the network setting values it needs and connects to your network.

4 The network connection screen appears, and network setup is done.

6   Network

6.2   Network Status

MENU [▥] → **Network** → **Network Status** → ENTER [↵]

You can check the current network and Internet status.

┌──┐
│   **Network Status**   │
├──┤
│ Your wireless network and Internet connection are setup and ready to use. │
│   MAC Address   00 : 12 : fb : df : 29 : 76 │
│   IP Address   ***.   ***.   ***.   ***. │
│   Subnet Mask   ***.   ***.   ***.   ***. │
│   Gateway   ***.   ***.   ***.   ***. │
│   DNS Server   ***.   ***.   ***.   ***. │
│   │
│ You are connected to the Internet. If you have any problems using online │
│ services, please contact your Internet service provider. │
│   │
│   IP Settings   Retry   Close   │
└──┘
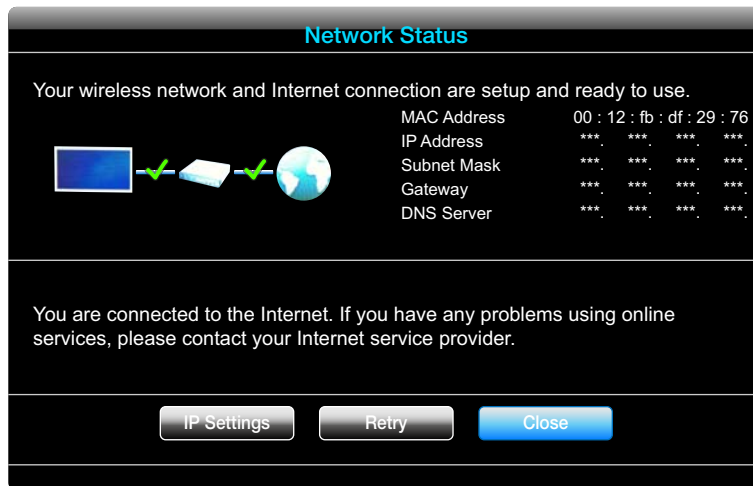
The displayed image may differ depending on the model.

6   Network

6.3   MagicInfo Lite Settings

⟐ MENU [Ⅲ] → **Network** → **MagicInfo Lite Settings** → **ENTER** [↵]

1   **Server**

- **Server** (Setting the MagicInfo Lite Server IP)
  - □ Enter the server IP address and port number. Use 7001 as the port number.

    > ✎   If unable to connect to the server using port number 7001, check with your server administrator to find the correct port number and then change the port number.

- **FTP Mode**
  - □ Select an FTP operating mode: **Active** or **Passive**.

- **Default Storage**
  - □ Specify the default memory to save schedules or content sent from the server to.
  - □ If the default storage space is set to USB, a schedule will not run if a USB device is not connected.
  - □ Send a notification message to the server when internal memory is used up.

2   **Storage**

- **Internal Memory**: Displays the space currently being used or deletes all content.
- **USB**: Displays the space currently being used.

3   **Schedule Name**

- Select a schedule title format when creating a local schedule.
  - □ **YYYYMMDD**, **YYYYDDMM**, **DDMMYYYY**

4   **Information**

- **Device Name**: Displays the name of a device recognized by the server.
- **Serial Number**: Displays the original identification number of a device.
- **Software Version**: Displays the software version of a device.

> ✎   Refer to page 182 for details about the **MagicInfo Lite Player** menu.

6 Network

6.4 Wi-Fi Direct

 MENU [Ⅲ] → **Network** → **Wi-Fi Direct** → **ENTER** []

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

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

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

1 Go to **Wi-Fi Direct** screen (**Network** → **Wi-Fi Direct**). The product starts to search devices.

2 Turn on the **Wi-Fi Direct** function on your device. Select the desired Wi-Fi device.

- **PBC**: Press the WPS(PBC) button on your Wi-Fi device within 2 minutes. Your product automatically acquires all the network setting values it needs and connects to your network.

- **PIN**: Input the displayed **PIN** on your device.

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

6.5 Soft AP

 MENU [Ⅲ] → **Network** → **Soft AP** → **ENTER** []

Using this function, you can connect the product on your mobile devices if your mobile devices do not support **Wi-Fi Direct**. Set the options for connection of Wi-Fi device.

- **Soft AP**

  Turns on or off the **Soft AP**. When **Soft AP** is set to **On**, your mobile devices can find the product name in Wi-Fi connection list.

- **Security key**

  Set the Security key manually using the remote control.

  - B **Show security key**

    Shows the security key. Whether to show the security key is represented by a checkbox at the top.

  - A **Del.**

    Deletes the entered security key one digit at a time.

  - C **Space**

    Inserts a blank space between characters when entering the security key.

□   ↶ **Return**

Returns to the screen before entering the security key.

> □   The security key should consist of more than 8 digits.
>
> □   Input the generated security key into the device you want to connect.
>
> □   If network does not operate normally, check the security key again. An incorrect security key may cause a malfunction.

6.6   AllShare Settings

⊡ **MENU** [▥] → **Network** → **AllShare Settings** → **ENTER** [⏎]

Shows a list of mobile phones or connected devices which have been set up to use the **AllShare Play** function with this product.

> The **Allshare Play** function is available in all devices which support DLNA DMC.

● **Allow** / **Deny**: Allows/Blocks the devices.

● **Delete from the list**: Deletes the devices from the list.

> This function only deletes the name of the device from the list. If the deleted device is turned on or tries to connect to the product, it may appear on the list again.

6.6.1   Using the AllShare Play Function

An alarm window appears informing you that media contents (videos, photos, music) sent from a mobile phone will be displayed on your product. The contents are played automatically 3 seconds after the alarm window appears. If you press the **RETURN** or **EXIT** button when the alarm window appears, the media contents are not played.

> ● The first time a device accesses your product through the media function, a warning popup window appears. Press the [⏎] button to select **Allow**. This permits the phone to access the product freely and use the **AllShare Play** function to play content.
>
> ● To turn off media contents transmissions from a mobile phone, set **Deny** in the **AllShare Settings**.
>
> ● Contents may not play on your product depending on their resolution and format.
>
> ● The [⏎] and ◀/▶ buttons may not work depending on the type of media content.
>
> ● Using the mobile device, you can control the **Allshare Play**. For details, refer to each mobile's user's guide.

6　Network

6.7　Device Name

Select or enter a device name. This name can be shown on network remote controls over the network.

System

7.1   Multi Control

🔲 MENU [▥] → **System** → **Multi Control** → **ENTER** [↵]

Assign an individual ID to your product.

7.1.1   Configuring settings for Multi Control

- **ID Setup**

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

  Press ▲ or ▼ to select a number, and press [↵].

- **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.

- **MDC Connection**

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

  - **RS232C MDC**

    Communicate with MDC via the RS232C-stereo cable.

  - **RJ45 MDC**

    Communicate with MDC via the RJ45 cable.

- **DisplayPort daisy chain**

  To display the [DP IN] video input through the [DP OUT] output port, select a device connection method from Single Stream Transport (SST) and Multi Stream Transport (MST).

  - **Clone**: In this Single Stream Transport (SST) output mode, the same screen output is displayed on two display devices connected.

    > - If **Clone** is selected, the **PC** recognizes the two displays as a single monitor.
    > - **Clone** mode is enabled if the input source is a digital input other than **DisplayPort**, such as **DVI**, **HDMI**, **MagicInfo** or PIM.

  - **Expand**: In this Multi Stream Transport (MST) mode, a different screen output is displayed on two display devices connected.

    > - If **Expand** is selected, the **PC** recognizes the two displays as separate monitors.
    > - The mode functions only on a PC that supports DisplayPort 1.2 MST.
    > - For Full HD resolution (1920x1080) displays, a maximum of four displays can be connected.

> Refer to page 71 for details about the **MDC** menu.

System

7.2 Time

 MENU   → **System** → **Time** → **ENTER**

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.

7.2.1 Clock set

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

Changing the Setting for Clock

- **Clock Set**

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

  Select **Clock Set**. Select **Date** or **Time**, and then press [ ].
  Use the number buttons to enter numbers or press the up and down arrow buttons. Use the left and right arrow buttons to move from one entry field to the next. Press [ ] when done.

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

7.2.2 Sleep Timer

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

7   System

7.2.3   On Timer

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

● On Timer: Set the on timer by making a selection from one of the seven options. Ensure you set the current time first. (On Timer 1~ On Timer 7)

> 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.

□ Music / Photo (when the Source is set to USB): Select a folder in the USB device containing music or photo files you want played when the product turns on automatically.

> □ If there is no music file on the USB device or you don't select a folder containing a music file, the Timer function does not operate correctly.
>
> □ If there is only one photo file in the USB, the Slide Show will not play.
>
> □ If a folder name is too long, the folder cannot be selected.Each USB you use is assigned its own folder. When using more than one of the same type of USB, make sure the folders assigned to each USB have different names.
>
> □ We recommend that you use a USB memory stick and a multi card reader when using On Timer. The On Timer function may not work with USB devices with a built-in battery, MP3 players, or PMPs made by some manufacturers because the product can take too long to recognize these devices.

7.2.4   Off Timer

Set the off timer (Off Timer) by making a selection from one of the seven options. (Off Timer 1 ~ Off Timer 7)

> 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.

7.2.5   Holiday Management

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

Setting Holiday Management

- **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.

7.3 Language

🄰 MENU▥ → **System** → **Language** → **ENTER**↵

Set the menu language.

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

7.4 Rotate menu

🄰 MENU▥ → **System** → **Rotate menu** → **ENTER**↵

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

7.5 Eco Solution

🄰 MENU▥ → **System** → **Eco Solution** → **ENTER**↵

Eco Solution	
Energy Saving	Off
Eco Sensor	On
No Signal Power Off	Off
Auto Power Off	Off
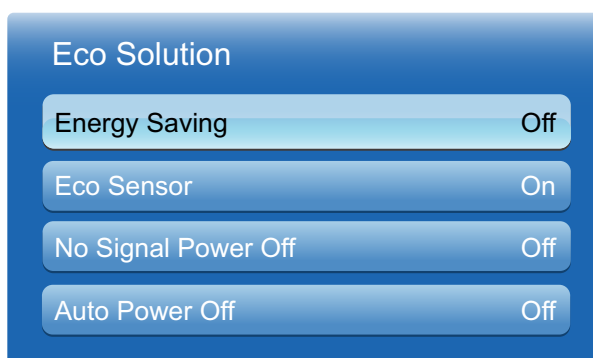
The displayed image may differ depending on the model.

7.5.1 Energy Saving

Save power with the **Energy Saving** feature.

While **Energy Saving** mode is active, the product power consumption will be controlled to save power.

- **Off** / **Low** / **Medium** / **High** / **Picture Off**

System

7.5.2   Eco Sensor (Off / On)

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

> 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.

7.5.3   No Signal Power Off

To avoid unnecessary energy consumption, you can set how long you want the product to remain on if it's not receiving a signal.

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

    > - Disabled when an attached PC is in power saving mode.
    > - The product will automatically power off at a specified time. The time can be changed as required.

7.5.4   Auto Power Off (Off / On)

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.

7 System

7.6 Security

 MENU ▥ → **System** → **Security** → **ENTER** ⏎

Every time you access the Security functions, the PIN screen will appear and the default PIN number is "0-0-0-0". The PIN screen closes and the **Security** menu appears.

Security	
Safety Lock	Off
Button Lock	Off
Change PIN	
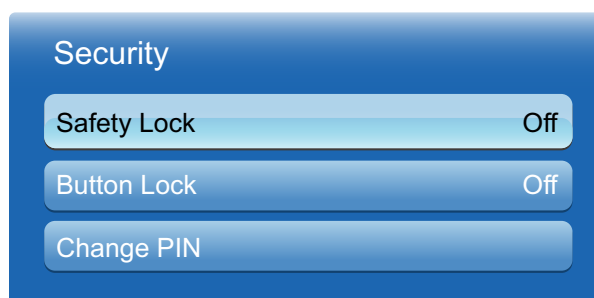
The displayed image may differ depending on the model.

7.6.1 Safety Lock (Off / On)

It sets safe lock function.

All the menus and buttons of the product and remote control, except for the **LOCK** button on the remote control, will be locked by the **Safety Lock** function. To unlock the menus and buttons, press the **LOCK** button and then enter the password (default password: **0** - **0** - **0** - **0**).

7.6.2 Button Lock (Off / On)

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**.

7.6.3 Change PIN

The **Change PIN** screen will appear. Choose any 4 digits for your PIN and enter it in **Enter New PIN**. Re-enter the same 4 digits in **Confirm New PIN**. When the Confirm screen disappears, press the **Close** button. The product has memorized your new PIN.

System

7.7 PIP

 MENU → System → PIP → ENTER

- • If you have set Double (,) mode in **PIP** (Picture-in-Picture), you cannot adjust the **Picture Size**.

  • 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
PC	**AV**
AV	**PC**, **HDMI**, **DVI**, **DisplayPort**
Component	N/A
HDMI, **DVI**, **DisplayPort**	**AV**
MagicInfo Lite	**PC**, **AV**, **Component**, **HDMI**, **DVI**, **DisplayPort**

  ❏ **PIP** (**Off** / **On**): Activate or deactivate the PIP function.

  ❏ **Source** (depending on the input 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 Double (, ,) 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.

7.8 Auto Protection Time

 MENU → System → Auto Protection Time → ENTER

If the screen displays a still image for a certain period of time you define, the product activates the screen saver to prevent the formation of burnt in ghost images on the screen.

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

7.9   Screen Burn Protection

⊞ **MENU** ▥ → **System** → **Screen Burn Protection** → **ENTER** ⏎

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 program the time between movements of the picture in minutes.

Screen Burn Protection

Pixel Shift	Off
Timer	Off
Immediate Display	Off
Side Gray	Off
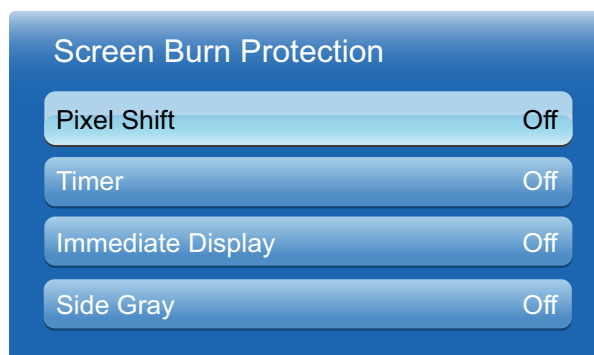
The displayed image may differ depending on the model.

7.9.1   Pixel Shift

Configure **Pixel Shift** to prevent screen damage.

Available **Pixel Shift** Settings and Optimum Settings.

	Available Settings	**Optimum Settings for AV/ Component/HDMI/PC**
Horizontal	0~4 (pixels)	**4**
Vertical	0~4 (pixels)	**4**
Time (minute)	1~4 min	**4 min**

- The **Pixel Shift** value may differ depending on the product size (inches) and mode.
- This function is not available in the **Screen Fit** mode.

- **Horizontal**: Sets how many pixels the screen moves horizontally.
- **Vertical**: Sets how many pixels the screen moves vertically.
- **Time**: Set the time interval for performing the horizontal or vertical movement, respectively.

