



OWNER'S MANUAL

LG Digital Signage

(MONITOR SIGNAGE)

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

98UM5K-B

110UM5K-B

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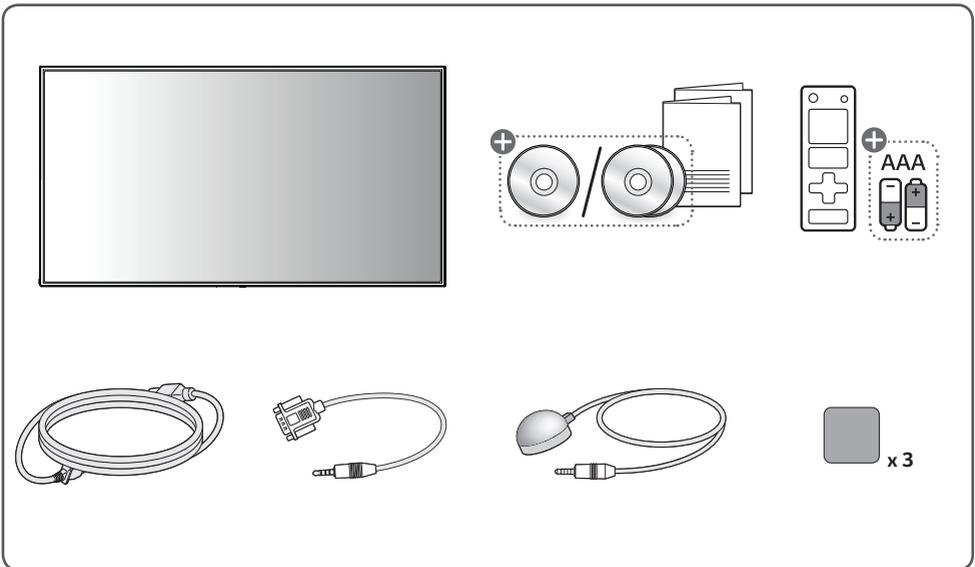
WARNING - This equipment is compliant with Class A of CISPR 32. In a residential environment this equipment may cause radio interference.

BASIC

! NOTE

- 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
 - Visit <https://partner.lge.com> to download the latest SuperSign software and manual.

Checking the Accessories

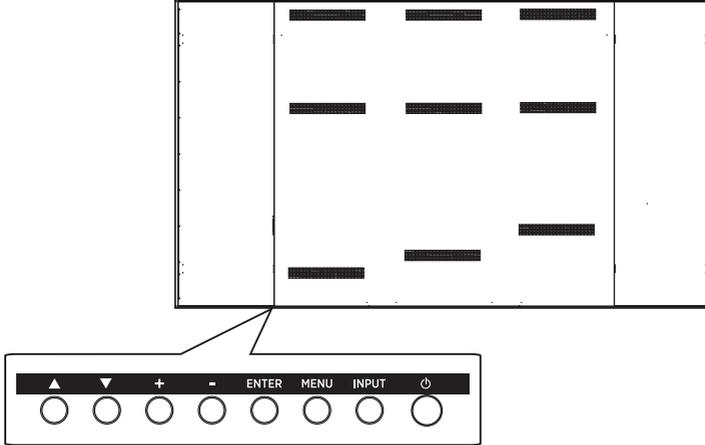


+ Depending on country

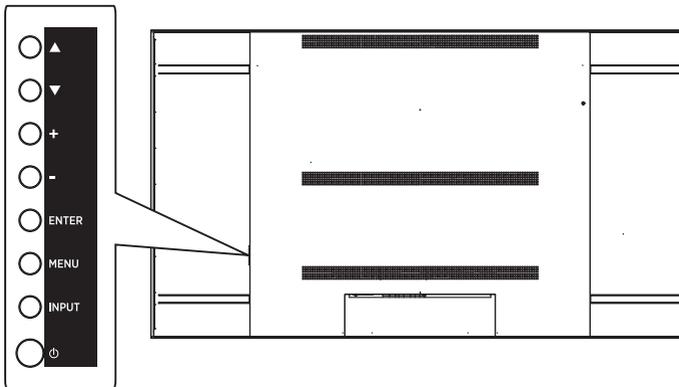
Learning the Buttons

The illustrations may differ depending on the model.

98UM5K-B



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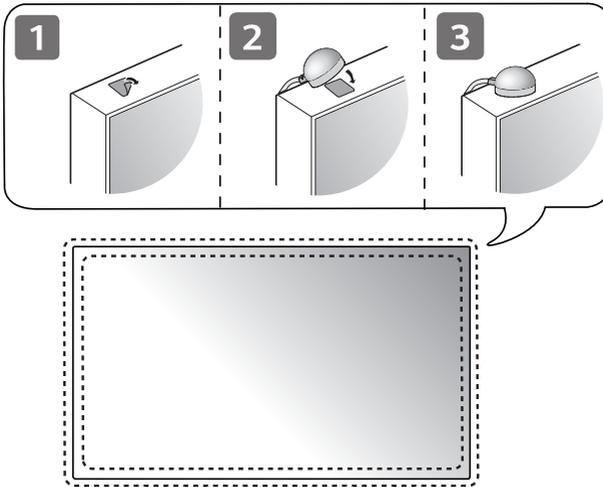
- ▲ ▼: Adjusts up and down.
- + -: Moves left and right.
- **ENTER**: Displays the current signal and mode.
- **MENU**: Accesses the main menus, or saves your input and exits the menus.
- **INPUT**: Change the input signal.
- ⏻: Turns the power on and off.

