

# LFD DISPLAY User Manual

#### DM32D DM40D DM48D DM55D

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

# **Table of contents**

#### Before Using the Product

» Copyright » Safety Precautions

#### Preparations

» Parts

- » Before Installing the Product (Installation Guide)
- » Dimensions
- » Using the COVER-JACK
- » Installing the Wall Mount
- » Remote Control (RS232C)

# Connecting and Using a Source Device

- » Before Connecting
- » Connecting to a PC
- » Connecting to a Video Device
- » Connecting to an Audio System
- » Connecting the LAN Cable
- » Connecting the network box (Sold separately)
- » Changing the Input source

## Using MDC

» MDC Programme Installation/Uninstallation » Connecting to MDC

#### Home feature

- » Player
- » Schedule
- » Template
- » Clone Product
- » ID Settings
- » Video Wall
- » Natwork Status
- » Picture Mode
- » On/Off Timer
- » Ticker
- » More settings
- » URL Launcher

#### Screen Adjustment

- » Picture Mode
- » Backlight / Contrast / Brightness / Sharpness / Colour / Tint (G/R)
- » Colour Temperature
- » White Balance
- » Gamma
- » Calibrated value
- » Advanced Settings
- » Picture Options
- » Picture Size
- » Auto Adjustment
- » PC Screen Adjustment
- » Picture Off
- » Reset Picture

#### **OnScreen** Display

- » PIP
- » Rotation
- » Screen Protection
- » Message Display
- » Menu Transparency
- » Menu Language
- » Reset OnScreen Display

# **Table of contents**

#### Sound Adjustment

#### » Sound Mode

» Sound Effect

» HDMI Sound

- » Sound on Video Call
- » Speaker Settings
- » Auto Volume
- » Reset Sound

#### Network

- » Network Status
- » Network Settings
- » Wi-Fi Direct
- » Multimedia Device Settings
- » Screen Mirroring
- » Server Network Settings
- » Device Name

#### System

- » Setup
- » Touch Control
- » Time
- » Source AutoSwitch Settings

- » Power Control
   » Eco Solution
   » Temperature Control
- » Device Manager
- » Play via
- » Change PIN
- » General
- » Reset System

#### Support

- » Software Update
- » Contact Samsung
- » Go to Home
- » Reset All

# Playing photos, videos and music (Media Play)

- » Features provided in the media content list page
- » Available buttons and features during photo playback
- » Available buttons and features during video playback
- » Available buttons and features during music playback

» Supported Subtitle and Media play file formats

#### **Troubleshooting Guide**

» Requirements Before Contacting Samsung Customer Service Centre

» Q & A

#### Specifications

- » General
- » PowerSaver
- » Preset Timing Modes

#### Appendix

- » Responsibility for the Pay Service (Cost to Customers)
- » WEEE
- » Optimum Picture Quality and Afterimage Burn-in Prevention
- » Licence
- » Terminology

# **Before Using the Product**

# Copyright

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

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

# **Safety Precautions**

#### Caution

RISK OF ELECTRIC SHOCK DO NOT OPEN Caution : TO REDUCE THE RISK OF ELECTRIC SHOCK, DO NOT REMOVE COVER. (OR BACK) THERE ARE NO USER SERVICEABLE PARTS INSIDE. REFER ALL SERVICING TO 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.

# Â

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.



# 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.



Power off the product and computer.



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

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

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

# **Electricity and Safety**

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

#### Warning



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

• An electric shock or fire may result.



- Do not use multiple products with a single power socket.
  - Overheated power sockets may cause a fire.



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

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

• An unsecure connection may cause a fire.







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

• An electric shock or injury may result.

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

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

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

• A fire or electric shock may result.



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

• A fire may result.

#### Caution



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

• The product may become damaged by an electric shock.



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

• A fire or electric shock may result.



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

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

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

• An electric shock or fire may result.

# Installation

#### Warning



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

• A fire may result.

Have a technician install the wall-mount hanger.

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



• An increased internal temperature may cause a fire.



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

• An increased internal temperature may cause a fire.

Keep the plastic packaging out of the reach of children.

• Children may suffocate.









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

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



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

• A fire or electric shock may result.



- Do not expose the product to direct sunlight, heat, or a hot object such as a stove.
  - The product lifespan may be reduced or a fire may result.



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

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



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

#### Caution



- Do not drop the product while moving.
- Product failure or personal injury may result.



- Do not set down the product on its front.
- The screen may become damaged.



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

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



Set down the product gently.

• Product failure or personal injury may result.



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

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

## Operation

#### Warning



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

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



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

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



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

• An electric shock or fire may result.



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

• Children may become injured or seriously harmed.



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

Continued use can result in a fire or electric shock





• 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.







 $\bigcirc$ 

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.

Then contact Samsung Customer Service Centre. • Product failure, an electric shock or fire may result.



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.



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

Use the product at the recommended resolution and frequency.



- 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.



output ports, etc).

objects on top of the product. • Be sure to power off the product and disconnect the power cord

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/

• Be sure to power off the product and disconnect the power cord

when water or other foreign substances have entered the product.

- when water or other foreign substances have entered the product. Then contact Samsung Customer Service Centre.
- Product failure, an electric shock or fire may result.

# Caution





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• Your eyesight may deteriorate.



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.





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.

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

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



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

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



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.



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

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





# Preparations

# **Checking the Components**

#### Components

- Components may differ in different locations.

- 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 Warranty card image shown. Batteries Quick setup guide Power cord (Not available in some - A stand is not provided with the product. (Not available in some locations) locations) To install a stand, you can purchase one separately. RS232C(IN) adapter Remote Control D-SUB cable COVER-JACK *~~~~~~* (M3L8, 1EA) Screw (M4L8, 4EA)

#### **Items sold separately**

- The following items can be purchased at your nearest retailer.

- The RS232C adapter can be used to

D-SUB (9-pin) type RS232C cable.

the product.



# **Parts**

### **Control Panel**



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

#### **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.   |
|               | Press a button on the remote control pointing at the sensor on the front of the product to perform the corresponding function.                          |
| Remote sensor | 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. |
|               |   |



- Store used batteries out of reach of children and recycle.
- <sup>—</sup> 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.



If you press the 🕑 button on the panel key when the product is turned on, the control menu will be displayed.

| Control menu |
|--------------|
|              |
| Return       |

| Buttons    |           | Description   |
|------------|-----------|---|
|            |           | Select the connected input source.  |
| Ð          | Source    | Move the panel key right to select <b>Source</b> In the control menu. When the list of input sources is displayed, move the panel key left or right to select the desired input source. Next, press the panel key.  |
|            |           | Display the OSD menu.   |
|            | MENU      | Move the panel key left to select <b>MENU</b> 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. |
|            |           | Enter <b>Go to Home</b> mode.   |
|            | Home      | Move the panel key up to select <b>Home</b> 🕋 in the control menu.  |
| _          |           | Power off the product.  |
| $\bigcirc$ | Power off | Move the panel key down to select <b>Power off</b> 🕑 in the control menu. Next, press the panel key.  |
| っ          | Return    | Exit the control menu.  |

# **Reverse Side**

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



| Port  | Description   |  |  |
|---|---|--|--|
| RS232C IN                                       | Connects to MDC using an RS232C adapter.  |  |  |
| RS232C OUT                                      |   |  |  |
| IR / AMBIENT SENSOR IN                          | Supplies power to the external sensor board or receives the light sensor signal.                      |  |  |
| RGB / DVI / HDMI / AV /<br>COMPONENT / AUDIO IN | Receives sound from a PC via an audio cable.  |  |  |
| AUDIO OUT                                       | Connects to the audio of a source device.   |  |  |
| SD CARD   | Connect to an SD memory card.   |  |  |
| USB •   | Connect to a USB memory device.   |  |  |
| DVI IN / MAGICINFO IN                           | DVI IN: Connects to a source device using a DVI cable or HDMI-DVI cable.                              |  |  |
|   | MAGICINFO IN: To use MagicInfo, make sure to connect the DP-DVI cable.                                |  |  |
| DP IN   | Connects to a PC using a DP cable.  |  |  |
|   | — DM40D, DM48D, DM55D Models Only   |  |  |
| HDMI IN   | Connects to a source device using an HDMI cable.  |  |  |
| RGB IN  | Connects to a source device using a D-SUB cable.  |  |  |
| DP OUT  | Connects to another product using a DP cable.   |  |  |
|   | — DM40D, DM48D, DM55D Models Only   |  |  |
| AV IN / COMPONENT IN                            | Connects to a source device using the AV/Component adapter.   |  |  |
| IR OUT  | Receives the remote control signal via the external sensor board and outputs the signal via LOOP OUT. |  |  |
|   | — DM40D, DM48D, DM55D Models Only   |  |  |
| RJ45  | Connects to MDC using a LAN cable.  |  |  |

# Anti-theft Lock

- An anti-theft lock allows you to use the product securely even in public places.
- The locking device shape and locking method depend on the manufacturer. Refer to the user guide provided with your anti-theft locking device for details.
- The following images are for reference only. Real-life situations may differ from what is shown in the images.

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



- 1 Fix the cable of your anti-theft locking device to a heavy object such as a desk.
- 2 Put one end of the cable through the loop on the other end.
- 3 Insert the locking device into the anti-theft lock slot at the back of the product.
- 4 Lock the locking device.
  - An anti-theft locking device can be purchased separately.
  - Refer to the user guide provided with your anti-theft locking device for details.
  - Anti-theft locking devices can be purchased at electronics retailers or online.

# Spacer logo

Do not pull on the spacer logo using force. The logo may tear or break off.



# **Remote Control**

- Using other display devices in the same space as the remote control of this product can cause the other display devices to be inadvertently controlled.

A button without a description in the image below is not supported on the product.





#### To place batteries in the remote control



# **Connection Using an IR Stereo Cable** (sold separately)

Make sure to connect the External ambient sensor while the product is powered off. Then, power on the product.

#### 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 1 will be received by both display products 1 and 2.

The appearance may differ depending on the product.







**IR / AMBIENT** SENSOR IN





#### Controlling more than one display product using an **External ambient sensor (sold separately)**

• A command sent from the remote control pointed at product 1 (to which the External ambient sensor is connected) will be received by both display products 1 and 2.

The appearance may differ depending on the product.



# Before Installing the Product (Installation Guide)



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

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

#### **Tilting Angle and Rotation**

Contact Samsung Customer Service Centre for further details.

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



#### Ventilation

#### **Installation on a Perpendicular Wall**

A Minimum 40 mm

B Ambient temperature: Under 35°C

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



#### Figure 1.3 Side view



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

Contact Samsung Customer Service Centre for further details.

#### **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.

# **Dimensions**



|            |                |                |               |               | Offic. Hinti (Incries) |
|------------|----------------|----------------|---------------|---------------|------------------------|
| Model name | 0              | 2              | 3             | 4             | 5                      |
| DM32D      | 721.4 (28.4)   | 700.4 (27.57)  | 394.8 (15.54) | 420.3 (16.55) | 49.9 (1.96)            |
| DM40D      | 906.6 (35.69)  | 887.6 (34.94)  | 500.2 (19.69) | 524.7 (20.66) | 49.9 (1.96)            |
| DM48D      | 1075.1 (42.33) | 1056.1 (41.58) | 594.9 (23.42) | 619.4 (24.39) | 49.9 (1.96)            |
| DM55D      | 1230.6 (48.45) | 1211.6 (47.7)  | 682.4 (26.87) | 706.9 (27.83) | 49.9 (1.96)            |

- 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.

#### Unit: mm (inches)

# Using the COVER-JACK

To prevent theft of the SD memory card or any other USB device, install the COVER-JACK.



When using a DVI cable, make sure to cut off the side of the COVER-JACK first.

Cut out the Cover-Jack according to the DVI cable size before use.



# **Installing the Wall Mount**

## Installing the Wall Mount

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

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

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

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

# Wall Mount Kit Specifications (VESA)

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

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



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

Unit: mm (inches)

| Model name | VESA screw hole<br>specs (A * B) in<br>millimeters | Standard Screw | Quantity |  |
|------------|--|----------------|----------|--|
| DM32D      | 200 × 200 (7.9 × 7.9)                              |                |          |  |
| DM40D      | 200 × 200 (7.9 × 7.9)                              | M8/L14~16      | 4        |  |
| DM48D      | 400 × 400 (15.7 × 15.7)                            |                | ·        |  |
| DM55D      | 400 × 400 (13.7 × 13.7)                            |                |          |  |

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

# Remote Control (RS232C)

# **Cable Connection**

# RS232C Cable

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

• Pin assignment



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

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



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

# LAN Cable

• Pin assignment



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

• Connector : RJ45

#### Cross LAN cable (PC to PC)

#### 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-    |



| TX+ | 1 | <> | 3 | RX+ |
|-----|---|----|---|-----|
|     |   |    |   |     |
| TX- | 2 | <> | 6 | RX- |
|     |   |    |   |     |
| RX+ | 3 | <> | 1 | TX+ |
|     |   |    |   |     |
| RX- | 6 | <> | 2 | TX- |
|     |   |    |   |     |

# Connection

Connection 1



Connection 2



Connection 3



## **Control Codes**

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

| Header | Command      | ID | Data length | Checksum |
|--------|--------------|----|-------------|----------|
| 0xAA   | Command type | -  | 0           | -        |

#### Controlling (Set control command)

| Header | Command      | ID | Data length | Data  | Checksum |
|--------|--------------|----|-------------|-------|----------|
| 0xAA   | Command type | _  | 1           | Value | _        |

#### Command

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

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

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

E.g. Power On & ID=0

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

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

• Function

A product can be powered on and off using a PC. • Viewing power state (Get Power ON / OFF Status) ID Data length Checksum Header Command 0 0xAA 0x11 • Setting power ON/Off (Set Power ON / OFF) ID Header Command 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 Data length Ack/Nak Checksum Header Command ID r-CMD Val1 0xFF 0xAA 3 'N' 0x11 "ERR"

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

#### **Volume control**

Function

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

• Viewing volume state (Get Volume Status)

| Header                 | Command        |         | ID     | Data lengtł | ٦       | Checksum |          |          |
|------------------------|----------------|---------|--------|-------------|---------|----------|----------|----------|
| 0xAA                   | 0x12           |         | -      | 0           |         |          |          |          |
| Setting 1              | the volume (Se | t Volur | ne)    |             |         |          | _        |          |
| Header                 | Command        |         | ID     | Data lengtł | ٦       | Data     | Check    | sum      |
| 0xAA                   | 0x12           |         | -      | 1           |         | "Volume" |          |          |
| Volume": Volu<br>• Ack | ume value code | e to be | set on | a product.  | (0-100) |          |          |          |
| Header                 | Command        | ID      | Data   | length      | Ack/Nak | r-CMD    | Val1     | Checksum |
| 0xAA                   | 0xFF           |         | 3      |             | 'A'     | 0x12     | "Volume" | _        |
| Volume": Volu<br>• Nak | ume value code | e to be | set on | a product.  | (0-100) |          |          |          |
| 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 0 0xAA 0x14 • Setting the input source (Set Input Source) ID Data length Header Command Data Checksum "Input Source" 0xAA 0x14 1 "Input Source": An input source code to be set on a product. PC 0x14 DVI 0x18 Input source 0x0C Component 0x08 MagicInfo 0x20 0x1F DVI\_video RF(TV) 0x30 DTV 0x40 0x21 HDMI1
- 0x22 HDMI1\_PC
- 0x23 HDMI2

| 0x24              | HDMI                         | 2_PC      |                  |                      |                     |                   |                 |
|-------------------|------------------------------|-----------|------------------|----------------------|---------------------|-------------------|-----------------|
| 0x25              | Displa                       | yPort     |                  |                      |                     |                   |                 |
| _                 | leo, HDMI1_PC a<br>ommands.  | and HDI   | MI2_PC cannot b  | be used with t       | he Set comr         | nand. They c      | only respond to |
| This mo           | del does not su              | pport H   | IDMI1, HDMI1_P   | C, HDMI2 and         | HDMI2_PC            | ports.            |                 |
| -<br>Magiclı      | <b>nfo</b> is only availa    | able wit  | h models that co | ontain the <b>Ma</b> | <b>gicInfo</b> fund | ction.            |                 |
| RF(TV),           | DTV are only ava             | ailable \ | vith models that | include a TV.        |                     |                   |                 |
| • Ack             | ,                            |           |                  |                      |                     |                   |                 |
| Header            | Command                      | ID        | Data length      | Ack/Nak              | r-CMD               | Val1              | Checksum        |
| 0xAA              | 0xFF                         | _         | 3                |                      |                     |                   | _               |
|                   |                              |           | J                | 'A'                  | 0x14                | "Input<br>Source" |                 |
| nput Sou          | rce": An input sc            | ource co  | ode to be set on |                      | 0x14                |                   |                 |
| nput Sou<br>• Nak | rce": An input sc            | ource co  |                  |                      | 0x14                |                   |                 |
|                   | rce": An input sc<br>Command | Durce co  |                  |                      | 0x14<br>r-CMD       |                   | Checksum        |

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

#### Screen mode control

#### • Function

The screen mode of a product can be changed using a PC. Screen mode cannot be controlled when the **Video Wall** function is enabled.