System

7.9.2 Timer

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

Timer

- **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.
  - **Sec 10 ~ Sec 50**

     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**.

7.9.3 Immediate Display

Select the screen saver you want to display immediately.

- **Off** / **Pixel** / **Rolling Bar** / **Fading Screen**

7.9.4 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**

7.10 Ticker

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

- **Off / On**

  > **Message**, **Time**, **Position**, **Motion**, and **Font Options** 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 (**Message**).
- **Position**: Select an orientation to display a message (**Message**) from **Horizontal** and **Vertical**.
- **Motion**: Specify the **Direction** and **Speed** to display a message (**Message**).
- **Font Options**: Specify the message **Size** and **Text Colo(u)r**.

7 System

7

7.11 Video Wall

🔘 MENU [▥] → **System** → **Video Wall** → **ENTER** [↵]

Customize the layout of multiple displays that are connected to form a video wall. In addition, display part of a whole picture or repeat the same picture on each of the connected multiple displays. To display multiple images, refer to MDC Help or the MagicInfo user guide. Some models may not support the MagicInfo function.

> - 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 color intensity.
> - The **Video Wall** option is only enabled when **PIP** is set to **Off**.

7.11.1 Video Wall

You can activate or deactivate **Video Wall**. To organize a video wall, select **On**.

Video Wall	
Video Wall	On
· Format	Full
· Horizontal	1
· Vertical	1
· Screen Position	
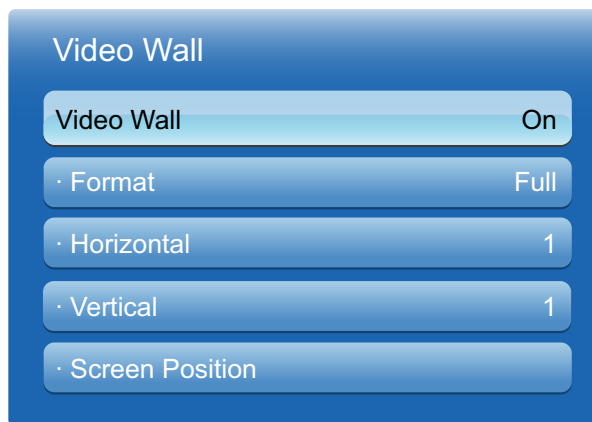
The displayed image may differ depending on the model.

7.11.2 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**.

7 **System**

7.11.3   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**.

7.11.4   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**.

7　System

7.11.5　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.

System

7.12 Source AutoSwitch Settings

⌨ **MENU** [▥] → **System** → **Source AutoSwitch Settings** → **ENTER** [↵]

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.

Source AutoSwitch Settings	
Source AutoSwitch	Off
· Primary Source Recovery	Off
· Primary Source	All
· Secondary Source	PC
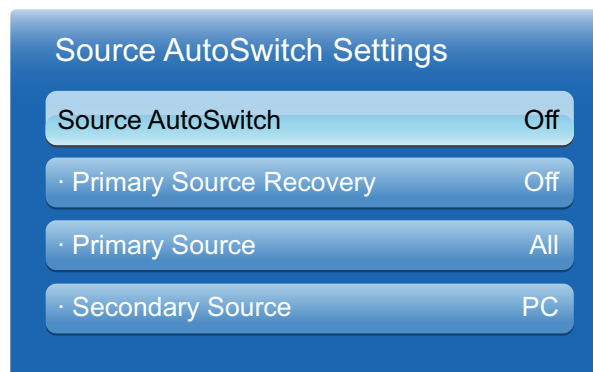
  The displayed image may differ depending on the model.

- **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.

7 System

7.13 General

🄼 **MENU**▥ → **System** → **General** → **ENTER**⏎

General	
Max. Power Saving	On
Game Mode	Off
BD Wise	On
Menu Transparency	Medium
Sound Feedback	Off
Auto Power	Off
Standby Control	Auto
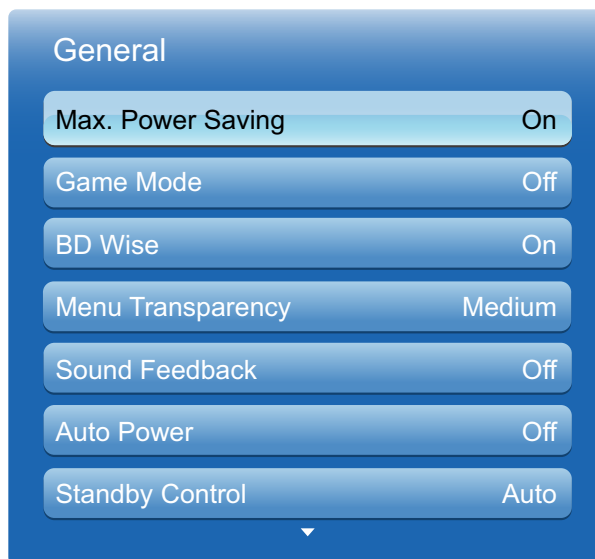
The displayed image may differ depending on the model.

7.13.1 Max. Power Saving

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

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

7.13.2 Game Mode

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

 • 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.
   □ If you display the product menu in **Game Mode**, the screen shakes slightly.
  • **Game Mode** is not available when the input source is set to **PC**, **DVI** or **DisplayPort**.
  • After connecting the game console, set **Game Mode** to **On**. Unfortunately, you may notice reduced picture quality.
  • If **Game Mode** is **On**
   □ **Picture** mode is set to **Standard** and **Sound Mode** is set to **Movie**.

System

7.13.3   BD Wise

Provides the optimal picture quality for Samsung DVD, Blu-ray and Home Theater products which support BD Wise. When BD Wise is turned On, the picture mode is automatically changed to the optimal resolution.

> Available when you connect Samsung products that support BD Wise through an HDMI cable to the product.

7.13.4   Menu Transparency

Adjust transparency of menu box.

- High / Medium / Low

7.13.5   Sound Feedback

Your product gives sound feedback when you use product. Sound Feedback is enabled by default. Turn off Sound Feedback or adjust its volume.

- Off / Low / Medium / High

7.13.6   Auto Power

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

7.13.7   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 is set to PC, DVI, HDMI or DisplayPort.
  >
  > ▫ If "No Signal" is displayed although a source device is connected, check the cable connection. Refer to page 56 for details about connecting source devices.

7.13.8   Lamp Schedule

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

- Off / On

7 System

7.13.9 OSD Display

Displays or hides a menu item on the screen.

- **Source OSD** / **No Signal OSD** / **MDC OSD**

7.13.10 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.

7.13.11 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.

7 System

7

7.14 Anynet+(HDMI-CEC)

🔲 **MENU** ▥ → **System** → **Anynet+(HDMI-CEC)** → **ENTER** ↵

7.14.1 Anynet+(HDMI-CEC)

What is **Anynet+**?

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.
- The Anynet+ 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 must connect an Anynet+ device using an HDMI cable. Some HDMI cables may not support Anynet+ functions.
- 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 Anynet+ mode to PC 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.

7.14.2   Auto Turn Off (No / Yes)

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

> ● 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 [ ].

2 Select **Device List**, and then press the [ ] button.

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

3 Select a device, and then press the [ ] 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**.

System

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. • Check if the Anynet+ device power cord is properly connected. • Check the Anynet+ device's Video/Audio/HDMI cable connections. • Check whether **Anynet+ (HDMI-CEC)** is set to **On** in the Anynet+ setup menu. • Check whether the remote control is Anynet+ compatible. • 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+.	• 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+ Setup menu. • Press the **TOOLS** button to display the Anynet+ menu and select a menu you want.
I want to exit Anynet+.	• Select **View PC** in the Anynet+ menu. • Press the **SOURCE** button on the product remote control and select a non- Anynet+ device.
The message "Connecting to Anynet+ device..." appears on the screen.	• You cannot use the remote control when you are configuring Anynet+ or switching to a view mode. • Use the remote control after the product has completed Anynet+ configuration or has finished switching to Anynet+.
The connected device is not displayed.	• Check whether or not the device supports Anynet+ functions. • Check whether or not the HDMI cable is properly connected. • Check whether **Anynet+ (HDMI-CEC)** is set to **On** in the Anynet+ setup 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.

System

7.15 DivX® Video On Demand

 MENU ▥ → **System** → **DivX® Video On Demand** → ENTER

Shows the registration code authorized for the product. If you connect to the DivX web site and register using that code, you can download the VOD registration file.

> For more information about DivX® VOD, visit http://vod.divx.com.

7.16 Reset System

 MENU [▥] → **System** → **Reset System** → ENTER [ ]

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

7.17 Reset All

 MENU [▥] → **System** → **Reset All** → ENTER [ ]

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

(**Language**, **Security**, **Time**, **Multi Control** and **Anynet+** will not be initialized.)

System

7.18   PC Module Power

 MENU → **System** → **PC Module Power** → **ENTER**

The PC module can be turned on/off separately from the LFD.

 PC module: Refers to network boxes or PIM.

7.18.1   Synced Power-On

To turn on the PC module without turning on the LFD, select **Off**.

• **Off** / **On**

7.18.2   Synced Power-Off

To turn off the LFD without turning off the PC module, select **Off**.

• **Off** / **On**

8   Support

8.1   Software Update

⬚ **MENU** [Ⅲ] → **Support** → **Software Update** → **ENTER** [↵]

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

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

> 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 update. 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.

8.1.1   By USB

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

8.1.2   Alternative Software

> The **Alternative Software** feature is not available on this model.

- **Alternative Software**

  The **Alternative Software** option lets you upgrade using a file the product downloaded earlier, but you decided not to install immediately, or a file downloaded by the product in Standby Mode.

  To upgrade By **Alternative Software**, follow these steps.

1 If upgrade software has been downloaded, you will see the software version number to the right of **Alternative Software**.

2 Select **Alternative Software**, and then press the [↵] button.

3 The product displays a message asking if you want to upgrade. Select **Yes**. The product begins the upgrade.

4 When the upgrade is complete, the product turns off automatically, and then turns on.

8   Support

8.2   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 centers and how to download products and software.

8.3   Contents Home

⬡ MENU [Ⅲ] → **Support** → **Contents Home** → ENTER [↵]

You can enjoy useful and various contents.

8.3.1   MagicInfo Lite

⬡ MENU [Ⅲ] → **Support** → **Contents Home** → **MagicInfo Lite** → ENTER [↵]

 Press the **MagicInfo Lite** button on the remote control.

MagicInfo Lite Player allows you to play content (image, video, document files) at a desired time.

You can play content saved in internal memory or USB memory. You can also play content via MagicInfo Lite Server after connecting to a network.

 Refer to page 182 for details about the **MagicInfo Lite Player** menu.

8.3.2   AllShare Play

⬡ MENU [Ⅲ] → **Support** → **Contents Home** → **AllShare Play** → ENTER [↵]

Enjoy videos, photos, music files saved on a USB Mass Storage Class (MSC) device.

 Refer to page 160 for details about the **AllShare Play** menu.

Support

8.3.3 Source

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

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

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

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

Edit Name

MENU [▥] → **Support** → **Contents Home** → **Source** → TOOLS → **Edit Name** → ENTER [↵]

You can rename a connected source device.

- 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 [▥] → **Support** → **Contents Home** → **Source** → TOOLS → **Information** → ENTER [↵]

You can see detailed information about the selected external device.

9 AllShare Play

Enjoy videos, photos, music files saved on a USB Mass Storage Class (MSC) device.

9.1 What is AllShare Play?

Play photo, video or music files saved on a storage device. Wirelessly connect a smartphone to a PC using a wireless network.

Play various content using one of the following methods in **AllShare Play**:

- Using internal memory and a USB device: Play video, photo and music files from a USB device. Copy the files to the internal memory.
- Connecting to a PC over a network: Play photo, video and music files saved on a PC through a network connection.

> **Allshare Play** can also be accessed by pressing **CONTENET(HOME)** on the remote control.

9.1.1 Read the following before using AllShare Play with a USB device

Caution

- Before connecting a USB device to the product, back up files to ensure your data is not damaged or lost. Samsung Electronics is not liable for any damage or loss of data.
- Do not remove a USB device while it is loading.
- If a USB device is connected using a USB extension cable, the USB device may not be recognized or files saved on the device may not be able to be read.
- If the product does not recognize a connected USB device, the files on the USB device may be corrupted or may not be able to be played. If this occurs, connect the USB device to the PC to format the device, then make sure the device is connected properly.
- USB HDD greater than 2TB is not supported.

Compatible devices with AllShare Play

- Some types of USB devices, digital cameras and audio devices may not be compatible with the product.
- **AllShare Play** is only compatible with USB MSC devices.
- MSC device refers to a Mass Storage Class Bulk-Only Transport device. Examples of MSC devices include Thumb drives, Flash card readers and USB HDDs. (USB hubs are not supported.) These MSC devices must be connected directly to a USB port on the product.
- If more than one Picture Transfer Protocol (PTP) device is connected, only one will work at a time.
- If multiple MSC devices are connected, some devices may not be recognized. USB devices that require high power (higher than 500mA or 5V) may not be supported.
- If an overheating warning message appears when a USB device is connected or used, the USB device may not be recognized or function properly.

9   AllShare Play

- The screensaver activates if the product is left idle for a period of time specified in **Auto Protection Time**.

- Power-saving mode on some external hard disk drives may automatically deactivate after connecting to the product.

File system and formats

- **Allshare play** may not function properly with unlicensed multimedia files.

- Media Transfer Protocol (MTP) is not supported.

- Supported file systems include FAT16, FAT32 and NTFS (read only).

- **AllShare Play** supports the sequential JPEG format. It does not support the progressive JPEG format.

- Images with a higher resolution take longer to be displayed on the screen.

- The maximum JPEG resolution supported is 15360x8640 pixels.

- If a file is incompatible or corrupted, a message "**Not Supported File Format**" appears.

- When sorting files in folder view mode, a maximum of 1000 files can be displayed in each folder.

- If a USB device contains 8000 files and folders or more, some files and folders may not open.

- DRM MP3 files downloaded from websites that charge a fee cannot be played. Digital Rights Management (DRM) refers to a system for protecting the copyrights of data circulated via the Internet or other digital media by enabling secure distribution and/or disabling illegal distribution of the data.

9.1.2   Using a USB device

Connecting a USB device

1 Turn on your product.

2 Connect a USB device containing photo, music and/or movie files to the USB port on the back or
     side panel of the product.

3 A message "**New device connected**" appears when the USB device is connected properly. Select
     type of content to play from **Videos**, **Photos**, and **Music**.

> - If only one USB device is connected, files saved on the USB device are displayed automatically.
> - To view content saved on a USB device, connect the USB device to a USB port on the product.
> - It is recommended to use a USB HDD that has a power adapter.

Removing a USB device

> It is recommended to remove a USB device using the **Safely Remove USB Device** function.

Removing a USB device from Source

1 Press **SOURCE** on the remote control. Alternatively, go to **Source** using the OSD menu.

     MENU [ ] → **Support** → **Contents Home** → **Source** → ENTER [ ]

2 Select a USB device and press **TOOLS** on the remote control. Tools option appears.

3 Select **Safely Remove USB Device** and wait until the USB device is disconnected. The USB device
     is disconnected.

