

# OWNER'S MANUAL LG Digital Signage (MONITOR SIGNAGE)

Please read this manual carefully before operating your set and retain it for future reference.

49VL5B 49VL7D

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**WARNING** - This equipment is compliant with Class A of CISPR 32. In a residential environment this equipment may cause radio interference.

# Important Precautions

Please read these safety precautions carefully before using the product.

## A WARNING

Failure to follow those warnings may result in death, serious injury or damage to the product or other property.

## 

• Indoor Use Only.

## Electrical Power Related Precautions

## A WARNING

- Use only the power cord supplied with the unit or another manufacturer's authorized cord.
  - Failure to do so may result in fire or electrical shock or damage to the product.
- Use only a properly grounded plug and receptacle.
  - If you do not you may be electrocuted or injured. Or the product might be damaged.
- Do not use a damaged or loose plug.
   This may cause electrical shock or fire.
- Operate the display only from a power source (i.e. voltage) indicated in the product specification.
  - Otherwise the product can be damaged, fire can occur or you may be electrocuted. If you are not sure what type of power supply you have, consult a certified electrician.
- In the presence of thunder and lightning, never touch the power cord and signal cable because it can be very dangerous.
  - It can cause electric shock.
- Do not connect several extension cords, electrical appliances or electrical heaters to a single outlet. Use a power strip with a grounding terminal designed for exclusive use with the computer.
  - A fire can break out due to overheating.

• Do not touch the power plug with wet hands. Additionally, if the cord pin is wet or covered with dust, dry the power plug completely or wipe dust off before plugging in the cord.

► You may be electrocuted due to excess moisture.

- If you don't intend to use the product for a long time, unplug the power cable from the product.
  - Covering dust can cause a fire, or insulation deterioration can cause electric leakage, electric shock or fire.
- Insert the power plug firmly so it cannot come loose.
  - A loose connection can cause fire.
- Hold the plug when pulling out the power cable. Do not pull the plug out by the wire. Do not bend the power cord with excessive force or put heavy objects on the power cord.
  - The power line can be damaged, which may cause electric shock or fire.
- Do not insert metal or other conductive materials into the product openings.
   Additionally, do not touch the power cable right after plugging into the wall input terminal.
  - You may be electrocuted.
- The appliance coupler is used as the disconnect device.
- Please make sure the device is installed near the wall outlet to which it is connected and that the outlet is easily accessible.
- Do not unplug the power cord while the product is in use.
  - Electrical shock can damage the product.
- As long as this unit is connected to the AC wall outlet, it is not disconnected from the AC power source even if the unit is turned off.

## Precautions in installing the Product

#### 

- Keep away from heat sources like heaters or open flames.
  - Electrical shock, fire, malfunction or deformation may occur.
- Keep the packing anti-moisture material or vinyl packing out of the reach of children.
  - Anti-moisture material is harmful if swallowed. If swallowed by mistake, force the patient to vomit and visit the nearest hospital. Additionally, vinyl packing can cause suffocation. Keep it out of the reach of children.
- Do not put heavy objects on the product on sit upon it.
  - If the product collapses or is dropped, you may be injured. Children must pay particular attention.
- Do not leave the power or signal cable where someone can trip over it.
  - The passerby can falter, which can cause electrical shock, fire, product breakdown, or injury.
- Install the product in a neat and dry place. Do not use near water.
  - Dust or moisture can cause electrical shock, fire, or product damage.
- Do not add accessories that have not been designed for this display.
- If you smell smoke or other odors or hear a strange sound from the product unplug the power cord and contact LG Customer Service.
  - If you continue to use without taking proper measures, electrical shock or fire can occur.
- If you dropped the product or the case is broken, turn off the product and unplug the power cord.
  - If you continue to use without taking proper measures, electrical shock or fire can occur. Contact LG Customer Service.
- Do not drop an object on or apply impact to the product. Do not throw any toys or objects at the product.
  - It can cause injury to humans, problems to the product and damage the display.
- Keep out of reach of children and do not place toys near the product.
- Make sure the product ventilation hole is not blocked. Install the product more than 100 mm (3.9 inches) from the wall.
  - If you install the product too close to the wall, it may be deformed or fire can break out due to internal heat build-up.
- Do not cover the product with cloth or other material (e.g., plastic) while plugged in.
  - The product can be deformed or fire can break out due to internal overheating.

- Place the product on a flat and stable surface that is large enough to support the product.
  - If the product is dropped, you may be injured or the product may be broken.
- Install the product where no electromagnetic interference occurs.
- Keep the product away from direct sunlight.
   The product can be damaged.
- Do not place the product on the floor.
   Small children and others may trip over it.
- Do not install this product on a wall if it could be exposed to oil or oil mist.
  - ▶ This may damage the product and cause it to fall.
- For displays with glossy bezels the user should consider the placement of the display as the bezel may cause disturbing reflections from surrounding light and bright surfaces.

## Precautions in Moving the Product

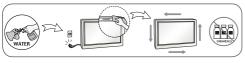
#### 🛕 WARNING

- Make sure to turn off the product.
  - You may be electrocuted or the product can be damaged.
- Make sure to remove all cables before moving the product.
  - You may be electrocuted or the product can be damaged.
- When lifting or moving the product, do not hold it upside down while holding only the stand.
  - This may cause the product to fall resulting in damage or injury.
- Do not shock the product when moving it.
  - You may be electrocuted or the product can be damaged.
- Make sure the panel faces forward and hold it with both hands to move.
  - If you drop the product, the damaged product can cause electric shock or fire.
- Do not place the product face down.
   This may damage the TFT-LCD screen.

# Precautions in Using/Cleaning the Product

## 🛕 WARNING

- Do not attempt to disassemble, repair or modify the product yourself.
  - Fire or electric shock can occur.
  - Contact LG Customer Service for repair.
- When cleaning the product, unplug the power cord and scrub gently with a soft cloth to prevent scratching. Do not clean with a wet cloth or spray water or other liquids directly onto the product. An electric shock may occur. (Do not use chemicals such as benzene, paint thinners, or alcohol.)
- Keep the product away from water.
   Fire or electric shock accident can occur.
- Avoid high temperatures and humidity.
- Do not put or store flammable substances near the product.
  - There is a danger of explosion or fire.
- Keep the product clean at all times.
- Take a comfortable and natural position when working with the product.
- Take a regular break when working with the product for a long time.
- Do not press on the panel with a hand or sharp object such as nail, pencil or pen, or make a scratch on it.
- Keep proper distance from the product and rest from time-to-time.
  - Your vision may be impaired if you look at the product too closely or for too long.
- Set the appropriate resolution by referring to the User's Guide.
- Keep small accessories out of the reach of children.
- Displaying a still image for long time on the monitor may leave persistent image or stain on the monitor screen. To avoid this problem, use a screen saver and power off when this product is not used. Persistent image or screen burn caused by long time usage are not covered by the warranty on this product.
- Do not use products using high voltage around the Monitor. (e.g., a bug zapper.)
  - Monitor may have malfunction as its electrical shock.
- Spray water onto a soft cloth 2 to 4 times, and use it to clean the front frame; wipe in one direction only. Too much moisture may cause staining.



## On Disposal (Only, Hg lamp used LCD Monitor)

- The fluorescent lamp used in this product contains a small amount of mercury.
- Do not dispose of this product with general household waste.
- Disposal of this product must be carried out in accordance to the regulations of your local authority.

# LICENSES

Supported licenses may differ by model. For more information of the licenses, visit www.lg.com.



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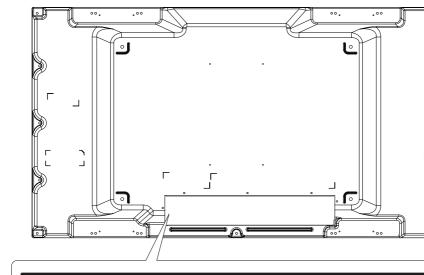
- Product damage from moving or changing the installation location is not covered by warranty.
- The warranty will not cover any damage caused by using the product in an excessively dusty environment.

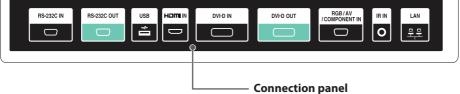
# **ASSEMBLY AND PREPARATION**

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- Always use genuine components to ensure safety and product performance.
- The product warranty will not cover damage or injury caused by the use of counterfeit components.

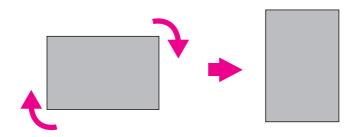
- The accessories provided with your product may vary depending on the model or region.
- Product specifications or contents in this manual may be changed without prior notice due to upgrade of product functions.
- SuperSign Software & Manual
  - Downloading from the LG Electronics website.
  - Visit the LG Electronics website (http://partner.lge.com) and download the latest software for your model.





## **To Install in a Portrait Layout**

When installing in a Portrait Layout, rotate the monitor clockwise 90 degrees (when facing the screen).

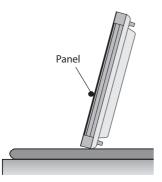


**Parts** 

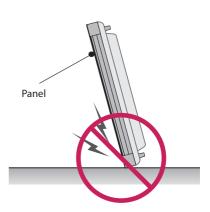
### **STORAGE METHOD FOR PANEL PROTECTION**

#### **Correct Method**

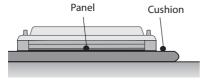




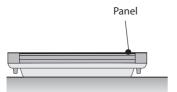
If the product needs to be set upright, hold both sides of the product, and tilt backward carefully for. Do not let the panel to touch the floor.



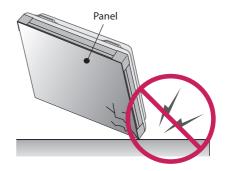
If the product is tilted onto the bezel, the bottom of the panel may be damaged.



When laying down the product, lay a cushion on a flat floor. Put the product on it with the panel of the product facing down.



If there is not a cushion available, ensure the floor is clean and then lay the product down carefully with the panel facing either upward or downward. At this time, be careful for objects not to fall on the panel.

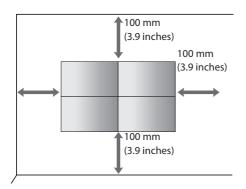


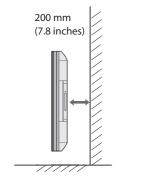
If the product is tilted onto the edge of the panel, the panel may be damaged.

## **Installing on a Wall**

To install the Monitor on a wall (optional), use the VESA screws provided as accessories to fasten it. Install the monitor at least 200 mm (7.8 inches) away from the wall and leave about 100 mm (3.9 inches) of space at each side of the monitor to ensure sufficient ventilation.

Use the wall mount plate and screws that comply with the VESA standard.





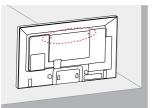
- Disconnect the power cord before moving or installing the monitor to avoid risk of electric shock.
- If you install the monitor on a ceiling or slanted wall, it may fall and result in injury. Use an authorized LG wall mount and contact your local dealer or qualified personnel to assist with the installation.
- Do not over tighten the screws as this may damage the monitor and void your warranty.
- Use only screws and wall mounting brackets that meet the VESA standard. Any damage or injuries caused by misuse or use of improper accessories are not covered by the warranty.

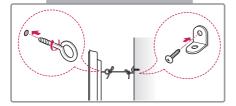


- Do not install the product in a place with no ventilation (e.g., on a bookshelf or in a closet) or on a carpet or cushion. If there is no other option but to mount the product on the wall, make sure that sufficient ventilation is provided before installation.
- Failure to do so may result in a fire due to the increase in the internal temperature.

#### Securing the monitor to a wall (optional)

(Procedure may differ depending on the model.)





1 Insert and tighten the eyebolts, or brackets and bolts on the back of the monitor.

- If there are already bolts inserted in the eyebolts' position, remove the other bolts first.

2 Mount the wall brackets with the bolts to the wall. Match the location of the wall bracket and the eyebolts on the rear of the monitor.

3 Connect the eyebolts and wall brackets tightly with a sturdy cord.

Make sure the securing cord is horizontal with the flat surface.

## WARNING

- If the monitor is not positioned in a sufficiently stable location, there is a danger that it will fall. Many injuries, particularly to children, can be avoided by taking simple precautions such as:
  - » Only using furniture that can safely support the monitor.
  - » Ensuring the monitor is not overhanging the edge of the supporting furniture.
  - » Not placing the monitor on tall furniture (for example, cupboards or bookcases) without anchoring both the furniture and the monitor to a suitable support.
  - » Not placing cloth or other materials between the monitor and supporting furniture.
  - » Educating children about the dangers of climbing on furniture to reach the monitor or its controls.

# 

• Make sure that children do not climb on or hang from the monitor.

- Use a platform or cabinet that is large and strong enough to support the monitor securely.
- Brackets, bolts, and cords are sold separately. You can obtain additional accessories from your local retail store.
- The illustration shows a general example of installation and may look different from the actual product.

## **IR Receiver Connection**

### **IR RECEIVER**

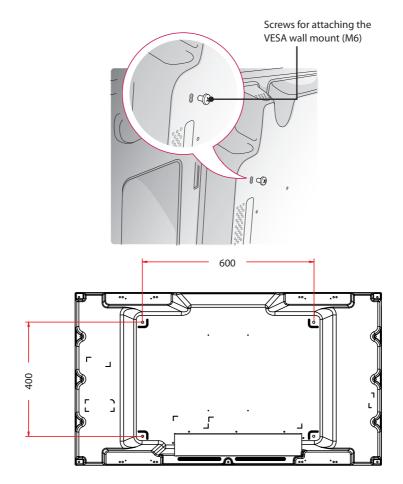
This allows a remote control sensor to be placed in a custom location. Then that display can control other displays via an RS-232C cable.

## **Tiling Displays**

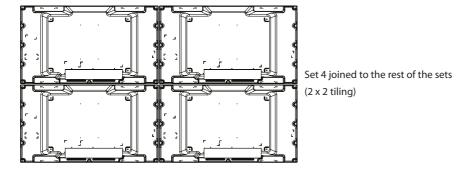
#### How to Mount the Set

#### Example of 2 x 2 Tiling

Using the screws for attaching the VESA wall mount, mount the set to the wall mount plate or the wall.

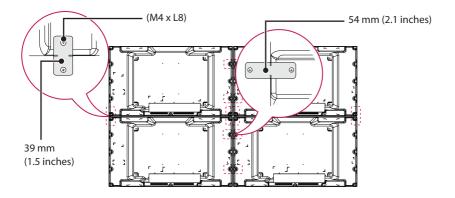


#### How to Join Sets



1 Join other sets using screws for fixing the VESA wall mount in the same way as above.

2 After joining the sets, use the tiling guide to adjust the gap between the sets.



3 Now the 2 x 2 tiling is complete. You can tile in various combinations, such as 3 x 3.

- The load applied to each set should be supported by the wall mount plate or the wall using a VESA wall mount (600 x 400).
- The load applied to each set should be supported by the wall mount plate using a VESA wall mount. (Each set must be firmly mounted to the wall mount plate or the wall.)
- You may mount the set without using the tiling guide; this does not affect the performance of the device.
- Loosen the screws on the set to install the tiling guides. (The screws are enclosed with the other components in the box, including the tiling guides.)