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

• Viewing screen status (Get Screen Mode Status)

| Header     | Command             |        | ID      | Data ler       | ngth  | Che     | cksum   |                  |          |
|------------|---------------------|--------|---------|----------------|-------|---------|---------|------------------|----------|
| 0xAA       | 0x18                |        |         | 0              |       |         |         |                  |          |
| • Settin   | ig the picture size | (Set F | Picture | Size)          |       |         |         |                  |          |
| Header     | Command             |        | ID      | Data<br>length |       | Data    |         | Checksum         |          |
| 0xAA       | 0x18                |        |         | 1              |       | "Screer | n Mode" | _                |          |
| "Screen Mo | de": A code that s  | ets th | e proc  | luct statu     | S     |         |         |                  |          |
| 0x01       | 16:9                |        |         |                |       |         | -       |                  |          |
| 0x04       | Zoom                |        |         |                |       |         | -       |                  |          |
| 0x31       | Wide Zoom           |        |         |                |       |         | -       |                  |          |
| 0x0B       | 4:3                 |        |         |                |       |         | -       |                  |          |
| • Ack      |                     |        |         |                |       |         | -       |                  |          |
| Header     | Command             | ID     | Data    | length         | Ack/N | ak      | r-CMD   | Val1             | Checksum |
| 0xAA       | OxFF                |        | 3       |                | 'A'   |         | 0x18    | "Screen<br>Mode" | -        |

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

"ERR": A code showing what error has occurred

#### Screen size control

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

| Header                | Command           |         | ID Da          | ta length        | Checksu | ım            |          |
|-----------------------|-------------------|---------|----------------|------------------|---------|---------------|----------|
| 0xAA                  | 0x19              |         | 0              |                  |         |               |          |
| • Ack                 |                   |         |                |                  |         |               |          |
| Header                | Command           | ID      | Data<br>length | Ack/Nak          | r-CMD   | Val1          | Checksum |
| 0xAA                  | 0xFF              | _       | 3              | 'Α'              | 0x19    | "Screen Size" | _        |
| 'Screen Size<br>• Nak | e": product scree | en size | (range: 0 – 2  | 255, unit: inch) | )       |               |          |
| Header                | Command           | ID      | Data<br>length | Ack/Nak          | r-CMD   | Val1          | Checksum |
| 0xAA                  | 0xFF              | -       | 3              | 'N'              | 0x19    | "ERR"         | _        |

"ERR": A code showing what error has occurred

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

| <ul> <li>Funct</li> <li>The P</li> </ul>                            |                                      | oduct c   | an be tu                  | rned on or off u  | sing a PC.           |               |          |              |
|---|--------------------------------------|-----------|---------------------------|---|----------------------|---------------|----------|--------------|
| -On   | ly available on n                    | nodels t  | that have                 | e the PIP functio   | n.                   |               |          |              |
| — The   | e mode cannot l                      | be cont   | rolled if <b>\</b>        | <b>/ideo Wall</b> is se   | t to <b>On</b> .     |               |          |              |
| — Thi   | s function is not                    | availab   | ole in <b>Ma</b>          | gicInfo.  |                      |               |          |              |
| • Viewi   | ng PIP on/off st                     | ate (Get  | t the PIP                 | ON / OFF Status   | )                    |               |          |              |
| Header  | Command                              |           | ID                        | Data length   | Checks               | um            |          |              |
| 0xAA  | 0x3C                                 |           |                           | 0   |                      |               |          |              |
| • Settir  | ng PIP on/off (Se                    | t the Pl  | P ON / C                  | IFF)  |                      |               |          |              |
| Header  | Command                              |           | ID                        | Data length   | Data                 |               | Checksum |              |
|   |                                      |           |                           |   |                      |               |          |              |
| 0xAA  | 0x3C                                 |           | _                         | 1   | "PIP"                |               |          |              |
|   |                                      | :he PIP r | mode of                   |   |                      |               |          |              |
| 'PIP": A coc  |                                      | :he PIP r | mode of                   | 1<br>a product on or  |                      |               |          |              |
| 'PIP": A coc<br>1: PIP ON   |                                      | :he PIP r | mode of                   |   |                      |               |          |              |
| 'PIP": A coc<br>1: PIP ON   |                                      | :he PIP r | mode of                   |   |                      |               |          |              |
| 'PIP": A coc<br>1: PIP ON<br>0: PIP OFF                             |                                      | ihe PIP r | mode of<br>Data<br>lengtł | a product on or<br>Ack/Nak                                      |                      | Val1          |          | <br>Thecksum |
| "PIP": A coc<br>1: PIP ON<br>0: PIP OFF<br>• Ack                    | le used to turn t                    |           | Data                      | a product on or<br>Ack/Nak                                      | off                  | Val1<br>"PIP" |          | `hecksum     |
| 'PIP": A coo<br>1: PIP ON<br>2: PIP OFF<br>• Ack<br>Header<br>0xAA  | le used to turn t<br>Command<br>0xFF | ID        | Data<br>lengtł<br>3       | a product on or<br>Ack/Nak                                      | off<br>r-CMD<br>0x3C |               | (        | `hecksum     |
| PIP": A coc<br>: PIP ON<br>): PIP OFF<br>• Ack<br>Header<br>0xAA    | le used to turn t<br>Command<br>0xFF | ID        | Data<br>lengtł<br>3       | a product on or<br>Ack/Nak                                      | off<br>r-CMD<br>0x3C |               |          |              |
| "PIP": A coor<br>1: PIP ON<br>0: PIP OFF<br>• Ack<br>Header<br>0xAA | le used to turn t<br>Command<br>0xFF | ID        | Data<br>lengtł<br>3       | a product on or<br>Ack/Nak<br>'A'<br>a product on or<br>Ack/Nak | off<br>r-CMD<br>0x3C |               |          | Checksum     |

# 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 Da          | ita length           | Data  | Checksum             |          |
|-------------|------------------|------------|----------------|----------------------|-------|----------------------|----------|
| 0xAA        | 0x3D             |            |                | "Auto<br>Adjustment" |       |                      |          |
| "Auto Adjus | tment" : 0x00 (a | it all tim | ies)           |                      |       |                      |          |
| • Ack       |                  |            |                |                      |       |                      |          |
| Header      | Command          | ID         | Data<br>length | Ack/Nak              | r-CMD | Val1                 | Checksum |
| 0xAA        | 0xFF             | -          | 3              | 'Α'                  | 0x3D  | "Auto<br>Adjustment" | -        |
| • Nak       |                  |            |                |                      |       |                      |          |
| Header      | Command          | ID         | Data<br>length | Ack/Nak              | r-CMD | Val1                 | Checksum |
| 0xAA        | 0xFF             | _          | 3              | 'Α'                  | 0x3D  | "ERR"                | -        |

"ERR": A code showing what error has occurred

"ERR": A code showing what error has occurred

| • Funct  | ion                 |            |                            |                       |                   |                              |                      |
|--|---------------------|------------|----------------------------|-----------------------|-------------------|------------------------------|----------------------|
|  | <b>Wall</b> mode ca |            |                            |                       | -                 |                              |                      |
| This c   | control is only av  | vailable   | on a proc                  | luct whose <b>Vic</b> | leo Wall is e     | enabled.                     |                      |
| • Viewi  | ng video wall m     | node (Ge   | et Video V                 | Vall Mode)            |                   |                              |                      |
| Header   | Command             |            | ID [                       | Data length           | Check             | sum                          |                      |
| 0xAA   | 0x5C                |            | (                          | )                     |                   |                              |                      |
| • Settir   | ng the video wa     | ll (Set Vi | deo Wall                   | Mode)                 |                   |                              |                      |
| Header   | Command             |            | ID [                       | Data length           | Data              |                              | Checksum             |
| 0xAA   | 0x5C                |            |                            |                       | "Video Wall Mode" |                              | _                    |
| 1: Full  | Mode": A code       | used to    | activate                   | Video Wall mo         | de on a pro       | duct                         |                      |
| 1: Full  | Mode": A code       | used to    | activate                   | Video Wall mo         | de on a pro       | duct                         |                      |
| 1: Full<br>D: Natural                            | Mode": A code       | used to    | activate<br>Data<br>length | Video Wall mo         | de on a prov      | duct<br>Val1                 | Checksum             |
| 1: Full<br>D: Natural<br>• Ack                   |                     |            | Data                       |                       |                   |                              | Checksum             |
| 1: Full<br>D: Natural<br>• Ack<br>Header<br>0xAA | Command             | ID<br>-    | Data<br>length<br>         | Ack/Nak<br>'A'        | r-CMD<br>0x5C     | Val1<br>"Video Wall<br>Mode" | Checksum             |
| 1: Full<br>D: Natural<br>• Ack<br>Header<br>0xAA | Command<br>0xFF     | ID<br>-    | Data<br>length<br>         | Ack/Nak<br>'A'        | r-CMD<br>0x5C     | Val1<br>"Video Wall<br>Mode" | Checksum             |
| 1: Full<br>D: Natural<br>• Ack<br>Header<br>0xAA | Command<br>0xFF     | ID<br>-    | Data<br>length<br>         | Ack/Nak<br>'A'        | r-CMD<br>0x5C     | Val1<br>"Video Wall<br>Mode" | Checksum<br>Checksum |

# 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 E           | Data length    | Checksum        |               |          |
|-------------|--------------------|----------|----------------|----------------|-----------------|---------------|----------|
| 0xAA        | 0x5D               |          | 0              |                | -               |               |          |
| • Enabl     | ing or disabling   | safety l | ock (Set S     | afety Lock Ena | ible / Disable) |               |          |
| Header      | Command            |          | ID E           | Data length    | Data            | Checksum      |          |
| 0xAA        | 0x5D               |          | 1              |                | "Safety Lock"   |               |          |
| "Safety Loc | k": Safety lock co | ode to b | e set on a     | a product      |                 |               |          |
| 1: ON       |                    |          |                |                |                 |               |          |
| 0: OFF      |                    |          |                |                |                 |               |          |
| • Ack       |                    |          |                |                |                 |               |          |
| Header      | Command            | ID       | Data<br>length | Ack/Nak        | r-CMD           | Val1          | Checksum |
| 0xAA        | 0xFF               | -        | 3              | 'Α'            | 0x5D            | "Safety Lock" | _        |
| "Safety Loc | k": Safety lock co | ode to b | e set on a     | a product      |                 |               |          |
| • Nak       |                    |          |                |                |                 |               |          |
| * INdK      |                    |          | Data           | Ack/Nak        | r-CMD           | Val1          | Checksum |
| Header      | Command            | ID       | Data<br>length | ACK/INdK       | I-CIVID         | Vall          | Checksum |

"ERR": A code showing what error has occurred

"ERR": A code showing what error has occurred

## Video Wall On

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

| Header      | Command           |           | D [      | Data length |      | Check  | sum   |               |          |
|-------------|-------------------|-----------|----------|-------------|------|--------|-------|---------------|----------|
| 0xAA        | 0x84              |           | (        | )           |      |        |       |               |          |
| • Set V     | ideo Wall On/Off  |           |          |             |      |        |       |               |          |
| Header      | Command           |           | D [      | Data length |      | Data   |       | Checksum      |          |
| 0xAA        | 0x84              |           |          |             |      | V.Wall | _On   |               |          |
| • V.Wal     | ll_On: Video Wall | code to l | be assig | ned to the  | proc | luct   |       |               |          |
| 1: Video Wa | all ON            |           |          |             |      |        |       |               |          |
| 0: Video Wa | all OFF           |           |          |             |      |        |       |               |          |
| • Ack       |                   |           |          |             |      |        |       |               |          |
| Header      | Command           | ID        | Data l   | ength       | Ack/ | Nak    | r-CMD | Val1          | Checksum |
| 0xAA        | OxFF              | _         | 3        |             | 'A'  |        | 0x84  | V.Wall_<br>On | -        |

#### • Nak

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

"ERR": A code showing what error has occurred

#### **Video Wall User Control**

Function

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

Get Video Wall Status

| Header   | Command | ID | Data length | Checksu  | n        |          |
|----------|---------|----|-------------|----------|----------|----------|
| 0xAA     | 0x89    | _  | 0           |          |          |          |
| Set Vide | eo Wall |    |             |          |          |          |
| Header   | Command | ID | Data length | Val1     | Val2     | Checksum |
| 0xAA     | 0x89    |    | 2           | Wall_Div | Wall_SNo |          |

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

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

Wall\_SNo: Product Number code assigned to the product

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

| Set Numbe | er      |    | Data        |         |       |          |          |          |
|-----------|---------|----|-------------|---------|-------|----------|----------|----------|
| 1         |         |    | 0x01        |         |       |          |          |          |
| 2         |         |    | 0x02        |         |       |          |          |          |
|           |         |    |             |         |       |          |          |          |
| 99        |         |    | 0x63        |         |       |          |          |          |
| 100       |         |    | 0x64        |         |       |          |          |          |
| • Ack     |         |    |             |         |       |          |          |          |
| Header    | Command | ID | Data length | Ack/Nak | r-CMD | Val1     | Val2     | Checksum |
| 0xAA      | 0xFF    | _  | 4           | 'A'     | 0x89  | Wall_Div | Wall_SNo | _        |
| • Nak     |         |    |             |         |       |          |          |          |
| Header    | Command | ID | Data length | Ack/Nak | r-CMD | Val1     | Checksum |          |
| 0xAA      | 0xFF    | _  | 3           | 'N'     | 0x89  | ERR      | _        |          |

"ERR": A code showing what error has occurred

# **Connecting and Using a Source Device**

# **Before Connecting**

### **Pre-connection Checkpoints**

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

# **Connecting to a PC**

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

Connecting parts may differ in different products.

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



## Connection using a DVI cable (Digital type)



## Connection Using an HDMI-DVI Cable

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



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



### **Connection Using an DP Cable**



• Precautions for using DP

To increase the standby power capacity, the product stops DP communication when it is turned off or in power-saving mode.

If the product in dual monitor mode is turned off or goes into power-saving mode, monitor setting changes may not be updated. As a result, screen output may not be displayed properly. In the occurrence of this issue, set **Max. Power Saving** to **Off** before using the product.

Some graphics cards that are not compliant with the DP standard may prevent the Windows Booting/Bios screen from being displayed when the product is in power-saving mode. If this is the case, make sure to turn on the product first before turning on your PC.

The DisplayPort interface (**DP IN**) on the product and the provided DP cable are designed based on the VESA standards. Using a DP cable that is not VESA compliant may cause the product to function improperly. Samsung Electronics shall not be held responsible for any issues from using a cable that is not VESA compliant.

Make sure to use a DP cable that is VESA compliant.

# **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.
  - <sup>—</sup> Press the **SOURCE** button on the remote control to change the source.

### **Connection Using the AV Cable**



### Connection Using the component Cable



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

Audio will not be enabled if the product is connected to a video device using an HDMI-DVI cable. To resolve this, additionally connect an audio cable to the audio ports on the product and video device. When you connect a video device to the product using an HDMI-DVI cable, set **Edit Name** to **DVI Devices** to access video and audio content stored on the video device.

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



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

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

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



# **Connecting to an Audio System**

# **Connecting the LAN Cable**

- Connecting parts may differ in different products.

Connecting parts may differ in different products.



AUDIO OUT







Use Cat7(\*STP Type) cable for the connection.
 \*Shielded Twist Pair

# Connecting the network box (Sold separately)

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

### MagicInfo

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

- 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.

| 🙀 MagicInfo Se | etup Wizard - v.1.12                       | X |  |  |  |  |  |  |  |  |
|----------------|--|---|--|--|--|--|--|--|--|--|
| Ø              | Select Application - step 1                |   |  |  |  |  |  |  |  |  |
| <b>(</b>       | MagicInfo Pro (LAN, WAN based version)     |   |  |  |  |  |  |  |  |  |
| <b>(</b>       | of TagicInfo-i Premium (Web-based version) |   |  |  |  |  |  |  |  |  |
| 쉺 🗆 s          | Elect Later                                |   |  |  |  |  |  |  |  |  |
|                |  |   |  |  |  |  |  |  |  |  |
|                |  |   |  |  |  |  |  |  |  |  |
|                |  |   |  |  |  |  |  |  |  |  |
| < Back(E       | B) Next(N) > Finish Cancel                 |   |  |  |  |  |  |  |  |  |

### **Entering MagicInfo mode**

- 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 DVI IN / MAGICINFO IN port on the product will change Source from DVI to MagicInfo.
- **3** Select the default application you want to run when MagicInfo starts.

| TCP/IP - step 2 |
|-----------------|
| atically        |
| 3:              |
| 192.168.0.102   |
| 255.255.255.0   |
| 192.168.0.1     |
| automatically   |
| 10.44.33.22     |
| 10.33.22.11     |
|                 |

| 🛃 MagicInfo Setup Wizard - v.1.12  | X  |
|--|----|
| Select Language -step 3  |    |
| Select the language you want to install on the system for menus and dialogs. |    |
| Current Language : Engilsh   |    |
| r===   |    |
| Chinese [Traditional]  | -  |
| German<br>English  |    |
|  |    |
|  |    |
| Japanese   | =  |
| Korean   |    |
| Russian  |    |
| Swedish  |    |
| Turkish  |    |
| Chinese [Simplified]   |    |
| Portuguese   |    |
|  |    |
|  |    |
| < Back(B) Next(N) > Finish Cano  | el |

4 Enter the IP information.



5 Select a language.

(The default language is **English**.)

| Ð                  | Setup Information                     |  |
|--------------------|---------------------------------------|--|
| 1. Application :   | MagicInfo Pro [LAN,WAN based version\ |  |
| 2. Internet Protoc | col [TCP/IP]                          |  |
| IP: 192.1          | 168.0.102                             |  |
| 3. Language : I    | English                               |  |
| 4. Screen Type :   | Landscape                             |  |
|                    |                                       |  |
|                    |                                       |  |
|                    |                                       |  |
|                    |                                       |  |
|                    |                                       |  |
|                    |                                       |  |
| ✓ Do not show ag   |                                       |  |

- 7 Double-check the settings you have just configured.
- 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.