GETTING READY

External Equipment Setup

IR Receiver

This allows a remote control sensor to be placed in a custom location.

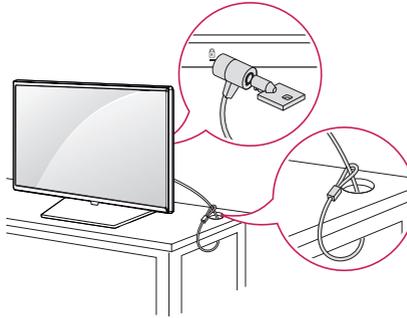


Kensington Lock Device

(This feature applies only to some models.)

The Kensington lock device connector is located on the back of the monitor. For more information on installation and use, refer to the user manual provided with the locking device.

Connect the Kensington security system cable between the monitor and a table.



! NOTE

- The Kensington lock device is an optional specification.
- This is a general illustration of installation and may look different from the product held by the customer.

CHECKING BEFORE INSTALLATION

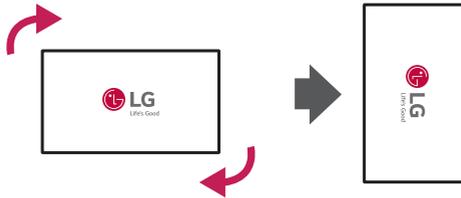
We are not responsible for product damage caused by failure to follow the guide.

Installation Orientation

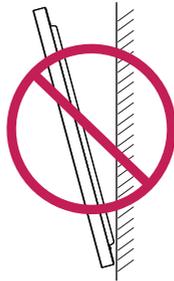
Using Vertically

(98UM5K-B Only)

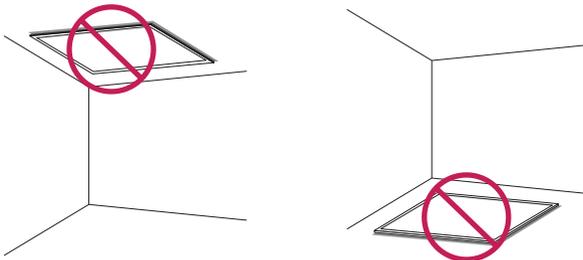
When installing vertically, rotate the monitor 90 degrees clockwise while facing the front of the screen.



Tilt Angle



Ceiling, Floor Orientation

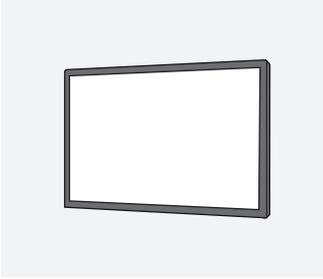


Installation Location

We are not responsible for product damage caused by failure to follow the guide.

Indoor

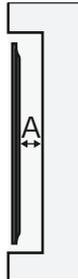
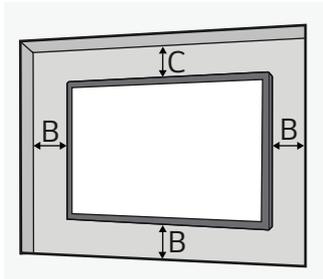
Installing on a Wall



A: 40 mm (1.5 inches) or more

- The warranty will not cover any damage caused by using the product in direct sunlight on the front panel.

Installing on a Recessed Wall



A: 40 mm (1.5 inches) or more

B: 50 mm (1.9 inches) or more

C: 100 mm (3.9 inches) or more

- The warranty will not cover any damage caused by using the product in direct sunlight on the front panel.

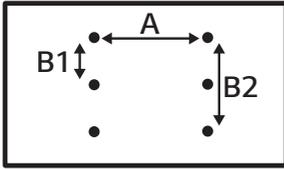
Outdoor

Outdoor Enclosed

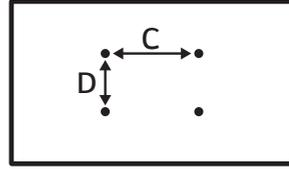


Wall Mount Holder

To install the monitor on a wall, attach a wall mount holder (optional) to the back of the monitor. Take caution, and ensure that the wall mount holder (optional) is securely fixed to the monitor and to the wall. The Wall Bracket dimensions of the wall mount by model are as follows.