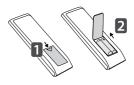
# **REMOTE CONTROL**

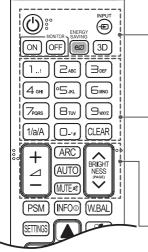
The descriptions in this manual are based on the buttons on the remote control. Please read this manual carefully to use the monitor correctly.

To install batteries, open the battery cover, place batteries (1.5 V AAA) matching  $\oplus$  and  $\bigcirc$  terminals to the labels inside the compartment, and close the battery cover.

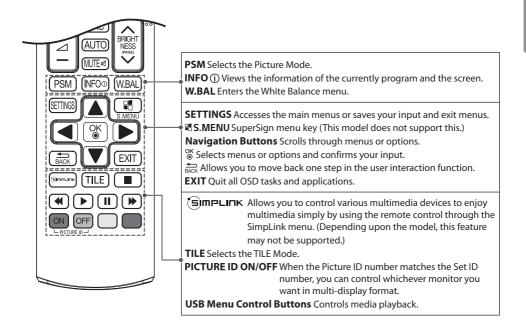
To remove the batteries, perform the installation actions in reverse. The illustrations may differ from the actual accessories.

- Do not mix old and new batteries, as this may damage the remote control.
- Be sure to point the remote control toward the remote control sensor on the monitor.





	<b>じ (POWER)</b> Turns the monitor on or off. MONITOR ON Turns the monitor on.				
	MONITOR OFF Turns the monitor off.				
	ENERGY end Reduces power consumption by adjusting peak screen brightness.				
	INPUT Selects the input mode.				
	3D Used for viewing 3D videos. (This model does not support this.)				
	Number and Alphabet buttons           Enters numerical or alphabetical characters depending upon the setting.           CLEAR Deletes the entered numerical or alphabetical character.				
	support this.)				
	ARC Selects the Aspect Ratio mode.				
_	AUTO Automatically adjusts picture position and minimizes image instability (available for RGB input only).				
	MUTE Mutes all sounds. (This model does not support this.) BRIGHT Adjust the brightness by pressing the Up and Down buttons on the NESS MAGE: remote control. In USB mode, the OSD menu has the Page function				



## **Assigning Input Port Labels**

Display which devices are connected to which external input ports.

- 1 Access the Input list screen and press the red (input label) button on the remote control.
- 2 You can assign an input label for every input except USB.

## 

- External inputs supported : HDMI, DVI-D
- Labels available : PC, DTV
- The input labels are displayed on the Input Label screen or at the top left of the screen when you change the external input setting.
- For DTV/PC-compatible signals, such as 1080p 60 Hz, the screen settings may change according to the input label. The Just Scan option is available if a PC is connected as an external device.

# **MAKING CONNECTIONS**

You can connect various external devices to your monitor. Change the input mode and select the external device you want to connect.

For more information about external device connections, see the user manual provided with each device.

## **Connecting to a PC**

Some of the cables are not provided.

This monitor supports the Plug and Play\* feature.

\* Plug and Play: a feature that enables a PC to recognize devices attached by the user without device configuration or user intervention when powering up.

## **External Device Connection**

Connect a HD receiver, DVD, or VCR player to the monitor and select an appropriate input mode.

Some of the cables are not provided. For the best picture and sound quality, connecting external devices to your monitor using HDMI cables is recommended. If you connect a gaming device to the monitor set, use the cable supplied with the gaming device.

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- The monitor set with the HDMI connection for the best image quality.
- To comply with the specifications of the product, use a shielded interface cable with ferrite core, such as a D-sub 15-pin cable and DVI-D/HDMI cable.
- If you turn the monitor set on when the set becomes cold, the screen may flicker. This is normal.
- Some red, green, or blue spots may appear on the screen. This is normal.
- To minimize the impact of electromagnetic waves, secure the cables with cable ties.
- Use a High Speed HDMI<sup>®</sup>/<sup>™</sup> Cable.
- If you want to use HDMI-PC mode, you must set the input label to PC mode.
- When HDMI PC is used, a compatibility problem could occur.
- Use a certified cable with the HDMI logo attached. If you do not use a certified HDMI cable, the screen may not display or a connection error may occur.
- Recommended HDMI cable types
  - -High Speed HDMI<sup>®</sup>/<sup>™</sup> Cable
  - -High Speed HDMI<sup>®</sup>/<sup>™</sup> Cable with Ethernet
- Use the standard Macintosh adapter since an incompatible adapter is available in the market. (Different signaling system)
- Apple computers may require an adapter to connect to this monitor. Call or visit their web site for more information.

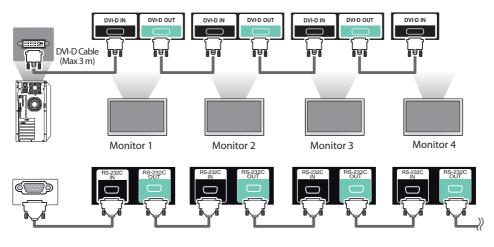
- Connect the signal input cable and tighten it by turning the screws clockwise.
- Do not press the screen with your finger for a long time as this may result in temporary distortion on the screen.
- Avoid displaying a fixed image on the screen for a long period of time to prevent image burn. Use a screensaver if possible.
- If using a DP to HDMI dongle, make sure to use a dongle certified by the graphics card manufacturer.
- When connecting to multi-channel ports of a graphics card, make sure to use DP to HDMI dongles of the same model.

## **Daisy Chain Monitors**

Use this function when displaying DVI-D inputs of a PC in other products.

To use different products connected to each other Connect one end of the signal input cable (DVI-D Cable) to the DVI-D OUT connector of product 1 and connect the other end to the DVI-D IN connector of other products.

## **DVI-D** Cable



- For DVI-D, in general, up to 12 monitors can be connected via the DVI-D Out port (at the recommended resolution) if the signal is stable and there is no cable loss. If you want to connect more than this number of monitors, we recommended that you use a distributor.
- When the tile mode is configured via DVI-D cables, only the monitor that receives first signals can play HDCP-encrypted content. (The DVI-D Out port does not support HDCP.)
- If the signal cable between the product and your PC is too long, make sure to use the DVI-D booster or DVI-D optical cable.
- If input signals are received through the HDMI cable, multiple monitors cannot be connected via the DVI-D Out port.

# TROUBLESHOOTING

#### No image is displayed

Problem	Resolution
Is the product power cord connected?	• See if the power cord is properly connected to the outlet.
Power is on, but the screen appears extremely dark.	<ul><li>Adjust brightness and contrast again.</li><li>Backlight may need repair.</li></ul>
Does the Invalid Format message appear?	<ul> <li>The signal from the PC (graphics card) is out of the vertical or horizontal frequency range of the product. Adjust the frequency range by referring to the Specifications in this manual.</li> <li>* Maximum resolution RGB : 1920 x 1080 @ 60 Hz HDMI/DVI-D : 1920 x 1080 @ 60 Hz</li> </ul>
Does the No signal message appear?	<ul> <li>The signal cable between PC and product is not connected. Check the signal cable.</li> <li>Access the input menu to check the input signal.</li> </ul>

#### 'Unknown Product' message appears when the product is connected.

Problem	Resolution	
Did you install the driver?	• See if the Plug and Play function is supported by referring to the	
	graphics card user manual.	

#### The screen image looks abnormal.

Problem	Resolution
Is the screen position wrong?	<ul> <li>D-Sub analog signal - Press the AUTO button in the remote control to automatically select the optimal screen status that fits into the current mode. If adjustment is not satisfactory, select [PICTURE] - [Screen] - [Position] in OSD menu.</li> <li>See if the graphics card resolution and frequency are supported by the product. If the frequency is out of range, set to the recommended resolution in the Control Panel Display Setting menu.</li> <li>Some graphics cards can adjust the size of the screen by itself. Adjust the graphics card settings.</li> </ul>
Do thin lines appear on the background screen?	<ul> <li>D-Sub analog signal - Press the AUTO button in the remote control to automatically select an optimal screen status that fits into the current mode. If adjustment is not satisfactory, select [PICTURE] - [Screen] - [Size] in OSD menu.</li> </ul>
Horizontal noise appears or the characters look blurred.	• D-Sub analog signal - Press the AUTO button in the remote control to automatically select an optimal screen status that fits into the current mode. If adjustment is not satisfactory, select [PICTURE] - [Screen] - [Phase] in OSD menu.
The screen is displayed abnormally.	<ul> <li>The proper input signal is not connected to the signal port. Connect the signal cable that matches with the source input signal.</li> </ul>

#### After-image appears on the product.

Problem	Resolution
After-image appears when the product is turned off.	<ul> <li>If you use a fixed image for a long time, the pixels may be damaged quickly. Use the screen-saver function.</li> </ul>

#### Screen color is abnormal.

Problem	Resolution
Screen has poor color resolution (16 colors).	<ul> <li>Set the number of colors to more than 24 bits (true color) Select Control Panel - Display - Settings - Color Table menu in Windows.</li> </ul>
Screen color is unstable or mono- colored.	Check the connection status of the signal cable. Or, re-insert the PC graphics card.
Do black spots appear on the screen?	<ul> <li>Several pixels (red, green, white, or black color) may appear on the screen, which can be attributable to the unique characteristics of the LCD panel. It is not a malfunction of the LCD.</li> </ul>

#### The operation does not work normally.

Problem	Resolution	
The power suddenly turned off.	Is the sleep timer set?	
	<ul> <li>Check the power control settings. Power interrupted.</li> </ul>	

 Image sticking does not occur when using constantly changing images but may occur when using a fixed image for an extended period of time. Therefore, it is recommended that you use the instructions below to decrease the likelihood of image sticking occurring when using a fixed image. It is recommended that you change the screen at least once every **12 hours** at the very minimum; if done more frequently, the prevention of image sticking is more effective.

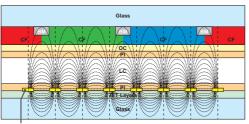
# Recommended operating conditions Change the background and the character colors using the same time interval. ID: UPM 123 PW: \*\*\*\*

When changing colors, using complementary colors helps to prevent image sticking.

Change the image using the same time interval.



Make sure that the characters or images before changing the image remain in the same location after changing the image.



ITO or MoTi Pixel Layer

#### What is image sticking?

When the LCD panel displays a static image for an extended period of time, it can cause a voltage difference between the electrodes that operate the liquid crystals. When the voltage difference between the electrodes builds up over time, liquid crystals have a tendency to remain aligned in one direction. During this process, a previously displayed image remains visible. This phenomenon is referred to as image sticking.

# **PRODUCT SPECIFICATIONS**

The product specifications below may be changed without prior notice due to upgrade of product functions. " $\sim$ " refers to alternating current (AC), and "== " refers to direct current (DC).

LCD screen	Screen type		Thin Film Transistor (TFT)	
			Liquid Crystal Display (LCD) Screen	
	Pixel pitch		0.55926 mm (H) x 0.55926 mm (V)	
Video signal	Maximum resolution		1920 x 1080 @ 60 Hz	
			- This may not be supported on some OS or graphic card types.	
	Recommended	resolution	1920 x 1080 @ 60 Hz	
			- This may not be supported on some OS or graphic card types.	
	Horizontal freq	uency	RGB : 30 kHz to 83 kHz HDMI/DVI-D : 30 kHz to 83 kHz	
	Vertical frequer		RGB : 50 Hz to 75 Hz HDMI/DVI-D : 56 Hz to 60 Hz	
	Synchronizatio	'n	Separate Sync, Digital	
Input/ Output ports			IR IN, RS-232C IN/OUT, HDMI IN, DVI-D IN/OUT, RGB/AV/ COMPONENT IN, LAN, USB	
Embedded battery			Applied	
Power	Rated power	49VL5B	AC 100-240 V~ 50/60 Hz 1.3 A	
		49VL7D	AC 100-240 V~ 50/60 Hz 1.8 A	
	Power consumption	49VL5B	On Mode: 90 W (Typ.)	
			Sleep Mode: $\leq$ 0.5 W	
			Standby Mode: ≤ 0.5 W	
		49VL7D	On Mode: 130 W (Typ.)	
			Sleep Mode: $\leq$ 0.5 W	
			Standby Mode: ≤ 0.5 W	
Environmental	Operating Temperature		0 °C to 40 °C (32 °F to 104 °F)	
Conditions	Operating Hun	nidity	10 % to 80 %	
	Storage Temperature		-20 °C to 60 °C (-4 °F to 140 °F)	
	Storage Humid		5 % to 85 %	
Dimensions (Width x Height x Depth) / Weight		) / Weight	1077.6 mm x 607.8 mm x 89.7 mm / 17.8 kg	
			(42.4 inches x 23.9 inches x 3.5 inches / 39.2 lbs)	

ENGLISH

#### RGB (PC) Support mode

Resolution	Horizontal frequency (kHz)	Vertical frequency (Hz)
640 x 480	31.469	59.94
720 x 400	31.468	70.8
800 x 600	37.879	60.317
1024 x 768	48.363	60
1280 x 720	44.772	59.855
1280 X 960	60	60
1152 X 864	57.717	59.934
1280 x 1024	63.981	60.02
1920 x 1080	67.5	60

#### HDMI / DVI-D (PC) Support Mode

Resolution	Horizontal frequency (kHz)	Vertical frequency (Hz)
640 x 480	31.469	59.94
800 x 600	37.879	60.317
1024 x 768	48.363	60
1280 x 720	44.772	59.855
1366 x 768	47.7	60
1280 x 1024	63.981	60.02
1680 x 1050	65.290	59.954
1920 x 1080	67.5	60

#### HDMI (DTV) Support Mode

Horizontal frequency (kHz)	Vertical frequency (Hz)
31.5	60
31.25	50
37.5	50
45	60
28.1	50
56.25	50
33.75	60
67.5	60
	frequency (kHz)         31.5         31.25         37.5         45         28.1         56.25         33.75

#### **Component Support Mode**

Resolution	Horizontal frequency (kHz)	Vertical frequency (Hz)
720 x 480	15.63	59.94
720 x 483	31.47	59.94
720 x 576	15.625	50
720 x 576	31.25	50
1280 x 720	45	60
1280 x 720	37.5	50
1280 x 720	44.96	59.94
1920 x 1080	31.25	50
1920 x 1080	56.25	50
1920 x 1080	33.75	60
1920 x 1080	33.72	59.94
1920 x 1080	67.5	60

# ΝΟΤΕ

- When the cable is connected to the DVI-D, HDMI, you can select the PC/DTV mode optionally. It is recommended that you select PC mode when connecting to a PC and select DTV mode when connecting to other devices. The DTV mode refers to all modes excluding the PC mode.
- Vertical frequency: The product display functions by the screen image changing dozens of times every second like a fluorescent lamp. The vertical frequency or refresh rate is the number of image displays per second. The unit is Hz.
- Horizontal frequency: The horizontal interval is the time taken to display one horizontal line.
   When 1 is divided by the horizontal interval, the number of horizontal lines displayed every second can be tabulated as the horizontal frequency. The unit is kHz.

• 49VL5B is not certified with EPA's ENERGY STAR.



This product qualifies for ENERGY STAR®.

Changing the factory default configuration and settings or enabling certain optional features and functionalities may increase energy consumption beyond the limits required for ENERGY STAR® certification. Refer to ENERGYSTAR.gov for more information on the ENERGY STAR® program.

Make sure to read the Safety Precautions before using the product. The model and serial numbers of the SET are located on the back and one side of the SET.