# **Changing the Input source**

### Source

 $\mathsf{SOURCE} \to \mathbf{Source}$ 



- The displayed image may differ depending on the model.
- DM32D Model Only



- The displayed image may differ depending on the model.

- DM40D, DM48D, DM55D Models Only

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.
- To view detailed information about connected source devices, press the **TOOLS** button from the **Source** page.

### **Edit Name**

#### $\mathsf{SOURCE} \to \mathsf{Source} \to \mathsf{TOOLS} \to \mathsf{Edit} \ \mathsf{Name} \to \mathsf{ENTER} \ \fbox$

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.
  PC / Cable STB / Satellite STB / PVR STB / Game / Blu-ray / DVD / VCR / AV Receiver / Camcorder / DVI PC / DVI Devices / TV / IPTV / 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 terminal, set Edit Name to PC. In other cases, set Edit Name to AV devices.
- 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

#### $\mathsf{SOURCE} \to \mathsf{Source} \to \mathsf{TOOLS} \to \mathsf{Information} \to \mathsf{ENTER} \ \blacksquare$

You can see detailed information about the selected external device.

# Using MDC

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

# **MDC Programme Installation/Uninstallation**

### Installation

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

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

### Uninstallation

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

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

# **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.



### Using MDC via Ethernet

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

### **Connection using a direct LAN cable**

- 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.



Computer

# Home feature

This feature is provided in Support  $\rightarrow$  Go to Home. Accessible using the **HOME** button on the remote control.

# Player

HOME  $\textcircled{} \rightarrow \mathsf{Player} \rightarrow \mathsf{ENTER}$ 

| Playe         | <b>21</b><br>us contents sych as scheduled | Schedule   | Template        |
|---------------|--|------------|-----------------|
| channels      | templates or files.                        |            |                 |
|               |  |            |                 |
| Clone Product | D Settings                                 | Video Wall | Network Status  |
| Picture Mode  | On/Off Timer                               | Ticker     | i More settings |
|               |  |            |                 |
|               |  |            |                 |

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

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

Play a range of content such as channels with schedules assigned, templates or files. Play channels or content using any of the following methods.

- Network Channel: Play content using the server.
  - To run **Network Channel**, make sure the product is connected to the server.
- Local Channel: Play content in internal memory or from external memory.

### Approving a connected device from the server

• Set MagicInfo Mode to MagicInfo in Server Network Settings. Approve and use the MagicInfo server now.

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

1 Access the server you have assigned to your device.



2 Enter your ID and password to log in.

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



- 4 Select MagicInfo from the menus on the left.
- 5 Select Unapproved from the sub-menus of MagicInfo.



6 Select the Approve button for your device from the list of unapproved MagicInfo devices.

#### 7 Enter the information required to approve the device.



- Device Name: Enter the device name
- **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 All 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.
- 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

Go to the tabs **Device**  $\rightarrow$  **Time**.

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

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



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

### **Network Channel**

Play content, templates and schedules configured on the server.

- You can view whether the server is connected (approval) in the Player menu screen.
   To view whether the server is connected when a Network Channel is running, press INFO on the remote.
- Select **Network Channel** from the **Player** menu.
- 2 Network Channel will run.

### **Local Channel**

Play content, templates or schedules configured in internal memory or from external memory.

1 Select Local Channel from the Player menu.

The No channels message appears if no channel has been registered in Local Channel.

2 Local Channel will run.

### Available features in the Player page

The **Player** list page provides the following features.

Device

Select either Internal or USB to search for a desired device list.

- All / Internal / USB
- Contents

Select a content type as criterion to search for a desired content list.

- All / Video / Image / PDF / Flash / Office / My Template
- Sort by

Specify the content sort criterion.

- File Name / Recently played
- Options

### Menu items in the Player page

| Option Name      | Operations  |
|------------------|---|
| Play Seleted     | Select and play desired content.  |
| Send             | Copy content to another storage device.   |
| Delete           | Delete desired content.   |
| Go to Multimedia | Play content using the media play feature.  |
| Settings         | Configure detailed properties of content.  — See the following page for details on the <b>Settings</b> feature. |

### Player page Settings menu

### **Settings**

| Settings   |              |       |
|--|--------------|-------|
| et whether to display content in the original aspect ratio creen size. | o or in full |       |
| $\wedge$   |              |       |
| Aspect Ratio   |              |       |
|  |              | Close |
|  |              |       |
|  |              |       |
|  |              |       |
| $\sim$   |              |       |

- The displayed image may differ depending on the model.

#### **Aspect Ratio**

- Set Aspect Ratio to either Original or Full.
- Full / Original
- This feature is only available for Videos, Images, PDF and Office files.

#### **Display Duration**

Set the duration for each page in a slideshow.

This feature is only available for **Images**, **PDF**, **Flash** and **Office** files.

#### **Transition Effect**

Configure transition effects between pages or scenes in a slideshow or video file.

None / Fade1 / Fade2 / Blind / Spiral / Checker / Linear / Stairs / Wipe / Random

This feature is only available for **Images** files.

#### **Content Layout**

Switch the orientation of playing content to Landscape or Portrait mode.

- Landscape / Portrait
- If Content Layout is Portrait view, it does not support VP8 video codec.

#### Safely Remove USB

Safely removes USB memory

#### **Reset Settings**

Restore all the values under **Settings** to the default when the product was purchased.

### When Content is Running

### Viewing the details of the content that is running

| _     | Information             |
|-------|-------------------------|
| Туре: | Network Channel         |
|       | No channels selected    |
|       | No channels selected    |
|       | B2B-EP-MIP-4510         |
|       | FF-FF-FF-FF-FF-FF       |
|       | None                    |
|       | Not connected           |
|       | Not connected           |
|       | No Schedule to download |
|       | ОК                      |

- The displayed image may differ depending on the model.

Press the **INFO** button on the remote control.

• **Type**: Type of channel currently playing

Only applicable during **Network Channel** / **Local Channel** playback.

• CH Number: Number assigned to the channel currently playing

Only applicable during **Network Channel** / **Local Channel** playback.

• CH Name: Name of the channel currently playing

Only applicable during **Network Channel** / Local Channel playback.

- **Software Version**: Displays the software version of a device
- MAC ID: Displays the original identification number of a device
- Tags: Tag settings assigned to a device from the server
- Server: Displays the connection status (Connected, Disconnected or Not approved) 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

### Changing the settings for the content that is running



- The displayed image may differ depending on the model.

- This feature is not available when content is playing through Video Wall.

Press the **TOOLS** button on the remote control during content playback to configure settings such as **Picture Mode** and **Sound Mode**.

• Playlist

View a list of content items currently playing.

• Music

Set the background music for the content currently playing.

Picture Mode

Customizes the screen settings for the content currently playing

- Shops & Malls / Offices & Schools / Terminals & Stations / Video Wall / Calibration
- Sound Mode

Customizes the audio settings for the content currently playing

- Standard / Music / Movie / Clear Voice / Amplify
- Repeat

•

Set the repeat mode.

- One / All

### File Formats Compatible with Player

- Supported file systems include FAT32 and NTFS.
- A file with a vertical and horizontal resolution larger than the maximum resolution cannot be played.
  - Check the vertical and horizontal resolution of the file.
- Check the supported video and audio Codec types and Versions.
- Check the supported file versions.
  - Flash version up to 10.1 is supported
  - PowerPoint version up to 97 2007 is supported
- Only the last USB device that was connected is recognized.

#### **Network Schedule Multiframe**

#### **Playback restrictions**

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

#### Sound output restrictions

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

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

#### Restrictions

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

#### **Playback restrictions**

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

#### Sound output restrictions

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

### Contents

| File Extension    | Container | Video Codec                 | Resolution  | Frame rate<br>(fps) | Bit rate<br>(Mbps) | Audio Codec        |
|-------------------|-----------|-----------------------------|-------------|---------------------|--------------------|--------------------|
| *.avi             | AVI       | DivX 3.11 / 4.x / 5.x / 6.x | 1920 x 1080 | 6~30                | 30                 | AC3                |
| *.mkv             | MKV       |                             |             |                     |                    | LPCM               |
| *.asf             | ASF       |                             |             |                     |                    | AAC                |
| •.wmv             | MP4       | MPEG4 SP / ASP              |             |                     |                    | HE-AAC             |
| '.mp4             | 3GP       |                             |             |                     |                    | WMA                |
| *.mov             | VRO       | H.264 BP / MP / HP          |             |                     |                    | DD+                |
| *.3gp             | VOB       |                             |             |                     |                    | MPEG(MP3)          |
| <sup>t</sup> .vro | PS        |                             |             |                     |                    | DTS Core           |
| <sup>*</sup> .mpg | TS        | Motion JPEG                 |             |                     |                    | G.711(ALaw, μ-Law) |
| •.mpeg            |           |                             |             |                     |                    |                    |
| *.ts              |           | Window Media Video v9       |             |                     |                    |                    |
| *.tp              |           |                             |             |                     |                    |                    |
| '.trp             |           | MPEG2                       |             |                     |                    |                    |
| '.flv             |           |                             |             |                     |                    |                    |
| •.vob             |           |                             |             |                     |                    |                    |
| *.svi             |           | MPEG1                       |             |                     |                    |                    |
| *.m2ts            |           |                             |             |                     |                    |                    |
| *.mts             |           | VP6                         | 640 x 480   |                     | 4                  |                    |
| *.divx            |           |                             |             |                     |                    |                    |

| Video  | Audio  | Image   |
|--|--|---|
| <ul> <li>3D video is not supported.</li> <li>Content with a resolution larger than the resolution specified in the table above is not supported.</li> <li>Video content with a Bit rate or Frame rate larger than the rate specified in the table above can cause choppy video during playback.</li> <li>Video content will not play, or not play correctly, if there is an error in the content or the container.</li> <li>Some USB/digital camera devices may not be compatible with the player.</li> <li>Supports up to H.264, Level 4.1</li> <li>H.264 FMO / ASO / RS, VC1 SP / MP / AP L4 and AVCHD are not supported.</li> <li>For all Video codecs except MVC, VP8, VP6: <ul> <li>Below 1280 x 720: 60 frame max</li> <li>Above 1280 x 720: 30 frame max</li> </ul> </li> <li>GMC 2 or higher is not supported.</li> <li>Certain codecs (MVC, VP8 and MJPEG) will not be supported in the following situations: playing different file types successively, playing LFD files, or playing files in portrait mode.</li> </ul> | <ul> <li>Audio content with a Bit rate or Frame rate<br/>larger than the rate specified in the table above<br/>can cause choppy audio during playback.</li> <li>Video content will not play, or not play<br/>correctly, if there is an error in the content or<br/>the container.</li> <li>Some USB/digital camera devices may not be<br/>compatible with the player.</li> <li>Supports up to WMA 10 Pro 5.1 channel. WMA<br/>lossless audio is not supported.</li> <li>QCELP, AMR NB/WB are not supported.</li> </ul> | <ul> <li>Compatible image file format: Jpeg</li> <li>Supported maximum resolution: 15360 x 8640</li> <li>Supported image effects: 9 effects<br/>(Fade1, Fade2, Blind, Spiral, Checker, Linear,<br/>Stairs, Wipe, Random)</li> </ul> |

| Flash   | Power Point   | PDF  |
|---|---|--|
| <ul> <li>Compatible with Flash 10.1</li> <li>Flash Animation         <ul> <li>Compatible file format: SWF</li> </ul> </li> <li>Recommended resolution: 960 x 540         <ul> <li>Caution</li> <li>Performance comparable to Flash Player on a Windows operating system cannot be guaranteed</li> <li>Optimization is needed during content creation</li> </ul> </li> <li>Flash Video         <ul> <li>Compatible file format: FLV</li> <li>Video</li> <li>Codec: H.264 BP<br/>Resolution: 1920 x 1080</li> <li>Audio<br/>Codec: H.264 BP</li> <li>Caution</li> <li>F4V file format is not supported<br/>Screen Video is not supported</li> </ul> </li> </ul> | <ul> <li>Compatible document file formats         <ul> <li>Extension: ppt, pptx</li> <li>Version: Office 97 ~ Office 2007</li> </ul> </li> <li>Functions not supported         <ul> <li>Animation effect</li> <li>3D shapes (which will be displayed in 2D)</li> <li>Header and footer (some subitems are not supported)</li> <li>Word Art</li> <li>Align</li></ul></li></ul> | <ul> <li>Compatible document file formats         <ul> <li>Extension: pdf</li> </ul> </li> <li>Functions not supported         <ul> <li>Content less than 1 pixel not supported because of performance degradation issue.</li> <li>Masked Image, Tiled Image content not supported.</li> <li>Content with Rotated Text, not supported.</li> <li>3D Shadow Effects not supported (Special characters may be corrupted)</li> </ul> </li> </ul> |

| WORD   | Template files   | LFD   |
|--|--|---|
| <ul> <li>Compatible document file formats         <ul> <li>Extension: .doc, .docx</li> <li>Version: Office 97 ~ Office 2007</li> </ul> </li> <li>Functions not supported         <ul> <li>Page background effect</li> <li>Some paragraph styles</li> <li>Word Art</li> <li>Align</li></ul></li></ul> | Creation/editing/playback are only available in<br>Template. | <ul> <li>Supported in Network Channel and Local Channel</li> <li>Compatible document file formats         <ul> <li>Extension: .lfd</li> </ul> </li> </ul> |

## File Formats Compatible with Video Wall

Refer to the <MagicInfo Server user's manual> for further details.

| Video  | Image   |
|--|---|
| <ul> <li>3D video is not supported.</li> <li>Content with a resolution larger than the resolution specified in the table above is not supported.</li> <li>Video content with a Bit rate or Frame rate larger than the rate specified in the table above can cause choppy video during playback.</li> <li>Video content will not play, or not play correctly, if there is an error in the content or the container.</li> <li>Some USB/digital camera devices may not be compatible with the player.</li> <li>Supports up to H.264, Level 4.1</li> <li>H.264 FMO / ASO / RS, VC1 SP / MP / AP L4 and AVCHD are not supported.</li> <li>For all Video codecs except MVC, VP8, VP6: <ul> <li>Below 1280 x 720: 60 frame max</li> <li>Above 1280 x 720: 30 frame max</li> </ul> </li> <li>GMC 2 or higher is not supported.</li> <li>Supports only BD MVC Spec.</li> <li>Some codecs may not be supported in portrait playback mode.</li> </ul> | <ul> <li>Compatible image file format: Jpeg, png, bmp</li> <li>Supported maximum resolution: 15360 x 8640         <ul> <li>A higher resolution image may take longer to display on the screen.</li> </ul> </li> </ul> |

### Restrictions

• Only one video (Videos) file can be played per client.

Different content files can be played on the displays of a video wall.
 Two video (Videos) files cannot be played on a single display of a video wall.







Available

Available

Not available

# Schedule

 $\mathsf{HOME} \ \widehat{\textcircled{\ }} \to \mathsf{Schedule} \to \mathsf{ENTER} \ \fbox{}$ 



### Available features in the Schedule page

The **Schedule** page provides the following features.

- Type
  - Local: Add or edit schedules.
  - **Network**: View the network schedule configured on the server.
- Device
  - Display the name of a connected storage device.
  - This option only activates if **Type** is set to **Local** in **Device**.
- Options

### Menu items in the Schedule page

| Option Name | Operations   |  |
|-------------|--|--|
| Send        | Send configured schedules to another storage device. This is similar to the "copy" feature on PCs. |  |
| Delete      | Delete schedules.  |  |
| Settings    | The default content plays on a channel that does not contain programme information.                |  |

### **Configuring channel schedules**

Play media content such as videos, photos and music at a desired time.

- 1 Select a channel to configure.
- 2 Select video, music and photo content you want to apply to the channel schedule.
- 3 Set the time to play the schedule. (Start Time ~ Stop Time)
- 4 Change the channel schedule name, and then select a destination folder to save to.
- 5 Press the Save button.

Only applicable when **Type** is set to **Local**.

#### Editing a channel schedule.

Change settings for a configured channel schedule such as content, the duration and the schedule name.