98UM5K-B



110UM5K-B

Model	Wall Bracket Dimensions (A x B1) (mm)	Standard Dimensions	Length (Maximum) (mm)	Quantity
98UM5K-B	800 x 400	M8	20	6
	Wall Bracket Dimensions (A x B2) (mm)			
	800 x 800			
Model	Wall Bracket Dimensions (C x D) (mm)	Standard Dimensions	Length (Maximum) (mm)	Quantity
110UM5K-B	1500 x 600	M8	30	4

Model	Wall Bracket Dimensions (A x B1) (inches)	Standard Dimensions	Length (Maximum) (inches)	Quantity
98UM5K-B	31.4 x 15.7	M8	0.7	6
	Wall Bracket Dimensions (A x B2) (inches)			
	31.4 x 31.4			
Model	Wall Bracket Dimensions (C x D) (inches)	Standard Dimensions	Length (Maximum) (inches)	Quantity
110UM5K-B	59.0 x 23.6	M8	1.1	4

CAUTION

- Disconnect the power cord first, and then move or install the monitor. Otherwise, it may result in electric shock.
- If the monitor is installed on a ceiling or inclined wall, it may fall and result in injury.
- Damage to the monitor by tightening the screws too tightly may void your warranty.
- Use screws and wall mount plates conforming to Wall Mount standards. Breakage or personal injury due to use or misuse of inappropriate components is not covered by the warranty of this product.

NOTE

- Using screws longer than the indicated depth may damage the inside of the product. Be sure to use the proper length.
- For more information on installation, please refer to the user manual for the wall mount.

PRECAUTIONS FOR USE

Dust

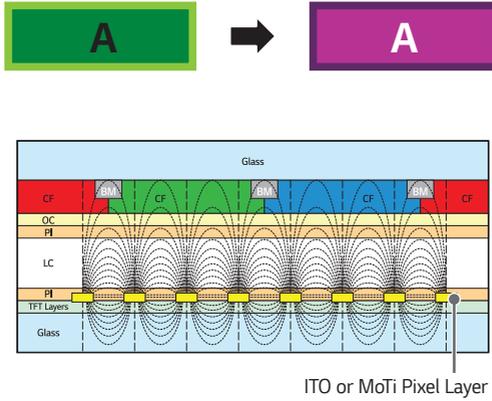
The warranty will not cover any damage caused by using the product in an excessively dusty environment.

Afterimage

- After-image appears when the product is turned off.
 - Pixels may be damaged rapidly if a still image is displayed on the screen for a long period of time. Use the screen-saver function.
 - Switching from a screen with high differences in luminance (black and white or grey) to a darker screen may cause an afterimage. This is normal due to the display characteristics of this product.
- When the LCD screen is in a still pattern for extended periods of use, a slight voltage difference may occur between the electrodes that operate the liquid crystal (LC). The voltage difference between the electrodes increases over time and tends to keep the liquid crystal aligned in one direction. At this time, the previous image remains, which is called an afterimage.
- Afterimages do not occur when continuously changing images are used but take place when a certain screen is fixed for a long time. The following are operational recommendations for reducing the occurrence of afterimages when using a fixed screen. The maximum recommended time for switching the screen is 12 hours. Shorter cycles are better for preventing afterimages.
- Recommended Usage Condition

1 Change the background color and text color at equal intervals.

- Afterimages occur less when the colors to be changed are complementary to one another.



2 Switch the screen at equal time intervals.

- Take caution, and ensure that text or images from before the screen change are not left in the same location after the screen change.



PRODUCT SPECIFICATIONS

Without prior notice, all product information and specifications contained in this manual are subject to change to improve the performance of the product.

98UM5K-B		
Input/Output Ports	HDMI IN 1, HDMI IN 2, HDMI IN 3, DP IN, HDMI OUT, DVI-D IN, RS-232C IN/OUT, LAN, IR & LIGHT SENSOR, USB 2.0 IN, AUDIO IN/OUT	
Resolution	Recommended Resolution	HDMI1,2 / DisplayPort: 3840 x 2160 @ 60 Hz HDMI3: 3840 x 2160 @ 30 Hz DVI-D: 1920 x 1080 @ 60 Hz
	Max Resolution	- This may not be supported on some OS or graphics card types.
Power Voltage	100-240 V~ 50/60 Hz 5.8 A	
Environmental Conditions	Operating Temperature	0 °C to 40 °C (32 °F to 104 °F)
	Operating Humidity	10 % to 80 % (Condition for preventing condensation)
	Storage Temperature	-20 °C to 60°C (-4 °F to 140 °F)
	Storage Humidity	5 % to 85 % (Condition for preventing condensation) * Product box packaging storage conditions
Power Consumption	On Mode	430 W (Typ.)
	Sleep Mode / Standby Mode	≤ 0.5 W

110UM5K-B		
Input/Output Ports	HDMI IN 1, HDMI IN 2, HDMI IN 3, DP IN, HDMI OUT, DVI-D IN, RS-232C IN/OUT, LAN, IR & LIGHT SENSOR, USB 2.0 IN, AUDIO IN/OUT	
Resolution	Recommended Resolution	HDMI1,2 / DisplayPort: 3840 x 2160 @ 60 Hz HDMI3: 3840 x 2160 @ 30 Hz DVI-D: 1920 x 1080 @ 60 Hz
	Max Resolution	- This may not be supported on some OS or graphics card types.
Power Voltage	100-240 V~ 50/60 Hz 6.0 A	
Environmental Conditions	Operating Temperature	0 °C to 40 °C (32 °F to 104 °F)
	Operating Humidity	10 % to 80 % (Condition for preventing condensation)
	Storage Temperature	-20 °C to 60 °C (-4 °F to 140 °F)
	Storage Humidity	5 % to 85 % (Condition for preventing condensation) * Product box packaging storage conditions
Power Consumption	On Mode	440 W (Typ.)
	Sleep Mode / Standby Mode	≤ 0.5 W