Supplier's Declaration of Conformity		
Trade Name	LG	
Responsible Party	LG Electronics USA, Inc.	
Address	111 Sylvan Avenue, North Building, Englewood Cliffs, NJ 07632	
E-mail	lg.environmental@lge.com	

Temporary noise is normal when powering ON or OFF this device.

MODEL

SERIAL



# USER GUIDE LG Digital Signage (MONITOR SIGNAGE) L14

Please read this manual carefully before operating your set and retain it for future reference.

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To obtain the source code under GPL, LGPL, MPL, and other open source licenses, that is contained in this product, please visit

http://opensource.lge.com.

In addition to the source code, all referred license terms, warranty disclaimers and copyright notices are available for download.

LG Electronics will also provide open source code to you on CD-ROM for a charge covering the cost of performing such distribution (such as the cost of media, shipping, and handling) upon email request to *opensource@lge.com*.

This offer is valid for a period of three years after our last shipment of this product. This offer is valid to anyone in receipt of this information.

# **USING THE MONITOR**

# **Using the Input List**

- 1 Press INPUT to access the input source list.
- 2 Press the navigation buttons to scroll to one of the input sources and press OK.
- AV : Watch video from a VCR or other external devices.
- Component : Watch the content from a DVD or other external devices, or through a digital set-top box.
- **RGB** : View a PC display on the screen.
- HDMI : Watch contents from a PC, DVD of digital set-top box other high definition devices.
- USB : Plays the multimedia file saved in the USB.
- **DVI-D**: View a PC display on the screen.

# **Adjusting Aspect Ratio**

Resize the image to view the image at its optimal size by pressing **ARC** while you are watching Monitor set.

MODE	AV	Component	RGB	HDMI		DVI-D	
ARC	AV		PC	DTV	PC	DTV	РС
16:9	0	0	0	0	0	0	0
Just Scan	х	0	х	0	х	0	х
Set By Program	0	х	х	0	х	0	х
4:3	0	0	0	0	0	0	0
Zoom	0	0	х	0	х	0	х
Cinema Zoom	0	0	х	0	х	0	x

# 

- You can also change the image size by accessing the main menus.
- The Just Scan mode operates when a video signal has resolution of 720p or higher.

- If a fixed image displays on the screen for a long period of time, it will be imprinted and become a permanent disfigurement on the screen. This is image burn or burn-in and not covered by the warranty.
- If you don't use your monitor, turn the power off or set a screen saver program from the PC or the system to prevent image retention.
- If the aspect ratio is set to 4:3 for a long period of time, image burn may occur on the letterboxed area of the screen.

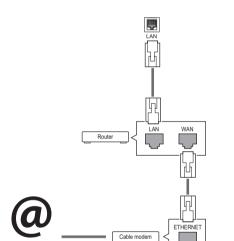
- **16:9** This selection will allow you to adjust the picture horizontally, in linear proportion, to fill the entire screen (useful for viewing 4:3 formatted DVDs).
- Just Scan This Selection will allow you view the picture of best quality without loss of original picture in high resolution image. Note: If there is noise in original Picture, You can see the noise at the edge.
- Set By Program Depending on the input signal, screen aspect ratio changes to 4:3 or 16:9.
- **4:3** This selection will allow you to view a picture with an original 4:3 aspect ratio, black bars will appear on both the left and right of the screen.
- **Zoom** This selection will allow you to view the picture without any alteration, while filling the entire screen. However, the top and bottom of the picture will be cropped.
- **Cinema Zoom** Choose Cinema Zoom when you want to enlarge the picture in correct proportion. Note: When enlarging or reducing the picture, the image may become distorted.

# **ENTERTAINMENT**

## **Connecting to a Wired Network**

Connect the display to a local area network (LAN) via the LAN port as shown on the following illustration and set up the network settings.

Only supports wired network connection. After making a physical connection, a small number of networks may require the display network settings to be adjusted. For most networks, the display will connect to automatically without any adjustments. For detail information, contact your internet provider or router manual.



# 

Internet

- Do not connect a modular phone cable to the LAN port.
- Since there are various connection methods, please follow the specifications of your telecommunication carrier or internet service provider.

To set up the network settings: (Even if your display has already connected automatically, running setup again will not harm anything),

- 1 Press **SETTINGS** to access the main menus.
- 2 Press the navigation buttons to scroll to **NET-WORK** and press **OK**.
- 3 Press the navigation buttons to select **Network Setting** and press **OK**.
- 4 If you already set Network Setting, select **Resetting**. The new connection settings resets the current network settings.
- 5 Select IP Auto Setting or IP Manual Setting.
   IP Manual Setting : press the navigation and number buttons. IP addresses will need to be input manually.
  - **IP Auto Setting** : Select this if there is a DHCP server (Router) on the local area network (LAN) via wired connection, the display will automatically be allocated an IP address. If you're using a broadband router or broadband modem that has a DHCP (Dynamic Host Configuration Protocol) server function. The IP address will automatically be determined.
- 6 When you are finished, press **EXIT**.



- Network setting menu will not be available until the display connected to physical network.
- Since there are various connection methods, please follow the specifications of your telecommunication carrier or internet service provider.
- When connected to a network that supports IPv6, you can select IPv4/IPv6 in the advanced wired/wireless network setting. But, IPv6 connection only supports automatic connection.

- If you want to access the Internet directly on your display, the Internet connection should always be on.
- If you cannot access the Internet, check the network conditions from a PC on your network.
- When you use Network Setting, check the LAN cable or check if DHCP in the router is turned on.
- If you do not complete the network settings, the network may not work properly.

#### **Tips for Network Setting**

- Use a standard LAN cable with this display. Cat5 or better with a RJ45 connector.
- Many network connection problems during set up can often be fixed by re-setting the router or modem. After connecting the display to the network, quickly power off and/or disconnect the power cable of the network router or cable modem. Then power on and/or connect the power cable again.
- Depending on the Internet service provider (ISP), the number of devices that can receive Internet service may be limited by the applicable terms of service. For details, contact your ISP.
- LG is not responsible for any malfunction of the display and/or the Internet connection feature due to communication errors/malfunctions associated with your Internet connection, or other connected equipment.
- LG is not responsible for problems within your internet connection.
- You may experience undesired results if the network connection speed does not meet the requirements of the content being accessed.
- Some internet connection operations may not be possible due to certain restrictions set by the Internet service provider (ISP) supplying your Internet connection.
- Any fees charged by an ISP including, without limitation, connection charges are your responsibility.
- A 10 Base-T or 100 Base-TX LAN port is required when using a wired connection to this display.
   If your internet service does not allow for such a connection, you will not be able to connect the display.

- A DSL modem is required to use DSL service and a cable modem is required to use cable modem service. Depending on the access method of and subscriber agreement with your ISP, you may not be able to use the internet connection feature contained in this display or you may be limited to the number of devices you can connect at the same time. (If your ISP limits sub-scription to one device, this display may not be allowed to connect when a PC is already connected.)
- The use of a Router may not be allowed or its usage may be limited depending on the policies and restrictions of your ISP. For details, contact your ISP directly.

## **Network Status**

- 1 Press **SETTINGS** to access the main menus.
- 2 Press the navigation buttons to scroll to **NETWORK** and press **OK**.
- 3 Press the navigation buttons to select Network Status.
- 4 Press **OK** to check the network status.
- 5 When you are finished, press **EXIT**.

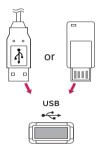
Option	Description	
Setting	Return to the network setting menu.	
Test	Test the current network status after set- ting the network.	
Close	Return to the previous menu.	

# Using the My Media

## **Connecting USB Storage Devices**

Connect USB storage devices such as a USB flash memory, external hard drive to the display and use multimedia features.

Connect a USB flash memory or USB memory card reader to the Display as shown on the following illustration. The My media screen appears.



# 

- Do not turn the display off or remove a USB storage device while EMF (my media) Menu is activated, as this could result in loss of files or damage to the USB storage device.
- Back up your files saved on a USB storage device frequently, as you may lose or damage the files and this may be not covered by the warranty.

#### Tips for Using USB Storage Devices

- Only a USB storage device is recognizable.
- If the USB storage device is connected through a USB hub, the device is not recognizable.
- A USB storage device using an automatic recognition programme may not be recognized.
- A USB storage device which uses its own driver may not be recognized.
- The recognition speed of a USB storage device may depend on each device.
- Please do not turn off the display or unplug the USB device when the connected USB storage device is working. When such device is suddenly separated or unplugged, the stored files or the USB storage device may be damaged.
- Please do not connect the USB storage device which was artificially maneuvered on the PC. The device may cause the product to malfunction or fail to be played. Never forget to use only a USB storage device which has normal image files or movie files.
- Please use only a USB storage device which was formatted as a FAT32 file system, NTFS file system provided with the Windows operating system. In case of a storage device formatted as a different utility program which is not supported by Windows, it may not be recognized.
- Please connect power to a USB storage device (over 0.5 A) which requires an external power supply. If not, the device may not be recognized.
- Please connect a USB storage device with the cable offered by the device maker.
- Some USB storage devices may not be supported or operated smoothly.
- File alignment method of USB storage device is similar to Window XP and filename can recognize up to 100 English characters.
- Be sure to back up important files since data stored in a USB memory device may be damaged. We will not be responsible for any data loss.

- Please use a power adaptor for an external power source. We do not guarantee an USB cable for an external power source.
- If your USB memory device has multiple partitions, or if you use a USB multi-card reader, you can use up to 4 partitions or USB memory devices.
- If a USB memory device is connected to a USB multi-card reader, its volume data may not be detected.
- If the USB memory device does not work properly, disconnect and reconnect it.
- How fast a USB memory device is detected differs from device to device.
- If the USB is connected in Standby Mode, specific hard disk will automatically be loaded when the display is turned on.
- The recommended capacity is 1 TB or less for a USB external hard disk and 32 GB or less for USB memory.
- Any device with more than the recommended capacity may not work properly.
- If a USB external hard disk with a Energy Saving function does not work, turn the hard disk off and on again to make it work properly.
- USB storage devices below USB 2.0 are supported as well. But they may not work properly in the movie list.
- Maximum of 999 folders or files can be recognized under one folder.
- A USB 3.0 storage device may not work.
- Data on some USB storage devices may be damaged in a high temperature environment.

## **Browsing Files**

Browse files saved in a USB storage device.

- 1 Press **SETTINGS** to access the main menu.
- 2 Press the search button to scroll to **MY MEDIA** and press **OK**.
- 3 Press the Search button to go to the **Movie List**, **Photo List** or **Content List** that you want, and press **OK**.

## Supported file format

Туре	Supported file format			
Movie		Codec	Media Container	Profile
	Video	MPEG1 / MPEG2	DAT, MPG, MPEG, DVD, TS, TP	1080p @ 30 fps
		MPEG4 (DivX 3.11, DivX 4, DivX 5, DivX 6, Xvid 1.01, Xvid 1.02, Xvid 1.03, Xvid 1.10-beta1/2)	AVI, DIVX, MP4, MKV, TS, TRP	1080p @ 30 fps
		H.264	AVI, MP4, MKV, TS, TRP, TP	1080p @ 60 fps
	External Subt psb(PowerDiv	/X)	∕licroDVD, Subviewer1.0/2.0)/ e subtitle format used in Div≯	
Photo	JPEG Baseline : 64 x 64 to 15360 x 8640 Progressive : 64 x 64 to 1920 x 1440 PNG Interlace : 1200 x 800 BMP 9600 x 6400 • Non-supported files are displayed in the form of predefined icon.			
Content (when using SuperSign Manager)	File Extensions : *.cts/ *.cse         Movie         File Extensions: *.mpg/*.mpeg/*.dat/*.ts/*.trp/*.tp/*.mp4/*.mkv/*.avi/*. avi(motion JPEG)/*.mp4(motion JPEG)/*.mp4(motion JPEG)/*.mkv(motion JPEG)         Video format: MPEG1, MPEG2, MPEG4,H.264, DivX 3.11, DivX 4, DivX 5, DivX 6, Xvid 1.00,Xvid 1.01, Xvid 1.02, Xvid 1.03,Xvid 1.10-beta1/2, JPEG			

## **Viewing Movies**

Plays movie files saved in the USB storage device.

- 1 Press **SETTINGS** to access the main menu.
- 2 Press the navigation button to scroll to **MY MEDIA** and press **OK**.
- 3 Press the navigation button to scroll to **Movie List** and press **OK**.
- 4 Press the navigation buttons to scroll to a folder you want and press **OK**.
- 5 Press the navigation buttons to scroll to a file you want and press **OK**.
- Go to root folder : Returns to the home screen of My Media.
- Go to upper folder : Returns to the previous screen.
- Exit : Exits My Media.
- 6 During movie playback, press **OK** to access the following settings.

Remote button	Description
	Stops the playback.
	Plays a video.
	Pauses or resumes the playback.
•	Scans backward in a file.
(4)	Scans forward in a file.
ല	Adjusts the screen brightness to save energy.
SETTINGS	Show the Option menu.
	Hide the menu on the full-sized screen.
BACK	
EXIT	Returns to Movie List.
<b>∢</b> or ►	Skips to specific points in a file during playback. The time of a specific point will appear on the status bar. In some files, this function may not work properly.

#### Tips for using playing video files

- Some user-created subtitles may not work properly.
- Some special characters are not supported in subtitles.
- HTML tags are not supported in subtitles.
- Subtitles in languages other than the supported languages are not available.
- A damaged movie file may not be played correctly, or some player functions may not be usable.
- Movie files produced with some encoders may not be played correctly.
- If the video structure of recorded file is not interleaved, video is outputted.
- HD videos with a maximum of 1920 x 1080 @ 25/30p or 1280 x 720 @ 50/60p are supported, depending on the frame.
- Videos with resolutions higher than 1920 X 1080 @ 25/30p or 1280 x 720 @ 50/60p may not work properly depending on the frame.
- Movie files other than the specified types and formats may not work properly.
- Max bitrate of playable movie file is 20 Mbps. (only, Motion JPEG 10 Mbps)
- We do not guarantee smooth playback of profiles encoded level 4.1 or higher in H.264/AVC.
- A movie file more than 30 GB in file size is not supported for playback.
- A DivX movie file and its subtitle file must be located in the same folder.
- A video file name and its subtitle file name must be identical for it to be displayed.
- Playing a video via a USB connection that doesn't support high speed may not work properly.
- Files encoded with GMC(Global Motion Compensation) may not be played.

#### Video options

- 1 Press SETTINGS to access the Pop-Up menus.
- 2 Press the navigation buttons to scroll to Set Video Play or Set Video. and press OK.

- The option values changed in **Movie List** do not affect **Photo List**. Therefore, they are not affected by option values changed in **Photo List**.
- The option values changed in **Photo List** do affect each other.
- When replaying the video file after stopping, you can play from where it stopped previously.

#### Select Set Video Play. to access the following menus:

12

Menu	Description
Picture Size	Selects your desired picture format during movie play.
Subtitle Language	Turn on/off the subtitle.
Language	Activated for SMI subtitle and can select the language within the subtitle.
Code Page	Can select the font for subtitle.
	When set to default, same font as general menu will be used.
Sync	Adjusts the time synchronisation of the subtitle from -10 secs to +10 secs by steps of 0.5 secs during
	movie play.
Position	Changes the position of the subtitle either up or down during movie play.
Size	Selects your desired Subtitle size during movie play.
Repeat	Turn on/off repeat function of movie playback. When turned on, the file within the folder will be played
	back repeatedly. Even when the repeated playback is turned off, it can run the playback if the file name
	is similar to the previous file.