Deleting AllShare Play from the screen

1 Go to the **AllShare Play** page.

     MENU [ ] → **Support** → **Contents Home** → **AllShare Play** → ENTER [ ]

2 Select all options except **My List** and press on the remote control.

3 Select a USB device and press **TOOLS** on the remote control. Tools option appears.

4 Select **Safely Remove USB Device** and wait until the USB device is disconnected. The USB device
     is disconnected.

AllShare Play

9.1.3 Connecting to a PC over a network

Play photo, video and music files saved on a PC through a network connection in **AllShare Play** mode.

- For details on how to configure a network, refer to the section "6.1 Network Setting".

- To view content saved on the PC, connect the product and PC to the same wireless router and visit http://www.samsung.com to download the AllShare PC software.

- Ensure the product and PC are connected to the same network subnet. All IP addresses are made up of four parts separated by dots. (E.g. IP address 111.222.333.444) The product should have the same IP address as the PC, except for the fourth part of the address, if they are connected to the same subnet. (E.g. 111.222.333.***)

  When connected to a PC over a network, **AllShare Play** does not support the following features.

  - **Background Music On** and **Background Music Setting** features
  - Feature that sorts files in the **Videos**, **Photos** or **Music** folder according to the default setting
    □   ◄◄ or ►► feature during video playback
  - DivX DRM is not supported.
  - Make sure you set the Windows firewall program to permit the AllShare PC software.
  - When using **AllShare Play** mode through a network connection, available functions may vary depending on the server as follows:
    □ Available sorting modes may vary.
    □ The scene search function may not be supported.
    □ The resume function may not be available for multiple users. (The function only remembers the point where the most recent user stopped playing a video.)
    □ The search function may not work depending on the content information.
  - You may experience file stuttering while playing video content over a network connection.

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9.1.4   Using the DLNA features

If you connect the product and a source device such as a cell phone or PC to the same network, you can play media content saved on the device such as videos, photos and music.

Visit http://www.samsung.com or contact the Samsung Electronics Customer Center for more information. Additional software may need to be installed on your mobile device. Refer to the mobile device user manual for details.

> A compatibility issue may occur if you play video after connecting your Samsung display product to a DLNA server made by a different manufacturer.

> Connect your Samsung display product to a network through **AllShare Play** and use the special features provided by Samsung as follows:
> - Playback of various video formats (DivX, MP4, 3GPP, AVI, ASF, MKV, etc.)
> - Video thumbnail feature
> - Bookmark feature (to resume video playback)
> - Auto-chaptering (scene search)
> - Digital Content Management
> - Compatibility with various subtitle formats (SRT, SMI, SUB, TXT, TTXT)
> - Search with file names
> - And many others

> To use the special DLNA features provided by Samsung on your PC, visit http://www.samsung.com and download the AllShare software.

9   AllShare Play

9.2   Using the Basic AllShare Play Features

MENU [m] → Support → Contents Home → AllShare Play → ENTER [←]
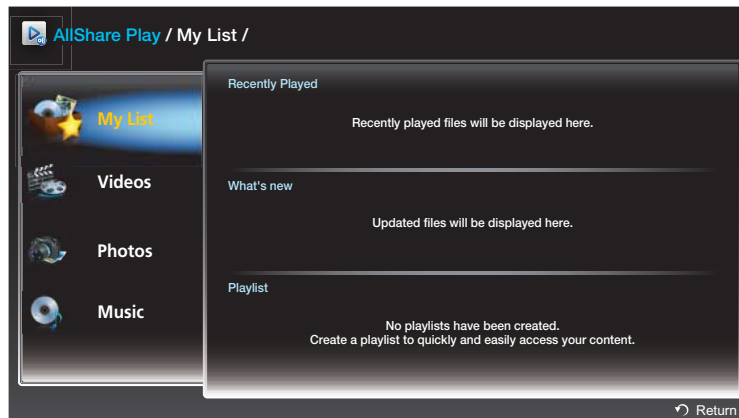
The displayed image may differ depending on the model.

9.2.1   Sorting the file lists

To sort files, press **D** on the remote control to specify the sorting criteria.

Sort Criteria	Operation	Videos	Photos	Music
Folder view	Displays the whole folder. You can view the file name and thumbnail by selecting the folder.	✓	✓	✓
Title	Sorts and displays the file title in Symbol/Number/Alphabet/Special order.	✓	✓	✓
Latest Date	Sorts and shows files by the latest date.	✓	✓	
Earliest Date	Sorts and shows files by the earliest date.	✓	✓	
Monthly	Sorts and shows photo files by month.		✓	
Artist	Sorts the music file by artist in alphabetical order.			✓
Album	Sorts the music file by album in alphabetical order.			✓
Genre	Sorts music files by the Genre.			✓

AllShare Play

9.2.2 Playing Selected Files

1 Select files from the list of Videos, Photos, or Music files.

2 Press **TOOL** on the remote control and select **Play Selection**.

> The option does not appear if a folder is highlighted by the cursor.

3 Select files and press **Play**.

> - ✓ appears for selected files.
> - To select all the files in the current folder, press Select All.
> - To deselect all the files, press Deselect All.

9.2.3 Copying Files

1 Select files from the list of Videos, Photos, or Music files.

2 Select a storage device.

- **Internal Memory**: Copy files from Internal Memory to a USB Device memory device.
- **USB Device**: Copy files from a USB Device memory device to Internal Memory.

3 Press **TOOL** on the remote control and select **Send**.

> The option does not appear if a folder is highlighted by the cursor.

4 Select files and press **Send**.

> - ✓ appears for selected files.
> - To select all the files in the current folder, press Select All.
> - To deselect all the files, press Deselect All.

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9.2.4   Creating a Playlist (Playlist)

Create a list of files you want to play continuously.

1   Select files from the list of **Videos**, **Photos**, or **Music** files.

2   Press **TOOL** on the remote control and select **Add to Playlist**.

> The option does not appear if a folder is highlighted by the cursor.

3   Select files and press **Add**.

The **Add to Playlist** page appears.

> - ✓ appears for selected files.
> - To select all the files in the current folder, press **Select All**.
> - To deselect all the files, press **Deselect All**.

4   Select **Create new**. The **Create a new Playlist.** page appears.

5   Enter a playlist name using the remote control and select **Done**.

6   A playlist is created.

To play the created playlist, select **Play**.

To return to the list of files, select **OK**.

7   A created playlist (**Playlist**) is displayed in **My List**.

AllShare Play

9.3   My List

[⌂] MENU [🔲] → **Support** → **Contents Home** → **AllShare Play** → **My List** → **ENTER** [↵]

Access desired content more conveniently and quickly.

To play files, select files or a playlist (**Playlist**) and press [↵].

- **Recently played**: Display video, photo or music files that were recently played. This mode is suitable when playing files again that were played before.
- **What's new**: Display new video, photo or music files that were uploaded to a PC or USB device. This mode is suitable when playing new files that were recently uploaded.
- **Playlist**: Display playlist (**Playlist**) files saved on a PC or USB device. To play a playlist (**Playlist**), select the desired playlist (**Playlist**).

9.3.1   My List options

Option Name	Operations	Recently Played	What's New	Playlist
Play	Play a selected file or playlist (**Playlist**).	✓	✓	✓
Remove	Delete a selected file.	✓		
Delete	Delete a selected playlist (**Playlist**).			✓
Edit Playlist	Edit a selected playlist (**Playlist**).			✓
Information	View information about a selected file or playlist (**Playlist**).	✓	✓	✓

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9.4   Videos

MENU [▥] → **Support** → **Contents Home** → **AllShare Play** → **Videos** → **ENTER** [↵]

9.4.1   Playing a Video

1   Select the internal memory or a USB device. Select files from the list of files.

2   Press the [↵] button or [▶] (Play) button.

> - The file name appears on the top with its playing time.
> - If video time information is unknown, the playing time and progress bar are not displayed.
> - During video playback, you can search using the ◀ and ▶ buttons.
> - You can use the [◀◀] (REW), [▶▶] (FF), [❚❚] (Pause), [■] (Stop), and [▶] (Play) buttons on the bottom of your remote during playback. ([◀◀] 3 / [◀◀] 2 / [◀◀] 1 / [▶▶] 1 / [▶▶] 2 / [▶▶] 3)
> - Press the **RETURN** button to exit the movie

Using the Play Continuously Function (Resume Play)

If you exit a movie when it is playing, you can play the movie later from the point where you stopped it.

> The Resume function does not support multiple users. (It will only memorize the point where the most recent user stopped playing.)

1   Select a file from the list of files.

2   Press the [▶] (Play) or [↵] button.

3   The Movie will begin to play from where you stopped it.

> - Press the [❚❚] button for pause.
> - Resume is only available when you resume playing a movie you had stopped.

9   AllShare Play

9.5   Photos

⟨🖐⟩ MENU [Ⅲ] → **Support** → **Contents Home** → **AllShare Play** → **Photos** → **ENTER** [↵]

9.5.1   Viewing a Photo (or Slide Show)

1 Select the internal memory or a USB device. Select a file from the list of files.

2 Press the [↵] button.

- To view files manually, one at a time, press the left or right arrow buttons.
- To start the slide show, press the [▶] (Play) button when the file you selected is displayed.
- During the slide show, all files in the file list are displayed in order, starting from the file you selected.

> - When you press the [▶] (Play) button in the file list, the slide show will start immediately.
> - During a slide show, press the **TOOLS** button to access additional functions such as **Go to Photos List**, **Stop Slide Show**, **Slide Show Speed**, **Slide Show Effect**, **Background Music On** / **Background Music Off**, **Background Music Setting**, **Picture Mode**, **Sound Mode**, **Zoom**, **Rotate** and **Information**.
> - You can add background music to a slide show if you have music files on your USB device or PC by setting **Background Music** to **On** in the **Tools** menu, and then selecting music files to play.
> - If you select the wrong background music, you cannot change the music until the BGM (Background Music) has finished loading.
> - You can use the [Ⅱ] (Pause), [▇] (Stop), and [▶] (Play) buttons on the bottom of your remote during a slide show.
> - When you press the [▇] (Stop) or [↺] (Return) button, the slide show stops and the main photo screen re-appears.

AllShare Play

9.6 Music

MENU [Ⅲ] → **Support** → **Contents Home** → **AllShare Play** → **Music** → **ENTER** [ ]

9.6.1 Playing Music

1 Select the internal memory or a USB device. Select files from the list of files.

2 Press the [ ] button or [ ] (Play) button.

●   When the music is playing, you can search using the [ ] (REW) and [ ] (FF) button.

If the sound is abnormal when you play MP3 files, adjust the Equalizer in the Sound menu. (An over-modulated MP3 file may cause a sound problem.)

9 AllShare Play

9.7 Videos / Photos / Music Play Option menu

When playing video or photo files, you can press the **TOOLS** button to display an Options menu.

Below are a series of tables listing the options available and the media each option applies to.

Option Name	Operations	Videos	Photos	Music
View	Sort music files grouped by **Folder view**, **Title**, **Artist**, **Album** or **Genre**.			✓
Play Selection	Select and play files from a list of music files.			✓
Play Current Group	Play files from the same group of the file currently playing.			✓
Go to Videos List	Return to the list of video files.	✓		
Go to Photos List	Return to the list of photo files.		✓	
Go to Playlist	Go to **My List**.			✓
Play from the beginning	Play again the currently playing video from the beginning.	✓		
Scene Search	You can use the **Scene Search** function during playback to view or start a movie from the scene of your choice.	✓		
Title Search	You can move directly to another Title.	✓		
Time Search	You can search the movie using ◄ and ► buttons at intervals of 1 minute.	✓		
Subtitle	You can view a subtitle. You can select a specific language if the subtitle file contains multiple languages.	✓		
Repeat Mode	You can play movie and music files repeatedly.	✓		
Picture Size	You can adjust the picture size to your preference.	✓		
Picture Mode	You can change the **Picture Mode**.	✓	✓	
Sound Mode	You can change the **Sound Mode**.	✓	✓	
Audio Language	You can enjoy video in one of supported languages. The function is enabled only when you play stream-type files which support multiple audio formats.	✓		

AllShare Play

Option Name	Operations	Videos	Photos	Music
Subtitle Setting	Displays the Subtitle Setting. You can set up a subtitle option.	✓		
Start Slide Show / Stop Slide Show	You can start or stop a slide show. Alternatively, use the ▶ or ⏸ button on the remote.		✓	
Slide Show Speed	You can select the slide show speed during the slide show. Alternatively, use the ◀◀ or ▶▶ button on the remote.		✓	
Slide Show Effect	You can set various slide show effects.		✓	
Background Music On / Off	You can start or stop background music.		✓	
Background Music Setting	You can set and select background music when watching a photo file or slide show.		✓	
Zoom	You can zoom into images in full screen mode.		✓	
Rotate	You can rotate images.		✓	
Information	View file information.	✓	✓	✓

● Pressing the INFO button while a device name is selected will display information about the selected device.

● Pressing the INFO button while a file is selected will display information about the selected file.

9

AllShare Play

9.8 Supported Subtitle and AllShare Play file formats

9.8.1 Subtitle

External	Internal
- MPEG-4 timed text (.ttxt) - SAMI (.smi) - SubRip (.srt) - SubViewer (.sub) - Micro DVD (.sub or .txt) - SubStation Alpha (.ssa) - Advanced SubStation Alpha (.ass) - Powerdivx (.psb)	- Xsub Container: AVI - SubStation Alpha Container: MKV - Advanced SubStation Alpha Container: MKV - SubRip Container: MKV - MPEG-4 timed text Container: MP4

9.8.2 Supported image resolutions

File Extension	Type	Resolution
*.jpg *.jpeg	JPEG	15360 x 8640
*.png	PNG	1920 x 1080
*.bmp	BMP	
*.mpo	MPO	15360 x 8640

9.8.3 Supported music file formats

File Extension	Type	Codec	Comments
*.mp3	MPEG	MPEG1 Audio Layer 3	
*.m4a *.mpa *.aac *.3ga	MPEG4	AAC	

File Extension	Type	Codec	Comments
*.flac	FLAC	FLAC	The Seek (jump) function is not supported. Supports up to 2 channel
*.ogg	OGG	Vorbis	Supports up to 2 channel
*.wma	WMA	WMA	Supports up to WMA 10 Pro 5.1 channel. WMA lossless audio is not supported.

9.8.4   Supported Video Formats

File Extension	Container	Video Codec	Resolution	Frame rate (fps)	Bit rate (Mbps)	Audio Codec
*.avi *.mkv *.asf *.wmv *.mp4 *.mov *.3gp *.vro *.mpg *.mpeg *.ts *.tp *.trp *.mov *.flv *.vob *.svi *.m2ts *.mts *.divx	AVI MKV ASF MP4 3GP VRO VOB PS TS	DIVX 3.11 / 4.x / 5.x / 6.x	1920 x 1080	6 ~ 30	30	AC3 LPCM ADMPCM (IMA, MS) AAC HE-AAC WMA DD+ MPEG(MP3) DTS Core G.711 (A-Law, µ-Law)
		MPEG4 SP / ASP				
		H.264 BP / MP / HP				
		Motion JPEG				
		Window Media Video v9				
		MPEG2				
		MPEG1				
		VP6	640 x 480		4	
		SVAF			30	
		MVC	1920 x 1080	24 / 25 / 30	40	
*.webm	WebM	VP8		6 ~ 30	8	Vorbis

AllShare Play

- Video content will not play, or not play correctly, if there is an error in the content or the container.
- Sound or video may not work if the contents have a standard bitrate/frame rate above the compatible Frame/sec listed in the table above.
- If the Index Table is in error, the Seek (Jump) function is not supported.
- You may experience file stuttering while playing a video through a network connection.
- Video content can not be played, if there are many contents in one file.
- When you play video over a network connection, the video may not be played smoothly.
- The menu may take longer to appear if the video's bit rate exceeds 10Mbps.
- Some USB/digital camera devices may not be compatible with the player.