Model Name	Size (Width x Height x Depth) (mm)	Weight (kg)
98UM5K-B	2198 x 1253 x 79.5	78
	Size (Width x Height x Depth) (inches)	Weight (lbs)
	86.5 x 49.3 x 3.1	171.9
Model Name	Size (Width x Height x Depth) (mm)	Weight (kg)
110UM5K-B	2474 x 1408 x 99	80
	Size (Width x Height x Depth) (inches)	Weight (lbs)
	97.4 x 55.4 x 3.8	176.3

HDMI / DVI-D / DisplayPort (PC) Support mode

Resolution	Horizontal frequency (kHz)	Vertical frequency (Hz)	Remark
800 x 600	37.879	60.317	
1024 x 768	48.363	60	
1280 x 720	44.772	59.855	
1280 x 1024	63.981	60.02	
1680 x 1050	65.29	59.954	
1920 x 1080	67.5	60	
3840 x 2160	67.5	30	HDMI1/2/3, DisplayPort
3840 x 2160	135	60	HDMI1/2, DisplayPort

HDMI / DisplayPort (DTV) Support mode

Resolution	Horizontal frequency (kHz)	Vertical frequency (Hz)	Remark
480/60p	31.5	60	
576/50p	31.25	50	
720/50p	37.5	50	
720/60p	45	60	
1080/50i	28.1	50	
1080/60i	33.75	60	
1080/50p	56.25	50	
1080/60p	67.432	59.94	
1080/60p	67.5	60	
2160/30p	67.5	30	HDMI1/2/3, DisplayPort
2160/50p	112.5	50	HDMI1/2, DisplayPort
2160/60p	135	60	HDMI1/2, DisplayPort

Wireless module (LGSBWAC92) Specifications	
Wireless LAN (IEEE 802.11a/b/g/n/ac)	
Frequency range (MHz)	Output power (Max.) (dBm)
2400 to 2483.5	18
5150 to 5725	18
5725 to 5850	18
Bluetooth	
Frequency range (MHz)	Output power (Max.) (dBm)
2400 to 2483.5	8

- As band channels can vary per country, the user cannot change or adjust the operating frequency. This product is configured for the regional frequency table.
- For consideration of the user, this device should be installed and operated with a minimum distance of 20 cm (7.8 inches) between the device and the body.
- FCC ID: BEJLGSBWAC92 / IC: 2703H-LGSBWAC92

LICENCE

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



The terms HDMI, HDMI High-Definition Multimedia Interface, HDMI trade dress and the HDMI Logos are trademarks or registered trademarks of HDMI Licensing Administrator, Inc.

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The model and serial number of the product are located on the back and on one side of the product. Record them below in case you ever need service.

MODEL _____

SERIAL NO. _____

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.



USER GUIDE

LG Digital Signage

(MONITOR SIGNAGE)

Please read the user manual before using this product to ensure safe and convenient use.

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[Time Zone]
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[System & Device]
[Online Update]
[Display Name]
[Storage Details]
[Local Info]
[Open Source License]
[Restore to Factory Settings]

TROUBLESHOOTING 41

To obtain the source code that is contained in this product, under GPL, LGPL, MPL, and other open source licenses that have the obligation to disclose source code, and to access all referred license terms, copyright notices and other relevant documents, please visit <https://opensource.lge.com>.

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

SAFETY PRECAUTIONS

The safety precautions are intended to prevent unexpected danger or harm by helping the user to use the product safely and for its intended purpose.

WARNING

If you ignore the warning message, you may be seriously injured or there is a possibility of accident or death.

CAUTION

If you ignore the caution message, you may be slightly injured or the product may be damaged.

Model corresponding to sentence color

COMMON	ENCLOSURE	LED
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Precautions for the AC Adapter and Power

WARNING

- Use only the power cord or AC adapter provided or approved by LG Electronics, Inc. If you use another power cord, make sure that it is certified by the national standards. If the power cable is faulty in any way, please contact the manufacturer or the nearest authorized service center for a replacement.
- 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 installation company.
- Make sure the power cord connect to a properly grounded outlet.
 - If you do not you may be electrocuted or injured or the product can be damaged.
- Insert the power plug or AC adapter firmly so it cannot come loose.
 - Poor connection may cause a fire or electric shock.
- 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.
- Be careful not to step or place heavy objects (electronic appliances, clothing, etc.) on the power cord or AC adapter. Additionally, do not bend or pull out the power cord or AC adapter with excessive force.
 - Damaged power cords may cause a fire or electric shock.
- Do not connect power cord or AC adapter damaged with sharp objects to power outlet.
 - You may be electrocuted.
- Do not insert a conductor (like a metal chopstick) into one end of the power cord while the other end is connected to the input terminal on the wall. Additionally, do not touch the power cord right after it is unplugged.
 - You may be electrocuted.
- Do not use with a multi-outlet connected by many electrical product and heating devices. Use an exclusive multi-outlet with a grounding terminal.
 - A fire can break out due to overheating.