- Only 10,000 of sync blocks can be supported within the subtitle file.
- When playing a video, you can adjust the picture size by pressing the ARC button.
- Subtitles in your language are only supported when the OSD menu is also in this language.
- The code page options may be disabled depending on the language of the subtitle files.
- Select the appropriate code page for the subtitle files.

## **Viewing Photos**

View image files saved in the USB storage device.

- 1 Press **SETTINGS** to access the main menu.
- 2 Press the navigation button to scroll to **MY MEDIA** and press **OK**.
- 3 Press the navigation button to scroll to **Photo List** and press **OK**.
- 4 Press the navigation buttons to scroll to a folder you want and press **OK**.
- 5 Press the navigation buttons to scroll to a file you want and press **OK**.
  - Go to root folder : Returns to the home screen of My Media.
  - Go to upper folder : Returns to the previous screen.
  - Exit : Exits My Media.
- 6 While viewing photos, you can access the following settings.

Menu	Description	
Slideshow	Starts or stops a slideshow with selected photos. If there are no selected photos, all photos saved in the cur-	
	rent folder display during a slideshow. To set a slideshow speed, select <b>Option</b> .	
Ð	Rotates photos clockwise (90 °, 180 °, 270 °, 360 °).	
	<ul> <li>The supported photo size is limited. You cannot rotate a photo if the resolution of the rotated width is larger than the supported resolution size.</li> </ul>	
Q	Enlarges the photo by 100 %, 200 % or 400 %.	
	ΝΟΤΕ	
	<ul> <li>Photos with a resolution of 100 x 100 or less cannot be enlarged.</li> </ul>	
e∅	Adjusts the screen brightness to save energy.	
Option	To display the options	
Hide	Hides the option window.	
Exit	Return to Photo List.	

## Photo options

- 1 Press **SETTINGS** to show the **Option** menus.
- 2 Press the navigation buttons to scroll to Set Photo View, Set Video. and press OK.

## ΝΟΤΕ

- The option values changed in **Movie List** do not affect **Photo List**. Therefore, they are not affected by option values changed in **Photo List**.
- The option values changed in **Photo List** do affect each other.

#### Select Setting Photo View. to access the following menus:

Menu	Description	
Slide Speed	Select a slideshow speed. (Options: Fast, Medium or Slow.)	

## **Viewing the Contents List**

Plays back the stored files using the Export option in SuperSign Manager.

- 1 Press **SETTINGS** to access the main menu.
- 2 Press the navigation button to scroll to MY MEDIA and press OK.
- 3 Press the navigation button to scroll to **Contents List** and press **OK**.
- 4 Press the navigation buttons to scroll to a folder you want and press **OK**.
- 5 Press the navigation buttons to scroll to a file you want and press **OK**.
- Go to root folder : Returns to the home screen of My Media.
- Go to upper folder : Returns to the previous screen.
- Exit : Exits My Media.

- While playing media files from **Contents List**, only the **BACK**, **EXIT**, or volume button are available. Selecting the **BACK** or **EXIT** button stops playing media files and returns to the **Contents List**.
- If there is the AutoPlay folder in the USB device and its files are in supported formats, they can be played back automatically when the USB device is connected to the monitor.

## DivX<sup>®</sup> VOD Guide

## **DivX® VOD Registration**

In order to play purchased or rented DivX<sup>®</sup> VOD contents, you should register your device with 10 digit DivX registration code from your device at *www.divx.com/vod.* 

- 1 Press **SETTINGS** to access the main menus.
- 2 Press the navigation buttons to scroll to **MY MEDIA** and press **OK**.
- 3 Press the blue button.
- 4 Press the navigation buttons to scroll to **DivX Reg. Code** and press **OK**.
- 5 View the registration code of your display.
- 6 When you are finished, press EXIT. When you return to the previous menu, press BACK.

## 

- While you are checking the registration code, some buttons may not work.
- If you use the DivX registration code of another device, you cannot play the rented or purchased DivX file. Make sure to use the DivX registration code assigned to your product.
- The video or audio files that are not converted by the standard DivX codec may be corrupted or not be played.
- The DivX VOD code allows you to activate up to 6 devices under one account.

## DivX<sup>®</sup> VOD Deregistration

You should deregister your device with 8 digit DivX deregistration code from your device at www.divx.com/vod.

- 1 Press **SETTINGS** to access the main menus.
- 2 Press the navigation buttons to scroll to **MY MEDIA** and press **OK**.
- 3 Press the Blue button.
- 4 Press the navigation buttons to scroll to **Deactivation** and press **OK**.
- 5 Press the navigation buttons to select **Yes** to confirm.
- 6 When you are finished, press EXIT. When you return to the previous menu, press BACK.



• Once the deregistration is executed, you must register your device again to see DivX® VOD contents.

# **CUSTOMIZING SETTINGS**

## **Accessing Main Menus**

- 1 Press **SETTINGS** to access the main menus.
- 2 Press the navigation buttons to scroll to one of the following menus and press OK.
- 3 Press the navigation buttons to scroll to the setting or option you want and press **OK**.
- 4 When you are finished, press EXIT. When you return to the previous menu, press BACK.
  - **PICTURE :** Adjusts the image size, quality, or effect.
  - **TIME :** Sets the time, date, or timer feature.
  - **OPTION :** Sets the functions of OPTION.
  - **NETWORK :** Sets the functions of NETWORK.
  - INPUT : Selects the input mode.
  - MY MEDIA : Display and play movie, photo content stored on your USB.

## **PICTURE Settings**

- 1 Press **SETTINGS** to access the main menus.
- 2 Press the navigation buttons to scroll to **PICTURE** and press **OK**.
- Press the navigation buttons to scroll to the setting or option you want and press OK.
   To return to the previous level, press BACK.
- 4 When you are finished, press EXIT. When you return to the previous menu, press BACK.

The available picture settings are described in the following:

Setting	Description			
e∅ Energy Saving	Reduces power consumption by adjusting peak screen brightness. * Return to default settings by clicking <b>General</b> -> <b>Reset to Initial Settings</b> .			
	Level			
	Off	Disables Energy Saving function.		
	Minimum/ Medium/ Maximum	Selects the brightness level of the backlight.		
	Screen Off	The screen turns off in 3 seconds.		
Smart Energy Saving		ight and contrast depending on the screen brightness. It settings by clicking <b>General</b> -> <b>Reset to Initial Settings</b> .		
	Level			
	Off	Disables the Smart Energy Saving function.		
	On	Enables the Smart Energy Saving function to save power consumption as much as the value set in the smart energy saving rate.		
Picture Mode	Selects the picture mode optimized for the viewing environment or the programme. * Return to default settings by clicking <b>General</b> -> <b>Reset to Initial Settings</b> .			
	Mode			
	Vivid	Heightens contrast, brightness and sharpness to display vivid images.		
	Standard	Displays images in standard levels of contrast, brightness and sharpness.		
	APS	APS (Auto power saving) mode reduces power consumption by dimming control.		
	Cinema	Optimizes the video image for a cinematic look to enjoy movies as if you are in a movie theater.		
	Sport	Optimizes the video image for high and dynamic actions by emphasizing primary Colors such as white, grass, or sky blue.		
	Game	Optimizes the video image for a fast gaming screen such as PCs or games.		
	Expert1·2	Menu for adjusting picture quality that allows experts and amateurs to enjoy the best Monitor viewing. This menu is ISF-certified and provided for picture tuning experts. (ISF logo can only be used on ISF-certified Monitor units.) ISFccc: Imaging Science Foundation Certified Calibration Control		
Aspect Ratio	Changes the image size to view images at its optimal size.			

Setting	Description			
Screen	Customizes the PC	Customizes the PC display options in RGB mode.		
(In RGB Mode Only)	Option			
,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	Resolution	Selects a proper resolution.		
	Auto Configure	Sets to adjust the screen position, clock, and phase automatically. The displayed image may be unstable for a few seconds while the configuration is in progress.		
	Position/Size/ Phase	Adjusts the options when the picture is not clear, especially when characters are shaky, after the auto configuration.		
	Reset	Restores the options to the default setting.		

## **Basic image options**

Setting	Description	
Backlight	Adjusts the brightness of the screen by controlling the LCD backlight. If you decrease the brightness level, the screen becomes darker and the power consumption will be reduced without any video signal loss.	
Contrast	Increases or decreases the gradient of the video signal. You may use Contrast when the bright part of the picture is saturated.	
Brightness	Adjusts the base level of the signal in the picture. You may use Brightness when the dark part of the picture is saturated.	
Sharpness	Adjusts the level of crispness in the edges between the light and dark areas of the picture. The lower the level, the softer the image.	
Color	Adjusts intensity of all colors.	
Tint	Adjusts the balance between red and green levels.	
Color Temp.	Set to warm to enhance hotter Colors such as red, or set to cool to make picture bluish.	
Advanced Control/ Expert Control	You can adjust the picture for each Picture Mode, or adjust the picture settings according to a specific picture image. First, select a desired Picture Mode. * This option is unavailable if Picture Mode is set to Vivid.	
Picture Option	Sets additional picture option.	
Picture Reset	Restores the options to the default setting.	

- When you select a picture mode, related menus are set automatically.
- When using the Smart Energy Saving function, the screen may look saturated in the white area of a still image.
- If Energy Saving is set to Minimum, Medium, or Maximum, the Smart Energy Saving function is disabled.
- Return to default settings by clicking General -> Reset to Initial Settings.

## Advanced Control - Picture Mode (Standard/ APS/ Sport/ Game)

Setting	Description	
Dynamic Contrast	Adjusts the contrast to the optimal level according to the brightness of the image.	
Dynamic Color	Adjusts color for more natural-looking colors.	
Color Gamut	Selects the range of colors that can be expressed.	
Skin Color	Skin Color spectrum can be separately set to implement the skin color as defined by the user.	
Sky Color	Sky color is set separately.	
Grass Color	Natural color spectrum (meadows, hills, etc.) can be separately set.	
Gamma	Sets the gradation curve according to the output of the picture signal in relation to the input signal.	

## Expert Control - Picture Mode (Cinema/ Expert1/ Expert2)

Setting	Description		
Dynamic Contrast	Adjusts the contrast to the optimal level according to the brightness of the image. (Function works in the following mode - HDMI-DTV)		
Color Gamut	Selects the range of colors that can be expressed.		
Edge Enhancer	Shows clearer and distinctive yet natural edges of the video.		
Color Filter	Filters a specific color spectrum in RGB colors to fine-tune color saturation and hue accurately.		
Color Temperature	<b>ure</b> Adjusts the overall tone of the screen as desired. In Expert mode, detailed fine-tuning can be set via Gamma method, etc.		
Color Management System	This is a system that experts use when they adjust color with a test pattern. They can select from six color areas (Red / Green / Blue / Cyan / Magenta / Yellow) without affecting other colors. For normal images, adjustments may not result in noticeable color changes.		

## Picture Option - HDMI(DTV) Mode

Setting	Description		
Noise Reduction	Reduces screen noise in the video.		
MPEG Noise Reduction	Reduces noise caused by compressing digital video.		
Black Level	Adjusts the brightness or darkness of the screen to suit the black level of the picture input using the degree of darkness (black level) of the screen.		
Real Cinema	Optimizes the screen for movie viewing.		
Motion Eye Care	Adjusts screen brightness to prevent eye glare. (Depending on model)		

## **TIME Settings**

- 1 Press SETTINGS to access the main menus.
- 2 Press the navigation buttons to scroll to **TIME** and press **OK**.
- Press the navigation buttons to scroll to the setting or option you want and press OK.
   To return to the previous level, press BACK.
- 4 When you are finished, press EXIT. When you return to the previous menu, press BACK.

The available time settings are described in the following:

Setting	Description	
Clock	Sets the time feature.	
On/Off Time	Sets the time to turn on or off the monitor set.	
Auto Off(15Min.)	If Auto-off is active and there is no input signal, the set switches to off mode automatically after 15 minutes. - It is recommended that you set this feature to off if you intend to use the product for long periods of time as the feature turns the power of the product off.	
Automatic Standby	If the monitor is left unattended for a set period of time, it automatically goes into standby mode. - It is recommended that you set this feature to off if you intend to use the product for long periods of time as the feature turns the power of the product off.	

- Off Time/ On Time can be saved for up to seven schedules; the monitor is turned on or off at the preset time in the schedule list. If multiple preset times are stored in the schedule list, this function works at the nearest time from the current time.
- Once the on or off time is set, these functions operate daily at the preset time.
- When the scheduled power-on and power-off times are the same, the power-off time has priority over the poweron time if the set is turned on, and vice versa if the set is turned off.

## **OPTION Settings**

- 1 Press **SETTINGS** to access the main menus.
- 2 Press the navigation buttons to scroll to **OPTION** and press **OK**.
- Press the navigation buttons to scroll to the setting or option you want and press OK.
   To return to the previous level, press BACK.
- 4 When you are finished, press **EXIT**. When you return to the previous menu, press **BACK**.

The available option settings are described in the following:

Setting	Description		
Language	Selects a language for the display text.		
ISM Method	A frozen or still picture from a PC/Video game displayed on the screen for prolonged periods could result in a ghost image remaining even when you change the image. Avoid allowing a fixed image to remain on the screen for a long period of time.		
	Option		
	Normal	Minimizes image sticking by gradually lowering the brightness when displaying static images and by increasing the brightness when displaying moving images.	
	Color Wash	Removes image sticking by moving every pixel in a certain pattern on the screen for a specific period of time. Please use this function to remove temporary image sticking.	
DivX(R) VOD	Registers or releases DivX.         Checks DivX Registration Code for playing DivX-protected videos.         Register at http://vod.divx.com.         Uses Registration Code to rent or purchase movies at www.divx.com/vod.         * Rented/purchased DivX files cannot be played if the DivX Registration Code of a different device is used. Use only the DivX Registration Code granted to this device.         * Converted files not conforming to the DivX Codec Standard may not play or may produce abnormal images.		
Initial Setting	Deletes all option	Deletes all optional settings and returns to initial default mode.	
Set ID	You can assign a unique Set ID NO (name assignment) to each product when several products are connected for display. Specify the number (1 to 255 or 1 to 1,000) using the button and exit. Use the assigned Set ID to individually control each product using the Product Control Program.		
Tile Mode	Tile Mode	<ul> <li>To use this function <ul> <li>Must be displayed with various other products.</li> <li>Must be operating by connecting to an RGB/DVI-D cable and a distributor.</li> <li>Select Tile Mode, set rows and columns, and then enter the tile ID to set the location.</li> </ul> </li> <li>* Only after pressing the SET button the adjustments made to the settings will be saved.</li> <li>Tile Mode: row x column (row = 1 to 15, column = 1 to 15).</li> <li>15 x 15 available.</li> <li>Configuration of an integration screen is also available as well as</li> </ul>	
	Auto Config.	Adjusts the Tile Mode automatically. This function is available for analog signals only.	
	Position	Moving the screen position horizontally and vertically.	
	Size	Adjust the horizontal and vertical size of the screen taking into account the size of the bezel.	
	Natural	The image is omitted by the distance between the screens to be naturally shown.	
	Reset	Function to initialize and release Tile. All Tile setting are released when selecting Tile recall and the screen returns to Full screen.	