- 1 Select a channel to edit.
- 2 Select video, photo or music content to edit in the channel schedule.
  - Deleting content: Place the cursor over the desired content and then press the 🖃 button to delete it.
  - Move to the far right end of the content list. Click the  $\oplus$  button to add content or change the playback order of content items.
- 3 Set the time to play the schedule. (Start Time ~ Stop Time)
- 4 Change the channel schedule name, and then select a destination folder to save to.
- 5 Press the Save button.

Only applicable when **Type** is set to **Local**.

# Template

#### $\mathsf{HOME} \boxdot \to \mathsf{Template} \to \mathsf{ENTER} \ \blacksquare$



- The displayed image may differ depending on the model.
- The Template function is disabled if Video Wall is set to On.

### Available features in the Template page

Create unique content using templates. It is easy to create content. Simply change images and text in a template.

Sort the template list using the following criteria.

- Market
- Layout
  - Landscape / Portrait
- Select a template from the provided sample templates.



2 Organize a template by inserting text, video, photo, or PDF files as desired.

### **Entering text**



#### Edit Text

Select the Edit Text window to enter text.

#### **Font options**

Font Colour: Specify the text colour for the message.

Background Colour: Specify the background colour for the message.

**Background opacity**: Specify the background transparency for the message.

Alignment: Select a message alignment mode.

Scroll: Specify the scroll direction/speed for the message.

Reset: Reset all settings in Font options to default settings.

### Inserting content such as videos, photos and PDF files



### Configuring the background image/background music



### **Preview**



Sustainble evolution unfolods tomorrw's design

- 1 Preview the created template using the **Preview** feature.
- 2 To save the template, press the **Save** button.

#### 3 Configure **Template Name** and **Storage**.



4 Press the **Save** button to finish creating the content.

# **Clone Product**





- The displayed image may differ depending on the model.

Export the product settings to a USB device or load the settings via a USB device. This option is useful when assigning the same settings to several products.

#### When USB does not contain a duplicate file

- Connect the USB device to a USB port. Run the **Clone Product** function.
- 2 The No cloning file found on the USB device. Copy system settings from this product to the USB storage device? message appears.

#### When USB contains a duplicate file

- 1 Connect the USB device to a USB port. Run the **Clone Product** function.
- 2 The Cloning file found. Please select an option. message appears.

Run the **Clone From USB** or **Clone to USB** function.

- Clone From USB: Apply the USB device settings to the product.
- Clone to USB: Copy the product settings to the USB device.

After configuration is complete, the product is rebooted automatically.
## **ID Settings**





- The displayed image may differ depending on the model.

Assign an ID to a set.

Press  $\blacktriangle/\blacksquare$  to select a number, and press  $\blacksquare$ .

### **Device ID**

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

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

### **PC Connection Cable**

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

- RS232C cable
   Communicate with MDC via the RS232C-stereo cable.
- **RJ45(LAN) cable** Communicate with MDC via the RJ45 cable.

### **Device ID Auto Set**

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

## Video Wall

 $\mathsf{HOME} \ \textcircled{\cong} \ \to \mathsf{Video} \ \mathsf{Wall} \ \to \mathsf{ENTER} \ \blacksquare$ 



- The displayed image may differ depending on the model.

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

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

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

### Apply to

- **Current Source** (screen output from a device connected to **Source**): Configure videowall features for the screen output from an external device connected to the product.
- MagicInfo Player S: Configure videowall features for content saved in the product or content saved on a USB memory or SD card.

### **Restrictions**

Playback may be initially choppy if video files of different resolutions play successively (i.e., 1280x720 content plays after 1920x1080 content) or an image file and a video file play one after the other.

| Video  | Image  |
|--|--|
| <ul> <li>Supported resolution         <ul> <li>1920 x 1080 @ 24p/30p</li> <li>1280 x 720 @ 24p/30p/60p</li> </ul> </li> <li>HEVC and 3D images are not supported.</li> </ul> | <ul> <li>Compatible image file format: Jpeg, png, bmp</li> <li>Supported maximum resolution         <ul> <li>jpeg: 15360 x 8640</li> <li>png: 4096 x 4096</li> <li>bmp: 4096 x 4096</li> </ul> </li> </ul> |

### Video Wall

You can activate or deactivate Video Wall.

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

Off / On

#### **Horizontal x Vertical**

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

Enter the videowall matrix.

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

A videowall display can be split into a maximum of 225 screens.

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

#### **Screen Position**

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

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

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

- All Displays: Assign screen positions to All displays. Then, you don't need to set up video wall for individual displays.
- Current Displays: Only Assign screen position for this first display.

A maximum of 255 displays can be arranged in Screen Position.

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

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

#### **Format**

Select how to display images on the videowall display.

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

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

## **Natwork Status**

Check the current network and Internet connection.

HOME  $\textcircled{a} \rightarrow$ Natwork Status  $\rightarrow$ ENTER  $\blacksquare$ 



- The displayed image may differ depending on the model.

## **Picture Mode**





- The displayed image may differ depending on the model.

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

#### Shops & Malls

Suitable for shopping malls.

- Select either Videos/Images or Text depending on the picture mode.

#### Offices & Schools

Suitable for offices and schools.

- Select either Videos/Images or Text depending on the picture mode.

#### **Terminals & Stations**

Suitable for bus terminals and train stations.

- Select either Videos/Images or Text depending on the picture mode.

#### Video Wall

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Suitable for environments where videowall display are used.

- Select either Videos/Images or Text depending on the picture mode.
- Calibration

In this mode, the brightness, colour, gamma and uniformity settings customized using the colour calibration program **Advanced Colour Management** are applied.

- To apply the **Calibration** mode properly, make sure you configure the picture quality settings, such as brightness, colour, gamma and uniformity, using the colour calibration program **Advanced Colour Management**.
- To download the **Advanced Colour Management** programme, visit www.samsung.com/displaysolutions.

### **On/Off Timer**

HOME  $\textcircled{} \to \mathsf{On/Off\,Timer} \to \mathsf{ENTER}$ 



- The displayed image may differ depending on the model.

— You must set the clock before you can use On/Off Timer.

### **On Timer**

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

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

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

#### (On Timer 1 ~ On Timer 7)

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

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

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

### **Off Timer**

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

Setup: Select Off, Once, Everyday, Mon~Fri, Mon~Sat, Sat~Sun or Manual.

If you select Manual, you can choose the days you want Off Timer to turn off your product.

- The check mark indicates days you've selected.
- **Time**: Set the hour and minute. Use the number buttons or the up and down arrow keys to enter numbers. Use the left and right arrow buttons to change entry fields.

### **Holiday Management**

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

- Add Holiday: Specify the period you want to add as a holiday.
   Select the start and end dates of the holiday you want to add using the ▲/▼ buttons, and click the 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 selected items from the list of holidays.

**Edit**: Select a holiday item and then change the date.

- Set Applied Timer: Set the On Timer and Off Timer to not activate on public holidays.
  - Press 🕑 to select the **On Timer** and **Off Timer** settings you do not want to activate.
  - The selected **On Timer** and **Off Timer** will not activate.

## Ticker





- The displayed image may differ depending on the model.

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

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

## More settings

 $\mathsf{HOME} \ \textcircled{\cong} \to \mathsf{More \ settings} \to \mathsf{ENTER} \ \blacksquare$ 



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

The picture settings menu appears.

## **URL Launcher**

 $\mathsf{HOME} \ \widehat{\boxdot} \to \mathsf{URL} \ \mathsf{Launcher} \to \mathsf{ENTER} \ \textcircled{\blacksquare}$ 



For details on how to use the **URL Launcher** feature, contact the dealer the product was purchased from. To use the **URL Launcher** feature, set **Play via** to **URL Launcher** in **System**.

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

# Screen Adjustment

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

## **Picture Mode**

#### $\mathsf{MENU} \boxplus \to \mathsf{Picture} \to \mathsf{Picture} \mathsf{Mode} \to \mathsf{ENTER} \blacksquare$



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

Shops & Malls

Suitable for shopping malls.

- Select either Videos/Images or Text depending on the picture mode.
- Offices & Schools

Suitable for offices and schools.

- Select either Videos/Images or Text depending on the picture mode.

#### Terminals & Stations

Suitable for bus terminals and train stations.

- Select either Videos/Images or Text depending on the picture mode.

#### Video Wall

Suitable for environments where videowall display are used.

- Select either Videos/Images or Text depending on the picture mode.

#### Calibration

.

In this mode, the brightness, colour, gamma and uniformity settings customized using the colour calibration programme **Advanced Colour Management** are applied.

- To apply the **Calibration** mode properly, make sure you configure the picture quality settings, such as brightness, colour, gamma and uniformity, using the colour calibration programme **Advanced Colour Management**.
- To download the **Advanced Colour Management** programme, visit www.samsung.com/displaysolutions.

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

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

 $\mathsf{MENU} \boxplus \to \mathsf{Picture} \to \mathsf{ENTER} \blacksquare$ 

| Picture               |                      |
|-----------------------|----------------------|
| Picture Mode          | Terminals & Stations |
| • Backlight           | <u> </u>             |
| <sup>•</sup> Contrast | <b>——</b> 70         |
| · Brightness          | <b>—</b> 45          |
| · Sharpness           | 65                   |
| · Colour              | <b>—</b> 50          |
| · Tint (G/R)          | G50 — R50            |
|                       | $\checkmark$         |

- The displayed image may differ depending on the model.

Your product has several options for adjusting picture quality.

| Picture Mode                      | Picture Mode settings | Adjustable options                              |
|-----------------------------------|-----------------------|---|
| Shops & Malls, Offices & Schools, | Videos/Images         | Backlight / Contrast / Brightness / Sharpness / |
| Terminals & Stations, Video Wall  |                       | Colour / Tint (G/R)                             |
|                                   | Text                  | Backlight / Contrast / Brightness / Sharpness   |
| Calibration                       |                       | Backlight                                       |

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

<sup>—</sup>You can adjust and store settings for each external device you have connected to an input on the product.

- Lowering picture brightness reduces power consumption.

## **Colour Temperature**

 $\mathsf{MENU} \boxplus \to \mathsf{Picture} \to \mathsf{Colour} \, \mathsf{Temperature} \to \mathsf{ENTER} \, \textcircled{\bullet}$ 



- The displayed image may differ depending on the model.

Adjust the colour temperature (Red / Green / Blue). (Range: 2800K–16000K)

- If Colour Tone is set to Off, Colour Temperature is disabled.

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

## White Balance

 $\mathsf{MENU} \ \blacksquare \rightarrow \mathsf{Picture} \rightarrow \mathsf{White} \ \mathsf{Balance} \rightarrow \mathsf{ENTER} \ \blacksquare$ 

| Picture       |              |  |
|---------------|--------------|--|
|               | <b>^</b>     |  |
| White Balance |              |  |
|               | $\checkmark$ |  |
|               |              |  |

- The displayed image may differ depending on the model.

### 2 Point

Adjust the colour temperature for a more natural picture.

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

### 10 Point

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

• Off / On

Level: Select interval to adjust.

**Red**: Adjust the red level.

Green: Adjust the green level.

Blue: Adjust the blue level.

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

- Some external devices may not support this function.

- Enabled when Picture Mode is set to Offices & Schools (Videos/Images).

## Gamma

 $\mathsf{MENU} \boxplus \to \mathsf{Picture} \to \mathsf{Gamma} \to \mathsf{ENTER} \blacksquare$ 



- The displayed image may differ depending on the model.

**Calibrated value** 

 $\mathsf{MENU} \boxplus \to \mathsf{Picture} \to \mathsf{Calibrated} \ \mathsf{value} \to \mathsf{ENTER} \ \fbox$ 



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

Adjust the primary colour intensity.

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

Select whether to apply the brightness, colour, gamma and uniformity settings customized using the colour calibration programme **Advanced Colour Management** to the Information and Advertisement modes.

• Don't apply / Apply

To download the **Advanced Colour Management** programme, visit www.samsung.com/displaysolutions.

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

## **Advanced Settings**

 $\mathsf{MENU} \blacksquare \to \mathsf{Picture} \to \mathsf{Advanced} \ \mathsf{Settings} \to \mathsf{ENTER} \ \blacksquare$ 

| Advanced Settings |        |
|-------------------|--------|
| Dynamic Contrast  | Medium |
| BlackTone         | Darker |
| Flesh Tone        | 0      |
| RGB Only Mode     | Off    |
| Colour Space      | Native |
| Motion Lighting   | Off    |
|                   |        |

| Picture Mode                                    | Picture Mode settings | Adjustable options  |
|---|-----------------------|---|
| Shops & Malls, Offices & Schools,<br>Video Wall | Videos/Images         | Dynamic Contrast / Black Tone / Flesh Tone /<br>RGB Only Mode / Colour Space                      |
|   | Text                  | Dynamic Contrast / Black Tone   |
| Terminals & Stations                            | Videos/Images         | Dynamic Contrast / Black Tone / Flesh Tone /<br>RGB Only Mode / Colour Space / Motion<br>Lighting |
|   | Text                  | Dynamic Contrast / Black Tone   |

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

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

| Advanced Settings |            |
|-------------------|------------|
| Dynamic Contrast  | Medium     |
| Black Tone        | Darker     |
| Flesh Tone        | <b>—</b> 0 |
| RGB Only Mode     | Off        |
| Colour Space      | Native     |
| Motion Lighting   | Off        |
|                   |            |

- The displayed image may differ depending on the model.

### **Dynamic Contrast**

Adjust the screen contrast.

• Off / Low / Medium / High

### **Black Tone**

Select the black level to adjust the screen depth.

• Off / Dark / Darker / Darkest

## **Flesh Tone**

Emphasize pink Flesh Tone.

## **RGB Only Mode**

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

• Off / Red / Green / Blue

## **Colour Space**

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

• Auto / Native / Custom

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

## **Motion Lighting**

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

• Off / On

## **Picture Options**

 $\mathsf{MENU} \boxplus \to \mathsf{Picture} \to \mathsf{Picture} \ \mathsf{Options} \to \mathsf{ENTER} \ \fbox$ 

| Off    |
|--------|
| Off    |
| Off    |
| Normal |
| Off    |
| Off    |
|        |

- The displayed image may differ depending on the model.

| Picture Mode  | Picture Mode settings | Adjustable options  |
|---|-----------------------|---|
| Shops & Malls, Offices & Schools,<br>Terminals & Stations, Video Wall | Videos/Images         | Colour Tone / Digital Clean View / MPEG<br>Noise Filter / HDMI Black Level / Film Mode<br>Dynamic Backlight |
|   | Text                  | Colour Tone / HDMI Black Level / Dynamic<br>Backlight   |
| Calibration   |                       | HDMI Black Level / Dynamic Backlight  |

#### **Picture Options**

| Off    |
|--------|
| Off    |
| Off    |
| Normal |
| Off    |
| Off    |
|        |

- The displayed image may differ depending on the model.

### **Colour Tone**

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

• Off / Cool / Standard / Warm

If the input source is AV, Component or HDMI.

- Off / Cool / Standard / Warm1 / Warm2
- If Picture Mode is set to Calibration, Colour Tone is disabled.

<sup>—</sup> Settings can be adjusted and stored for each external device connected to an input on the product.

### **Digital Clean View**

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

- Off / Low / Medium / High / Auto
- Received signal intensity is the strongest when the bar is green.

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

### **MPEG Noise Filter**

Reduces MPEG noise to provide improved picture quality.

• Off / Low / Medium / High / Auto

| Picture Options    |        |
|--------------------|--------|
| Colour Tone        | Off    |
| Digital Clean View | Off    |
| MPEG Noise Filter  | Off    |
| HDMI Black Level   | Normal |
| Film Mode          | Off    |
|                    |        |

- The displayed image may differ depending on the model.

### **HDMI Black Level**

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

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

## Film Mode

This mode is suitable to view movies.

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

• Off / Auto1 / Auto2

## **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.

## **Picture Size**

 $\mathsf{MENU} \boxplus \to \mathsf{Picture} \to \mathsf{Picture} \: \mathsf{Size} \to \mathsf{ENTER} \: \blacksquare$ 

| 16:9 |
|------|
|      |
| Off  |
|      |

- The displayed image may differ depending on the model.

choose size and aspect ratio picture displayed on screen.

### **Picture Size**

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

- 16:9: Sets the picture to 16:9 wide mode.
- Zoom1: Use for moderate magnification. Cuts off the top and sides.
- Zoom2: Use for a stronger magnification.
- Smart View 1: Reduces the 16:9 picture by 50%.
- Smart View 1 is enabled only in HDMI mode.
- Smart View 2: Reduces the 16:9 picture by 25%.
  - **Smart View 2** is enabled only in **HDMI** mode.
- Wide Fit: Enlarges the aspect ratio of the picture to fit the entire screen.
- 4:3: Sets the picture to basic (4:3) mode.

#### Do not set your product to **4:3** format for a long time.

The borders displayed on the left and right, or top and bottom of the screen may cause image retention (screen burn) which is not covered by the warranty.

- Screen Fit: Displays the full image without any cut-off when HDMI (720p / 1080i / 1080p) or Component (1080i/ 1080p) signals are inputted.
- Custom: Changes the resolution to suit the user's preferences.
- Original ratio: If the input source is PC, DVI, HDMI (PC connection), DisplayPort, the video will display in the original aspect ratio.