Video Decoder	Audio Decoder
Supports up to H.264, Level 4.1 H.264 FMO / ASO / RS, VC1 SP / MP / AP L4 and AVCHD are not supported. For all Video codecs except MVC, VP8, VP6: - Below 1280 x 720: 60 frame max - Above 1280 x 720: 30 frame max GMC 2 over is not supported. Supports only SVAF Top/Bottom and Side by Side. Supports only BD MVC Spec.	Supports up to WMA 10 Pro 5.1 channel. WMA lossless audio is not supported. QCELP, AMR NB/WB are not supported. If Vorbis is only in Webm container, supports up to 2 channel.

10 MagicInfo Lite

MagicInfo Lite

10.1   File Formats Compatible with MagicInfo Lite Player

[Read before using **MagicInfo Lite Player**]

- The file system supports FAT16, FAT32 and NTFS.

- A file with a vertical and horizontal resolution larger than the maximum resolution cannot be played.

  Check the vertical and horizontal resolution of the file.

- Video that does not contain audio data is not supported. Check that the video file contains audio data.

- Check the supported video and audio Codec types and Versions.

- Check the supported file versions.

  - Flash version up to 10.1 is supported

  - PowerPoint version up to 97 – 2007 is supported

- Content with a size of 2GB or larger cannot be assigned to a **Network Schedule**.

- The first USB device connected is only recognized.

MagicInfo Lite

10.1.1 Contents

File Extension	Container	Video Codec	Resolution	Frame rate (fps)	Bit rate (Mbps)	Audio Codec
*.avi *.mkv *.asf *.wmv *.mp4 *.mov *.3gp *.vro *.mpg *.mpeg *.ts *.tp *.trp *.flv *.vob *.svi *.m2ts *.mts *.divx	AVI MKV ASF MP4 3GP VRO VOB PS TS	DIVX 3.11 / 4.x / 5.x / 6.x	1920 x 1080	6 ~ 30	30	AC3 LPCM AAC HE-AAC WMA DD+ MPEG(MP3) DTS Core G.711 (A-Law, μ-Law)
		MPEG4 SP / ASP				
		H.264 BP / MP / HP				
		Motion JPEG				
		Window Media Video v9				
		MPEG2				
		MPEG1				
		VP6	640 x 480		4	

MagicInfo Lite

Video

- Video content without audio is not supported.

- 3D video is not supported.

- Content with a resolution larger than the resolution specified in the table above is not supported.

- Video content with a Bit rate or Frame rate larger than the rate specified in the table above can cause choppy video during playback.

- Video content will not play, or not play correctly, if there is an error in the content or the container.

- Some USB/digital camera devices may not be compatible with the player.

- Supports up to H.264, Level 4.1

- H.264 FMO / ASO / RS, VC1 SP / MP / AP L4 and AVCHD are not supported.

- For all Video codecs except MVC, VP8, VP6:

   □ Below 1280 x 720: 60 frame max

   □ Above 1280 x 720: 30 frame max

- GMC 2 or higher is not supported.

- Supports only SVAF Top/Bottom and Side by Side.

- Supports only BD MVC Spec.

Audio

- Audio content without video is not supported.

   (Only mp3 files are supported as background music for image/PPT slideshows. This feature is available only when using the network schedule menu.)

- Audio content with a Bit rate or Frame rate larger than the rate specified in the table above can cause choppy audio during playback.

- Video content will not play, or not play correctly, if there is an error in the content or the container.

- Some USB/digital camera devices may not be compatible with the player.

- Supports up to WMA 10 Pro 5.1 channel. WMA lossless audio is not supported.

- QCELP, AMR NB/WB are not supported.

Image

- Compatible image file format : Jpeg

- Supported maximum resolution : 15,360 x 8640

- Supported image effects : 8 effects (Fade1, Fade2, Blind, Spiral, Checker, Linear, Stairs, Wipe)

MagicInfo Lite

Flash

● Compatible with Flash 10.1

● Flash Animation

 □ Compatible file format : SWF

● Resolution : 1280 x 720

 □ Caution

  - Performance comparable to Flash Player on a Windows operating system cannot be guaranteed

  - Optimization is needed during content creation

● Flash Video

 □ Compatible file format : FLV

 □ Video

  - Codec : H.264 BP

  - Resolution : 1920 x 1080

 □ Audio

  - Codec : H.264 BP

 □ Caution

  - F4V file format is not supported

  - Screen Video is not supported

Power Point

● Compatible document file formats

 □ Extension : ppt, pptx

 □ Version : Office 97 ~ Office 2007

● Functions not supported

 □ Animation effect

 □ 3D shapes (which will be displayed in 2D)

 □ Header and footer (some subitems are not supported)

 □ Word Art

 □ Align (A group alignment error may occur)

 □ Office 2007 (SmartArt is not fully supported. 97 out of 115 subitems are supported.)

 □ Object insertion

 □ Opening encrypted documents

 □ Vertical text (some subitems are not supported)

 □ Slide notes and handout

MagicInfo Lite

PDF
• Compatible document file formats
▫ Extension : pdf
• Functions not supported
▫ Content less than 1 pixel not supported because of performance degradation issue.
▫ Masked Image, Tiled Image content not supported.
▫ Content with Rotated Text, not supported.
▫ 3D Shadow Effects not supported.

10.2   MagicInfo Lite Player

10.2.1   Network Schedule

Connecting to a server

Network setup

To run **MagicInfo Lite**, connect to a network.

> Refer to 121 page for details about the **Network Settings** menu.

Server setup

Go to **MENU** → **Network** → **MagicInfo Lite Settings** → **Server**. Next, enter the server information. (E.g.: http://192.168.0.10:7001/MagicInfo/)

Server	
Server	http://192.168.0.10:70
FTP Mode	Passive
Default Storage	Internal Memory

Configuring the FTP mode and default storage space

- **FTP Mode**

  Specify the FTP operating mode. (**Active** or **Passive**)

- **Default Storage**: Specify the location you want to save content (downloaded from the server) to.

  □ **Internal Memory**: Save the content to the internal memory of the product.

  □ **USB**: Save the content to USB memory.

  > If a network schedule is running when USB memory is not connected, the default content will run.

MagicInfo Lite Settings

MENU [□] → **Support** → **Contents Home** → **MagicInfo Lite** → **ENTER** [↵]

> Press the **MagicInfo Lite** button on the remote control.

You can view whether the server is connected (approval) in the **MagicInfo Lite** menu screen. To view whether the server is connected when a network schedule is running, press **INFO** on the remote.

1 Select **MagicInfo Lite Player** in the **MagicInfo Lite** menu.

<div align="center">

MagicInfo Lite

MagicInfo Lite Player

Local Schedule Manager

Content Manager

Settings

Close

Mode	Server	USB
Local Schedule	Connected	Connected

↻ **Return**

</div>

2 Select **Network Schedule** in the **MagicInfo Lite Player** menu.

<div align="center">

MagicInfo Lite Player

Network Schedule

Local Schedule

Internal AutoPlay

USB AutoPlay

Close

Mode	Server	USB
Local Schedule	Connected	Disconnected

↻ **Return**

</div>

MagicInfo Lite
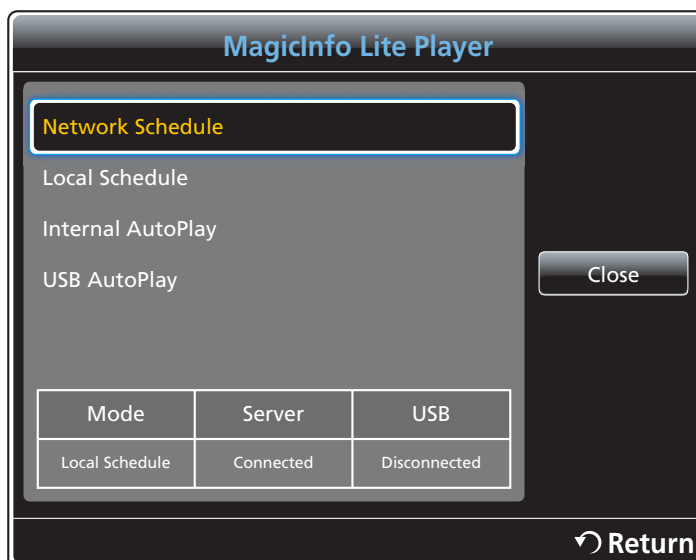
Approving a connected device from the server

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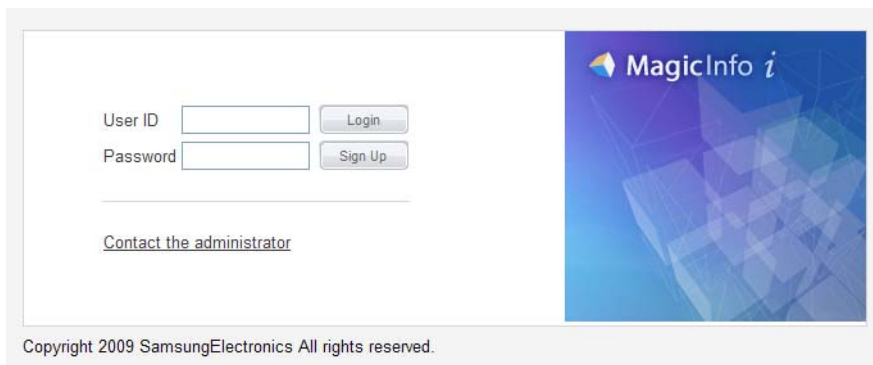
2 Enter your ID and password to log in.

3 Select **Device** from the top menu bar.
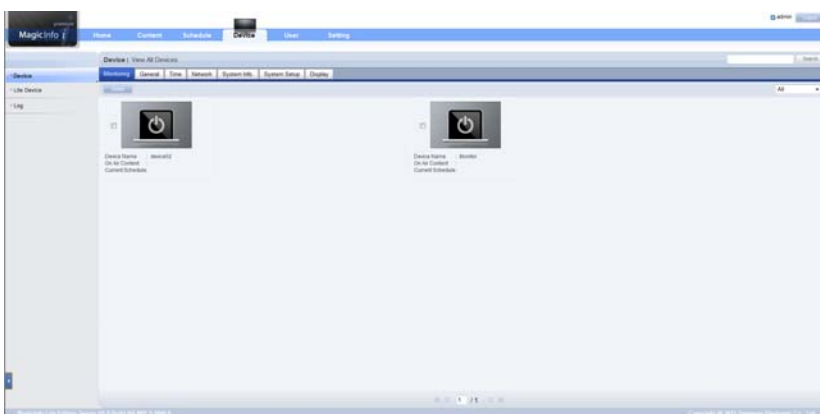
4 Select **Lite Device** from the menus on the left.
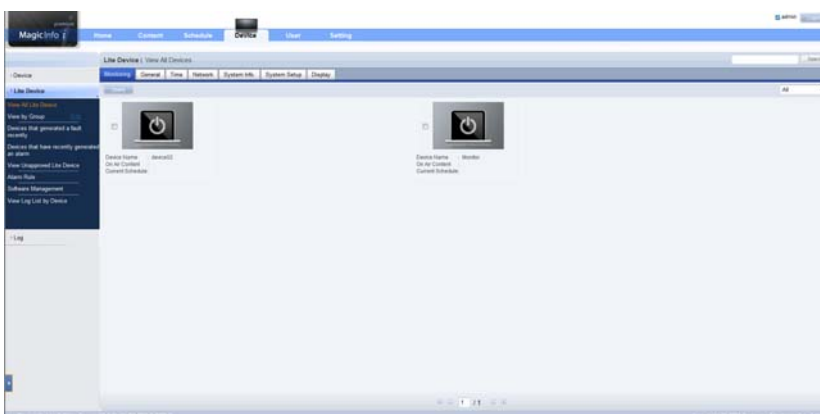
5 Select **View Unapproved Lite Device** from the sub-menus of **Lite Device**.
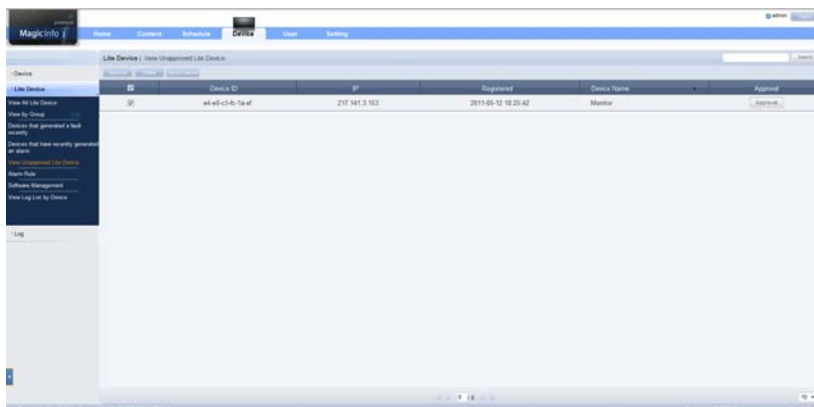
6 Select the **Approve** button for your device from the list of unapproved Lite devices.

7 Enter the information required to approve the device.
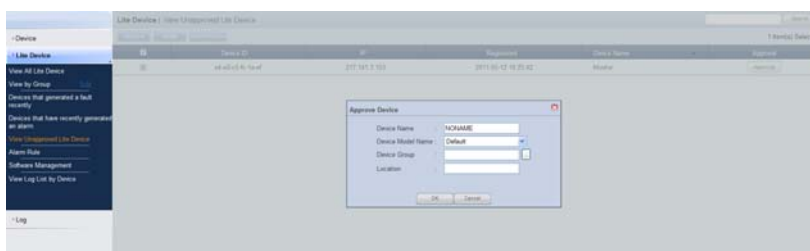
- **Device Name**: Enter the device name.
- **Device Model Name**: Select your device model.
- **Device Group**: Select ⋯ to specify the group.
- **Location**: Enter the current location of the device.

> Pressing the **INFO** button on the remote when a network schedule is running will display the details of the schedule. Check that the correct device has been selected by viewing the device ID in the details.

8 Select the **View All Lite Device** menu to check that the device has been registered.
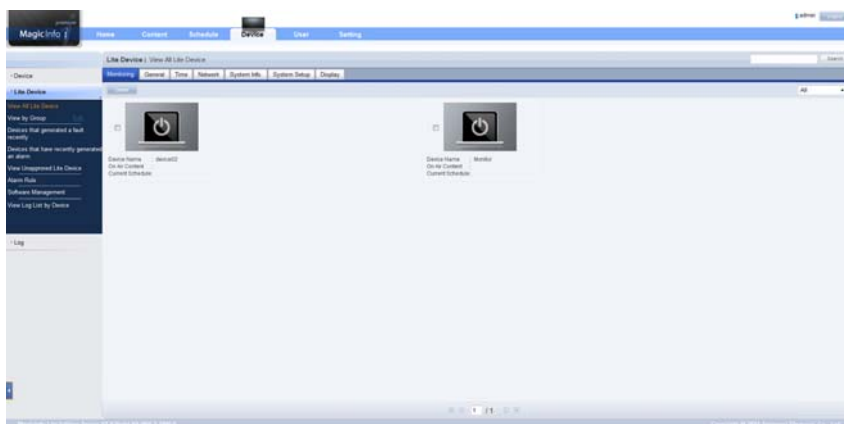
9 When the device is approved by the server, the schedule registered in the selected group will be downloaded to the device. The schedule will run after it is downloaded.