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## Tile Mode

This monitor can be tiled with additional monitors to create a large tiled display.

## Off

1X2

When the Tile Mode option is disabled



Tile ID

When using 4 monitors



2X2



When using 9 monitors



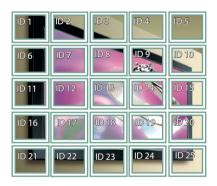
#### 4X4

When using 16 monitors



## 5X5

When using 25 monitors



Tile Mode - Natural mode

When active, the part of the image that would normally be displayed in the gap between the monitors is omitted.

Before



#### After



## **NETWORK Settings**

- 1 Press **SETTINGS** to access the main menus.
- 2 Press the navigation buttons to scroll to **NETWORK** and press **OK**.
- Press the navigation buttons to scroll to the setting or option you want and press OK.
   To return to the previous level, press BACK.
- 4 When you are finished, press **EXIT**. When you return to the previous menu, press **BACK**.

The available option settings are described in the following:

Setting	Description	
Network Setting	Configure the network settings.	
Network Status	Display the network status.	

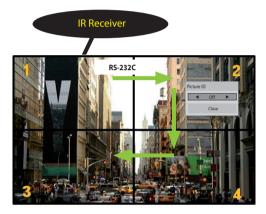
# **IR CODES**

- All models do not support the HDMI/USB function.
- Some key codes are not supported depending on the model.

Code (Hexa)	Function	Note
08	ပံ (Power)	R/C BUTTON
OB	INPUT	R/C BUTTON
C4	MONITOR ON	R/C BUTTON
C5	MONITOR OFF	R/C BUTTON
95	ENERGY SAVING	R/C BUTTON
DC	3D	R/C BUTTON
10 to 19	Number Key 0 to 9	R/C BUTTON
32	1/a/A	R/C BUTTON
2F	CLEAR	R/C BUTTON
02	Volume (+)	R/C BUTTON
03	Volume 🔟 ( - )	R/C BUTTON
79	ARC	R/C BUTTON
99	AUTO	R/C BUTTON
09	MUTE	R/C BUTTON
EO	BRIGHTNESS ^ (Page UP)	R/C BUTTON
E1	BRIGHTNESS V (Page Down)	R/C BUTTON
4D	PSM	R/C BUTTON
AA	INFO (i)	R/C BUTTON
5F	W.BAL	R/C BUTTON
43	SETTINGS	R/C BUTTON
40	Up 🛦	R/C BUTTON
41	Down ▼	R/C BUTTON
07	Left ৰ	R/C BUTTON
06	Right <b>&gt;</b>	R/C BUTTON
3F	S.MENU	R/C BUTTON
44	ОК	R/C BUTTON
28	ВАСК	R/C BUTTON
5B	EXIT	R/C BUTTON
7E	<b>БШРГІЛК</b>	R/C BUTTON
7B	TILE	R/C BUTTON
B1		R/C BUTTON
ВО		R/C BUTTON
BA	II	R/C BUTTON
8F	*	R/C BUTTON
8E	₩	R/C BUTTON
72	Red Key (PICTURE ID ON)	R/C BUTTON
71	Green Key (PICTURE ID OFF)	R/C BUTTON
63	Yellow Key	R/C BUTTON
61	Blue Key	R/C BUTTON

# **PICTURE ID**

Picture ID is used to change the settings of a specific display using a single IR receiver for multi-vision. The set receiving the IR signal communicates with another set via an RS-232C connection. Each set is identified by a Set ID. If you assign the Picture ID using the remote control, only displays with the same Picture ID and Set ID can be controlled remotely.



2X2 Multi-Vision Set IDs are assigned as shown in the picture.

- 1 Press the red **ON** button on the remote control to assign the Picture ID.
- 2 To change the Picture ID, press the **ON** button, or the left and right arrow buttons continuously. Assign the ID you want.
  - If you assign the Set ID to each set with multivision, and then assign the Picture ID using the red button on the remote control, the key command is displayed for the set with the same Set ID and Picture ID. A set with different Set IDs and Picture IDs cannot be controlled by IR signals.

- For example, if the Picture ID is assigned to 2, the upper right display (Set ID: 2) can be controlled by IR signals.
- For each set, you can change the settings for the PICTURE, TIME, NETWORK and MY MEDIA menus or the hot keys on the remote control.
- If you press the green OFF button for Picture IDs, the Picture IDs for all sets are turned off. If you then press any button on the remote control, all sets will start working again.
- Picture ID will be disabled while using the MY MEDIA menu.
- If Picture ID is set to Off, holding buttons on the remote control will execute only one action at a time.

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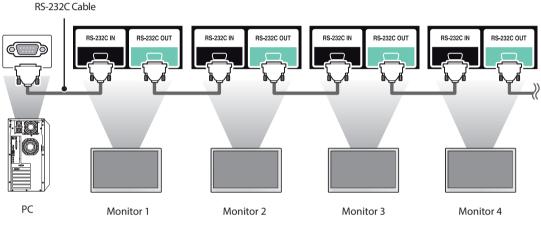
# **CONTROLLING THE MULTIPLE PRODUCT**

- Use this method to connect several products to a single PC. You can control several products at one time by connecting them to a single PC.
- In the Option menu, Set ID must be between 1 and 255 (or from 1 to 1000) without being duplicated.

## **Connecting the cable**

Connect the RS-232C cable as shown in the picture.

• The RS-232C protocol is used for communication between the PC and product. You can turn the product on/ off, select an input source or adjust the OSD menu from your PC.



# **RS-232C Configurations**

8-Wire Configurations (Cross-over RS-232C cable) PC Set DCD DCD RXD TXD 2 TXD RXD 3 2 GND GND 5 DTR DSR 4 DSR 6 DTR RTS CTS 8 CTS RTS 8 D-Sub 9 D-Sub 9 (Female) (Female)

## 

• When using 3-wire connections (non-standard), an IR daisy chain cannot be used.

# **Communication Parameter**

- Baud Rate : 9600 BPS
- Data Length : 8 bit
- Parity Bit : None
- Stop Bit : 1 bit
- Flow Control : None
- Communication Code : ASCII code
- Use a crossed (reverse) cable

# **Command Reference List**

		COMMAND		DATA	
		1 2		(Hexadecimal)	
01	Power	k	а	00 to 01	
02	Select input	x	b	See [Select input]	
03	Aspect ratio	k	с	See [Aspect ratio]	
04	Energy saving	j	q	See [Energy saving]	
05	Picture mode	d	х	See [Picture mode]	
06	Contrast	k	g	00 to 64	
07	Brightness	k	h	00 to 64	
08	Sharpness	k	k	00 to 32	
09	Color	k	i	00 to 64	
10	Tint	k	j	00 to 64	
11	Color temperature	x	u	00 to 64	
12	H position	f	q	00 to 64	
13	V position	f	r	00 to 64	
14	H size	f	s	00 to 64	
15	Auto Config.	j	u	01	
16	Balance	k	t	00 to 64	
17	Sound Mode	d	у	See [Sound mode]	
18	Mute	k	e	00 to 01	
19	Volume	k	f	00 to 64	
20	Clock 1 (year/month/day)	f	а	See [Clock 1]	
21	Clock 2 (hour/minute/second)	f	х	See [Clock 2]	
22	Off time schedule	f	с	00 to 01	
23	On time schedule	f	b	00 to 01	
24	Off timer (repeat mode/time)	f	e	See [Off timer]	
25	On timer (repeat mode/time)	f	d	See [On timer]	
26	On timer input	f	u	See [On timer input]	
27	Automatic Standby	m	n	00 to 01	
28	Auto off	f	g	00 to 01	
29	Language	f	i	See [Language]	
30	ISM method	j	р	See [ISM method]	
31	Reset	f	k	00 to 02	
32	Current temperature	d	n	FF	
33	Key	m	с	See [Key]	
34	Time elapsed	d	1	FF	
35	Product serial number	f	y	FF	
36	Software version	f	z	FF	
37	White balance red gain	i	m	00 to FE	
38	White balance green gain	j	n	00 to FE	
39	White balance blue gain	j	0	00 to FE	
40	Backlight		g	00 to 64	
40	Screen off	k	d g	00 to 01	

			MAND	DATA	
		1	2	(Hexadecimal)	
42	Power On Delay	f	h	00 to 64	
43	Tile Mode	d	d	00 to 01	
44	Tile Mode Check	d	z	FF	
45	Tile ID	d	i	Refer to 'Tile ID'.	
46	Tile H Position	d	е	00 to 32	
47	Tile V Position	d	f	00 to 32	
48	Tile H Size	d	g	00 to 32	
49	Tile V Size	d	h	00 to 32	
50	Natural Mode (In Tile mode)	d	j	00 to 01	

- During USB operations such as Dvix or EMF, all commands except Power (k a) and Key (m c) are not executed and treated as NG.
- Some commands are not supported depending on the model.
- The f f command which shows the status of a certain command does not display the OSD as the result in order to be compatible with SuperSign program.

# **Transmission / Receiving Protocol**

## Transmission

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## [Command1][Command2][ ][Set ID][ ][Data][Cr]

- \* [Command1]: First command to control the set.
- \* [Command2]: Second command to control the set.
- \* [Set ID]: Used for selecting a set you want to control. A Set ID can be assigned to each set from 1 to 255 (from 01H to FFH), or from 1 to 1,000 (from 001H to 3e8H) in certain models, under OPTION in the OSD menu. Selecting '00H' or '000H' for Set ID allows the simultaneous control of all connected monitors. (It may not be supported depending on the model.)
- \* [Data]: Transmits command data.
  - Data count may increase depending on the command.
- \* [**Cr**]: Carriage Return. ASCII code '0x0D'.
- \* []: White Space. Corresponds to '0x20' in ASCII code.

## Acknowledgement

## [Command2][ ][Set ID][ ][OK/NG][Data][x]

- \* When the product receives data normally, it sends an acknowledgement (ACK) in the format above. If data is in read mode, it indicates the data that shows the current status. If data is in read mode, it simply indicates the data that is sent from the PC.
- \* If a command is sent with Set ID '00' (=0x00) or '000 (=0x000)', the data is reflected to all monitor sets and they do send any acknowledgement (ACK).
- \* If the data value 'FF' is sent in control mode via RS-232C, the current setting value of a function can be checked (only for some functions).
- \* Some commands are not supported depending on the model.

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#### 01. Power (Command: k a)

Controls the power on/off of the set.

#### Transmission

### [k][a][ ][Set ID][ ][Data][Cr]

**Data** 00: Off 01: On

# Acknowledgement [a][ ][Set ID][ ][OK/NG][Data][x]

\* Only when the monitor is fully powered on, the acknowledgement signal is returned properly. \* There may be a delay between the transmission and acknowledgement signals.

#### 04. Energy saving (Command: j q)

Sets the energy saving function. Transmission

#### [j][q][ ][Set ID][ ][Data][Cr]

- Data 00: Off
  - 01: Minimum 02: Medium 03: Maximum 04: Automatic 05: Screen off

## Acknowledgement

#### [q][ ][Set ID][ ][OK/NG][Data][x]

\*\* This may not be supported on some models.

#### 02. Select input (Command: x b)

Selects an input signal.

#### Transmission

[x][b][ ][Set ID][ ][Data][Cr]

Data 60: RGB 90: HDMI (HDMI1) (DTV) A0: HDMI (HDMI1) (PC)

#### Acknowledgement [b][ ][Set ID][ ][OK/NG][Data][x]

\* Some input signals may not be supported on some models.

#### 05. Picture mode (Command: d x)

Selects a picture mode.

## Transmission

## [d][x][ ][Set ID][ ][Data][Cr]

Data 00: Vivid 01: Standard 02: Cinema 03: Sport 04: Game

05: Expert 1 06: Expert 2 08: APS

#### Acknowledgement [x][ ][Set ID][ ][OK/NG][Data][x]

#### 03. Aspect ratio (Command: k c)

Adjusts the aspect ratio.

#### Transmission

#### [k][c][ ][Set ID][ ][Data][Cr]

## Data 01:4:3

02: 16:9 04: Zoom (HDMI)(DTV) 06: Auto ratio (HDMI)(DTV) 09: Original (≥ 720p) (HDMI) (DTV)

10 to 1F: Cinema zoom 1 to 16 (HDMI) (DTV)

\* Available data types differ depending on the input signal. For more information, see the aspect ratio section of the owner's manual.

\* The aspect ratio may differ depending on the model's input configuration.

Acknowledgement [c][ ][Set ID][ ][OK/NG][Data][x]

### 06. Contrast (Command: k g)

Adjusts the screen contrast.

#### Transmission

[k][g][ ][Set ID][ ][Data][Cr]

Data 00 to 64: Contrast 0 to 100

#### Acknowledgement

[g][ ][Set ID][ ][OK/NG][Data][x]

07. Brightness (Command: k h) Adjusts the screen brightness. Transmission

[k][h][ ][Set ID][ ][Data][Cr] Data 00 to 64: Brightness 0 to 100

Acknowledgement [h][ ][Set ID][ ][OK/NG][Data][x] **10. Tint (Command: k j)** Adjusts the screen tint.

> Transmission [k][j][][Set ID][][Data][Cr]

Data 00 to 64: Tint red 50 to green 50

Acknowledgement [j][][Set ID][][OK/NG][Data][x]

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**08. Sharpness (Command: k k)** Adjusts the screen sharpness.

> Transmission [k][k][ ][Set ID][ ][Data][Cr]

**Data** 00 to 32: Sharpness 0 to 50

Acknowledgement [k][ ][Set ID][ ][OK/NG][Data][x] **11. Color temperature (Command: x u)** Adjusts the screen color temperature.

Transmission [x][u][ ][Set ID][ ][Data][Cr]

Data 00 to 64: Warm 50 to cool 50

Acknowledgement
[u][ ][Set ID][ ][OK/NG][Data][x]

09. Color (Command: k i)

Adjusts the screen color.

Transmission [k][i][ ][Set ID][ ][Data][Cr]

Data 00 to 64: Color 0 to 100

Acknowledgement [i][][Set ID][][OK/NG][Data][x]

#### 12. H position (Command: f q)

Adjusts the horizontal position of the screen. This function is only available when the Tile Mode is set to Off.

\* The operational range varies depending on the RGB input resolution.

(Only available in RGB-PC input mode)

Transmission

[f][q][ ][Set ID][ ][Data][Cr]

Data 00 to 64: Min -50 (left) to max 50 (right)

Acknowledgement
[q][ ][Set ID][ ][OK/NG][Data][x]

ENGLISH

#### 13. V position (Command: f r)

Adjusts the vertical position of the screen. This function is only available when the Tile Mode is set to Off.

\* The operational range varies depending on the RGB input resolution.

(Only available in RGB-PC input mode)

#### Transmission

#### [f][r][][Set ID][][Data][Cr]

Data 00 to 64: Min -50 (down) to max 50 (up)

#### Acknowledgement [r][ ][Set ID][ ][OK/NG][Data][x]

#### 16. Balance (Command: k t)

Adjusts the sound balance.

#### Transmission

[k][t][ ][Set ID][ ][Data][Cr]

Data 00 to 64: Left 50 to right 50

### Acknowledgement

[t][ ][Set ID][ ][OK/NG][Data][x]

\*\* This may not be supported on some models.