- Available ports may differ depending on the model.

### Position



- The displayed image may differ depending on the model.

### Zoom/Position



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

Adjusts the picture position. Position is only available if Picture Size is set to Zoom1, Zoom2, Wide Fit, Screen Fit or Custom.
To use the Position function after selecting Zoom1, Zoom2, Wide Fit, Screen Fit or Custom, follow these steps.

- 1 Press the ▼ button to select **Position**. Press the 🖼 button.
- 2 Press the  $\blacktriangle$  or  $\blacktriangledown$  button to move the picture up or down.
- **3** Press the 🗗 button.

Adjusts the picture zoom and position. This option is available when the input source is set to **HDMI** (1080i/1080p) or **Component** (1080i/1080p). **Picture Size** must be set to **Custom** for the option to be available.

- 1 Press the ▼ button to select Zoom/Position. Press the 🖼 button.
- 2 Select the **Zoom** or **Position**. Press the 🖼 button.
- 3 Press the / / / button to move the picture.
- 4 Press the 🗗 button.

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

### Resolution

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

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

## **Auto Adjustment**

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

 $\mathsf{MENU} \boxplus \to \mathsf{Picture} \to \mathsf{Auto} \ \mathsf{Adjustment} \to \mathsf{ENTER} \ \fbox$ 



- Available in **PC** mode only.

- The displayed image may differ depending on the model.

## **PC Screen Adjustment**

 $\mathsf{MENU} \boxplus \to \mathsf{Picture} \to \mathsf{PC} \ \mathsf{Screen} \ \mathsf{Adjustment} \to \mathsf{ENTER} \ \blacksquare$ 



#### Coarse / Fine

Removes or reduces picture noise.

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

Position

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

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

Image Reset

Resets the image to the default settings.

- The displayed image may differ depending on the model.

<sup>-</sup> Available in **PC** mode only.

## **Picture Off**

 $\mathsf{MENU} \boxplus \to \mathsf{Picture} \to \mathsf{Picture} \, \mathsf{Off} \to \mathsf{ENTER} \, \blacksquare$ 



- The displayed image may differ depending on the model.

**Reset Picture** 

Resets your current picture mode to its default settings.

Selecting **Picture Off** switches off the screen. The volume is not disabled.

To switch the screen on, press any button other than the volume button.

 $\mathsf{MENU} \boxplus \to \mathsf{Picture} \to \mathsf{Reset} \ \mathsf{Picture} \to \mathsf{ENTER} \ \textcircled{=}$ 



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

# **OnScreen** Display

## PIP

#### $\mathsf{MENU} \longrightarrow \mathsf{OnScreen \ Display} \longrightarrow \mathsf{PIP} \longrightarrow \mathsf{ENTER} \textcircled{\Rightarrow}$

| OnScreen Display       |         |
|------------------------|---------|
| PIP                    |         |
| Rotation               |         |
| Screen Protection      |         |
| Message Display        |         |
| MenuTransparency       | Medium  |
| Menu Language          | English |
| Reset OnScreen Display |         |
|                        |         |

### **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 subpicture screen.

| Main picture     | Sub picture  |  |
|------------------|--|--|
| PC               | AV / Component / MagicInfo                           |  |
| AV / Component   | PC / DisplayPort / HDMI / DVI / MagicInfo            |  |
| HDMI / DVI / SBB | AV / Component / MagicInfo                           |  |
| MagicInfo        | PC / AV / Component / DisplayPort / HDMI / DVI / SBB |  |

- For **PIP** sound, refer to the **Sound Select** instructions.
- If you turn the product off while watching in the **PIP** mode, **PIP** mode will remain after power Off/On.
- 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.

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



- The displayed image may differ depending on the model.

- **PIP** (**Off** / **On**): Activate or deactivate the PIP function.
- **Source**: You can select a source of the sub picture.
- Size (\_\_\_, \_\_, \_\_, \_\_, \_\_, \_\_, \_\_, \_\_); Select a size for the subpicture.
- Position (\_\_\_, \_\_, \_\_, \_\_, \_\_, \_\_): Select a position for the sub-picture.
  - In double (
- Sound Select (Main / Sub): You can choose to listen to the sound from the Main picture or the Sub picture.

## **Rotation**

 $\mathsf{MENU} \boxplus \to \mathsf{OnScreen}\ \mathsf{Display} \to \mathsf{Rotation} \to \mathsf{ENTER} \blacksquare$ 

| Rotation    |  |
|-------------|--|
| Landscape   |  |
| Landscape   |  |
| Full Screen |  |
|             |  |

- The displayed image may differ depending on the model.

### **Rotate menu**

Configure the menu screen.

- Landscape: Display the menu in landscape mode (default).
- **Portrait**: Display the menu in portrait mode on the right side of the product screen.
- Available only PC, DVI, HDMI, MagicInfo, DisplayPort mode.

### **Rotate Content**

Rotate the product screen orientation.

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

Available only PC, DVI, HDMI (when a PC is connected), DisplayPort mode.

### **Aspect Ratio**

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

- Full Screen: Display the rotated screen in full screen.
- **Original**: Display the rotated screen in the original aspect ratio.
- Available only when **Rotate Content** is set to **Portrait**.

Available only PC, DVI, HDMI (when a PC is connected), DisplayPort mode.

## **Screen Protection**

 $\mathsf{MENU} \boxplus \to \mathsf{OnScreen} \ \mathsf{Display} \to \mathsf{Screen} \ \mathsf{Protection} \to \mathsf{ENTER} \blacksquare$ 

| Screen Protection      |     |  |
|------------------------|-----|--|
| Auto Protection Time   | Off |  |
| Screen Burn Protection |     |  |

- The displayed image may differ depending on the model.

### **Auto Protection Time**

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

Off / 2 hours / 4 hours / 8 hours / 10 hours

### **Screen Burn Protection**

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

Screen Burn Protection moves the picture slightly on the screen.

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

#### **Pixel Shift**

Minimize image retention by finely moving pixels horizontally or vertically.

• Pixel Shift (Off / On)

- Horizontal, Vertical and Time are enabled only when Pixel Shift is set to On.

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

#### Available Pixel Shift Settings and Optimum Settings.

|                     | Available Settings | Optimum Settings |  |
|---------------------|--------------------|------------------|--|
| Horizontal (pixels) | 0~4                | 4                |  |
| Vertical (pixels)   | 0~4                | 4                |  |
| Time (minute)       | 1 min ~ 4 min      | 4 min            |  |

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

Displaying a still image or a 4:3 output for an extended period of time may cause image retention. This is not a defect in the product.

- If Picture Size is set to Screen Fit, Pixel Shift is disabled.

| Screen Burn Protection |     |
|------------------------|-----|
| Pixel Shift            |     |
| Timer                  |     |
| Immediate display      | Off |
| Side Grey              | Off |
|                        |     |

- The displayed image may differ depending on the model.

#### Timer

You can set the timer for Screen Burn Protection.

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

#### Timer

#### Off

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

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

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

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

The Rolling bar and Fading screen patterns appear only once regardless of the specified repeat period or time.

• Period: Specify the time interval to activate the Screen Burn Protection function.

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

• Time: Specify the duration to keep the Screen Burn Protection function on.

- Enabled when **Timer** is set to **Repeat** and **Mode** is set to **Pixel**.

• **Start Time**: Set the start time to activate the screen protection function.

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

• End Time: Set the end time to deactivate the screen protection function.

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

| Screen Burn Protection |     |
|------------------------|-----|
| Pixel Shift            |     |
| Timer                  |     |
| Immediate display      | Off |
| Side Grey              | Off |

- The displayed image may differ depending on the model.

## Message Display

 $\mathsf{MENU} \boxplus \to \mathsf{OnScreen} \ \mathsf{Display} \to \mathsf{Message} \ \mathsf{Display} \to \mathsf{ENTER} \, \blacksquare$ 

| Message Display   |    |  |
|-------------------|----|--|
| Source Info       | On |  |
| No Signal Message | On |  |
| MDC Message       | On |  |
|                   |    |  |

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

### **Immediate display**

Select the screen saver you want to display immediately.

• Off / Pixel / Rolling bar / Fading screen

### **Side Grey**

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

### **Source Info**

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

• Off / On

### No Signal Message

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

• Off / On

### MDC Message

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

• Off / On

## Menu Transparency

Adjust transparency of menu box.

• High / Medium / Low

 $\mathsf{MENU} \blacksquare \to \mathsf{OnScreen} \ \mathsf{Display} \to \mathsf{Menu} \ \mathsf{Transparency} \to \mathsf{ENTER} \ \blacksquare$ 



- The displayed image may differ depending on the model.

## Menu Language

 $\mathsf{MENU} \boxplus \to \mathsf{OnScreen} \ \mathsf{Display} \to \mathsf{Menu} \ \mathsf{Language} \to \mathsf{ENTER} \ \textbf{ } \blacksquare$ 



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

#### Set the menu language.

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

## **Reset OnScreen Display**

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

 $\mathsf{MENU} \blacksquare \to \mathsf{OnScreen} \ \mathsf{Display} \to \mathsf{Reset} \ \mathsf{OnScreen} \ \mathsf{Display} \to \mathsf{ENTER} \ \fbox$ 



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

# Sound Adjustment

Configure the sound (Sound) settings for the product.

## Sound Mode

#### $\mathsf{MENU} \boxplus \to \mathsf{Sound} \to \mathsf{Sound} \mathsf{Mode} \to \mathsf{ENTER} \blacksquare$

| Sound               |                |
|---------------------|----------------|
| Sound Mode          | Standard       |
| Sound Effect        |                |
| HDMI Sound          | AV(HDMI)       |
| Sound on Video Call | Current Source |
| Speaker Settings    |                |
| Auto Volume         | Off            |
| Reset Sound         |                |
|                     |                |

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

- **Standard**: Selects the normal sound mode.
- Music: Emphasizes music over voices.
- Movie: Provides the best sound for movies.
- Clear Voice: Emphasizes voices over other sounds.
- Amplify: Increase the intensity of high-frequency sound to allow a better listening experience for the hearing impaired.
- If Speaker Settings is set to External, Sound Mode is disabled.

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

## **Sound Effect**

#### $\mathsf{MENU} \boxplus \to \mathsf{Sound} \to \mathsf{Sound} \ \mathsf{Effect} \to \mathsf{ENTER} \ \fbox$

| Sound Effect     |     |
|------------------|-----|
| Virtual Surround | Off |
| Dialog Clarity   | Off |
| Equaliser        |     |

- The displayed image may differ depending on the model.

Configure your preferred sound effect for output sound.

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

### **Virtual Surround**

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

• Off / On

Applicable only to models DM40D, DM48D and DM55D.

## **Dialog Clarity**

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.

• Off / On

## Equaliser

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

- 100Hz / 300Hz / 1kHz / 3kHz / 10kHz (Bandwidth Adjustment): Adjusts the level of specific bandwidth frequencies.
- **Reset**: Resets the equalizer to its default settings.

## **HDMI Sound**

 $\mathsf{MENU} \boxplus \to \mathsf{Sound} \to \mathsf{HDMI} \ \mathsf{Sound} \to \mathsf{ENTER} \ \textcircled{\bullet}$ 



- The displayed image may differ depending on the model.

Sound on Video Call

 $\mathsf{MENU} \boxplus \to \mathsf{Sound} \to \mathsf{Sound} \text{ on Video Call} \to \mathsf{ENTER} \ \fbox$ 



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

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

Select sound output to listen to during a video call.

Current Source / Video Call

• AV(HDMI) / PC(DVI)

## **Speaker Settings**

 $\mathsf{MENU} \boxplus \to \mathsf{Sound} \to \mathsf{Speaker} \, \mathsf{Settings} \to \mathsf{ENTER} \ \fbox$ 

| Sound            |              |
|------------------|--------------|
|                  | <u> </u>     |
| Speaker Settings |              |
|                  | $\checkmark$ |
|                  |              |

- The displayed image may differ depending on the model.

## **Auto Volume**

 $\mathsf{MENU} \boxplus \to \mathsf{Sound} \to \mathsf{Auto} \ \mathsf{Volume} \to \mathsf{ENTER} \ \blacksquare$ 



- The displayed image may differ depending on the model.

### **TV Sound Output**

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**.

- External / Internal / Receiver
- When you set **Speaker Settings** to **External**, the products speakers are turned off.

You will hear sound through the external speakers only. When the **Speaker Settings** 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.

The volume can vary depending on the channel.

Automatically equalize the volume level when switching to another channel.

• 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**.
# **Reset Sound**

The displayed image may differ depending on the model. Reset all sound settings to the factory defaults.

 $\mathsf{MENU} \boxplus \to \mathsf{Sound} \to \mathsf{Reset} \ \mathsf{Sound} \to \mathsf{ENTER} \ \blacksquare$ 



- The displayed image may differ depending on the model.

# Network

# **Network Status**

#### $\mathsf{MENU} \boxplus \to \mathsf{Network} \to \mathsf{Network} \mathsf{Status} \to \mathsf{ENTER} \blacksquare$

You can check the current network and Internet status.



- The displayed image may differ depending on the model.

# **Network Settings**

#### $\mathsf{MENU} \longrightarrow \mathsf{Network} \to \mathsf{Network} \mathsf{Settings} \to \mathsf{ENTER} \blacksquare$

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



- The displayed image may differ depending on the model.

## Network Type

Wireless / Wired

## **Network Settings (Wired)**

### **Connecting to a Wired Network**

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

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



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



• Depending on how your network is configured, you may be able to attach your product to your LAN by connecting the LAN port on the back of your product directly to a network wall outlet using a LAN cable.

See the diagram below. Note that the wall outlet is attached to a modem or router elsewhere in your house.



If you have a Dynamic Network, you should use an ADSL modem or router that supports the Dynamic Host Configuration Protocol (DHCP). Modems and routers that support DHCP automatically provide the IP address, subnet mask, gateway, and DNS values your product needs to access the Internet so you do not have to enter them manually. Most home networks are Dynamic Networks.

Some networks require a Static IP address. If your network requires a Static IP address, you must enter the IP address, subnet mask, gateway, and DNS values manually on your product 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.

<sup>—</sup> You can use ADSL modems that support DHCP if your network requires a Static IP address.

ADSL modems that support DHCP also let you use Static IP addresses.

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

#### Automatic Network Settings (Wired)

Connect to the network using a LAN cable. Make sure a LAN cable is connected first.

#### How to set up automatically

- 1 Set **Network Type** to **Wired** from the **Network Settings** page.
- 2 Press the **Connect** button to start **Network Settings**.
  - The **Connect** button is only enabled when the LAN cable is properly connected.
- 3 The network test screen appears and verifies the network connection.

When the connection has been verified, the "Wired network and Internet connection completed." message appears.

- If the connection process fails, check the LAN port connection.
- If the automatic process cannot find the network connection values or if you want to set the connection manually, go to the next section, network setup.

#### Manual Network Settings (Wired)

Offices may use static IP addresses.

If this is the case, ask the network administrator for the IP address, subnet mask, gateway and DNS server address. Enter these values manually.

#### **Getting the Network Connection Values**

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

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

- 2 In the pop-up menu that appears, click Status.
- 3 On the dialog that appears, click the **Support** tab.
- 4 On the **Support** Tab, click the **Details** button. The Network connection values are displayed.

#### How to set up manually

- Set Network Type to Wired from the Network Settings page.
- 2 Press the **Connect** button to start **Network Settings**.
  - The **Connect** button is only enabled when the LAN cable is properly connected.
- 3 The network test screen appears and the verification process starts. Press **Stop**. The verification process stops.
- 4 Select IP Settings on network connection screen. The IP Settings screen appears.
- 5 Select the field at the top, press 🖃, and then set IP Settings to Enter manually. Repeat the entry process for each field in the IP Address.

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

- 6 When done, select **OK** at the bottom of the page, and then press **P**. The network test screen appears and the verification process starts.
- 7 When the connection has been verified, the "Wired network and Internet connection completed." message appears.

### Network Setting (Wireless)

### **Connecting to a Wireless Network**



# Samsung recommends using IEEE 802.11n. When you play video over a network connection, the video may not play smoothly.

- Select a channel for the wireless IP sharer that is not currently being used. If the channel set for the wireless IP sharer is currently being used by another device nearby, this will result in interference and communication failure.
- Your product supports only the following wireless network security protocols.

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

- If your wireless router supports WPS (Wi-Fi Protected Setup), you can connect to the network via PBC (Push Button Configuration) or PIN (Personal Identification Number). WPS will automatically configure the SSID and WPA key in either mode.
- Connection Methods: You can setup the wireless network connection in three ways. Auto Setup (Using the Auto Network Search function), Manual Setup, **WPS(PBC)**

#### **Automatic Network Setup (Wireless)**

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

#### How to set up automatically

- Set Network Type to Wireless from the Network Settings page.
- 2 The **Network** function searches for available wireless networks. When done, it displays a list of the available networks.
- 3 In the list of networks, press the ▲ or ▼ button to select a network, and then press the 🖼 button twice.
  - If the desired wireless router does not appear, select **Refresh** to search again.
  - If the router cannot be found after retrying, select the Stop button.
     The Add Network button appears.
     Select Add Network to add a wireless router to connect to.
- 4 If the Enter password. screen appears, go to step 5. If you select a wireless router that does not have security, go to step 7.
- 5 If the router has security, enter the Enter password. (Security key or PIN).