- If water or any foreign substance goes inside the product, disconnect the power cord immediately and contact the service center.
 - Otherwise, this may cause a fire or electric shock due to damage to the product.
- Keep the power cord or AC adapter away from any heating devices.
 - The cord coating may melt and cause fire or electric shock.
- Never disassemble, repair or modify the power cord or AC adapter.
 - This may cause a fire or electric shock.
- The main cutoff device is the power cord. Please make sure the product is installed near the wall outlet and that it is easily accessible.
- 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.
- Power consumption will be '0' only when the power plug is unplugged.
- Use the appliance coupler as the disconnect device.

**CAUTION**

- If the outlet pins of the power plug or AC adapter is covered with dust, be sure to wipe them and keep them clean.
 - Overheating due to layers of dust may cause a fire or electric shock.
- If the outlet pins of the power plug or AC adapter is covered with water be sure to wipe them and keep them clean. Additionally, Do not touch the power plug or AC adapter with wet hands.
 - This may cause an electric shock.
- Do not turn the product on or off by plugging in or unplugging the power plug from the power outlet. Do not use the power socket as a switch.
 - This may cause an electric shock or product malfunction.
- Do not unplug the power cord while the product is in use.
 - Electrical shock can damage the product.

Precautions for Moving the Product

WARNING

- Contact the service center before moving the product.
 - It may cause electric shock and damage the product.
- Make sure the product is turned off, unplugged, and all cables have been removed before the product is moved.
 - You may be electrocuted or the product can be damaged.
- When moving the product, do not shock or cause an impact on the front panel.
 - You may be electrocuted or the product can be damaged.
- Use the correct number of people according to the weight of the product. (Under 25 Kg per person use lifting equipment when exceeding 100 Kg)
 - If use the damaged product again, contact the service center because it can cause electric shock or fire.
- Do not hold it upside down while holding only the stand. (It is for stand supported models only.)
 - This may cause stand warping, panel damage and other types of product damage.

CAUTION

- Do not dispose of the product-packing box. Use it when moving by putting the product in the box to carry it.

Precautions for Installing the Product

WARNING

- Contact the service center before installing the product.
 - It can cause electric shock and damage the product.
- Do not drop an object on or impact on the product. Keep out of reach of children and do not place toys or objects near the product to prevent throwing things on the product screen.
 - It can cause injury to human, problem to product and damage the display.
- Do not put heavy objects on, or hang from, the product.
 - If the product collapses or is dropped, you may be injured.
- Do not touch the surface of the product if it overheats.
 - It can cause injury to human.
- Install the product firmly fixed on a floor, wall, etc. to prepare against external impact such as wind and earthquake.
 - You must refer to the manual provided.
- Prevent Children from climbing or hanging on the product.
 - If the product collapses or is dropped, you may be injured.
- Do not install it where there are heating devices such as electrical heaters or lighting equipment.
 - Fire, electrical shock, malfunction may occur.
- Do not install this product by yourself as you may injure yourself or cause damage to the product. Please contact service engineer authorized by service center.
- 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.
- Do not leave the power or signal cable, etc. on the pathway.
 - This could cause a trip or fall, which could cause an electrical shock, fire, product breakdown, or injury.
- Do not let the product drop when connecting it to an external device connected with a short cable.
 - This may cause injury and damage to the product.
- If you drop the product or the case is broken, turn off the product and unplug the power cord and contact the service center.
 - If you continue to use without taking proper measures, electrical shock or fire can occur.
- Install the product in a dry place where it is not near dust and water. Avoid high temperatures and humidity.
 - This may cause electrical shock, fire or product damage.
- Safely install the product in a place that can hold the weight of the product.
 - A lack of strength may cause the product to fall.
- Take a comfortable and natural position to relax the muscles when working with a product.
- Do not install this product on a location that is wobbly, sloped, unstable, exposed to vibrations, or that does not safely and securely support the product to remain in place. Do not place a cloth or any other item between the product and the furniture supporting the product.
 - The product may fall down or overturn, causing an injury or malfunction.

 **CAUTION**

- Install the product where no Electromagnetic Interference occurs.
- If you install the product in a place that does not meet the recommended conditions, this may cause serious damage to the product's picture quality, life cycle, and appearance. Please check with service engineer before installing. Please do not install the product in places such as where there is an abundance of fine dust or oil mist, chemical substances are used, exposed to direct sunlight, the temperature is very high or low, the humidity is very high.
- Make sure the product is well ventilated by installing at a distance (100 mm or more) 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 buildup.
- Do not cover the product with a tablecloth or a curtain or other materials (e.g. plastic) while plugged in. Do not block the ventilation hole of the product.
 - The product can be deformed or fire can break out due to overheating inside the product.
- Do not install the product in an area with poor ventilation (e.g. on a bookshelf, in a closet) or outside and avoid placing on cushions or carpets.
 - The product could catch fire due to overheating inside the product.
- Install the product on a flat and stable place that is large enough to support the product.
 - If the product is dropped, you may be injured or the product may be broken.
- When installing the product on a shelf or cabinet, make sure that the bottom end of the product is not protruding forward.
 - The product may fall due to unbalanced center of gravity, which may cause personal injury or damage to the product. Be sure to use cabinets or shelves that fit your product.
- A readily accessible disconnect device shall be incorporated external to the product.
- The components complied with the requirements of IEC 61643-series shall be installed internal or external to this product.
- Set to [Screen Off & Backlight (Outdoor mode)] when installing outdoors.
 - Enable the [Outdoor mode] to reduce the risk of the internal humidity and condensation.
- When operating in below zero temperature, the enclosure may not work for up to one hour to raise the internal temperature of the enclosure.