#### 14. H size (Command: f s)

Adjusts the horizontal size of the screen. This function is only available when the Tile Mode is set

to Off. \* The operational range varies depending on the RGB

input resolution.

(Only available in RGB-PC input mode)

#### Transmission

#### [f][s][ ][Set ID][ ][Data][Cr]

Data 00 to 64: Min -50 (small) to max 50 (large)

#### Acknowledgement

[s][ ][Set ID][ ][OK/NG][Data][x]

#### 17. Sound mode (Command: d y)

Selects a sound mode.

#### Transmission [d][y][ ][Set ID][ ][Data][Cr]

- Data 01: Standard
  - 02: Music
  - 03: Cinema
  - 04: Sport
  - 05. Game
  - 07. News

## Acknowledgement

[y][ ][Set ID][ ][OK/NG][Data][x]

\*\* This may not be supported on some models.

#### 15. Auto Config. (Command: j u)

Automatically corrects position and shaking of the picture.

(Only available in RGB-PC input mode)

#### Transmission

[j][u][ ][Set ID][ ][Data][Cr]

#### Data 01: Execution

Acknowledgement
[u][ ][Set ID][ ][OK/NG][Data][x]

#### 18. Mute (Command: k e)

Mutes/unmutes the sound.

## Transmission

[k][e][ ][Set ID][ ][Data][Cr]

Data 00: Mute 01: Unmute

#### Acknowledgement

#### [e][ ][Set ID][ ][OK/NG][Data][x]

\*\* This may not be supported on some models.

Transmission

[k][f][ ][Set ID][ ][Data][Cr]

Data 00 to 64: Volume 0 to 100

### [f][ ][Set ID][ ][OK/NG][Data][x]

\*\* This may not be supported on some models.

#### 22. Off time schedule (Command: f c)

Enables/disables the on time schedule.

Transmission

[f][c][ ][Set ID][ ][Data][Cr]

Data 00: Off 01: On

Acknowledgement [c][ ][Set ID][ ][OK/NG][Data][x]

### 20. Clock 1 (year/month/day) (Command: f a)

Adjusts the Clock 1 (year/month/day) value.

#### Transmission

[f][a][ ][Set ID][ ][Data1][ ][Data2][ ][Data3][Cr]

Data1 00 to 1E: Year 2010 to 2040
Data2 01 to 0C: January to December
Data3 01 to 1F: 1st to 31st
\* Enter "fa [Set ID] ff" to view the Clock 1 (year/month/day) settings.

#### Acknowledgement

[a][ ][Set ID][ ][OK/NG][Data1][Data2][Data3][x]

#### 23. On time schedule (Command: f b)

Enables/disables the on time schedule.

## Transmission

[f][b][][Set ID][][Data][Cr] Data 00: Off

01: On

Acknowledgement [b][ ][Set ID][ ][OK/NG][Data][x]

#### 21. Clock 2 (hour/minute/second) (Command: f x)

Adjusts the Clock 2 (hour/minute/second) value.

#### Transmission

#### [f][x][ ][Set ID][ ][Data1][ ][Data2][ ][Data3][Cr]

Data1 00 to 17:00 to 23 hours

Data2 00 to 3B: 00 to 59 minutes

Data3 00 to 3B: 00 to 59 seconds

\* Enter "fa [Set ID] ff" to view the Clock 2 (hour/minute/ second) settings.

\*\* This function is only available when Clock 1 (year/ month/day) is set.

#### Acknowledgement

[x][ ][Set ID][ ][OK/NG][Data1][Data2][Data3][x]

#### 24. Off timer (repeat mode/time) (Command: f e)

Configures the off time (repeat mode/time) settings.

#### Transmission

#### [f][e][ ][Set ID][ ][Data1][ ][Data2][ ][Data3][Cr]

#### Data1

1. F1 to F7 (reading data) F1: Read the 1st off timer data F2: Read the 2nd off timer data F3: Read the 3rd off timer data F4: Read the 4th off timer data F5: Read the 5th off timer data F6: Read the 6th off timer data F7: Read the 7th off timer data 2. E1 to E7 (deleting one index), E0 (deleting all indexes) E0: Erase all off timer setting E1: Erase the 1st off timer setting E2: Erase the 2nd off timer setting E3: Erase the 3rd off timer setting E4: Erase the 4th off timer setting E5: Erase the 5th off timer setting E6: Erase the 6th off timer setting E7: Erase the 7th off timer setting 3.01 to 0C (setting the day of the week for off timer) 01: Once 02. Dailv 03: Mon - Fri 04: Mon - Sat 05: Sat - Sun 06. Every Sunday 07. Every Monday 08. Every Tuesday 09. Every Wednesday 0A. Every Thursday **OB. Every Friday OC. Every Saturday** Data2 00 to 17:00 to 23 hours Data3 00 to 3B: 00 to 59 minutes \* To read or delete the Off Time list, set FFH for [Data2] and [Data3]. Example 1: fe 01 f1 ff ff - Read the 1st index data from off timer. Example 2: fe 01 e1 ff ff - Delete the 1st index data from off timer. Example 3: fe 01 04 02 03 - Sets Off Timer to 02:03 for Monday-Saturday. \* This function is only available when Clock 1 (year/ month/day) and Clock 2 (hour/minute/second) are set.

#### Acknowledgement

[e][ ][Set ID][ ][OK/NG][Data1][Data2][Data3][x]

#### 25. On timer (repeat mode/time) (Command: f d) Configures the on time (repeat mode/time) settings. Transmission [f][d][ ][Set ID][ ][Data1][ ][Data2][ ][Data3][Cr] Data1 1. F1 to F7 (reading data) F1: Read the 1st on timer data F2: Read the 2nd on timer data F3: Read the 3rd on timer data F4: Read the 4th on timer data F5: Read the 5th on timer data F6: Read the 6th on timer data F7: Read the 7th on timer data 2. E1 to E7 (deleting one index), E0 (deleting all indexes) E0: Erase all on timer setting E1: Erase the 1st on timer setting E2: Erase the 2nd on timer setting E3: Erase the 3rd on timer setting E4: Erase the 4th on timer setting E5: Erase the 5th on timer setting E6: Erase the 6th on timer setting E7: Erase the 7th on timer setting 3.01 to 0C (setting the day of the week for the on timer) 01: Once 02. Daily 03: Mon - Fri 04: Mon - Sat 05: Sat - Sun 06. Every Sunday 07. Every Monday 08. Every Tuesday 09. Every Wednesday 0A. Every Thursday **OB. Every Friday OC. Every Saturday** Data2 00 to 17:00 to 23 hours Data3 00 to 3B: 00 to 59 minutes \* To read or delete an on timer list you have set, [Data2]

[Data3] must be set to FFH.

Example 1: fd 01 f1 ff ff - Read the 1st index data from on timer.

Example 2: fd 01 e1 ff ff - Delete the 1st index data from on timer.

Example 3: fd 01 04 02 03 - Set on timer at 02:03 on Monday to Saturday.

\* This function is only available when Clock 1 (year/ month/day) and Clock 2 (hour/minute/second) are set.

#### Acknowledgement

[d][ ][Set ID][ ][OK/NG][Data1][Data2][Data3][x]

#### 26. On timer input (Command: f u)

Adds a new schedule entry by selecting input for the current on timer setting.

#### Transmission

#### [f][u][ ][Set ID][ ][Data1][Cr]

#### [f][u][ ][Set ID][ ][Data1][Data2][Cr]

**Data** (adding schedule) 60: RGB 90: HDMI (HDMI1)

#### Data1

f1h to f7h (reading data)
 F1: Select the 1st schedule input source
 F2: Select the 2nd schedule input source
 F3: Select the 3rd schedule input source
 F4: Select the 4th schedule input source
 F5: Select the 5th schedule input source
 F6: Select the 6th schedule input source
 F7: Select the 7th schedule input source

#### Data2

1. ffh (reading data)

To read the schedule input, enter FFH for [Data2]. If no schedule is available for [Data1] when attempting to read or change the schedule data, the text NG will be displayed and the operation will fail.

(Example 1: fu 01 60 - Move existing schedule entries down one row each and save RGB as input source for the 1st schedule entry.)

(Example 2: fu 01 f1 ff - Read the 1st schedule input data.)

\* This function is only supported when 1 (year/month/ date), 2 (hour/minute/second) and On Time (repeat mode/time) are set.

\*\* Input may not be supported on some models.

#### Acknowledgement

[u][ ][Set ID][ ][OK/NG][Data][x]

#### [u][ ][Set ID][ ][OK/NG][Data1][Data2][x]

\*\* This may not be supported on some models.

#### 28. Auto off (Command: f g)

Configures the automatic off settings.

#### Transmission

#### [f][g][ ][Set ID][ ][Data][Cr]

Data 00: Off (Will not turn off after 15 minutes) 01: On (Off after 15 minutes)

# Acknowledgement [g][ ][Set ID][ ][OK/NG][Data][x]

#### **29. Language (Command: f i)** Sets the OSD language.

#### Transmission

#### [f][i][][Set ID][][Data][Cr]

Data 00: Czech 01: Danish 02: German 03: English 04: Spanish (Europe) 05: Greek 06: French 07: Italian 08: Dutch 09: Norwegian **OA:** Portuguese **OB:** Portuguese (Brazil) OC: Russian 0D: Finnish 0E: Swedish 0F: Korean 10: Chinese (Cantonese) 11: Japanese 12: Chinese (Mandarin)

Acknowledgement [i][][Set ID][][OK/NG][Data][x]

#### 27. Automatic standby (Command: m n)

Configures the automatic standby settings.

#### Transmission

#### [m][n][ ][Set ID][ ][Data][Cr]

Data 00: Off (Will not turn off after 4/6/8 hours) 01: 4 hours (Off after 4 hours) 02: 6 hours (Off after 6 hours) 03: 8 hours (Off after 8 hours)

#### Acknowledgement

[n][ ][Set ID][ ][OK/NG][Data][x]

## 30. ISM method (Command: j p)

Selects an ISM Method option.

# Transmission [j][p][][Set ID][][Data][Cr]

Data 08: Standard 20: Color wash

#### Acknowledgement [p][][Set ID][][OK/NG][Data][x]

#### 31. Reset (Command: f k)

Resets settings for Picture, Screen and Audio or restores factory settings.

(Screen reset can only be performed in RGB input mode.)

#### Transmission [f][k][][Set ID][][Data][Cr]

Data 00: Picture reset 01: Screen reset 02: Initial settings (factory reset)

Acknowledgement

[k][ ][Set ID][ ][OK/NG][Data][x]

## 34. Time elapsed (Command: d I)

Checks the elapsed time.

## Transmission

[d][l][ ][Set ID][ ][Data][Cr]

## Data FF: Read status

## Acknowledgement

### [I][ ][Set ID][ ][OK/NG][Data][x]

\* The data received is shown as a hexadecimal value.

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## **32.** Current temperature (Command: d n) Checks the inside temperature value.

#### Transmission [d][n][][Set ID][][Data][Cr]

Data FF: Check status

## Acknowledgement

[n][][Set ID][][OK/NG][Data][x]

## [n][][Set ID][][OK/NG][Data1][Data2][Data3][x]

\* Temperature is displayed as a hexadecimal value.

 35. Product serial number (Command: f y) Checks the serial number of the product.
 Transmission
 [f][y][ ][Set ID][ ][Data][Cr]

Data FF: Check product serial number

Acknowledgement [y][ ][Set ID][ ][OK/NG][Data][x]

\* Data is in ASCII code.

#### 33. Key (Command: m c)

Sends a key code for the IR remote control.

Transmission [m][c][ ][Set ID][ ][Data][Cr]

Data IR KEY CODE

### Acknowledgement

## [c][ ][Set ID][ ][OK/NG][Data][x]

For key codes, see IR Codes. \* Some key codes may not be supported on some models. 36. Software version (Command: f z)

Checks the software version of the product.
Transmission
[f][z][ ][Set ID][ ][Data][Cr]

Data FF: Check software version

Acknowledgement [z][ ][Set ID][ ][OK/NG][Data][x] **37. White balance red gain (Command: j m)** Adjusts the white balance red gain value.

Transmission

[j][m][ ][Set ID][ ][Data][Cr]

Data 00 to FE: Red gain 0 to 254 Acknowledgement

[m][ ][Set ID][ ][OK/NG][Data][x]

#### 40. Backlight (Command: m g)

Adjusts the back light brightness.

### Transmission [m][g][ ][Set ID][ ][Data][Cr]

Data 00 to 64: Back light brightness 0 to 100

# Acknowledgement [g][][set ID][][OK/NG][Data][x]

\*\* This may not be supported on some models.

**38. White balance green gain (Command: j n)** Adjusts the white balance green gain value.

Transmission
[j][n][][Set ID][][Data][Cr]

Data 00 to FE: Green gain 0 to 254

Acknowledgement
[n][ ][Set ID][ ][OK/NG][Data][x]

## 41. Screen off (Command: k d)

Turns the screen on or off.

#### Transmission

[k][d][ ][Set ID][ ][Data][Cr]

Data 00: Turns the screen on 01: Turns the screen off

Acknowledgement
[d][ ][Set ID][ ][OK/NG][Data][x]

#### 39. White balance blue gain (Command: j o)

Adjusts the white balance blue gain value.

Transmission [j][0][ ][Set ID][ ][Data][Cr]

Data 00 to FE: Blue gain 0 to 254

# Acknowledgement [o][ ][Set ID][ ][OK/NG][Data][x]

**42.** Power On Delay (Command: f h) To set the schedule delay when the power is turned on. (Unit: Second)

Transmission [f][h][ ][Set ID][ ][Data][Cr]

Data 00 to 64: min. 0 to max. 100 (sec.)

Acknowledgement
[h][ ][Set ID][ ][OK/NG][Data][x]

#### 43. Tile Mode (Command: d d)

To set a Tile Mode and Tile Column/ Row values.

## Transmission

## [d][d][ ][Set ID][ ][Data][Cr]

Data 00 to FF: 1st byte - Tile Row 2nd byte - Tile Column \*00, 01, 10, 11 means Tile Mode Off \*\* It may not be supported depending on the model.

# Acknowledgement [d][ ][Set ID][ ][OK/NG][Data][x]

#### 46. Tile H Position (Command: d e)

To adjust the Tile Horizontal position.

\* This function is available only when the Natural option of the Tile Mode is set to Off while the Tile Mode set to On.

### Transmission

[d][e][ ][Set ID][ ][Data][Cr]

Data 00 to 32: -50 (Left) to 0 (Right) \*Left/Right values depend on Tile H size. \*\* It may not be supported depending on the model.

## Acknowledgement

[e][ ][Set ID][ ][OK/NG][Data][x]

#### 44. Tile Mode Check (Command: d z)

To check Tile Mode status.

## Transmission

[d][z][ ][Set ID][ ][Data][Cr] Data FF: Check Tile Mode status.

\*\* It may not be supported depending on the model.

#### Acknowledgement

## [z][ ][Set ID][ ][OK/NG][Data1][Data2][Data3][x]

Data1 00: Tile Mode Off 01: Tile Mode On Data2 00 to 0F: Tile Row Data3 00 to 0F: Tile Column

#### 47. Tile V Position (Command: d f)

To adjust the Tile Vertical position. \* This function is available only when the Natural option of the Tile Mode is set to Off while the Tile Mode set to On.