6 When done, use the right arrow button to move the cursor to **Done**, and then press **C**. The network connection screen appears and the verification process starts.

A connection with the router is established, but the Internet cannot be accessed.

7 When the connection has been verified, the "Your wireless network and Internet connection are setup and ready to use." message appears.

#### Manual Network Setup (Wireless)

Offices may use static IP addresses.

If this is the case, ask the network administrator for the IP address, subnet mask, gateway and DNS server address. Enter these values manually.

#### **Getting the Network Connection Values**

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

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

#### How to set up manually

- 1 Set Network Type to Wireless from the Network Settings page.
- 2 The **Network** function searches for available wireless networks. When done, it displays a list of the available networks.
- 3 In the list of networks, press the ▲ or ▼ button to select a network, and then press the 🖼 button twice.
  - If the desired wireless router does not appear, select **Refresh** to search again.
  - If the router cannot be found after retrying, select the Stop button.
     The Add Network button appears.
     Select Add Network to add a wireless router to connect to.
- 4 If the Enter password. screen appears, go to step 5. If you select a wireless router that does not have security, go to step 7.
- 5 If the router has security, enter the Enter password. (Security key or PIN).
- 6 When done, use the right arrow button to move the cursor to **Done**, and then press **C**. The network connection screen appears and the verification process starts.
- 7 Select **Stop** while network connections are being attempted. This will stop the connection.
- 8 Select IP Settings on network connection screen. The IP Settings screen appears.
- 9 Select the field at the top, press 🔄, and then set IP Settings to Enter manually. Repeat the entry process for each field in the IP Address.
  - Setting IP Settings to Enter manually automatically changes DNS Setting to Enter manually.

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

## WPS(PBC)

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

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

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

# **Wi-Fi Direct**

#### $\mathsf{MENU} \longrightarrow \mathsf{Network} \to \mathsf{Wi-Fi} \ \mathsf{Direct} \to \mathsf{ENTER} \blacksquare$

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

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

# **Multimedia Device Settings**

#### $\mathsf{MENU} \boxplus \to \mathsf{Network} \to \mathsf{Multimedia} \ \mathsf{Device} \ \mathsf{Settings} \to \mathsf{ENTER} \blacksquare$

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

# **Screen Mirroring**

#### $\mathsf{MENU} \longrightarrow \mathsf{Network} \to \mathsf{Screen} \ \mathsf{Mirroring} \to \mathsf{ENTER} \blacksquare$

Connect a mobile device that supports the mirroring function to the product. This allows the screen and sound from the mobile device to be outputted on the product. Mirroring refers to outputting the screen and sound from a mobile device on a display device.

- To use **Screen Mirroring**, make sure the mobile device supports the mirroring function such as AllShare Cast, WiDi (version 3.5 or higher) and Miracast. To check if the mirroring function is available, visit the mobile device manufacturer website.
- Screen or sound output may be choppy if there is network congestion.

## **Screen Mirroring**

Run the mirroring function from the mobile device. The mobile device automatically searches and displays the product in a list.

If the mobile device cannot connect to the product, turn them off and then on again, and try again.

## Screen Mirroring Device Manager

Approve/reject a connection request.

# **Server Network Settings**

 $\mathsf{MENU} \boxplus \to \mathsf{Network} \to \mathsf{Server} \ \mathsf{Network} \ \mathsf{Settings} \to \mathsf{ENTER} \ \textbf{\textbf{G}}$ 

### **Connect to server**

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

- If the SSL option is enabled, the server is configured to use https and data transfer is encrypted.
- Enter the server IP address and port number. Use 7001 as the port number. (If unable to connect to the server using port number 7001, check with your server administrator to find the correct port number and then change the port number.)

## MagicInfo Mode

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

MagicInfo

### **Server Access**

Select a method to connect the server network.

Allow / Deny

## **FTP Mode**

Specify the FTP operating mode.

Active / Passive

# **Device Name**

#### $\mathsf{MENU} \longrightarrow \mathsf{Network} \to \mathsf{Device} \ \mathsf{Name} \to \mathsf{ENTER} \blacksquare$

Select or enter a device name.

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

# System

# Setup



#### - The displayed image may differ depending on the model.

### Initial settings (System)

After powering on the product for the first time, configure basic settings such as the language, channel and time. Press the 🙆 button.

Enter your 4 digit PIN number. The default PIN number is "0-0-0-0".

If you want to change the PIN number, use the **Change PIN** function.

1 Selecting a language

Press the  $\blacktriangle$  or  $\blacktriangledown$  button, and then press the  $\blacksquare$  button. Specify the OSD menu language.

#### 2 Rotate menu

Configure the menu page orientation.

- Landscape / Portrait

#### 3 Network Settings

Set up your network connection. Press the 🖼 button to start. If you do not know your network set up information or want to set to it later, select **Skip**. You can set up the network connection later using the **Network** menu.

#### 4 Clock Set

Set the current date and time, and then select Next.

#### 5 Play via

Select the appropriate player mode depending on the environment where you are using the product.

The **Play via** setting step only appears when connected to the network.

#### 6 Setup Complete

Congratulations! Setup is complete and you're ready to get started.

To watch TV using the product now, select **OK**.

# **Touch Control**

 $\mathsf{MENU} \ \blacksquare \rightarrow \mathsf{System} \rightarrow \mathsf{Touch} \ \mathsf{Control} \rightarrow \mathsf{ENTER} \ \blacksquare$ 

| System        |
|---------------|
| ~             |
| Touch Control |
| ~             |
|               |

- The displayed image may differ depending on the model.

Configure touch control related features.

## Admin Menu Lock

Set the **Admin Menu Lock** to display the administrator settings menu when you tap and hold the finger on the screen.

• Off / On

To use the **Touch Control** feature, attach the touch screen overlay kit (sold separately).

# Time

#### $\mathsf{MENU} \boxplus \to \mathsf{System} \to \mathsf{Time} \to \mathsf{ENTER} \blacksquare$

| Time           |       |
|----------------|-------|
| Clock Set      |       |
| DST            | Off   |
| Sleep Timer    | Off   |
| Power On Delay | 0 sec |
|                |       |

- The displayed image may differ depending on the model.

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

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

## **Clock Set**

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

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.

### DST

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

#### Off / On

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

### **Sleep Timer**

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

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

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

## **Power On Delay**

When connecting multiple products, adjust the power-on time for each product to prevent power overload (within the range 0–50 seconds).

# Source AutoSwitch Settings

 $\mathsf{MENU} \boxplus \to \mathsf{System} \to \mathsf{Source} \ \mathsf{AutoSwitch} \ \mathsf{Settings} \to \mathsf{ENTER} \ \fbox{}$ 

| Source AutoSwitch Settings |      |
|----------------------------|------|
| Source AutoSwitch Settings | Off  |
| Primary Source Recovery    | Off  |
| Primary Source             | All  |
| Secondary Source           | HDMI |

- The displayed image may differ depending on the model.

Turning on the display with **Source AutoSwitch Settings 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 Settings

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

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

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

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

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

## **Primary Source Recovery**

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

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

## **Primary Source**

Specify Primary Source for the automatic input source.

## **Secondary Source**

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

# **Power Control**

 $\mathsf{MENU} \blacksquare \to \mathsf{System} \to \mathsf{Power} \ \mathsf{Control} \to \mathsf{ENTER} \ \fbox$ 

| Power Control     |               |
|-------------------|---------------|
| Auto Power On     | Off           |
| PC module power   |               |
| Max. Power Saving | On            |
| Standby Control   | Auto          |
| Power Button      | Power on only |
| Network Standby   | Off           |
|                   |               |

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

## Auto Power On

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

Off / On

# PC module power

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

#### Synced power-on

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

• Off / On

#### Synced power-off

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

• Off / On

## Max. Power Saving

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

- Off / On
- Available only PC, DVI, HDMI, DisplayPort mode.

| Power Control     |               |
|-------------------|---------------|
| Auto Power On     | Off           |
| PC module power   |               |
| Max. Power Saving | On            |
| Standby Control   | Auto          |
| Power Button      | Power on only |
| Network Standby   | Off           |
|                   |               |

- The displayed image may differ depending on the model.

### **Standby Control**

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

• Auto

Power-saving mode will activate if no input signals are detected even though a source device is connected to the display. The message **No Signal** will appear if no source device is connected.

• Off

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

- 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.
- If No Signal Message is set to Off, the No Signal message does not appear.
  If this is the case, set No Signal Message to On.
- On

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

### **Power Button**

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

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

## **Network Standby**

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

• Off / On

# **Eco Solution**

 $\mathsf{MENU} \boxplus \to \mathsf{System} \to \mathsf{Eco}\ \mathsf{Solution} \to \mathsf{ENTER} \ \textcircled{=}$ 

| Eco Solution         |         |
|----------------------|---------|
| Energy Saving        | Off     |
| Eco Sensor           | Off     |
| Screen Lamp Schedule | Off     |
| No Signal Power Off  | Off     |
| Auto Power Off       | 4 hours |

- The displayed image may differ depending on the model.

## **Energy Saving**

Reduce the power consumption by adjusting the screen brightness.

• Off / Low / Medium / High

### **Eco Sensor**

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

• Off / On

Adjusting the High 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. **Min. Backlight** is the darkest backlight mode. Make sure the **Min. Backlight** setting is lower than the **Backlight** setting.

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

## Screen Lamp Schedule

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

• Off / On

| Eco Solution         |         |
|----------------------|---------|
| Energy Saving        | Off     |
| Eco Sensor           | Off     |
| Screen Lamp Schedule | Off     |
| No Signal Power Off  | Off     |
| Auto Power Off       | 4 hours |

- The displayed image may differ depending on the model.

# **Temperature Control**

 $\mathsf{MENU} \boxplus \to \mathsf{System} \to \mathsf{Temperature} \ \mathsf{Control} \to \mathsf{ENTER} \ \fbox{}$ 



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

## **No Signal Power Off**

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

- Off / 15 min / 30 min / 60 min
- Disabled when an attached PC is in power saving mode.

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

## **Auto Power Off**

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

Off / 4 hours / 6 hours / 8 hours

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.

# **Device Manager**

 $\mathsf{MENU} \boxplus \to \mathsf{System} \to \mathsf{Device} \ \mathsf{Manager} \to \mathsf{ENTER} \ \blacksquare$ 

| Device Manager     |  |
|--------------------|--|
| Keyboard Settings  |  |
| <br>Mouse Settings |  |
|                    |  |

- The displayed image may differ depending on the model.

Configure options for external input devices connected to the product.

## **Keyboard Settings**

Configure keyboard connection settings or options for a connected keyboard.

#### **Select Keyboard**

Select a keyboard you want to use from the available connected keyboards.

#### **Keyboard Options**

- Depending on the country.

**Keyboard Language** Specify the keyboard input language.

**Keyboard type** Specify the keyboard type.

Switch Input Language

Configure the key combination used to change the input language.

## Device Manager

Keyboard Settings

Mouse Settings

- The displayed image may differ depending on the model.

## **Mouse Settings**

### **Select Mouse**

Configure mouse connection settings or options for connected mouse devices.

- Among connected mouse devices, only one mouse can be used.

### **Mouse Options**

— Depending on the country.

#### **Primary Button**

Select a button on the mouse that will perform basic functions (click and enter).

### Pointer Speed

Set the mouse pointer speed.

# Play via

 $\mathsf{MENU} \boxplus \to \mathsf{System} \to \mathsf{Play \, via} \to \mathsf{ENTER} \ \blacksquare$ 



- The displayed image may differ depending on the model.

**Change PIN** 

 $\mathsf{MENU} \boxplus \to \mathsf{System} \to \mathsf{Change} \ \mathsf{PIN} \to \mathsf{ENTER} \ \fbox$ 



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

Select the appropriate **Play via** mode depending on the environment where you are using the product. The home screen may be different depending on the setting.

• MagicInfo / URL Launcher

The Change PIN screen will appear.

Choose any 4 digits for your PIN and enter it in **Enter New PIN**. Reenter the same 4 digits in **Confirm New PIN**. When the Confirm screen disappears, press the **Close** button. The product has memorised your new PIN.

Default password: 0 - 0 - 0 - 0

# General

 $\mathsf{MENU} \boxplus \to \mathsf{System} \to \mathsf{General} \to \mathsf{ENTER} \, \textcircled{=}\,$ 

| General               |     |
|-----------------------|-----|
| Security              |     |
| BD Wise               | On  |
| Anynet+ (HDMI-CEC)    | On  |
| HDMI Hot Plug         | On  |
| DivX® Video On Demand |     |
| Game Mode             | Off |

- The displayed image may differ depending on the model.

## Security

### Safety Lock

It sets safe lock function.

Off / On

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

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

#### **Button Lock**

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

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

• Off / On

#### **USB Auto Play Lock**

Lock USB memory devices to prevent them from being auto detected.

• Off / On

### **BD** Wise

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

• Off / On

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

The **BD Wise** function is enabled only when a source device with the **BD Wise** function is connected.

| General               |     |
|-----------------------|-----|
| Security              |     |
| BD Wise               | On  |
| Anynet+ (HDMI-CEC)    | On  |
| HDMI Hot Plug         | On  |
| DivX® Video On Demand |     |
| Game Mode             | Off |
|                       |     |

- The displayed image may differ depending on the model.

## Anynet+ (HDMI-CEC)

#### Anynet+ (HDMI-CEC)

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

- <sup>—</sup>You can only control Anynet+ devices using the product remote control, not the buttons on the product.
- The product remote control may not work under certain conditions. If this occurs, reselect the Anynet+ device.
- Anynet+ works when the AV device supporting Anynet+ is in the standby or on status.
- While in **PIP** mode, **Anynet+** functions only when an AV device is connected as the primary display. It does not work if the AV device is connected as a secondary display.
- Anynet+ supports up to 12 AV devices in total. Note that you can connect up to 3 devices of the same type.

#### Anynet+ Menu

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

| Anynet+ Menu               | Description   |  |
|----------------------------|---|--|
| View PC                    | Changes 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) <b>Tools</b> | 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.  |  |

| Anynet+ (HDMI-CEC) |     |
|--------------------|-----|
| Anynet+ (HDMI-CEC) | Off |
| Auto Turn Off      | No  |
| Search for Devices |     |

- The displayed image may differ depending on the model.

### **Auto Turn Off**

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

• No / Yes

If Auto Turn Off is set to Yes, running external devices will turn off at the same time as the product powers off.
 May not be enabled depending on the device.

### **Search for Devices**

#### Switching between Anynet+ Devices

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

# Troubleshooting for Anynet+

| Problem   | Possible Solution   |  |
|---|---|--|
| Anynet+ does not work.  | Check if the device is an Anynet+ device. The Anynet+ system supports Anynet+ devices only.   |  |
|   | 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 System menu.   |  |
|   | Check whether the remote control is Anynet+ compatible.   |  |
|   | Anynet+ doesn't work in certain situations. (initial setup)   |  |
|   | • If you have removed and then reconnected the HDMI cable, please make sure to search devices again or turn your product off and on again.                    |  |
|   | Check if the Anynet+ function of the Anynet device is set on.   |  |
| I want to start Anynet+.  | <ul> <li>Check if the Anynet+ device is properly connected to the product and check if the Anynet+ (HDMI-CEC) is set to On in the<br/>System menu.</li> </ul> |  |
|   | • Press the <b>TOOLS</b> button to display the <b>Anynet+</b> menu and select a menu you want.  |  |
| I want to exit Anynet+.   | Select View PC in the Anynet+ menu.   |  |
|   | Press the <b>SOURCE</b> button on the product remote control and select a non- Anynet+ device.  |  |
| The message " <b>Disconnecting</b><br><b>Anynet+ device</b> " appears on<br>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 Anynet+ device does not play.   | • You cannot use the play function when initial setup is in progress.   |  |

| Problem                                | Possible Solution  |
|--|--|
| The connected device is not 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 System 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. |

| General               |     |  |  |
|-----------------------|-----|--|--|
| Security              |     |  |  |
| BD Wise               | On  |  |  |
| Anynet+ (HDMI-CEC)    | On  |  |  |
| HDMI Hot Plug         | On  |  |  |
| DivX® Video On Demand |     |  |  |
| Game Mode             | Off |  |  |
|                       |     |  |  |

- The displayed image may differ depending on the model.

## **HDMI Hot Plug**

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

• Off / On

## DivX® Video On Demand

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".

## Game Mode

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

#### • Off / On

Precautions and limitations for Game Mode

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

Game Mode is not available when the input source is set to DVI or DisplayPort.