MagicInfo Lite

> ● For further details on how to configure a schedule, refer to the <MagicInfo server user's manual>.
>
> ● If a device is deleted from the list of devices approved by the server, the device will reboot to reset its settings.

Setting the current time

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

1 Go to the tabs **Device** → **Time**.
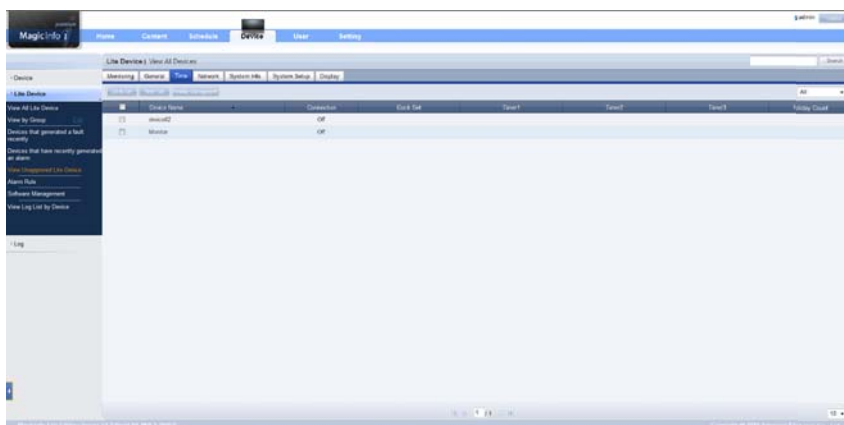
2 Select your device.

3 Select **Clock Set**, and sync the time with the server.

> For further details on how to manage the time (scheduling, holiday management, etc.), refer to the <MagicInfo server user's manual>.

MagicInfo Lite

10.2.2 Local Schedule

Run a schedule created by **Local Schedule Manager**.

Go to **Local Schedule Manager** → Select the content you want to run

> ✎ This menu is disabled if there was no schedule run previously in **Local Schedule Manager**.

1 Select **Local Schedule** in the **MagicInfo Lite Player** menu screen.

MagicInfo Lite Player		
Network Schedule		
Local Schedule		
Internal AutoPlay		
USB AutoPlay	Close	
Mode	**Server**	**USB**
Local Schedule	Connected	Connected
		↺ Return

2 Run a schedule created by local schedule.

10.2.3   Internal AutoPlay

Running Internal AutoPlay

> The option is enabled only when there is at least one content item, except for music files, in **Internal Memory**.

1 Select **Internal AutoPlay** in the **MagicInfo Lite Player** menu screen.

- Play content, which has been copied to **Internal Memory**, in alphabetical order.

```
                MagicInfo Lite Player

   Network Schedule
   Local Schedule
   Internal AutoPlay
   USB AutoPlay                              Close


      Mode        Server        USB
   Local Schedule  Connected    Connected


                                      ↺ Return
```
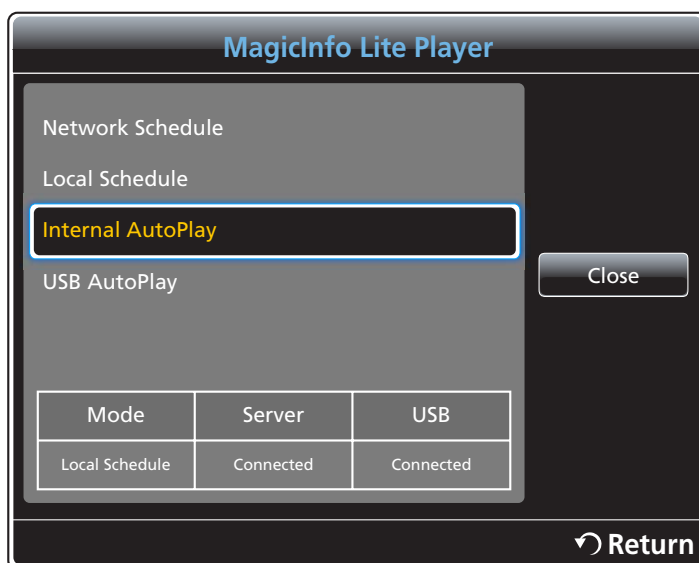
10.2.4 USB AutoPlay

Running Internal AutoPlay

- The option is enabled only when there is at least one content item, except for music files, in **USB AutoPlay**.
  - Ensure a USB device is inserted. Be sure to create a folder named "MagicInfoSlide" in the USB device and put content in the folder.
  - **USB AutoPlay** automatically runs when a USB device is connected, regardless of whether the **Internal AutoPlay** is running.

1 Select **USB AutoPlay** in the **MagicInfo Lite Player** menu screen.
  - The content contained in the "MagicInfoSlide" folder on the USB device will play in alphabetical order.
  - **USB AutoPlay** will automatically run if USB memory is connected when **Network Schedule** or **Local Schedule** is running.

```
            MagicInfo Lite Player

   Network Schedule
   Local Schedule
   Internal AutoPlay
   USB AutoPlay                    Close


   | Mode          | Server    | USB       |
   | Local Schedule| Connected | Connected |

                             ↩ Return
```

MagicInfo Lite
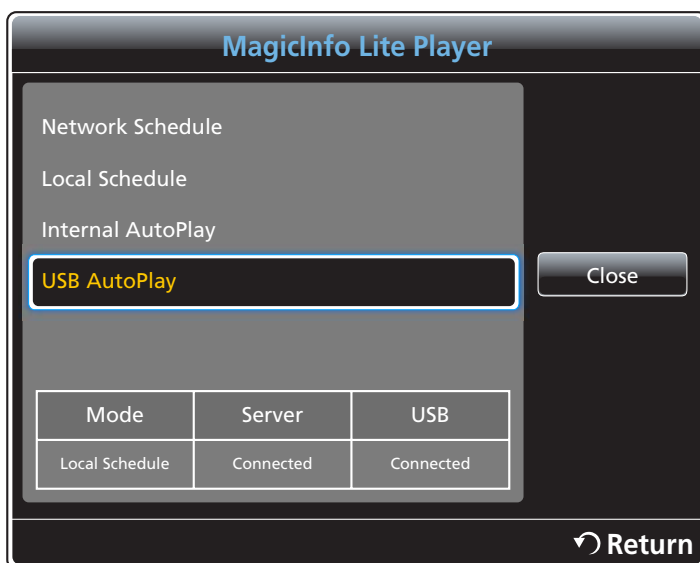
10.3   Local Schedule Manager

Configure the settings for playback from **Local Schedule**. Alternatively, select and play content from internal or USB memory according to the customized playback sequence.

10.3.1   Registering a Local Schedule

1   Select **Local Schedule Manager** in the **MagicInfo Lite** menu screen.

```
                    MagicInfo Lite

   MagicInfo Lite Player

   Local Schedule Manager

   Content Manager

   Settings                              Close


      Mode         Server        USB

   Local Schedule   Connected    Connected


                                    ↺ Return
```
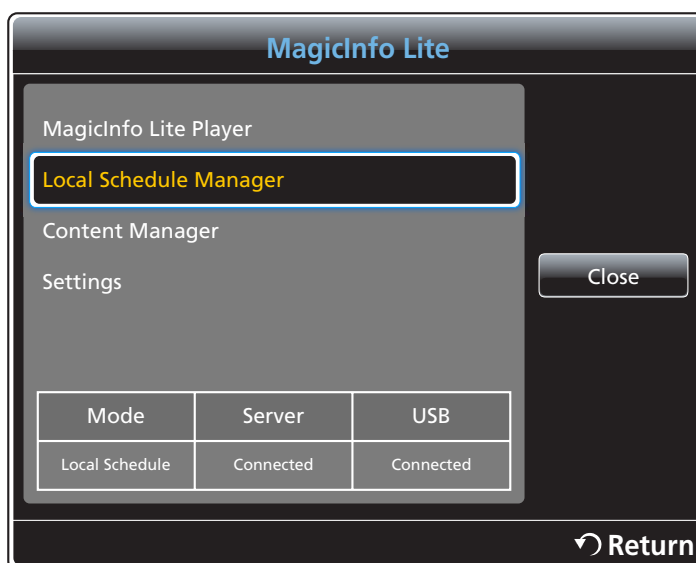
2   Select **Create** in the **Local Schedule Manager** screen.

```
              Local Schedule Manager

   Storage              Internal Memory     Create
            No Playing Schedule              Edit
                                            Delete

                                             Run
                                             Info
                                             Copy

                                             Close


                                    ↺ Return
```

MagicInfo Lite
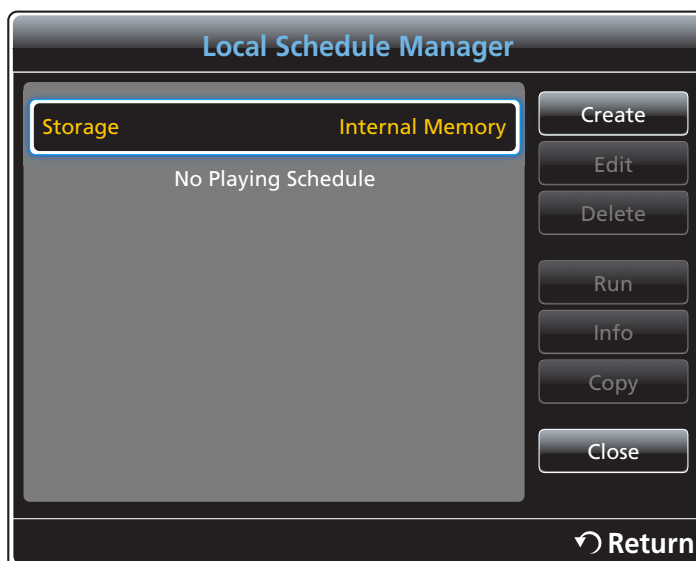
3 Select **Time** to set the time you want to play content.

Create

Ti

C[   ]

00 : 00 ~ 00 : 00

Time   --:-- ~ --:--   Save

Content   No Item   Cancel

↺ **Return**

- A maximum of 24 schedules can be created.
- If more than one schedule is created, the start time must be different for each schedule.
  (Example of an incorrect setting: 12:00 am - 12:00 am / 12:00 am - 11:00 pm)

4 Select **Content** to specify the content you want to play.

Content

Internal Memory	USB
No Item	📁 Folder1
	1✓ Menu1.jpg
	2✓ Menu2.jpg

OK

Deselect

Cancel

Duration

↺ **Return**

A maximum of 99 content files can be selected.

5 Select **Duration**
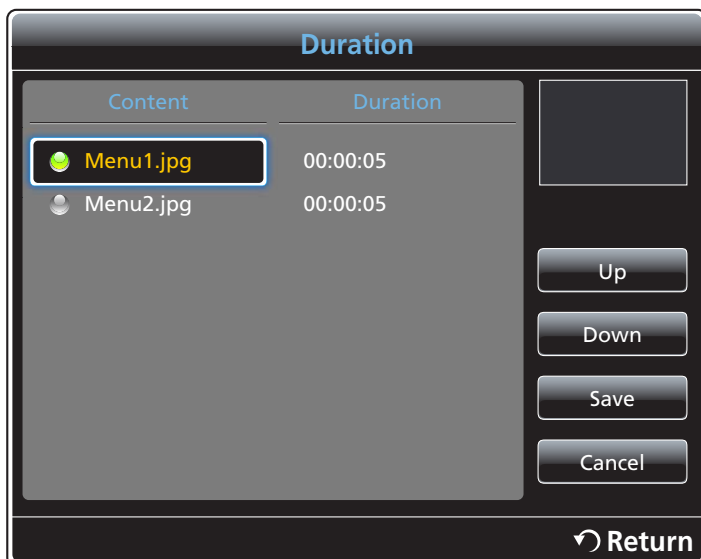
Specify the sequence and time duration to play content files.

- Changing the playing sequence

  Select a content file and change the sequence using the **Up** or **Down** button.

- **Duration**

  Set the duration to play content.

  □ **Duration** cannot be specified for videos.

  □ **Duration** must be at least 5 seconds.

Press **Save** to save the settings.

6 Select **Save**.

Select the memory space you want to save the content to.
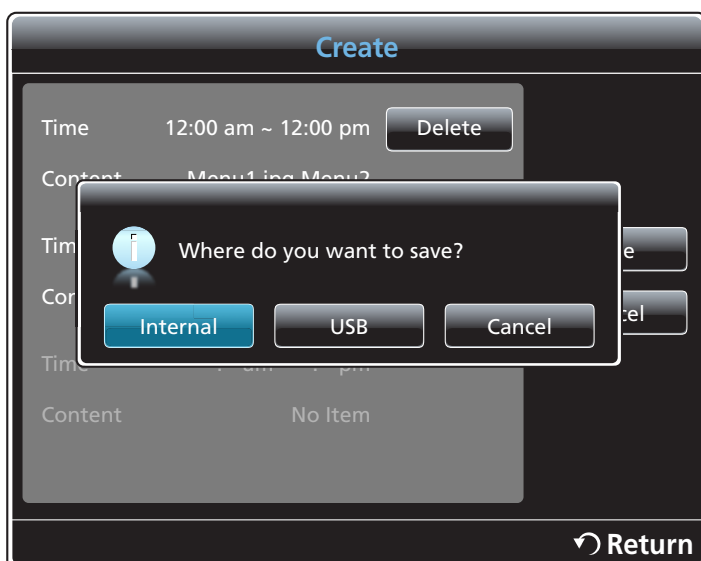
7 Check that the schedule has been added to the **Local Schedule Manager**.

Local Schedule Manager

Storage	Internal Memory	Create
No Playing Schedule		Edit
		Delete
☑ All Schedule		
☑ 2012.01.01_1834.lsch		Run
		Info
		Copy
		Close

↺ **Return**
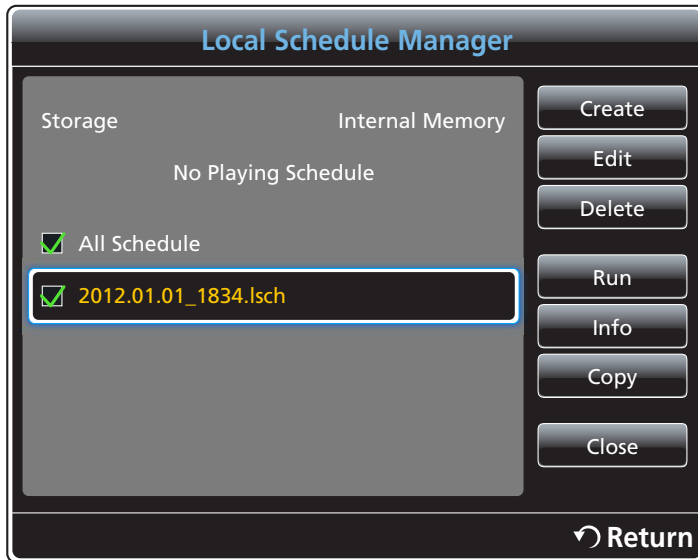
MagicInfo Lite

10.3.2 Modifying a Local Schedule

✎ Ensure at least one **Local Schedule** is registered.