## Transmission [d][f][][Set ID][][Data][Cr]

Data 0 to 32: 0 (Bottom) to 50 (Top) \* Bottom/Top values depend on Tile Vertical size. \*\* It may not be supported depending on the model.

## Acknowledgement [f][][Set ID][][OK/NG][Data][x]

#### 45. Tile ID (Command: d i)

To set Tile ID.

#### Transmission

#### [d][i][ ][Set ID][ ][Data][Cr]

Data 01 to E1: Tile ID 01 to 225\*\* FF: Check Tile ID

\*\* Data could not be set over (Tile Column) x (Tile Row). \*\* It may not be supported depending on the model.

#### Acknowledgement

### [i][ ][Set ID][ ][OK/NG][Data][x]

\*NG will be return if data is over (Tile Column) x (Tile Row), except 0xFF.

#### 48. Tile H Size (Command: d g)

To adjust the Tile Horizontal Size.

\*Set Tile H Position to 0x32 before setting Tile H Size. \* This function is available only when the Natural option of the Tile Mode is set to Off while the Tile Mode set to On.

## Transmission

#### [d][g][ ][Set ID][ ][Data][Cr]

Data 00 to 32: 0 to 50
\*\* It may not be supported depending on the model.

### Acknowledgement [g][][Set ID][][OK/NG][Data][x]

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#### 49. Tile V Size (Command: d h)

To adjust the Tile Vertical size.

\*Set Tile V Position to 0x00 before setting Tile V Size.

\* This function is available only when the Natural option of the Tile Mode is set to Off while the Tile Mode set to On.

#### Transmission

#### [d][h][ ][Set ID][ ][Data][Cr]

**Data** 00 to 32: 0 to 50 \*\* It may not be supported depending on the model.

Acknowledgement [h][ ][Set ID][ ][OK/NG][Data][x]

#### 50. Natural Mode (In Tile Mode) (Command : d j)

To display the image naturally, the part of the image that would normally be displayed in the gap between the monitors is omitted.

#### Transmission

[d][j][ ][Set ID][ ][Data][Cr]

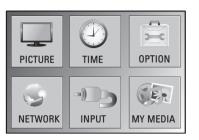
Data 00: Off 01: On

Acknowledgement
[j][ ][Set ID][ ][OK/NG][Data][x]



# **Accessing Installation Menu**

- 1
- Press and hold the **SETTINGS** button for more than 5 seconds.





2 Press the **0** button four times. Press the **OK** button.

HDMI (DTV)		HDMI
No Signal		DTV
		No Signal
	or	

3 When the Installation Menu is displayed, select the item you want.

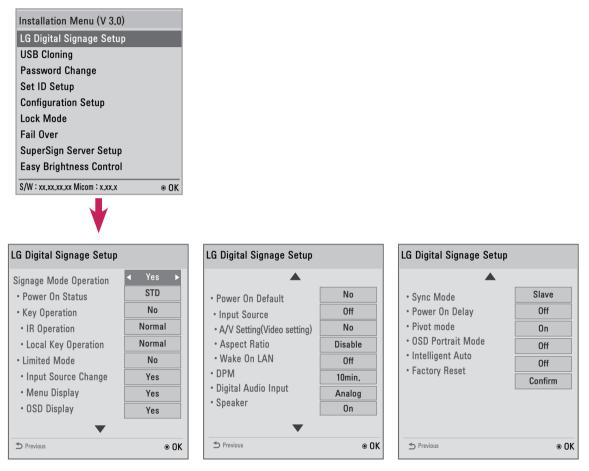
Installation Menu (V 3.0)
LG Digital Signage Setup
USB Cloning
Password Change
Set ID Setup
Configuration Setup
Lock Mode
Fail Over
SuperSign Server Setup
Easy Brightness Control
S/W : xx.xx.xx Micom : x.xx.x @ Ok

# Installation Menu

Default values may differ by region.

## The LG Digital Signage Setup menu

This menu is used after installation to configure the Digital Signage.



## Signage Mode Operation

- Decide to work all functions of Signage Mode Operation or not by setting Signage Mode Operation as Yes (Work) or No (Do Not Work)
- When Signage Mode Operation is set to Yes(Work), all functions of Signage Mode apply.
- When **Signage Mode Operation** is set to No(Do Not Work), all functions of Signage Mode Do Not apply and runs on initial value.

(It may not work depending upon the model.)

## **Power On Status**

- Select the status of the monitor set when turning on the main power.
- You can set with PWR, STD, or LST.
- · PWR always turns the monitor ON with the main power.
- STD turns the monitor on in the STAND-BY mode.
- LST turns the monitor to its previous status. If the main power were turned off in POWER ON status, the monitor would power up in POWER ON. If it were turned off in STAND-BY status, it would power up in STAND-BY.

(This may not function, depending upon the model.)

NOTE

## **Key Operation**

This feature manages the usability of the local/front keys and your remote control with regard to their operations. This feature works according to the IR Operation and Local Key Operation settings. (It may not work depending upon the model.)

## **IR Operation**

- Set LG IR Operation to On (Work) or Off (Do Not Work) to enable or disable the remote control. (0 - Normal, 1 - Use PWR Only, 2 - Block All)
- Selecting Block All sets your monitor to block all key signals coming from general LG remote controls.
- Selecting **Use PWR Only** sets your monitor to block all key signals coming from general LG remote controls except for the Power key signal.
- Selecting Normal sets your monitor to receive all key signals coming from LG remote controls normally.
- There are keys that must be operated in Service mode when **Use PWR Only** or **Block All** is selected. (In-Start, In-Stop, Power-Only, ADJ, Installation Menu, P-Check, S-check) (It may not work depending upon the model.)

# 

 When all IR key signals or all local key signals are blocked, the Power On Status value switches to PWR. Changing this value has been made impossible to ensure the operation of powering on. (To prevent mistakes by the user)

## Limited Mode

 This feature enables you to inhibit particular operations of the Signage functions.
 This feature works according to the Input Source Change, Menu Display or OSD Display settings. (It may not work depending upon the model.)

## Input Source Change

- Decide to change input source or not by setting Input Source Change as On(Change possible) or Off (Change impossible).
- When Input Source Change is set to Off (Change impossible) INPUT key doesn't work.
- When **Input Source Change** is set to On (Change possible), then changing input source is available. (It may not work depending upon the model.)

## Menu Display

- Set On (Work) or Off (Do Not Work).
- Even if it is set to **Off**, press the **Menu** button for five seconds or more to go back to the Installation Menu.

(It may not work depending upon the model.)

## **OSD** Display

- Decide to display OSD or not by setting OSD Display as On (Mark) or Off (Off Mark).
- When **OSD Display** is set to **Off** (Off Mark), all OSD is not displayed except installaion menu. (It may not work depending upon the model.)

## Power On Default (Input Source, A/V Setting, Aspect Ratio)

- With the power turned on, you can set the Input Source, A/V Setting and Aspect Ratio options.
- Set to Yes (Work) or No (Do Not Work).
- If Power On Default is set to No, Input Source and Volume are deactivated.
- When **Power On Default** is set to Yes, it can set by entering the subordinate menu. (It may not work depending upon the model.)

## Input Source

- Set whether it is turned on by the set input source or by the last stored input source.
- It is turned on by the Last Memory Input if the Input source is turned off.
- All sources supported by the said model can be set as Input source.
- If both the **Input source** and the **ON TIME** are set, the **Input source** takes the priority. (It may not work depending upon the model.)

## A/V Setting(Video Setting)

- When your monitor is powered on, you can set certain options for A/V.
- If you set this feature to Yes, the A/V values you set before entering the Installation Menu are saved, and even if you have changed A/V values before powering off, the saved values are restored when you power on your monitor again.
- Saves video values: Picture Mode, DPM Select, Smart Energy Saving, Backlight, Contrast, Brightness, Sharpness, Color, Tint and Color Temp.
- Saves audio values: Sound Mode and Balance. (It may not work depending upon the model.)

## Aspect Ratio

- This feature enables you to set the screen size that will be applied to your monitor upon powering on.
- · Selecting Disable sets the screen size of your monitor upon powering on to Aspect Ratio.
- Selecting Set By Program sets the screen size of your monitor upon powering on to Set By Program.
- Selecting **4:3** sets the screen size of your monitor upon powering on to **4:3**.
- Selecting **16:9** sets the screen size of your monitor upon powering on to **16:9**. (It may not work depending upon the model.)

## Wake On LAN

- Sets whether to use Wake On LAN.
- It can be set to On or Off.
- On: Wake On LAN is enabled, and you can turn on the product remotely via LAN.
- Off: Wake On LAN is disabled. (It may not work depending upon the model.)

## DPM

- Sets whether to use DPM (Display Power Management).
- It can be set to Off, 5 sec, 10 sec, etc.
- Others: If there is no input signal, the product enters into standby mode.
- Off: DPM is disabled.
  - (It may not work depending upon the model.)

## **Digital Audio Input**

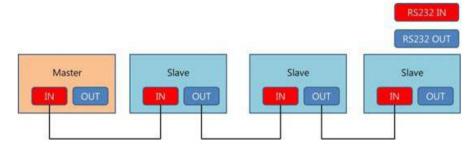
- · You can set the audio for each input as Analog or Digital.
- In the case of RGB input, audio is fixed as Analog.
- In the case of Digital input, you can set the audio as **Analog** or **Digital**. (It may not work depending upon the model.)

## Speaker

- You can inhibit the audio settings by setting whether or not to use speakers.
- If you set this feature to Off, audio is not outputted and you cannot enter the Audio menu.
- If you set this feature to On, audio is outputted and you can enter the **Audio** menu. (It may not work depending upon the model.)

## Sync Mode

- With **Sync Mode** enabled, monitors connected with RS232C can start playing contents distributed by the Supersign Elite-w such as a video or an image simultaneously.
- If **Sync Mode** is set to Off, the function is disabled.
- If Sync Mode is set to Master for a monitor, it is set as the primary monitor.
- If **Sync Mode** is set to Slave for a monitor, it plays a content file at the same time as the master monitor. (It may not work depending upon the model.)



## **Power on Delay**

 This function delays the monitors' powering on to prevent overload when multiple connected monitors are turned on simultaneously. It can be set to Off or any value from 1 to 250 seconds. (It may not work depending upon the model.)

## **Pivot Mode**

- It Inverts the screen display 180 degrees.
- It inverts both Input video signal and OSD.
- The available options are Off, On.
- If it is set to Off, the function is disabled.
- If it is set to On, the screen display is inverted 180 degrees.
- Pivot Mode is applied after rebooting. (It may not work depending upon the model.)

## OSD Portrait Mode (Off, 90, 270)

- Rotate the OSD clockwise.
- The available options are Off, 90° or 270°.
- If set to Off, the function is deactivated.
- If set to 90, the OSD rotates clockwise by 90 degrees.
- If set to **270**, the OSD rotates clockwise by 270 degrees. (It may not work depending upon the model.)

### **Intelligent Auto**

- Set to On (Work) or Off (Do Not Work).
- If the setting is On, Display is automatically arranged through resolution size when you change the resolution at the first.

(It may not work depending upon the model.)

### **Factory Reset**

- This feature enables you to restore all set values to factory default values.
- If you set this feature to Yes, all Signage settings except for the UTT value (the Signage panel's operational hours) are restored to factory default settings. (It may not work depending upon the model.)

All user settings will be reset. Still Continue?		
Yes	No	

LG Digital Signage Setup		Initial setting/ Factory Reset	Signage Mode Operation	
Signage Mode Operation	Yes/ No	NO	Yes	NO
Power On Status	STD/ PWR/ LST	STD (Actual operations are performed in LST status)	User	STD (Actual operations are performed in LST status)
Key Operation	Yes/ No	No	User	No
IR Operation	Normal/ Use PWR Only/ Block All	Normal	User	Normal
Local key Operation	Normal/ Use PWR Only/ Block All	Normal	User	Normal
Limted Mode	Yes/ No	No	User	No
Input Source Change	Yes/ No	Yes	User	Yes
Menu Display	Yes/ No	Yes	User	Yes
OSD Display	Yes/ No	Yes	User	Yes
Power On Default	Yes/ No	No	User	No
Input Source	Off/ RGB/ HDMI	Off	User	Off
A/V Setting (Video Setting)	Yes/ No	No	User	No
Aspect Ratio	Disable/ Set By Program / 4:3/ 16:9	Disable	User	Disable
Wake On Lan	On/ Off	Off	User	Off
DPM	Off/ 5sec./ 10sec./ 15sec./ 1min./ 3min./ 5min./ 10min.	10min.	User	5sec.
Digital Audio Input	Digital/ Analog	RGB : Analog HDMI : Digital	User	RGB : Analog HDMI : Digital
Speaker	On/ Off	On	User	On
Sync mode	Off/ Master/ Slave	Off	User	Off
Power On Delay	Off, 1 sec ~ 250 sec	Off	User	Off
Pivot Mode	Off / Master / Slave	Off	User	Off
OSD Portrait Mode	On/ Off	Off	User	Off
Intelligent Auto	On/ Off	On	User	On
Factory Reset	Confirm			

\*\* User : Value set by the user

## Factory Reset VS Initial Setting

Item	Factory Reset	Initial Setting		
Set ID	User	1		
IP	User	Reset to the default value <b>0</b>		

\*\* Values for other items are the same as each other

### **USB** Cloning

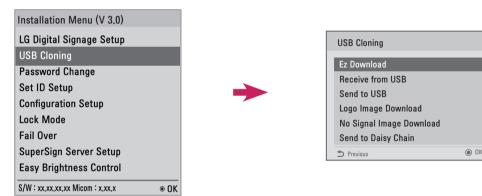
The administrator can configure a monitor more quickly through USB and configure multiple monitors simultaneously. All monitors that have been configured this way operate according to the settings of the same master monitor. This newer procedure significantly decreases the installation time that would be necessary if the standard RS-232C method were used instead.

- To use the USB Cloning function, be sure to use a USB storage device formatted using the FAT32 file system. If the USB storage device has been formatted with another file system, it may not work correctly.

#### Ez Download

Ez Download is a function that enables users to download the desired items all at once, such as EPK (software update file), TLL (see Send to USB descriptions for more information regarding file types), Splash Image, Micom, ect.

1 Use the ^ v button to select the Ez Download and press the **OK** button.



2 Select a list to download and press the Apply button.

-When EPK items are checked, EPK version information is displayed and SPI Boot and LG Boot Log items are enabled.

-When both EPK and JPG are checked, the LG Boot Log option is disabled. When JPG is un-checked, the LG Boot Log option is enabled.

-When Global TLL and Model TLL files are both present, only Global TLL file is displayed.

3 Wait for the download to complete. When it is finished, your monitor will be turned off.

- The user interface for No Signal Image Download can be correctly displayed only in English.
- The name of the file to download can be correctly displayed only in English.

Ez Download	
[TLL] GlobalClone00001.TLL	[ Software Version ] Current : 02.00.00.01
[TLL] GlobalClone999999.TLL	EPK : 02.00.00.01 [Forced Update Option ]
EPK] M1A_ATSC_KR_RevNo2800_V01	SPI Boot  LG Boot Logo
	Apply
	() ОК

#### **Receive from USB**

USB Cloning	Receive from USB
Ez Download Receive from USB	Select file type 🗹 Global TLL 🗢
Send to USB	🔲 Model TLL 🗢
Logo Image Download No Signal Image Download	GlobalClone00001.TLL GlobalClone99999.TLL
Send to Daisy Chain	⇒ Previous  ● OK

- 1 Use the  $_{\wedge \vee}$  button to select the desired \*.TTL files name and press the OK button.
- 2 The monitor is changed to Standby mode after a successful download. If the download failed, the monitor will changed to the initial installation screen.