# **Reset System**

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

 $\mathsf{MENU} \boxplus \to \mathsf{System} \to \mathsf{Reset} \ \mathsf{System} \to \mathsf{ENTER} \ \textcircled{=}$ 



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

# Support

- Current Version: This is the software

# Software Update

#### $\mathsf{MENU} \boxplus \to \mathsf{Support} \to \mathsf{Software} \ \mathsf{Update} \to \mathsf{ENTER} \ \textcircled{=}$

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

- Be careful not to turn off the power until the upgrade is complete. The product will turn off and on automatically after completing the software upgrade.
- When you upgrade software, all video and audio settings you have made will return to their default settings. We advise you to write down your settings so that you can easily reset them after the upgrade.

### Update now

version already installed in the product. Update the software to the latest version.

### Auto update

This feature automatically updates the product when not in use.

Off / On

# **Contact Samsung**

#### MENU III $\rightarrow$ Support $\rightarrow$ Contact Samsung $\rightarrow$ ENTER I

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

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

Contact Samsung and find the product Model Code and Software Version.

# Go to Home

Accessible using the **HOME** 🗇 button on the remote control.

 $\mathsf{MENU} \boxplus \to \mathsf{Support} \to \mathsf{Go} \text{ to Home} \to \mathsf{ENTER} \ \blacksquare$ 



Go to Home to play a variety of content from a memory device or a connected network.

### Player

Search or play channels or content saved on devices.

## Schedule

Create content schedules in local channels or edit saved channels.

## Template

To create content, select a template.

# **Clone Product**

Export the product settings to a USB device or load the settings via a USB device. This option is useful when assigning the same settings to several products.

# **ID Settings**

Assign an ID to a set.

Press  $\blacktriangle/\blacksquare$  to select a number, and press  $\square$ .

- Refer to the "Home feature" chapter for details on sub-menu items.

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

## Video Wall

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.

### **Natwork Status**

Check the current network and Internet connection.

### **Picture Mode**

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

## **On/Off Timer**

You must set the clock before you can use **On/Off Timer**. Set **On Timer** so that your product turns on automatically at a time and on a day of your choosing. The power is turned on with the specified volume or input source.

## Ticker

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

## More settings

The picture settings menu appears.

# **Reset All**

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

 $\mathsf{MENU} \boxplus \to \mathsf{Support} \to \mathsf{Reset} \mathsf{All} \to \mathsf{ENTER} \blacksquare$ 



- The displayed image may differ depending on the model.

# Playing photos, videos and music (Media Play)

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

Play photos, videos or music saved on a storage device.

Play a variety of content using the following methods.

- Using a USB device: Play media content such as videos, photos and music from a USB device.
- Connecting a storage device: Play media content saved on a storage device such as a smartphone, camera, PC or cloud service.

### Read the following before using media 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 media play

- Some USB digital cameras, smartphones and audio devices may not be compatible with the product.
- Media 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.
- 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**

- Media play may not function properly with unlicenced multimedia files.
- Media Transfer Protocol (MTP) is not supported.
- Supported file systems include FAT16, FAT32 and NTFS (read only).
- Media 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.

### 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 The **Player** page automatically appears as soon as a USB device connects to the product.

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.

#### **Removing a USB device**

#### Removing a USB device from Source

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

#### $\mathsf{SOURCE} \to \mathbf{Source}$

- 2 Select USB from Source, and then press the TOOLS button on the remote control. The Options menu is displayed.
- 3 Select **Disconnect USB Device** and wait until the USB device is disconnected. The USB device is disconnected.

It is recommended to use a USB HDD that has a power adapter.

It is recommended to remove a USB device using the **Disconnect USB Device** function.

### Playing media content from a PC/mobile device

#### Approving a PC/mobile device connection

Play photos, videos or music saved on a PC or mobile device.

To play media content from a PC or mobile device on the product, the connection with the PC or mobile device must be approved.

The media playback feature is available on any devices that support DLNA DMC. The DLNA DMC feature allows you to search media content and control content playback from a product after connecting a PC or mobile device to the product.

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

#### $\mathsf{SOURCE} \to \mathbf{Source}$

- 2 Select Network from Source. The Network Device menu appears.
- 3 Select Options from the screen, and then select Multimedia Device Settings. A list of devices connected to the product will appear.
- 4 Select a device and approve the device connection. Playback is only available on devices that are permitted to connect.
  - Sending a media content playback request from a PC or mobile device displays a prompt asking if connection with the product is permitted. Conveniently connect the devices using the prompt.
- For details on how to configure a network, refer to the section **Network Settings**.
- 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 home network (DLNA)

### Play content saved on a device connected to a home network.

Playing media content using a non-Samsung DLNA server may result in a compatibility issue.

Playback of some media content shared with a PC or mobile device may not be possible depending on the content encoding type or the content file format. Some functions may not be available.

- Media content may not play properly if there is network congestion. If this is the case, use a USB device.

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

#### $\mathsf{SOURCE} \to \mathbf{Source}$

- 2 Select Network from Source. The Network Device menu appears.
- 3 Select a device connected via the home network (DLNA). A list of files and folders shared with the selected device will appear.
- 4 Select media content to play from the list. Play the selected media content.

# Features provided in the media content list page

#### $\mathsf{SOURCE} \to \mathbf{Source} \to \mathbf{USB}$

The media content list page on a storage device provides the following features.

Sort by

Rearrange the media content list under the selected file format in a desired view mode.

- This menu item is not available if **Filter** is set to **All**.
- Filter

Among Photos, Videos and Music content saved on a storage device, view content files under a desired file format only.

- Options
  - This menu item is not available if **Filter** is set to **All**.

# Menu items in the media content list page

| Option Name     | Operations  | Photos       | Videos       | Music        |
|-----------------|---|--------------|--------------|--------------|
| Slide Show      | Start a slideshow.  | $\checkmark$ |              |              |
|                 | This menu item is not available if <b>Sort by</b> is set to <b>Folder</b> .                               |              |              |              |
| Encoding        | Select an encoding language if the title of media content appears corrupted.                              |              |              | $\checkmark$ |
| Rename Playlist | Rename a playlist.  |              |              | $\checkmark$ |
| Delete Playlist | Delete a playlist.  |              |              | $\checkmark$ |
| Add to Playlist | Add files to a playlist or create a new playlist.   |              |              | $\checkmark$ |
| Play Selected   | Select and play desired content from the media content list.  | $\checkmark$ | $\checkmark$ | $\checkmark$ |
| Send            | Send media content to another storage device. This is similar to the "copy" feature on PCs.               | ~            | $\checkmark$ | ~            |
| Index           | Select an index to conveniently locate media content if a storage device contains a lot of media content. | $\checkmark$ | $\checkmark$ | $\checkmark$ |
|                 | Provided indices include dates and alphanumeric characters.   |              |              |              |
|                 | This menu item is not available if <b>Sort by</b> is set to <b>Folder</b> .                               |              |              |              |

# Available buttons and features during photo playback

Pressing the 🖼 or **TOOLS** button displays the following buttons. The **RETURN** button makes the buttons disappear.

- Pause / Play
   Start or stop a slideshow. Using a slideshow, it is possible to play all photos in a folder.
- **Previous** / **Next** View the previous or next photo.
- Settings

| Option Name        | Operations   |  |  |
|--------------------|--|--|--|
| Slideshow Settings | Speed: Change the slideshow speed.   |  |  |
|                    | Effects: Apply transition effects between photos.  |  |  |
| Rotate             | Rotate photos.   |  |  |
| Zoom               | Zoom in on photos up to 4x.  |  |  |
| Picture Mode       | Change the <b>Picture Mode</b> .   |  |  |
| Background Music   | Play background music while viewing photos.  |  |  |
|                    | Make sure a music file is saved on the same device.  |  |  |
|                    | The mini player is displayed while background music ( <b>Background Music</b> ) is playing. Using the mini player, pause the music currently playing or change to another music. |  |  |
| Sound Mode         | Change the Sound Mode.   |  |  |
|                    | This menu item is only available when background music ( <b>Background Music</b> ) is playing.   |  |  |
| Select Speakers    | Select a speaker that will output the background music ( <b>Background Music</b> ).  |  |  |
|                    | This menu item is only available when background music ( <b>Background Music</b> ) is playing.   |  |  |
| Send               | Send open photos to another storage device. This is similar to the "copy" feature on PCs.  |  |  |
| Information        | View information about a file.   |  |  |

- 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.

# Available buttons and features during video playback

Pressing the 🖃 or **TOOLS** button displays the following buttons. The **RETURN** button makes the buttons disappear.

Pause / Play

Pause or play a video.

The following features are available in pause mode. Note that sound cannot be heard in pause mode.

Rewind / Fast Forward

Rewind or fast forward a video. Speed up playback up to 3x, if required. To change the playback speed to the original speed, select **>**.

Previous / Next

To play the previous video, select I vice. Selecting I once will play the current video from the beginning.

To play the next video, select **>>**.

Settings

| <b>Option Name</b> | Operations   |  |
|--------------------|--|--|
| Select Scene       | Thumbnails: Select a scene and play the video from the scene.  |  |
|                    | <b>Thumbnails</b> is not available if 1) the thumbnail of the video is not extracted yet, 2) the video contains audio only or 3) the video play time is shorter than 60 seconds. |  |
|                    | Chapter Titles: Select and play another video in the same folder.  |  |
|                    | <b>Time Bar</b> : You can use the ◀ and ▶ buttons to scan through the file in 10-second intervals or enter a specific time value to jump to that point in the video.             |  |
| Repeat             | Configure <b>Repeat</b> .  |  |
|                    | Repeat One: Play the current video repeatedly.   |  |
|                    | <b>Repeat All</b> : Play all videos in a folder repeatedly.  |  |
| Rotate             | Rotate an image.   |  |
| Picture Size       | Change the screen size ( <b>Picture Size</b> ). Supported screen sizes vary depending on the image.  |  |
| Picture Mode       | Change the <b>Picture Mode</b> .   |  |
| Sound Mode         | Change the <b>Sound Mode</b> .   |  |
| Select Speakers    | Select a speaker that will output sound from the product.  |  |
| Audio Language     | Play a video using a desired language. This feature only activates when a streaming file that supports multiple audio formats is playing.  |  |
| Information        | View information about a file.   |  |

# Available buttons and features during music playback

Pressing the 🖃 or **TOOLS** button displays the following buttons. The **RETURN** button makes the buttons disappear.

Pause / Play

Pause or play music.

Rewind / Fast Forward

Rewind or fast forward music. Speed up playback up to 3x, if required. To play the previous music file, select 🗩 twice.

Previous / Next

To play the previous music file, select K4 twice. Selecting K4 once will play the current music from the beginning. To play the next music file, select K4.

Repeat

Configure **Repeat** mode. **Repeat One** plays the current music file repeatedly. **Repeat All** plays all files in a folder repeatedly.

Shuffle

Enable or disable shuffle playback mode.

Select Speakers

Select a speaker that will output sound from the product.

• Sound Mode Change the Sound Mode.

# Supported Subtitle and Media play file formats

# Subtitle

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

# Supported image resolutions

| File Extension | Туре | Resolution   |
|----------------|------|--------------|
| *.jpg, *.jpeg  | JPEG | 15360 x 8640 |
| *.png          | PNG  | 1920 x 1080  |
| *.bmp          | BMP  | 1920 x 1080  |
| *.mpo          | MPO  | 15360 x 8640 |

# Supported music file formats

| File Extension             | Туре  | Codec               | Comments   |
|----------------------------|-------|---------------------|--|
| *.mp3                      | MPEG  | MPEG1 Audio Layer 3 |  |
| *.m4a, *.mpa, *.aac, *.3ga | MPEG4 | AAC                 |  |
| *.flac                     | FLAC  | FLAC                | The Seek (jump) function is not supported.<br>Supports up to 2 channel |

# **Supported Video Formats**

Supports only BD MVC Spec.

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

| File<br>Extension | Container | Video Codec                 | Resolution  | Frame rate<br>(fps) | Bit rate<br>(Mbps) | Audio Codec       |
|-------------------|-----------|-----------------------------|-------------|---------------------|--------------------|-------------------|
| *.avi             | AVI       | DivX 3.11 / 4.x / 5.x / 6.x | 1920 x 1080 | 6~30                | 30                 | AC3               |
| *.mkv             | MKV       |                             |             |                     |                    | LPCM              |
| *.asf             | ASF       |                             |             |                     |                    | ADMPCM            |
| *.wmv             | MP4       | MPEG4 SP / ASP              |             |                     |                    | (IMA, MS)         |
| *.mp4             | 3GP       |                             |             |                     |                    | AAC               |
| *.mov             | VRO       | H.264 BP / MP / HP          |             |                     |                    | HE-AAC            |
| *.3gp             | VOB       |                             |             |                     |                    | WMA               |
| *.vro             | PS        |                             |             |                     |                    | DD+               |
| *.mpg             | TS        | Motion JPEG                 |             |                     |                    | MPEG(MP3)         |
| *.mpeg            |           |                             |             |                     |                    | DTS Core          |
| *.ts              |           | Window Media Video v9       |             |                     |                    | G.711(ALaw,µ-Law) |
| *.tp              |           |                             |             |                     |                    |                   |
| *.trp             |           |                             |             |                     |                    |                   |
| *.mov             |           | MPEG2                       |             |                     |                    |                   |
| *.flv             |           |                             |             |                     |                    |                   |
| *.vob             |           | MPEG1                       |             |                     |                    |                   |
| *.svi             |           |                             |             | _                   |                    |                   |
| *.m2ts            |           | VP6                         | 640 x 480   |                     | 4                  |                   |
| *.mts             |           | MVC                         | 1020 × 1000 | 24/25/20            | 10                 |                   |
| *.divx            |           | IVIVC                       | 1920 x 1080 | 24 / 25 / 30        | 40                 |                   |
| *.webm            | WebM      | VP8                         |             | 6~30                | 8                  | Vorbis            |

# **Troubleshooting Guide**

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

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

### **Testing the Product**

Check if your product is operating normally by using the product test function. If the screen remains blank while the power LED blinks even when the product is correctly connected to a PC, perform product testing.

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

## **Checking the Resolution and Frequency**

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

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

# Check the followings.

### Installation issue (PC mode)

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

### Screen issue

| The power LED is off. The screen will not switch on. | Make sure that the power cord is connected.   |
|--|---|
| No Signal is displayed on the screen.                | Check that the product is connected correctly with a cable  |
|  | Check that the device connected to the product is powered on.   |
| Not Optimum Mode is displayed.                       | This message is displayed when a signal from the graphics card exceeds the product's maximum resolution and frequency.        |
|  | Refer to the Standard Signal Mode Table and set the maximum resolution and frequency according to the product specifications. |
| The images on the screen look distorted.             | Check the cable connection to the product   |

### Screen issue

| The screen is not clear. The screen is blurry.   | Adjust Coarse and Fine.   |  |  |
|--|---|--|--|
|  | Remove any accessories (video extension cable, etc) and try again.  |  |  |
|  | Set the resolution and frequency to the recommended level.  |  |  |
| The screen appears unstable and shaky.   | Check that the resolution and frequency of the PC and graphics card are set within a range compatible with the product. Then, change the screen settings if required by referring to the Additional |  |  |
| There are shadows or ghost images left on the screen.                                    | Information on the product menu and the Standard Signal Mode Table.   |  |  |
| The screen is too bright. The screen is too dark.  | Adjust <b>Brightness</b> and <b>Contrast</b> .  |  |  |
| Screen colour is inconsistent.   | Go to <b>Picture</b> and adjust the <b>Colour Space</b> settings.   |  |  |
| White does not really look white.  | Go to <b>Picture</b> and adjust the <b>White Balance</b> settings.  |  |  |
| There is no image on the screen and the power LED blinks                                 | The product is in power-saving mode.  |  |  |
| every 0.5 to 1 second.   | Press any key on the keyboard or move the mouse to return to the previous screen.   |  |  |
| The product will turn off automatically.   | Go to <b>System</b> and make sure <b>Sleep Timer</b> is set to <b>Off</b> .   |  |  |
|  | If a PC is connected to the product, check the power status of the PC.  |  |  |
|  | Make sure the power cable is connected properly to the product and power outlet.  |  |  |
|  | If the signal from a connected device is not detected, the product automatically turns off after 10 to 15 minutes.  |  |  |
| Picture quality of the product is different from the dealer shop where it was purchased. | Use an HDMI cable to obtain high-definition (HD) picture quality.   |  |  |

### Screen issue

| The screen display does not look normal.                | Encoded video content may cause the display to appear corrupted in scenes featuring fast moving objects such as in a sports event or action video.  |
|---|---|
|   | Low signal level or low picture quality may cause the display to appear corrupted. This does not mean the product is defective.   |
|   | A cell phone within a distance of one-meter radius may cause static on analogue and digital products.   |
| The brightness and colour do not look normal.           | Go to <b>Picture</b> and adjust the screen settings such as <b>Picture Mode</b> , <b>Colour</b> , <b>Brightness</b> and <b>Sharpness</b> .  |
|   | Go to <b>System</b> and adjust the <b>Energy Saving</b> settings.   |
|   | Reset the screen settings to the default settings.  |
| Broken lines are displayed on the edges of the screen.  | If <b>Picture Size</b> is set to <b>Screen Fit</b> , change the setting to <b>16:9</b> .  |
| Lines (red, green or blue) are displayed on the screen. | These lines are displayed when there is a defect in DATA SOURCE DRIVER IC on the monitor. Contact a Samsung Service Centre to resolve the issue.  |
| The display looks unstable and then freezes.            | The screen may freeze when a resolution other than the recommended resolution is used or if the signal is not stable. To resolve the issue, change the PC resolution to the recommended resolution. |
| The screen cannot be displayed in full screen.          | A scaled SD (4:3) content file can cause black bars on both sides of an HD channel screen.  |
|   | A video with an aspect ratio different from the product can cause black bars at the top and bottom of the screen.   |
|   | Change the screen size setting to full screen on the product or source device.  |
| Sound issue   |   |
| There is no sound.                                      | Check the connection of the audio cable or adjust the volume.   |
|   | Check the volume.   |