1 Select **Local Schedule Manager** in the **MagicInfo Lite** menu screen.

MagicInfo Lite

MagicInfo Lite Player

Local Schedule Manager

Content Manager

Settings

Close

Mode	Server	USB
Local Schedule	Connected	Connected

↩ **Return**

2 Select the local schedule you want to modify.

Local Schedule Manager

Storage   Internal Memory

No Playing Schedule

☑ All Schedule

☑ 2012.01.01_1834.lsch

Create

Edit

Delete

Run

Info

Copy

Close

↩ **Return**

3 Select **Edit**.

MagicInfo Lite
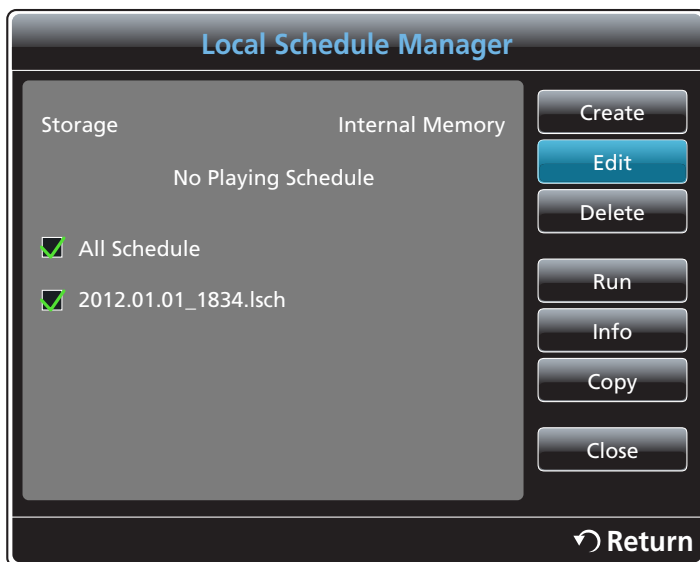
4 Change the details of the local schedule. Next, select **Save**.

MagicInfo Lite

10.3.3 Deleting a Local Schedule

Ensure at least one **Local Schedule** is registered.

1 Select **Local Schedule Manager** in the **MagicInfo Lite** menu screen.

MagicInfo Lite

MagicInfo Lite Player

Local Schedule Manager

Content Manager

Settings

Close

Mode	Server	USB
Local Schedule	Connected	Connected

↺ **Return**

2 Select the local schedule you want to delete. Next, select **Delete**.

Local Schedule Manager

Storage   Internal Memory

No Playing Schedule

☑ All Schedule

☑ 2012.01.01_1834.lsch

Create

Edit

Delete

Run

Info

Copy

Close

↺ **Return**
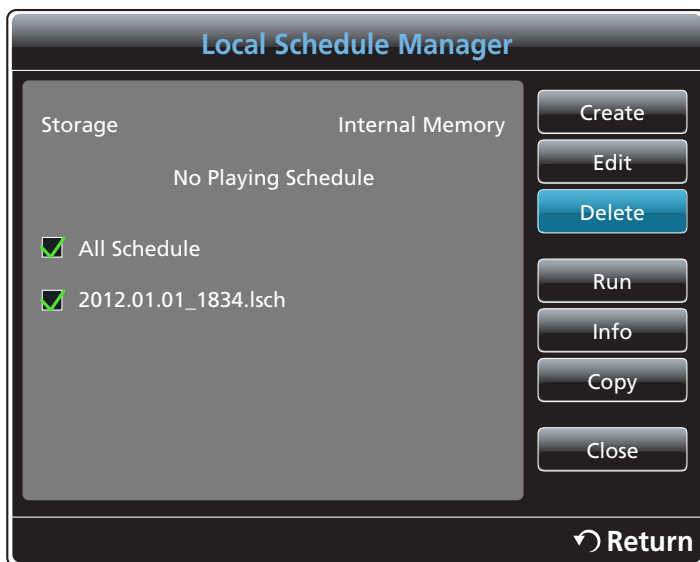
10.3.4 Running a Local Schedule

> Ensure at least one **Local Schedule** is registered.

1 Select **Local Schedule Manager** in the **MagicInfo Lite** menu screen.

<table>
<tr><td colspan="4" align="center">**MagicInfo Lite**</td></tr>
<tr><td colspan="3">MagicInfo Lite Player</td><td></td></tr>
<tr><td colspan="3">Local Schedule Manager</td><td></td></tr>
<tr><td colspan="3">Content Manager</td><td></td></tr>
<tr><td colspan="3">Settings</td><td>Close</td></tr>
<tr><td>Mode</td><td>Server</td><td>USB</td><td></td></tr>
<tr><td>Local Schedule</td><td>Connected</td><td>Connected</td><td></td></tr>
<tr><td colspan="4" align="right">↻ Return</td></tr>
</table>

2 Select the local schedule you want to run. Next, select **Run**.

<table>
<tr><td colspan="2" align="center">**Local Schedule Manager**</td></tr>
<tr><td>Storage   Internal Memory</td><td>Create</td></tr>
<tr><td>No Playing Schedule</td><td>Edit</td></tr>
<tr><td></td><td>Delete</td></tr>
<tr><td>☑ All Schedule</td><td>Run</td></tr>
<tr><td>☑ 2012.01.01_1834.lsch</td><td>Info</td></tr>
<tr><td></td><td>Copy</td></tr>
<tr><td></td><td>Close</td></tr>
<tr><td colspan="2" align="right">↻ Return</td></tr>
</table>
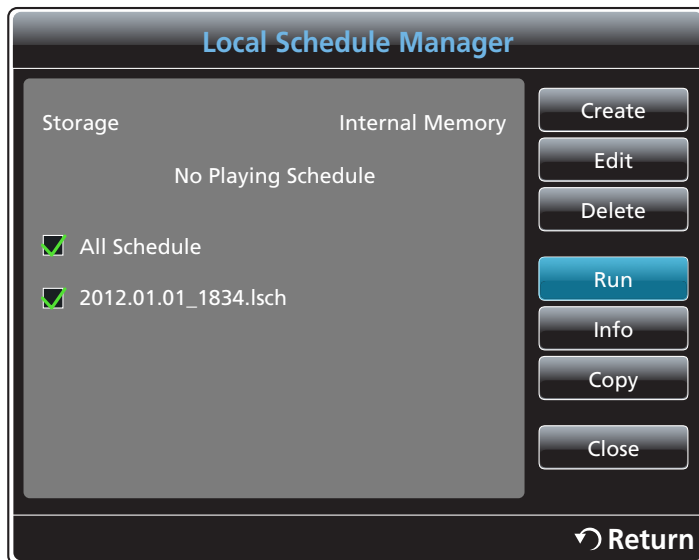
10.3.5   Stopping a Local Schedule

> This function is enabled only when a schedule is running. Selecting **Stop** will change the running mode from local schedule to network schedule.

1   Select **Local Schedule Manager** in the **MagicInfo Lite** menu screen.

MagicInfo Lite		
MagicInfo Lite Player		
Local Schedule Manager		
Content Manager		
Settings		Close
Mode	**Server**	**USB**
Local Schedule	Connected	Connected
		↻ Return

2   Select **Stop**.

Local Schedule Manager	
Storage Internal Memory	Create
▶ [Internal]2012.01.01_1834.lsch	Edit
	Delete
☐ All Schedule	
☐ 2012.01.01_1834.lsch	Stop
	Info
	Copy
	Close
	↻ Return

MagicInfo Lite

10.3.6 Viewing the details of a Local Schedule

1 Select **Local Schedule Manager** in the **MagicInfo Lite** menu screen.
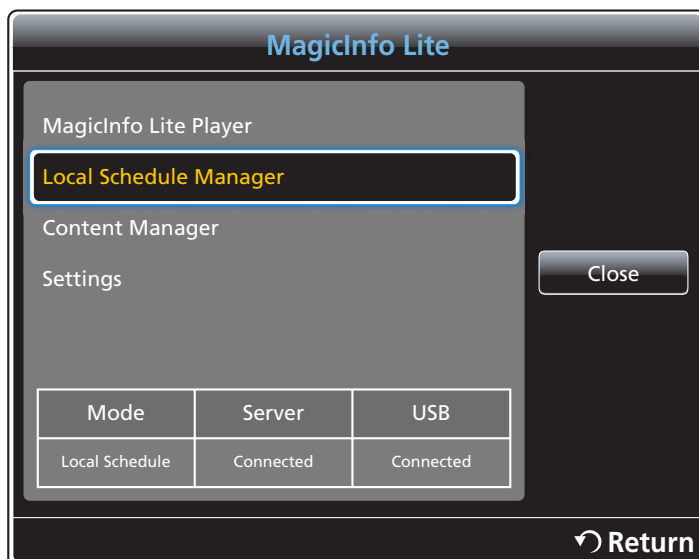
2 Select the local schedule you want to view the details of.
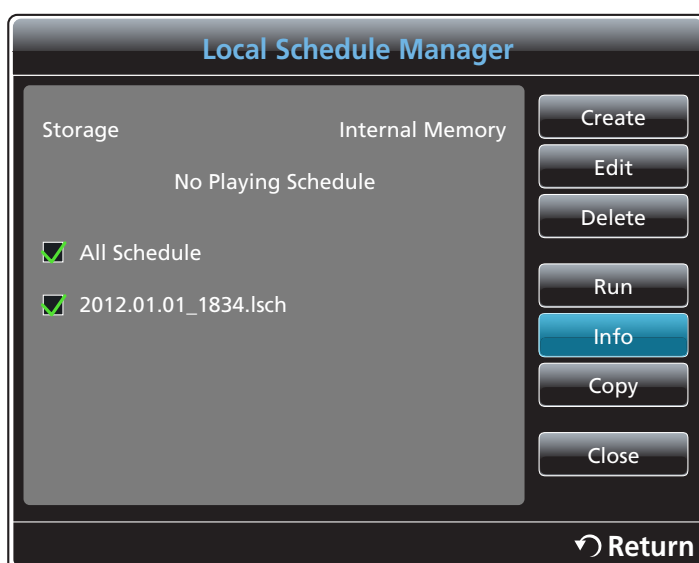
MagicInfo Lite

3 The details of the schedule will be displayed.

Information

2012.01.01_1834.lsch

12:00 am~12:00 pm, 2 File(s)
- Menu1.jpg Menu2.jpg

Close

↺ Return

MagicInfo Lite

10.3.7 Copying a Local Schedule (Local Schedule)

1 Select **Local Schedule Manager** in the **MagicInfo Lite** menu screen.

2 Select a storage device where the local schedule files to copy are saved.
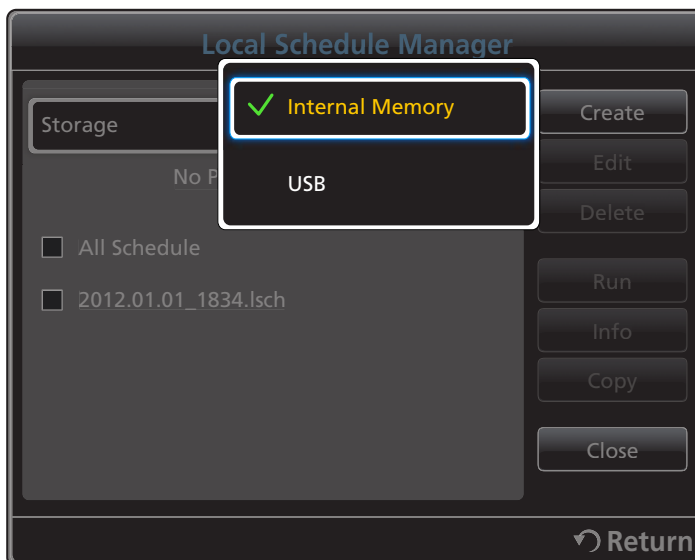
- **Internal Memory**: Copy local schedules from **Internal Memory** to a **USB** memory device.
- **USB**: Copy local schedules from a **USB** memory device to **Internal Memory**.

3 Select local schedule files and press **Copy**.

Local Schedule Manager

Storage	Internal Memory	Create
		Edit
No Playing Schedule		Delete
☑ All Schedule		Run
☑ 2012.01.01_1834.lsch		Info
		Copy
		Close

↺ Return
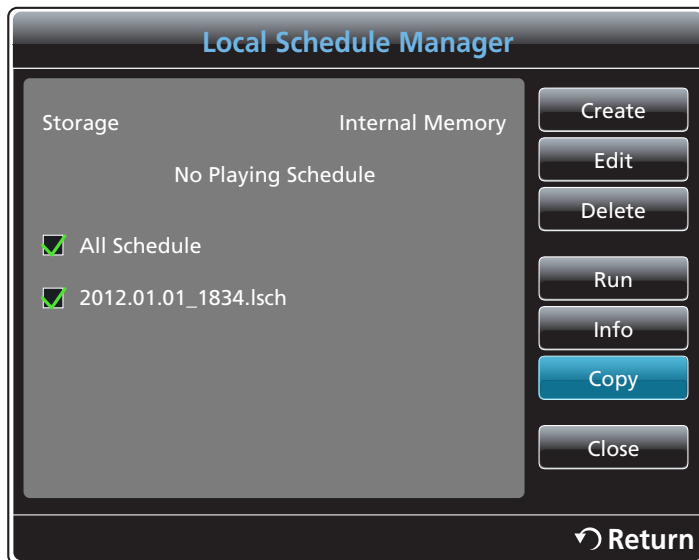
4 A window appears asking if you want to copy the files to the **Internal Memory** or **USB** memory device. Select **Yes** to copy the files.

MagicInfo Lite

10.4   Content Manager

10.4.1   Copying content

1 Select **Content Manager** in the **MagicInfo Lite** menu screen.

```
                    MagicInfo Lite

  MagicInfo Lite Player

  Local Schedule Manager

  Content Manager

  Settings                                    Close



      Mode          Server          USB

  Local Schedule    Connected       Connected


                                        ↻ Return
```
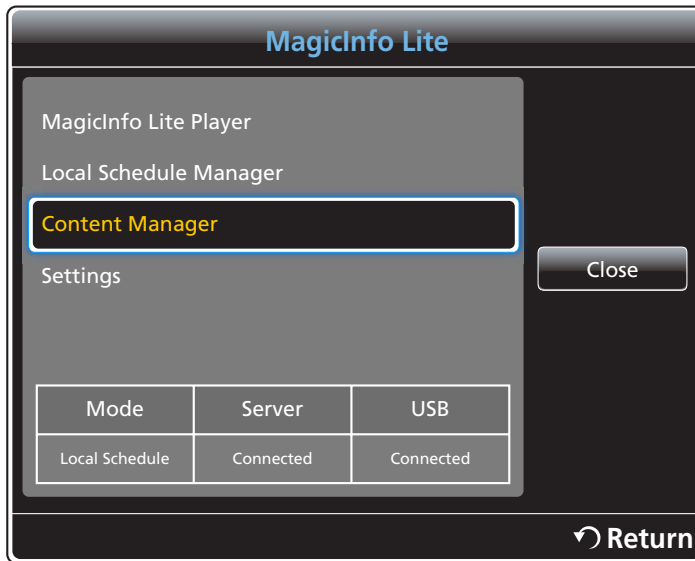
2 Select the content you want to copy. Next, select **Copy**.