Precautions for Cleaning the Product

WARNING

- Keep the product clean at all times.
 - If you don't clean the unit for a long time and it becomes covered in dust, it can cause fire or product damage.
- When you need to clean the inside of the product, you must contact the service center.
 - Otherwise, cleaning without support may cause a fire, electric shock, or damage to the product.
- When cleaning the product, unplug the power cord and wipe gently with a soft cloth to prevent scratching.
 - An electric shock may occur or damage to the screen if its scratched.
- When you want to clean the front frame, spray water onto a soft cloth 2 to 4 times and wipe in one direction only. (Not for LED models)
 - Too much moisture may cause staining.
- Do not physically come in contact with the screen of the LED Package.
 - This may cause damage to the product.
- To clean the product, use an air gun to lightly remove dust from the front frame and the screen.
 - If there are foreign substances in between the LEDs on the screen, it may cause a defect on the screen.

CAUTION

- When cleaning the product or the screen, unplug the power cord and wipe it gently with a soft cloth. Do not spray water or other liquids directly on the product. Especially, do not clean your product with chemicals including glass cleaner, any type of air freshener, insecticide, lubricants, wax (car, industrial), abrasive, thinner, benzene, alcohol, etc., which can damage the product or its panel.
 - This may result in fire, electric shock or product damage (deformation, corrosion or breakage).

Precautions for Using the Product

WARNING

- Do not use the product in any environment with excessively high temperatures or humidity.
 - It may cause electrical shock or damage the product.
- If you use the product for a long period of time, take a rest from time to time to protect your vision.
 - Extended viewing could result in impaired vision.
- Listening at high volume or using for a long time can cause damage to your hearing.
- In the event that liquid or a foreign object falls into the product, please switch it off and unplug it from the wall outlet and contact the service center.
 - Otherwise, the product may cause fire or electric shock.
- In the event that no image appears on the screen or no sound is heard, stop using the product. Switch it off immediately, unplug it from the power outlet and contact the service center.
 - Otherwise, the product may cause fire or electric shock.
- Do not drop an object or impact on the product or screen.
 - It can cause injury to human, problem to product and damage the screen.
- If you can smell smoke or other odors or hear a strange sound, unplug the power cord and contact the service center.
 - If you continue to use the product without taking proper measures, it may cause electrical shock or fire.
- Do not attempt to disassemble, repair or modify the product yourself. Please contact service center if you need to repair it.
 - Fire or electric shock can occur.
- Do not place objects filled with liquids such as vases, cups etc. on or over the product to prevent liquid from entering the product.
 - Failure to do so may result in fire, electric shock, malfunction or deformation.
- Do not push hard on or scratch the product's surface with your hands or sharp objects, such as nails, pencils or pens. Do not shock or scratch the front and sides of the screen with metallic objects.
 - This may damage the products and cause it to malfunction.
- Do not touch the product if it has been exposed to sunlight or an intense light because it could be hot.

- Do not use high voltage electrical goods near the product (e.g., a bug zapper).
 - This may result in product malfunction if it receives an electrical shock.
- If there is a gas leak, do not touch the outlet, and open the windows for ventilation.
 - Otherwise, the product may cause fire or electric shock.
- If you drop 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 the service center.
- Keep small accessories out of the reach of children.
 - If a child swallows it, consult a doctor immediately.
- Keep out of reach of children from the product. Also, do not throw toys or objects at the product or screen.
 - It can cause injury to human, problem to product and damage the screen.
- All the power sources must be disconnected by removing the power cables to remove all power from the unit.

 **CAUTION**

- This panel is an advanced product that contains millions of pixels. You may occasionally see pixel spots when viewing the screen. Since these deactivated pixels are not a defect, the performance and reliability of the product is not affected.
- Do not put or store inflammable substances near the product.
 - There is a danger of explosion or fire.
- Keep the proper distance from the product.
 - It can cause damage to your vision if you look at the product too closely.
- Set the appropriate resolution and frequency by products.
 - It can cause damage to your vision.
- Take a regular break when working with the product for a long time.

Precautions for Using the Remote control

WARNING

- Avoid places with high humidity.
 - It may cause electrical shock or damage the product.
- Do not expose batteries to excessive heat, such as direct sunlight, open fireplace, and electric heaters.
 - It may cause fire and you may be injured.
- Make sure that children do not swallow the remote control batteries when you replace them. Keep batteries out of reach of children.
 - If a child swallows a battery, consult a doctor immediately.
- Do not dispose of batteries in a fire.
 - Please dispose batteries at a local recycling center or a retail store that handles batteries.
- Used batteries, which include rechargeable batteries, should be recycled separately from waste.
 - Please dispose used batteries and rechargeable batteries at a local recycling center or a retail store that handles batteries.