### Sound issue

| The volume is too low.                                  | Adjust the volume.  |
|---|---|
|   | If the volume is still low after turning it up to the maximum level, adjust the volume on your PC sound card or software programme. |
| Video is available but there is no sound.               | If an HDMI cable is connected, check the audio output settings on the PC.   |
|   | Go to <b>Sound</b> and change <b>Speaker Settings</b> to <b>Internal</b> .  |
|   | If a source device is used  |
|   | • Make sure the audio cable is properly connected to the audio input port on the product.   |
|   | Check the audio output settings for the source device.  |
|   | (For example, if an HDMI cable is connected to the monitor, the audio setting for the cable box may need to be changed to HDMI.)    |
|   | If a DVI-HDMI cable is used, a separate audio cable is required.  |
|   | If the product has a headphone port, make sure nothing is connected to it.  |
|   | Reconnect the power cable to the device and then reboot the device.   |
| There is static coming from the speakers.               | Check the cable connection. Make sure a video cable is not connected to an audio input port.  |
|   | Check the signal strength after connecting a cable.   |
|   | Low signal level can cause corrupted sound.   |
| There is audible sound when the volume is muted.        | When <b>Speaker Settings</b> is set to <b>External</b> , the volume button and mute function are disabled.                          |
|   | Adjust the volume for the external speakers.  |
|   | Audio settings for main speakers are separate from the internal speakers on the product.  |
|   | Changing or muting the volume on the product does not affect an external amplifier(decoder).  |
| Sound from the monitor does not change after Sound Mode | Audio settings for main speakers are separate from the internal speakers on the product.  |
| is changed.   | Audio settings on a source device do not affect the internal speaker settings on the product.                                       |

### Sound issue

|                                   | Different decoding speeds between the product speakers and external speakers can cause an echo. |  |  |
|-----------------------------------|---|--|--|
|                                   | In this case, set <b>Speaker Settings</b> to <b>External</b> .                                  |  |  |
| 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.                       |  |  |

### Other issue

| The product smells like plastic.  | The plastic smell is normal and disappears over time.   |   |                                      |  |
|---|---|---|--------------------------------------|--|
| The monitor appears tilted.   | Remove and then attach the stand again to the product.  |   |                                      |  |
| Audio or video cuts out intermittently.   | Check the cable connection and connect it again if required.  |   |                                      |  |
|   | Using a very hard or th   | ick cable may corrupt audio and video file                        | 25.                                  |  |
|   | Make sure cables are fle<br>is recommended to use   | exible enough to ensure durability. When<br>e right-angle cables. | mounting the product onto a wall, it |  |
| Small particles are found on the edges of the product.  | The particles are part o  | f the product design. The product is not o                        | defective.                           |  |
| The PIP menu is not available.  | The menu is enabled or disabled depending on the <b>Source</b> mode.  |   |                                      |  |
| When I try to change the PC resolution, a message "The defined resolution is not supported." appears. | The message <b>"The defined resolution is not supported.</b> " appears if the input source resolution exceeds the maximum resolution of the display.  |   |                                      |  |
|   | To resolve the issue, change the PC resolution to a resolution supported on the display.  |   |                                      |  |
| There is no sound from the speakers in HDMI mode when a   | a DVI cables do not transmit sound data.  |   |                                      |  |
| DVI-HDMI cable is connected.  | Make sure to connect the audio cable to the correct input jack to enable audio.   |   |                                      |  |
| HDMI Black Level is not functioning properly on an HDMI device with YCbCr output.                     | This function is available only when a source device, such as a DVD player and STB, is connected to the product via an HDMI (RGB signal) cable.   |   |                                      |  |
| There is no sound in HDMI mode.   | Displayed picture colours may not look normal. Video or sound may not be available. This can occur if a source device that only supports an older version of the HDMI standard is connected to the product. |   |                                      |  |
|   | If these issues occur, connect an audio cable along with the HDMI cable.  |   |                                      |  |
|   | Some PC graphics cards may not automatically recognize HDMI signals that do not include sound. In this case, manually select a sound input.   |   |                                      |  |
|   |   | Sound input   | Screen mode                          |  |
|   | PC  | Auto  | PC settings                          |  |
|   | DVI PC  | Audio In (Stereo ports)   | PC settings                          |  |

### Other issue

| The IR sensor is not functioning.  | Make sure the sensor light turns on when a button is pressed on the remote control.  |  |  |  |
|--|--|--|--|--|
|  | • If the sensor light does not turn on, turn the power switch off and then on again on the back of the product.  |  |  |  |
|  | (The power LED lights up red when the screen is switched off.)   |  |  |  |
|  | If the sensor light still does not turn on after the power switch is turned off and then on again, an internal jack may be disconnected.                                 |  |  |  |
|  | Contact your nearest service center to have the product serviced.  |  |  |  |
|  | • If the sensor light that is on does not flash red when a button is pressed on the remote control, the IR sensor may be defective.                                      |  |  |  |
|  | Contact your nearest service center to have the product serviced.  |  |  |  |
|  | • This function is available only when a source device, such as a DVD player and STB, is connected to the product via an HDMI (RGB signal) cable.                        |  |  |  |
| In power-saving mode, when the input source is DisplayPort,<br>PC display settings cannot be saved.          | <ul> <li>Go to System → General and set Max. Power Saving to Off. Alternatively, configure the PC display output settings again. Ensure the set is turned on.</li> </ul> |  |  |  |
| When booting the PC with the input source set to<br>DisplayPort, the BIOS and booting screens do not appear. | • Boot the PC when the set is turned on or when the input source is not <b>DisplayPort</b> .   |  |  |  |

# **Q & A**

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

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

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

# Specifications

1 <sub>Size</sub>

# General



2 Display area



<sup>3</sup> Dimensions (W x H x D)



| Size         |  |  |  |
|--------------|--|--|--|
|              | 32 CLASS (31.5 inches / 80 cm)                         | 40 CLASS (40.0 inches / 101 cm)  |  |
| Display area | 698.4 mm (H) x 392.85 mm (V) /                         | 885.6 mm (H) x 498.15 mm (V) /   |  |
|              | 27.5 inches (H) x 15.47 inches (V)                     | 34.87 inches (H) x 19.61 inches (V)  |  |
| H x D)       | 721.4 x 420.3 x 49.9 mm / 28.40 x 16.55 x 1.96 inches  | 906.6 x 524.7 x 49.9 mm / 35.69 x 20.66 x 1.96 inches  |  |
| stand)       | 4.8 kg / 10.6 lbs                                      | 7.5 kg / 16.5 lbs  |  |
|              | 10 W   | 10 W + 10 W  |  |
| •            | DM48D  | DM55D  |  |
| Size         | 48 CLASS (47.6 inches / 121 cm)                        | 55 CLASS (54.6 inches / 138 cm)  |  |
| Display area | 1054.08 mm (H) x 592.92 mm (V) /                       | 1209.6 mm (H) x 680.4 mm (V) /   |  |
|              | 41.5 inches (H) x 23.34 inches (V)                     | 47.62 inches (H) x 26.79 inches (V)  |  |
| H x D)       | 1075.1 x 619.4 x 49.9 mm / 42.33 x 24.39 x 1.96 inches | 1230.6 x 706.9 x 49.9 mm / 48.45 x 27.83 x 1.96 inches   |  |
| stand)       | 11.1 kg / 24.5 lbs                                     | 15.4 kg / 34.0 lbs   |  |
|              | 10 W + 10 W  | 10 W + 10 W  |  |
|              | H x D)<br>stand)                                       | 27.5 inches (H) x 15.47 inches (V)         H x D)       721.4 x 420.3 x 49.9 mm / 28.40 x 16.55 x 1.96 inches         stand)       4.8 kg / 10.6 lbs         10 W         e       DM48D         Size       48 CLASS (47.6 inches / 121 cm)         Display area       1054.08 mm (H) x 592.92 mm (V) /<br>41.5 inches (H) x 23.34 inches (V)         H x D)       1075.1 x 619.4 x 49.9 mm / 42.33 x 24.39 x 1.96 inches         stand)       11.1 kg / 24.5 lbs |  |

| Power Supply                 |           | AC 100 to 240 VAC (+/- 10%), 60 / 50Hz $\pm$ 3Hz<br>Refer to the label at the back of the product as the standard voltage can vary in different countries. |  |
|------------------------------|-----------|--|--|
| Environmental considerations | Operating | Temperature : 32 °F ~ 104 °F (0 °C ~ 40 °C)<br>Humidity : 10 % ~ 80 %, non-condensing  |  |
|                              | Storage   | Temperature : -4 °F ~ 113 °F (-20 °C ~ 45 °C)<br>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.

### (USA only)

Dispose unwanted electronics through an approved recycler.

To find the nearest recycling location, go to our website:

www.samsung.com/recyclingdirect or call, (877) 278 - 0799

# **PowerSaver**

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

| PowerSaver        |       | Normal Operation |         | Power saving mode | Power off                                   | Power off |                |
|-------------------|-------|------------------|---------|-------------------|---|-----------|----------------|
|                   |       | Rating           | Typical | Max               | —(SOG Signal : Not Support the<br>DPM Mode) |           | (Power Switch) |
| Power Indicator   |       | Off              |         |                   | Blinking                                    | On        | Off            |
| Power Consumption | DM32D | 70 W             | 61 W    | 77 W              | 0.5 W                                       | 0.5 W     | 0 W            |
|                   | DM40D | 110 W            | 86 W    | 121 W             |   |           |                |
|                   | DM48D | 120 W            | 100 W   | 132 W             |   |           |                |
|                   | DM55D | 160 W            | 130 W   | 176 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, turn off the switch at the back or disconnect the power cord. Disconnect the power cable if you will not be using the product for an extended period of time (during vacation, etc.).

# **Preset Timing Modes**

This product can be set to only one resolution for each screen size to obtain the optimum picture quality due to the nature of the panel. Using a resolution other than the specified resolution may degrade the picture quality. To avoid this, it is recommended that you select the optimum resolution specified for your product.

Check the frequency when you exchange a CDT product (connected to a PC) for an LCD product. If the LCD product does not support 85 Hz, change the vertical frequency to 60 Hz using the CDT product before you exchange it with the LCD product.

|                      | DM32D / DM40D / DM48D / DM55D            |
|----------------------|--|
| Horizontal Frequency | 30 ~ 81 kHz                              |
| Vertical Frequency   | 48 ~ 75 Hz                               |
| Optimum resolution   | 1920 x 1080 @ 60 Hz                      |
| Maximum resolution   | 1920 x 1080 @ 60 Hz                      |
|                      | Vertical Frequency<br>Optimum resolution |

The screen will automatically be adjusted if a signal that belongs to the following standard signal modes is transmitted from your PC. If the signal transmitted from the PC does not belong to the standard signal modes, the screen may be blank with the power LED on. In such a case, change the settings according to the following table by referring to the graphics card user manual.

| Resolution      | Horizontal Frequency<br>(kHz) | Vertical Frequency<br>(Hz) | Pixel Clock<br>(MHz) | Sync Polarity<br>(H/V) |
|-----------------|-------------------------------|----------------------------|----------------------|------------------------|
| IBM, 720 × 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               | -/-                    |

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

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

| Resolution        | Horizontal Frequency<br>(kHz) | Vertical Frequency<br>(Hz) | Pixel Clock<br>(MHz) | Sync Polarity<br>(H/V) |
|-------------------|-------------------------------|----------------------------|----------------------|------------------------|
| VESA, 640 x 480   | 37.500                        | 75.000                     | 31.500               | -/-                    |
| VESA, 800 x 600   | 35.156                        | 56.250                     | 36.000               | +/+                    |
| VESA, 800 x 600   | 37.879                        | 60.317                     | 40.000               | +/+                    |
| VESA, 800 x 600   | 48.077                        | 72.188                     | 50.000               | +/+                    |
| VESA, 800 x 600   | 46.875                        | 75.000                     | 49.500               | +/+                    |
| VESA, 1024 x 768  | 48.363                        | 60.004                     | 65.000               | -/-                    |
| VESA, 1024 x 768  | 56.476                        | 70.069                     | 75.000               | -/-                    |
| VESA, 1024 x 768  | 60.023                        | 75.029                     | 78.750               | +/+                    |
| VESA, 1152 x 864  | 67.500                        | 75.000                     | 108.000              | +/+                    |
| VESA, 1280 x 720  | 45.000                        | 60.000                     | 74.250               | +/+                    |
| VESA, 1280 x 800  | 49.702                        | 59.810                     | 83.500               | -/+                    |
| VESA, 1280 x 1024 | 63.981                        | 60.020                     | 108.000              | +/+                    |
| VESA, 1280 x 1024 | 79.976                        | 75.025                     | 135.000              | +/+                    |
| VESA, 1366 x 768  | 47.712                        | 59.790                     | 85.500               | +/+                    |
| VESA,1440 x 900   | 55.935                        | 59.887                     | 106.500              | -/+                    |
| VESA,1600 x 900   | 60.000                        | 60.000                     | 108.000              | +/+                    |
| VESA,1680 x 1050  | 65.290                        | 59.954                     | 146.250              | -/+                    |
| VESA,1920 x 1080  | 67.500                        | 60.000                     | 148.500              | +/+                    |

# Appendix

# Responsibility for the Pay Service (Cost to Customers)

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

# Not a product defect

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

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

# WEEE

# **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)

This marking on the battery, manual or packaging indicates that the batteries in this product should not be disposed of with other household waste at the end of their working life. 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.

If batteries are not properly disposed of, these substances can cause harm to human health or the environment.

To protect natural resources and to promote material reuse, please separate batteries from other types of waste and recycle them through your local, free battery return system.

# Optimum Picture Quality and Afterimage Burn-in Prevention

# **Optimum Picture Quality**

- Due to the nature of the manufacturing of this product, approximately 1 pixel per million (1ppm) may be brighter or darker on the panel. This does not affect product performance.
  - The number of sub-pixels by panel type: 6,220,800
- Run Auto Adjustment to improve the picture quality. If noise is still found even after auto adjustment, adjust Coarse or Fine.
- Leaving the screen fixed on a stationary image for an extended period of time may cause afterimage burn-in or defective pixels.
  - Activate power-saving mode or a dynamic screen saver if you will not be using the product for an extended period of time.

# Prevention of Afterimage Burn-in

### What is afterimage burn-in?

Afterimage burn-in should not occur when the LCD panel is operating normally. Normal operation refers to a continuously changing video pattern. If the LCD panel displays a fixed pattern for an extended period of time (more than 12 hours), a slight voltage difference may occur between the electrodes in pixels that control the liquid crystals.

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

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



### Preventing afterimage burn-in

- The best way to protect the product from afterimage burn-in is switching the power off or setting the PC or system to run a screen saver when not in use. Also, Warranty service may be limited depending on instruction guide.
- Powering Off, Screen Saver and Power Saving Mode
  - Power off the product for 2 hours after using it for 12 hours.
  - Go to Display Properties > Power Supply on your PC and set the product to power off as required.
  - Using a screen saver is recommended.
     It is best to use a single-colour or moving-image screen saver.
- Regular colour Change
  - Use 2 colours

Switch between 2 colours every 30 minutes as shown above.



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



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



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



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

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

# Terminology

#### 480i / 480p / 720p / 1080i /

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

- Scanning

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

- In progressive scan mode, all lines of pixels are scanned one by one
- (progressively) on the screen. - Interlaced
- In interlaced scan mode, every other line of pixels is scanned from top to bottom first and then the remaining lines of pixels (that were not scanned) are scanned.

#### Non-interlace Mode and Interlace

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

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

Vertical Frequency\_\_\_\_\_ The product displays a single image many times per second (like a fluorescent light that flickers) to display an image for a viewer to see. The rate of a single image being displayed repeatedly per second is called vertical frequency or refresh rate. Vertical frequency is measured in Hz. E.g. 60Hz refers to a single image being displayed 60 times in one second.

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

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

#### Component ports (green, blue and

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

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

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

E.g. A resolution of 1920 X 1080 consists of 1,920 horizontal pixels (horizontal resolution) and 1,080 vertical pixels (vertical resolution). DVD (Digital Versatile Disc) DVD refers to a CD-sized mass storage disk where you can save multimedia (audio, video or game) applications using MPEG-2 video compression technology.

### HDMI (High Definition Multimedia

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

### Multiple Display Control (MDC)\_\_\_\_\_

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