#### Send to USB

USB Cloning		Send To USB	
Ez Download Receive from USB Send to USB Logo Image Download No Signal Image Download Send to Daisy Chain	→	Select file type Global TLL  Select the file name and press OK to start GlobalClone00001.TLL	
今 Previous		S Previous	

- 1 Use the  $_{\Lambda \nu}$  button to select the desired file name and press the OK button.
- 2 The monitor is changed to the initial installation screen after a successful download.

NOTE
NOTE
• Model TLL The top-level folder of USB xx (model) xxxxx. TLL (xxxxx is a number) in the form of,
(model) must match the reception is possible.
(ex) The name of Model TLL File is xxLS33A-5DC00001.TLL ~ xxLS33A-5DC99999.TLL for
42LS33A-5DC model.)
Shown to be suitable for the same model, Global TLL and only appears as if the Model TLL.
• Global TLL The top-level folder of USB GlobalClonexxxx.TLL (xxxxx is a number) in the form of,
(model) is when the file does not match the Model TLL, Global TLL to be selected.
(ex) The name of Global TLL File is GlobalClone00001.TLL ~ GlobalClone99999.TLL for 42LS33A
5DC model.)

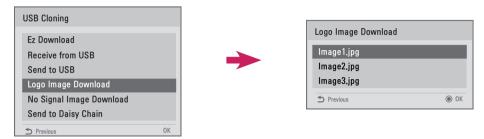
(\* Global TLL file exists in the same location in order to Cloning Model TLL file must be deleted or moved to other places.)

• When Global TLL and Model TLL files are both present in the top-level folder, press the red button to display the Global TLL file or the green button to display the Model TLL file.

#### Logo Image Download

You can download a Splash Image file on your monitor. Make a LG\_DTV folder on the USB flash drive and then copy the splash image file to that folder.

1 Use the  $_{\wedge}$   $_{\vee}$  button to select the desired file name and press the **OK** button.



- 2 Wait till the download process is completed. After completion of download, monitor set will restart automatically.
- 3 You can see a new Splash Image on monitor which you downloaded while turning on monitor.

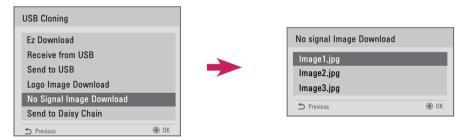
- Splash Image upgrade funciton supports JPEG file of less than 1MB filesize.
- Except for JPEG images with progressive encoding.
- Monitor keep splash image until you change a new splash image.
- The resolution of Splash image should be 1920 x 1080 for full HD panel, 1360 x 768 for HD panel. The lowest resolution is 64 x 64.

#### No signal Image Download

You can download a No Signal Image file on your monitor.

Make a LG\_DTV folder on the USB flash drive and then copy the No Signal Image file to that folder.

1 Use the  $_{\wedge \vee}$  button to select the desired file name and press the **OK** button.



- 2 Wait till the download process is completed. After completion of download, monitor set will restart automatically.
- 3 You can see a new No Signal Image on monitor which you downloaded while turning on monitor.



- No Signal Image upgrade funciton supports JPEG file of less than 1MB filesize.
- Except for JPEG images with progressive encoding.
- The resolution of No Signal Image should be 1920 x 1080 for full HD panel, 1360 x 768 for HD panel. The lowest resolution is 64 x 64.
- When the resolution for No Signal Image is set to Full HD > 1920 x 1080, then image sticking may occur.
- The file name for No Signal Image is correctly displayed only in English.

#### Send to daisy chain

This function is provided to copy the product settings to other sets using RS232C.

- 1 You can send the settings for the current set to other sets using the RS232C output.
- 2 The settings of the first set, which is RS232C daisy chained, are copied.
- 3 After selecting Send to Daisy Chain, select Yes to send the data or No to return to the menu.
- 4 The function attempts to copy the settings until the sets connected to RS232C out port of the current set are powered off. The sets are then powered back on and the function checks that the settings have been copied.

(It may not work depending upon the model.)



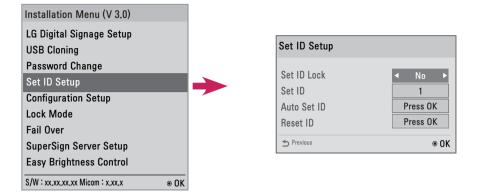
# **Password Change**

You can change the password for security. Enter a new 4-digit number in **Change Password**. Enter the same number again in **Confirm Password** to confirm the password.

Installation Menu (V 3.0)		
LG Digital Signage Setup		
USB Cloning		
Password Change	Password C	Change
Set ID Setup	Ohanna Daa	
Configuration Setup	Change Pas	
Lock Mode	Confirm Pas	sword * * * *
Fail Over	S Previous	● 0K
SuperSign Server Setup		
Easy Brightness Control		
S/W : xx,xx,xx Micom : x,xx,x @ OK		

### **Password Change**

You can change the password for security. Enter a new 4-digit number in **Change Password**. Enter the same number again in **Confirm Password** to confirm the password.



#### Set ID Lock

• You can enable Set ID Lock by selecting Yes or cancel Set ID Lock by selecting No.

#### Set ID

• Enter a number between 1 and 255 (or 1 and 1000) for Set ID.

#### Auto Set ID

• The Set ID of a product is automatically configured.



- If it is Yes, the Set ID of each set in a RS232C daisy chain is configured starting from 1.
- If it is No, the first set in the daisy chain is configured first and the rest of the sets are configured sequentially.
- Because Set ID cannot be decreased from the current value, it is recommended to execute Reset ID before using the function.
- The execution time may vary depending on the installation environment.
- If automatically setting the Set ID is not completed normally, turn the product off and on and then try again.
- Selecting Yes/No only works in the initial monitors in the daisy chain. (It may not work depending upon the model.)

#### Reset ID

- Initialize the Set ID of a product.
- Then, the Set ID of all sets in a RS232C daisy chain is set to 1. (It may not work depending upon the model.)

### **Configuration Setup**

This feature enables the detailed configuration of the product.

Installation Menu (V 3.0)		
LG Digital Signage Setup	Configuration Setup	
JSB Cloning	Splash Offset Time	◀ +0 sec
assword Change	USB Auto Playback	Disable
et ID Setup	15Min Auto Off	Off
onfiguration Setup	Automatic Standby	Off
ock Mode	Screen Saver Cube	Yes
ail Over		
uperSign Server Setup	S Previous	۲
Easy Brightness Control		
/W : xx.xx.xx Micom : x.xx.x		

#### Splash Offset Time

- This feature displays the duration of time a Splash Image is displayed.
- You can choose 0 to 10 seconds for the duration of time.

#### **USB Auto Playback**

- This is a feature that automatically plays back video files from USB storage device.
- This feature is activated when you connect the USB device to your monitor or when you turn on your monitor with the USB device connected to it.
- Video files must be located under the root folder, in the first partition of your USB storage device.
- · All video files located here will play back repeatedly.

#### 15Min Auto Off

- Sets whether to use 15 Min Force Off.
- It can be set to On or Off.
- On If there is No signal for 15 minutes, the product turns off.
- Off 15 Min Force Off is disabled.
- Please set this option to Off when you use the product for a long period of time.

#### Automatic Standby

- Sets whether to use 4 Hours Off.
- It can be set to On or Off.
- On If you do not press any buttons on the remote control for 4 hours, the product turns off.
- Off 4 Hours Off is disabled.
- Please set this option to Off when you use the product for a long period of time.

#### Screen Saver Cube

• This Screen Saver-related feature enables you to enable/disable the 360-degree-rotating LG Cube to appear on the screen in case of no signal.

### Lock Mode

Lock Mode feature allows the user to establish whether any outside input limits, thus limiting each of the external input and automatically.

Installation Menu (V 3.0)			
LG Digital Signage Setup			
USB Cloning		Lock Mode	
Password Change		LOOK MOUC	
Set ID Setup		USB	✓ Enable ►
Configuration Setup		Initial Setting	Enable
Lock Mode			
Fail Over	1	S Previous	● OI
SuperSign Server Setup			
Easy Brightness Control			
S/W : xx.xx.xx Micom : x.xx.x @ OK			

#### USB

- You can enable/disable USB input. The following will happen when USB input is disabled.
- The pop-up window that appears when a USB disk is connected to your monitor is blocked.
- You cannot enter My Media in the menu.
- You cannot enter USB Input on the Input List.
- The set value for the **USB Auto Playback** function changes to No and no input is available. (\* As exceptions, you can download software updates and Welcome Screens.)

#### **Initial Setting**

- You can enable/disable Initial Setting.
- If it is set to Disable, **Factory Reset** under OPTION is disabled. (It may not work depending upon the model.)

### Fail Over

This feature enables an automatic switch to another input with a signal when there is no signal from the current input of the product.

nstallation Menu (V 3.0)				
LG Digital Signage Setup			Fail Over	
JSB Cloning			Mode	
assword Change				<ul> <li>■ Off</li> </ul>
t ID Setup		× 1	USB	Off
nfiguration Setup			Priority1	
ck Mode			Priority2	
			Priority3	
ail Over			Previous	۲
perSign Server Setup				
sy Brightness Control				
/W : xx.xx.xx.xx Micom : x.xx.x	● 0K			

Mode can be set to Off, Auto or Manual.

- Off The Fail Over function is disabled.
- Auto When there is no video signal in the current input, the input is switched to another input with video signal according to the set input sequence (refer to the table\*).
- **Manual** When there is no video signal, you can set the priority by which the input is switched. When there are multiple video signals, the input is switched to the high priority input.

USB can be set to Off, Movie or Photo.

- Off Fail Over USB function is disabled.
- Movie A video is played when every input has no video signal on Auto mode, or when there is no video signal among the priority inputs on Manual mode.
- **Photo** The photo slide show runs when every input has no video signal on Auto mode, or when there is no video signal among the priority inputs on Manual mode.

Fail Over p	riority when	set to Auto
-------------	--------------	-------------

Current source	1st Change	2nd Change	3rd Change	4th Change
RGB	HDMI	DVI-D	USB Auto play	RGB NO SIGNAL
DVI-D	HDMI	RGB	USB Auto play	DVI NO SIGNAL
HDMI	DVI-D	RGB	USB Auto play	HDMI NO SIGNAL

# 

- The number of priorities may vary depending on the model.
- When the Mode is set to Off, all of the submenus are disabled.
- When the Mode is set to Auto, the submenus of Priority1, Priority2, and Priority3 are disabled.
- If you select Movie or Photo in the USB menu, the USB Auto Playback option in Configuration Setup is disabled and the function does not work.
- If you select Movie or Photo in the USB Auto Playback menu, the USB menu in the Fail Over menu is disabled and the function does not work.
- If the USB menu in the Lock Mode menu is disabled, the USB Auto Playback option and the Fail Over USB menu are disabled and the functions do not work.
- To enable the Fail Over USB function, a folder named **FAIL\_OVER** or **fail\_over** must exist in the USB along with any valid content (videos or images).
- If a folder named **FAIL\_OVER** or **fail\_over** or any valid content does not exist on the USB, the default USB pop-up menu is displayed when Fail Over USB function is activated.
- Be sure to turn off the USB Fail Over function after the content distribution. However, if a Fail Over event (e.g., input signal connection, Fail Over USB menu option change or USB re-connection) occurs, the Fail Over USB function will work.
- The USB Fail Over function does not work while software update (including EZ Download) is in progress.
- Fail Over for the LS33A/LS35A model may not work properly under the following conditions:
   -RGB will still be recognized as connected even when the RGB cable is connected to the equipment and monitor with no signal.

(e.g., if the HDMI input had lost its signal and the RGB cable was connected, the input would switch to RGB even though there was no signal.)

-HDMI will still be recognized as connected even when the equipment has no signal but is powered. (e.g., if a powered laptop was connected to the monitor and only the laptop was set to be displayed, HDMI would still be recognized as connected even though there was no signal from the monitor.)

## SuperSign Server Setup

This feature is for a linkage with SuperSign Manager.

Installation Menu (V 3.0)	
LG Digital Signage Setup	Fail Over
USB Cloning	Mode <b>♦</b> Off ►
Password Change	
Set ID Setup	
Configuration Setup	Priority1
Lock Mode	Priority2
Fail Over	Priority3
SuperSign Server Setup	⇒ Previous
Easy Brightness Control	
S/W : xx,xx,xx Micom : x,xx,x	

Player Name

• You can set the name of a player you want to control in SuperSign Manager. (You can enter up to 20 characters.)

Server IP Setting

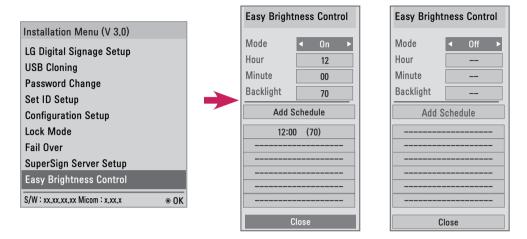
• You can set the IP address of the computer (server) on which SuperSign Manager is installed.

#### Server IP Status

- This menu displays the connection status with the server.
  - Not connected indicates that your PC is not connected to the SuperSign server.
  - Waiting for Approval indicates that your PC is connected to the SuperSign server but not yet approved.
  - Rejected indicates that your PC is connected to the SuperSign server but has been rejected.
  - Connected indicates that your PC is connected to the SuperSign server and has been approved.

### **Easy Brightness Control**

This feature is for a linkage with SuperSign Manager.



- Adjusts the backlight according to the schedule you set.
- Set to On (Work) or Off (Do Not Work).
- · Easy Brightness Control is disabled if the current time is not set.
- If Energy Saving is set to Maximum, Easy Brightness Control is disabled.
- · You can set up to six schedules and they will be sorted in time ascending order.
- If more than six schedules are added, the latest schedule will be automatically deleted.
- · You can delete a schedule by pressing the OK button.
- Duplicate schedules are not added, but the backlight value changes. (It may not work depending upon the model.)
- Return to default settings by clicking **General** -> **Reset to Initial Settings**.

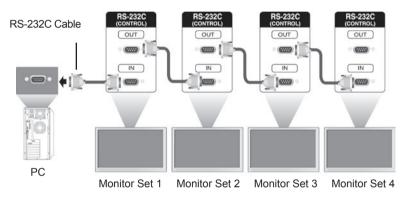
# **CONTROLLING THE MULTIPLE PRODUCT**

- Use this method to connect several products to a single PC. You can control several products at one time by connecting them to a single PC.
- In the Option menu, Set ID must be between 1 and 255 (or from 1 to 1,000) without being duplicated.

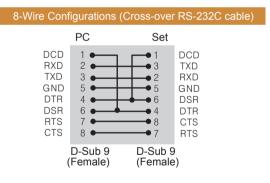
## **Connecting the cable**

Connect the RS-232C cable as shown in the picture.

The RS-232C protocol is used for communication between the PC and product. You can turn the
product on/off, select an input source or adjust the OSD menu from your PC.



# **RS-232C** Configurations



 When using 3-wire connections (non-standard), an IR daisy chain cannot be used.