● If content under **Internal Memory** is selected: You can copy the content under **Internal Memory** to **USB** memory.

● If content under **USB** is selected: You can copy the content under **USB** memory to **Internal Memory**.

> Selecting content under **Internal Memory** and **USB** memory at the same time will disable copying.

```
                  Content Manager

   ☐ Internal Memory      ☐ USB

      No Item           📁 Folder1

                        ☑   Menu1.jpg

                        ☐   Menu2.jpg



                                          Copy

    Free Space   5549.2MB   Free Space   6227.2MB
                                          Delete
   Selected File(s) 0.0MB (0) Selected File(s) 0.1MB (1)
                                          Close


                              ⏎ Select  ↻ Return
```

10 MagicInfo Lite

10.4.2 Deleting content

1 Select **Content Manager** in the **MagicInfo Lite** menu screen.

```
                      MagicInfo Lite

    MagicInfo Lite Player

    Local Schedule Manager

    Content Manager

    Settings                              Close


       Mode        Server        USB

    Local Schedule   Connected    Connected


                                      ↶ Return
```
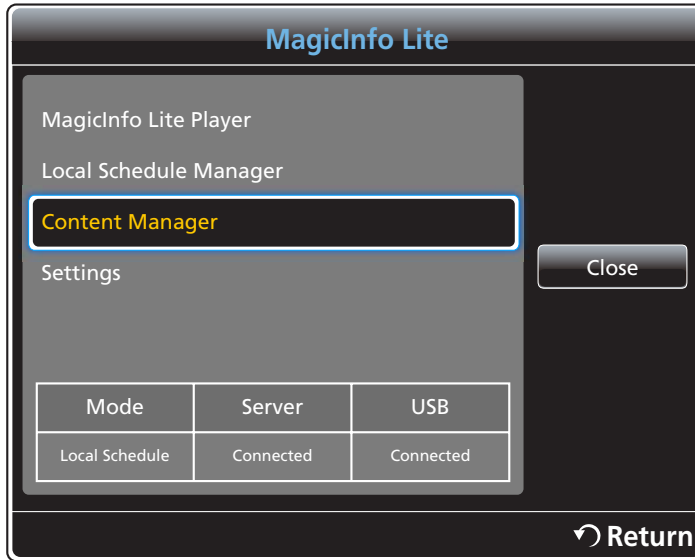
2 Select the content you want to delete. Next, select **Delete**.

- Content under **Internal Memory** and **USB** memory can be deleted at the same time.

```
                    Content Manager

      ☐ Internal Memory      ☐ USB

      ☑  Menu3.jpg           📁 Folder1
      ☐  Menu4.jpg           ☑   Menu1.jpg
                             ☐   Menu2.jpg


                                              Copy

      Free Space   5549.2MB   Free Space   6227.2MB   Delete
      Selected File(s) 0.0MB (0)  Selected File(s) 0.2MB (2)  Close

                              ↵ Select  ↶ Return
```

10.5 Settings

```
┌─────────────────────────────────────────┐
│              Settings                    │
│  ┌──────────────────────────────┐        │
│  │ Default Content Duration     │        │
│  │ Content Ratio                │        │
│  │ Image Effect           None  │  ┌─────┐│
│  │ Default Content        None  │  │Close││
│  │ Screen Layout     Landscape  │  └─────┘│
│  │ Delete All Content           │        │
│  │ Safety Remove USB Device     │        │
│  └──────────────────────────────┘        │
│                        ↩ Return          │
└─────────────────────────────────────────┘
```
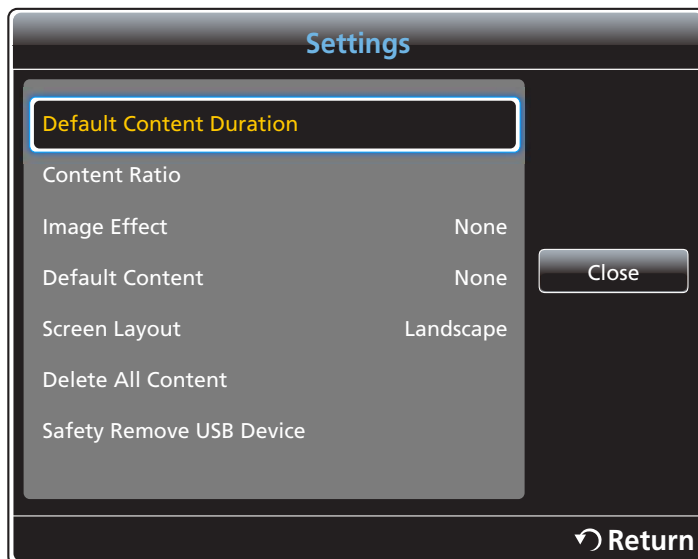
10.5.1   Default Content Duration

Specify the duration to play content.

● **Image Viewer Time**, **PPT Viewer Time**, **PDF Viewing Time**, **Flash Viewing Time**

> The duration must be at least 5 seconds.

10.5.2   Content Ratio

Specify the display aspect ratio by type when playing content.

● **PPT Ratio**, **PDF Ratio**, **Video Ratio**

  □ **Original**: Display content with the original size.

  □ **Full Screen**: Display content in full screen.

10.5.3   Image Effect

Configures the image transition effects.

● **None**, **Fade1**, **Fade2**, **Blind**, **Spiral**, **Checker**, **Linear**, **Stairs**, **Wipe**, **Random**

10.5.4   Default Content

Specify the content to play by default when launching **MagicInfo Lite**.

MagicInfo Lite

10.5.5   Screen Layout

Change the screen orientation to landscape or portrait view.

- **Landscape** / **Portrait**

10.5.6   Delete All Content

Delete all the content files in **Internal Memory**.

10.5.7   Safety Remove USB Device

Safely removes USB memory

10.6   When Content is Running

10.6.1   Viewing the details of the content that is running

> Press the **INFO** button on the remote control.

- **Software Version**: Displays the software version of a device
- **Device Name**: Displays the name of a device recognized by the server
- **Device ID**: Displays the original identification number of a device
- **Mode**: Displays the current operating mode (**Network Schedule**, **Local Schedule**, **Internal AutoPlay** or **USB AutoPlay**) of **MagicInfo Lite Player**
- **Server**: Displays the connection status (**Connected**, **Disconnected** or **Non-approval**) of the server
- **USB**: Displays the connection status of a USB device
- **Schedule download**: Displays the progress of a network schedule being downloaded from the server

Information	
Software Version	: A-LUBXGDSP-0100.9
Device Name	: Monitor
Device ID	: FF-FF-FF-FF-FF-FF
Mode	: Local Schedule
Server	: Disconnected
USB	: Connected
Schedule download	: No Schedule to download
Close	
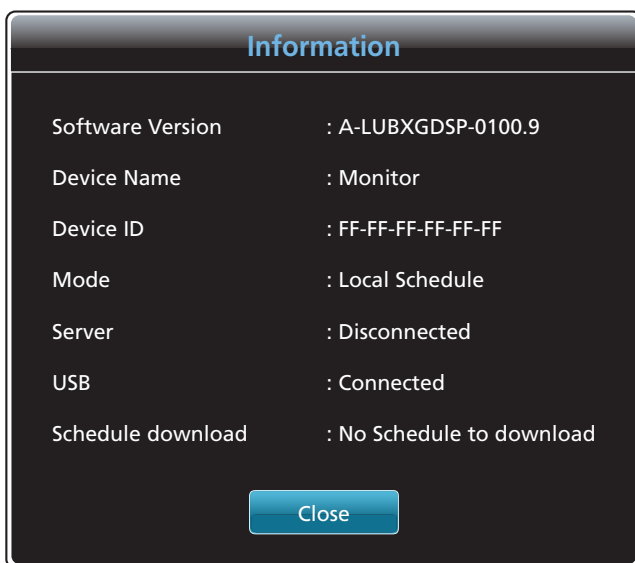
10.6.2   Changing the settings for the content that is running

📝   Press the **TOOLS** button on the remote control.

Tools	
Picture Mode	Standard
Sound Mode	Standard
PIP	Off
Background Music	Off
Background Music Setting	
Safety Remove USB Device	
	↺ Return
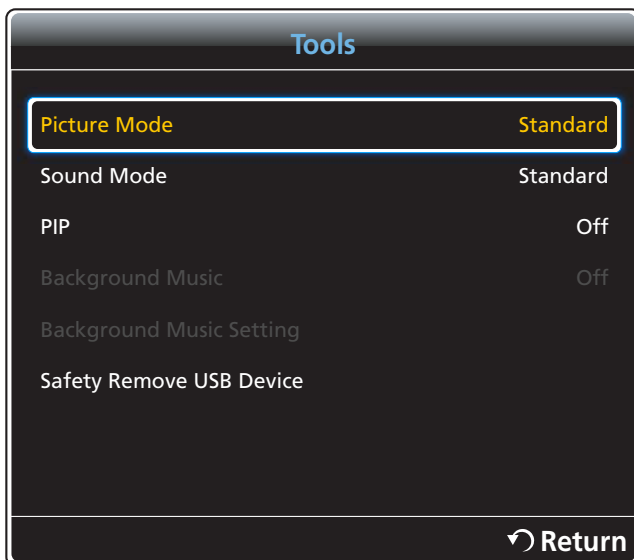
You can change the **Picture Mode** or **Sound Mode** setting or safely remove a USB device (**Safely Remove USB**) while content is playing by pressing the **TOOLS** button on the remote control.

● **Picture Mode** (**Dynamic**, **Standard**, **Natural**, **Movie**)

Customizes the screen settings for the content currently playing

● **Sound Mode** (**Standard**, **Music**, **Movie**, **Clear Voice**, **Amplify**)

Customizes the audio settings for the content currently playing

● **PIP**

□   **PIP** (**Off** / **On**)

Activate or deactivate the PIP function.

● **Background Music** (**Off** / **On**)

Activate or deactivate the **Background Music** function.

● **Background Music Setting** (**Shuffle** / **Play** / **Cancel** / **Deselect**)

Set music files saved in the **Internal Memory** as **background music**.

● **Safely Remove USB Device**

Safely removes USB memory

11 Troubleshooting Guide

11.1 Requirements Before Contacting Samsung Customer Service Center

11.1.1 Testing the Product

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

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 Cable Connected" is displayed, the product is operating normally.

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

11.1.2 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).

11 **Troubleshooting Guide**

11.1.3 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. ("2.2 Connecting and Using a PC")
Blank spaces are found at the top and bottom of the screen when an HDMI or HDMI-DVI cable is connected to the product and PC.	Blank spaces on the screen are not caused by the product. The cause of the problem is the PC or graphics card, and can be fixed by adjusting the screen size in the HDMI or DVI option of the graphics card settings menu. If the graphics card settings menu has no option to adjust the screen size, update the graphics card driver to the latest version. (Please contact the graphics card or computer manufacturer for details on how to adjust the screen settings.)

Screen issue	
The power LED is off. The screen will not switch on.	Make sure that the power cord is connected. ("2.2 Connecting and Using a PC")
"**No Cable Connected**" is displayed on the screen (refer to "Connecting to a PC").	Check that the product is connected correctly with a cable. ("2.2 Connecting and Using 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. ("2.2 Connecting and Using a PC")

11 ## Troubleshooting Guide

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 Information on the product menu and the Standard Signal Mode Table.
There are shadows or ghost images left on the screen.	
The screen is too bright. The screen is too dark.	Adjust **Brightness** and **Contrast**.
Screen color is inconsistent.	Go to **Picture** and adjust the **Colo(u)r Space** settings.
White does not really look white.	Go to **Picture** and adjust the **White Balance** settings.
There is no image on the screen and the power LED blinks every 0.5 to 1 second.	The product is in power-saving mode.
	Press any key on the keyboard or move the mouse to return to the previous screen.

Sound issue	
There is no sound.	Check the connection of the audio cable or adjust the volume. ("2.2 Connecting and Using a PC")
	Check the volume.
The volume is too low.	Adjust the volume.
	If the volume is still low after turning it up to the maximum level, adjust the volume on your PC sound card or software program.

11 Troubleshooting Guide

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

Source device issue	
A beeping sound is heard when my PC is booting.	If a beeping sound is heard when your PC is booting, have your PC serviced.

11 Troubleshooting Guide

11.2   Q & A

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

11 Troubleshooting Guide

Question	Answer
How can I change the resolution?	• "Windows XP": Go to **Control Panel** → **Appearance and Themes** → **Display** → **Settings** and adjust the resolution. • "Windows ME/2000": Go to **Control Panel** → **Display** → **Settings** and adjust the resolution. • "Windows Vista": Go to **Control Panel** → **Appearance and Personalization** → **Personalize** → **Display Settings** and adjust the resolution. • "Windows 7": Go to **Control Panel** → **Appearance and Personalization** → **Display** → **Adjust Resolution** and adjust the resolution.
How do I set power-saving mode?	• Windows XP: Set power-saving mode in **Control Panel** → **Appearance and Themes** → **Display** → **Screen Saver Settings** or BIOS SETUP on the PC. • Windows ME/2000: Set power-saving mode in **Control Panel** → **Display** → **Screen Saver Settings** or BIOS SETUP on the PC. • Windows Vista: Set power-saving mode in **Control Panel** → **Appearance and Personalization** → **Personalize** → **Screen Saver Settings** or BIOS SETUP on the PC. • Windows 7: Set power-saving mode in **Control Panel** → **Appearance and Personalization** → **Personalize** → **Screen Saver Settings** or BIOS SETUP on the PC.

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

12 Specifications

12.1 General

Model Name		DE40C
Panel	Size	101 cm
	Display area	885.6 mm (H) x 498.15 mm (V)
Dimensions (W x H x D)		919.6 x 532.0 x 35.1 mm
Weight		13.5 kg
VESA		200 x 200 mm

Model Name		DE46C	DE55C
Panel	Size	116 cm	138 cm
	Display area	1018.08 mm (H) x 572.67 mm (V)	1209.6 mm (H) x 680.4 mm (V)
Dimensions (W x H x D)		1054.5 x 608.5 x 35.1 mm	1249.5 x 721.0 x 35.1 mm
Weight		16.4 kg	20.5 kg
VESA		400 x 400 mm	

Model Name		DE40C / DE46C / DE55C
Display Color		16.7M
Synchronization	Horizontal	30~81kHz
	Vertical	56~75Hz
Resolution	Optimum resolution	1920x1080 @ 60Hz
	Maximum resolution	1920x1080 @ 60Hz
Maximum Pixel Clock		148.5MHz (Analog, Digital)
Audio Output		10 W + 10 W
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.
Signal connectors	Input	AV IN/COMPONENT IN(common), RGB IN(PC D-Sub), DVI IN, HDMI IN, DP IN, RGB/DVI/HDMI/AV/COMPONENT AUDIO IN, RJ45, RS232C IN, IR/AMBINET SENSOR IN
	Output	IR OUT, AUDIO OUT, DP OUT(LOOP OUT), RS232C OUT
USB		2 DOWN

Specifications

Model Name		DE40C / DE46C / DE55C
Environmental considerations	Operating	Temperature : 0℃ ~ 40℃ (32℉ ~ 104℉) Humidity : 10% ~ 80%, non-condensing
	Storage	Temperature : -20℃ ~ 45℃ (-4℉ ~ 113℉) 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.