CAUTION

- Do not short circuit and disassemble of batteries.
 - It may cause electrical shock or fire.
- The remote control may not function properly in sunlight or under a strong lamp. Move the product if it is being used in these conditions.
- Check if there is any obstacle between the product and the remote control.
- Do not mix new batteries with old batteries.
 - Overheating or leaking batteries may cause fire or electric shock.
- Only use the specified type of battery. Do not insert batteries that are not rechargeable into the charger.
 - Overheating or leaking batteries may cause fire or electric shock.

Precautions for Experiencing Image Retention

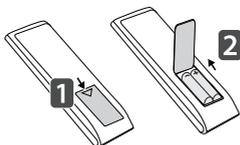
- Displaying a still image for a prolonged period of time may cause damage to the screen, resulting in image retention. Most third-party products have the same issue. The resulting damage is not covered by the product warranty.
 - Use a screen saver when using the monitor for a prolonged period of time.

Product Disposal

- 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.

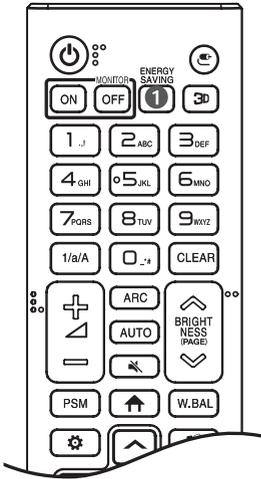
USING THE REMOTE CONTROL

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 \ominus 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.



CAUTION

- 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.
- Some features of the remote control may not be supported in certain models.
- The product's internal and external batteries should not be exposed to excessive heat such as direct sunlight, fire, or the like.



⏻ (POWER) Turns the monitor on or off.

MONITOR ON Turns the monitor on.

MONITOR OFF Turns the monitor off.

1 ENERGY SAVING Reduces power consumption by adjusting peak screen brightness.

⏻ (INPUT) Selects the input mode.

3D Used for viewing 3D video. (This function is not supported.)

Number and Alphabet buttons

Enters numerical or alphabetical characters depending upon the setting.

1/a/A Toggles between numerical and alphabetical. (This function is not supported.)

CLEAR Deletes the entered numerical or alphabetical character.

+ / - (Volume Up/Down Button) Adjusts the volume level.

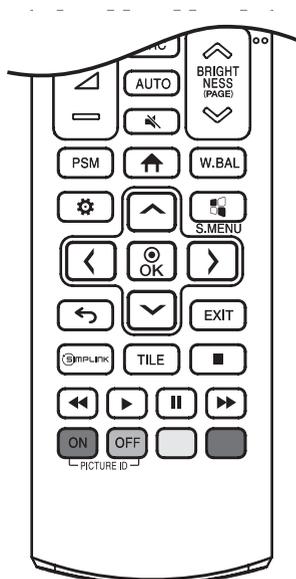
ARC Selects the screen size.

AUTO Automatically adjusts picture position and minimizes image instability. (This is supported only for the RGB input.)

🔇 (MUTE) Mutes all sounds.

⏪ BRIGHTNESS ⏩ Adjusts the brightness of the display.

⏪ (PAGE) Moves to the previous or next screen.



PSM Selects the Picture Mode.

▲ (HOME) Activates the Launcher.

W.BAL Enters the White Balance menu.

⚙️ (SETTINGS) Accesses the main menus or saves your input and exit menus.

S.MENU SuperSign menu key. (This function is not supported.)

⏪ ⏩ ⏴ ⏵ After selecting the menu, select and adjust functions.

↶ (BACK) Returns to the previous level.

EXIT Closes the menu.

SIMPLINK Allows you to control various multimedia devices to enjoy multimedia simply by using the remote control through the SimpLink menu.

TILE You can choose to turn TILE Mode on/off.

⏹ ⏪ ⏩ ⏸ ⏴ ⏵ (Control Buttons) Controls media playback.

PICTURE ID ON/OFF When the Picture ID number matches the Set ID number, you can control whichever monitor you want in multi-display format.

- **ON:** Individually control the monitors with an image ID assigned to each of them.
- **OFF:** Control the monitors at once.

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.

! NOTE

- For the best image quality, using the monitor with HDMI connection is recommended.
- To comply with the standard specifications of the product, use a shielded interface cable with a ferrite core, such as a DVI-D cable.
- If you turn the monitor on when the set is cold, the screen may flicker. This is normal.
- Sometimes red, green, or blue spots may appear on the screen. This is normal.
- Use a High Speed HDMI®/TM cable. (3 m or less)
- 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®/TM Cable
 - High Speed HDMI®/TM Cable with Ethernet
- If you cannot hear any sound in HDMI mode please check your PC settings. Some PCs require you to manually change the default audio output to HDMI.
- If you want to use HDMI-PC mode, you must set your PC/DTV to PC mode.
- You may experience compatibility issues if you use HDMI-PC mode.
- Make sure the power cable is disconnected.
- If you connect a gaming device to the monitor, use the cable provided with the gaming device.