 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.

12 **Specifications**

12.2 PowerSaver

The power-saving function of this product reduces power consumption by switching off the screen and changing the color 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-savign mode only functions when the product is connected to a PC with a power-saving function.

State		Normal Operation			Power saving mode	Power off (Power Button)
		Rating (With PIM)	Rating	Typical		
Power Indicator		Off			Blinking	Off
Power Consumption	DE40C	220 W	150 W	114 W	Less than 1 W	Less than 1 W
	DE46C	240 W	170 W	131 W		
	DE55C	260 W	190 W	149 W		

- The displayed power consumption level can vary in different operating conditions or when settings are changed.
- SOG (Sync On Green) is not supported.
- To reduce the power consumption to 0, 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.).

12 **Specifications**

12.3 Standard Signal Mode Table

- 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 monitor.

- Check the frequency when you exchange a CDT monitor (connected to a PC) for an LCD monitor. If the LCD monitor does not support 85Hz, change the vertical frequency to 60Hz using the CDT monitor before you exchange it with the LCD monitor.

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.

Display Mode	Horizontal Frequency (kHz)	Vertical Frequency (Hz)	Pixel Clock (MHz)	Sync Polarity (H/V)
IBM, 720 x 400	31.469	70.087	28.322	-/+
MAC, 640 x 480	35.000	66.667	30.240	-/-
MAC, 832 x 624	49.726	74.551	57.284	-/-
MAC, 1152 x 870	68.681	75.062	100.000	-/-
VESA, 640 x 480	31.469	59.940	25.175	-/-
VESA, 640 x 480	37.861	72.809	31.500	-/-
VESA, 640 x 480	37.500	75.000	31.500	-/-
VESA, 800 x 600	35.156	56.250	36.000	+/+
VESA, 800 x 600	37.879	60.317	40.000	+/+
VESA, 800 x 600	48.077	72.188	50.000	+/+
VESA, 800 x 600	46.875	75.000	49.500	+/+
VESA, 1024 x 768	48.363	60.004	65.000	-/-
VESA, 1024 x 768	56.476	70.069	75.000	-/-
VESA, 1024 x 768	60.023	75.029	78.750	+/+
VESA, 1152 x 864	67.500	75.000	108.000	+/+
VESA, 1280 x 720	45.000	60.000	74.250	+/+
VESA, 1280 x 800	49.702	59.810	83.500	-/+
VESA, 1280 x 1024	63.981	60.020	108.000	+/+
VESA, 1280 x 1024	79.976	75.025	135.000	+/+

Specifications

Display Mode	Horizontal Frequency (kHz)	Vertical Frequency (Hz)	Pixel Clock (MHz)	Sync Polarity (H/V)
VESA, 1366 x 768	47.712	59.790	85.500	+/+
VESA, 1440 x 900	55.935	59.887	106.500	-/+
VESA, 1600 x 900(RB)	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	+/+

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.

12.4 License

DOLBY. DIGITAL PLUS PULSE	Manufactured under license from Dolby Laboratories. Dolby and the double-D symbol are trademarks of Dolby Laboratories.

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ABOUT DIVX VIDEO-ON-DEMAND: This DivX Certified ® device must be registered in order to play purchased DivX Video-on-Demand (VOD) movies. To obtain your registration code, locate the DivX VOD section in your device setup menu. Go to vod.divx.com for more information on how to complete your registration.

Covered by one or more of the following U.S. patents : 7,295,673; 7,460,668; 7,515,710; 7,519,274

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Open source license notice

In the case of using open source software, Open Source license are available on the product menu.

Open Source License Notice is written only English.

Appendix

Contact SAMSUNG WORLD WIDE

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

NORTH AMERICA		
U.S.A	1-800-SAMSUNG (726-7864)	http://www.samsung.com
CANADA	1-800-SAMSUNG (726-7864)	http://www.samsung.com/ca (English) http://www.samsung.com/ca_fr (French)
MEXICO	01-800-SAMSUNG (726-7864)	http://www.samsung.com

LATIN AMERICA		
ARGENTINE	0800-333-3733	http://www.samsung.com
BOLIVIA	800-10-7260	http://www.samsung.com
BRAZIL	0800-124-421 4004-0000	http://www.samsung.com
CHILE	800-SAMSUNG (726-7864) From mobile 02-482 82 00	http://www.samsung.com
COLOMBIA	01-8000112112	http://www.samsung.com
COSTA RICA	0-800-507-7267	http://www.samsung.com/latin (Spanish) http://www.samsung.com/latin_en (English)
DOMINICA	1-800-751-2676	http://www.samsung.com/latin (Spanish) http://www.samsung.com/latin_en (English)
ECUADOR	1-800-10-7267	http://www.samsung.com/latin (Spanish) http://www.samsung.com/latin_en (English)
EL SALVADOR	800-6225	http://www.samsung.com/latin (Spanish) http://www.samsung.com/latin_en (English)

LATIN AMERICA		
GUATEMALA	1-800-299-0013	http://www.samsung.com/latin (Spanish) http://www.samsung.com/latin_en (English)
HONDURAS	800-27919267	http://www.samsung.com/latin (Spanish) http://www.samsung.com/latin_en (English)
JAMAICA	1-800-234-7267	http://www.samsung.com
NICARAGUA	00-1800-5077267	http://www.samsung.com/latin (Spanish) http://www.samsung.com/latin_en (English)
PANAMA	800-7267	http://www.samsung.com/latin (Spanish) http://www.samsung.com/latin_en (English)
PERU	0-800-777-08	http://www.samsung.com
PUERTO RICO	1-800-682-3180	http://www.samsung.com
TRINIDAD & TOBAGO	1-800-SAMSUNG (726-7864)	http://www.samsung.com
VENEZUELA	0-800-100-5303	http://www.samsung.com

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AUSTRIA	0810 - SAMSUNG (7267864, € 0.07/min)	http://www.samsung.com
BELGIUM	02-201-24-18	http://www.samsung.com/be (Dutch) http://www.samsung.com/be_fr (French)
BOSNIA	05 133 1999	http://www.samsung.com
BULGARIA	07001 33 11 , normal tariff	http://www.samsung.com
CROATIA	062 SAMSUNG (062 726 7864)	http://www.samsung.com
CYPRUS	8009 4000 only from landline (+30) 210 6897691 from mobile and land line	http://www.samsung.com

EUROPE		
CZECH	800 - SAMSUNG (800-726786)	http://www.samsung.com
	Samsung Electronics Czech and Slovak, s.r.o., Oasis Florenc, Sokolovská 394/17, 180 00, Praha 8	
DENMARK	70 70 19 70	http://www.samsung.com
EIRE	0818 717100	http://www.samsung.com
ESTONIA	800-7267	http://www.samsung.com
FINLAND	09 85635050	http://www.samsung.com
FRANCE	01 48 63 00 00	http://www.samsung.com
GERMANY	0180 5 SAMSUNG bzw. 0180 5 7267864* (*0,14 €/Min. aus dem dt. Festnetz, aus dem Mobilfunk max. 0,42 €/Min.)	http://www.samsung.com
GREECE	80111-SAMSUNG (80111 726 7864) only from land line (+30) 210 6897691 from mobile and land line	http://www.samsung.com
HUNGARY	06-80-SAMSUNG (726-7864)	http://www.samsung.com
ITALIA	800-SAMSUNG (726-7864)	http://www.samsung.com
LATVIA	8000-7267	http://www.samsung.com
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MACEDONIA	023 207 777	http://www.samsung.com
MONTENEGRO	020 405 888	http://www.samsung.com
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SLOVAKIA	0800 - SAMSUNG (0800-726 786)	http://www.samsung.com
SPAIN	902 - 1 - SAMSUNG (902 172 678)	http://www.samsung.com

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SWITZERLAND	0848-SAMSUNG (7267864, CHF 0.08/min)	http://www.samsung.com/ch (German) http://www.samsung.com/ch_fr (French)
U.K	0330 SAMSUNG (7267864)	http://www.samsung.com

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KYRGYZSTAN	00-800-500-55-500	http://www.samsung.com
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MONGOLIA	+7-800-555-55-55	http://www.samsung.com
RUSSIA	8-800-555-55-55	http://www.samsung.com
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UKRAINE	0-800-502-000	http://www.samsung.com/ua (Ukrainian) http://www.samsung.com/ua_ru (Russian)
UZBEKISTAN	8-10-800-500-55-500	http://www.samsung.com

ASIA PACIFIC		
AUSTRALIA	1300 362 603	http://www.samsung.com
CHINA	400-810-5858	http://www.samsung.com
HONG KONG	(852) 3698 - 4698	http://www.samsung.com/hk (Chinese) http://www.samsung.com/hk_en (English)

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ASIA PACIFIC		
INDIA	1800 1100 11 3030 8282 1800 3000 8282 1800 266 8282	http://www.samsung.com
INDONESIA	0800-112-8888 021-5699-7777	http://www.samsung.com
JAPAN	0120-327-527	http://www.samsung.com
MALAYSIA	1800-88-9999	http://www.samsung.com
NEW ZEALAND	0800 SAMSUNG (0800 726 786)	http://www.samsung.com
PHILIPPINES	1-800-10-SAMSUNG (726-7864) for PLDT 1-800-3-SAMSUNG (726-7864) for Digitel 1-800-8-SAMSUNG (726-7864) for Globe 02-5805777	http://www.samsung.com
SINGAPORE	1800-SAMSUNG (726-7864)	http://www.samsung.com
TAIWAN	0800-329-999 0266-026-066	http://www.samsung.com
THAILAND	1800-29-3232 02-689-3232	http://www.samsung.com
VIETNAM	1 800 588 889	http://www.samsung.com

MIDDIE EAST		
BAHRAIN	8000-4726	http://www.samsung.com/ae (English) http://www.samsung.com/ae_ar (Arabic)
EGYPT	08000-726786	http://www.samsung.com
IRAN	021-8255	http://www.samsung.com
JORDAN	800-22273 065777444	http://www.samsung.com
KUWAIT	183-2255	http://www.samsung.com/ae (English) http://www.samsung.com/ae_ar (Arabic)

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MIDDIE EAST		
MOROCCO	080 100 2255	http://www.samsung.com
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SAUDI ARABIA	9200-21230	http://www.samsung.com/ae (English) http://www.samsung.com/ae_ar (Arabic)
TURKEY	444 77 11	http://www.samsung.com
U.A.E	800-SAMSUNG (726-7864)	http://www.samsung.com

AFRICA		
ANGOLA	91-726-7864	http://www.samsung.com
BOTSWANA	0800-726-000	http://www.samsung.com
CAMEROON	7095- 0077	http://www.samsung.com
COTE D' IVOIRE	8000 0077	http://www.samsung.com
GHANA	0800-10077 0302-200077	http://www.samsung.com
KENYA	0800 724 000	http://www.samsung.com
NAMIBIA	8197267864	http://www.samsung.com
NIGERIA	0800-726-7864	http://www.samsung.com
SENEGAL	800-00-0077	http://www.samsung.com
SOUTH AFRICA	0860-SAMSUNG (726-7864)	http://www.samsung.com
TANZANIA	0685 88 99 00	http://www.samsung.com
UGANDA	0800 300 300	http://www.samsung.com
ZAMBIA	211350370	http://www.samsung.com

Responsibility for the Pay Service (Cost to Customers)

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

Not a product defect

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

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

A Product damage caused by customer's fault

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

If a product damage is caused by;

- external impact or drop.
- use of supplies or 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.

Optimum Picture Quality and Afterimage Burn-in Prevention

Optimum Picture Quality

- To enjoy the optimum picture quality, go to Control Panel on your PC and adjust the resolution and refresh rate as follows. The picture quality of TFT-LEDs may degrade if the optimum resolution is not selected.
  □ Resolution: 1920 X 1080
  □ Vertical frequency (refresh rate): 56 ~ 75 Hz
- Due to the nature of the manufacturing of this product, approximately 1 pixel per million (1ppm) may be brighter or darker on the LED panel. This does not affect product performance.
  □ The number of sub-pixels by LED panel type: DE40C, DE46C, DE55C: 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.
- Unlike CDT monitors, TFT-LED monitors (due to the nature of the panel) can be set to only one resolution to obtain the optimum picture quality. Therefore, setting 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 monitor.

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.
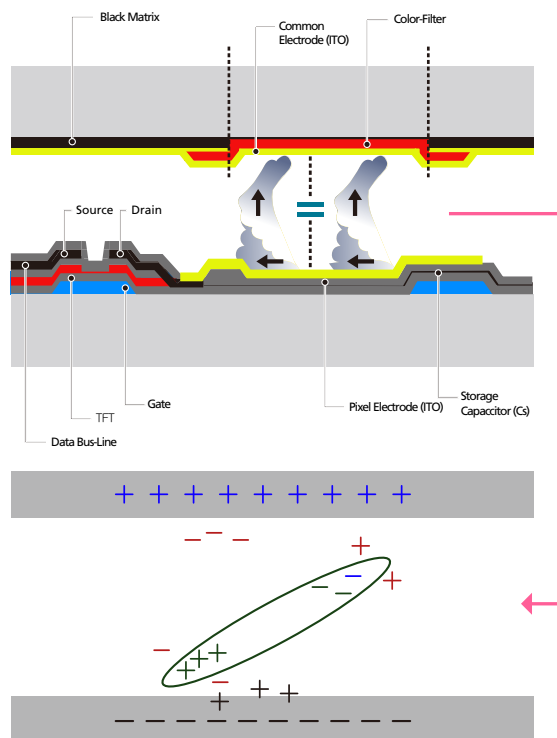
- Powering Off, Screen Saver and Power Saving Mode

  □ Power off the product for 2 hours after using it for 12 hours.

  □ Power off the product for 4 hours after using it for 20 hours.

  □ Go to Display Properties > Power Supply on your PC and set the product to power off as required.

  □ Using a screen saver is recommended.

  It is best to use a single-color or moving-image screen saver.

• Regular Color Change

Type 1	Type 2

📖 Use 2 colors

Switch between 2 colors every 30 minutes as shown above.

• Avoid combinations of a text color and background color of contrasting brightness.

Avoid using grey as it may contribute to afterimage burn-in.

Avoid using colors of contrasting brightness (black and white; grey).

• Regular Text Color Change

▫ Use bright colors of similar brightness.

Interval: Change text color and background color every 30 minutes

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

[Step 1]	[Step 2]	[Step 3]

▫ 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.

▫ 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.

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.

(India Only)

For more information on safe disposal and recycling visit our website www.samsung.com/in or contact our Helpline numbers - 18002668282, 180030008282.

Terminology

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 color. Dot pitch is measured in millimeters.

Vertical Frequency

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

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

Horizontal Frequency

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

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.

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).

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.

DVD (Digital Versatile Disc)

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

HDMI (High Definition Multimedia Interface)

It is an interface that can be connected to a digital audio source as well as a high-definition video source by using a single cable without compression.

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.

Stereo

Stereo refers to a technology that outputs audio signals via two channels. It delivers 3D sound experience through separate left and right audio channels over two speakers.

Source

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

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.

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