! CAUTION

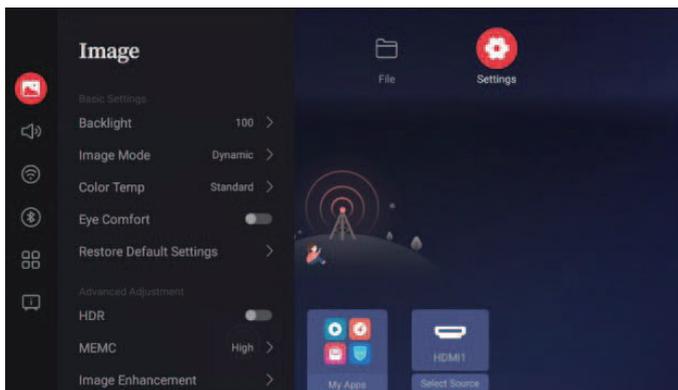
- Connect the signal input cable and tighten it by turning the screws clockwise.
- Do not press the screen with your finger for a prolonged period as this may result in temporary distortion on the screen.
- Avoid displaying static images on the screen for a long period of time to prevent image retention. Use a screensaver if possible.
- A wireless communication device near your monitor can affect the image.

 **NOTE**

- Software-related content may be changed without prior notice due to upgrades of the product functions.
- Some features described in the User Manual may not be supported in certain models and countries.

SETTINGS

Press the menu button of the remote control to enter the menu function. Users can press \uparrow / \downarrow to select the desired adjustment function, and press \leftarrow / \rightarrow to select/exit the application function.



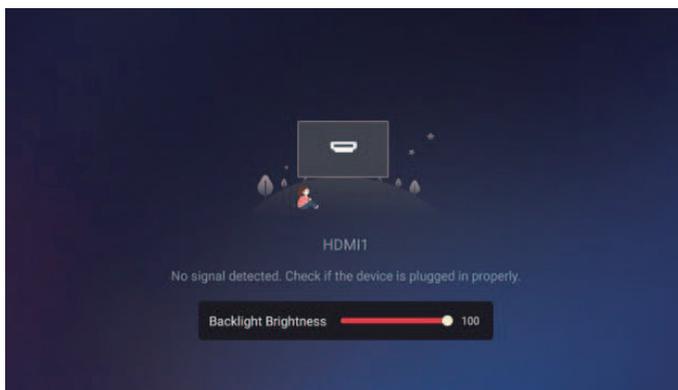
Options : [Image], [Audio], [Network], [Bluetooth], [General], [System & Device]

[Image]

In [Image] mode, press the right button to enter the next. Users can choose according to their own needs.

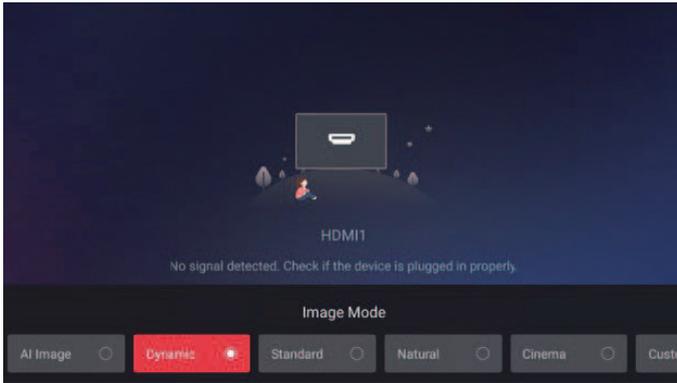
Options : [Backlight], [Image Mode], [Color Temp], [Eye Comfort], [Restore Default Settings], [HDR], [MEMC], [Image Enhancement]

Press \rightarrow to enter the [Backlight], and press the left and right keys of the remote control to adjust the backlight brightness; Adjustable range: 0 to 100



[Image Mode]

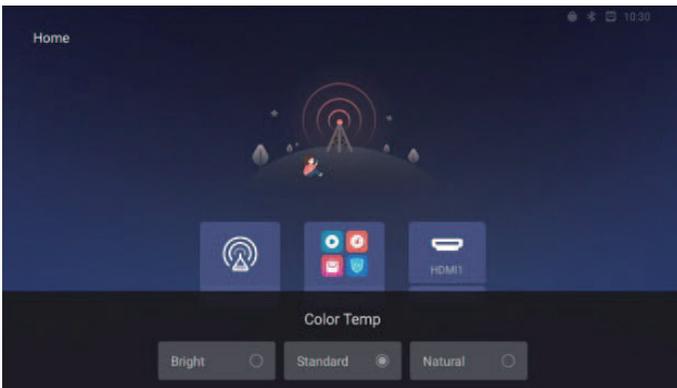
Press the remote control  /  key to select [Image Mode], press the  key to enter this state. Adjustable image display mode, different modes of brightness, contrast, color is different.



Options: [AI Image], [Dynamic], [Standard], [Natural], [Cinema], [Custom], (Under the [Custom] mode, the brightness, contrast and chroma of the screen can be adjusted according to the user's requirements.)

[Color Temp]

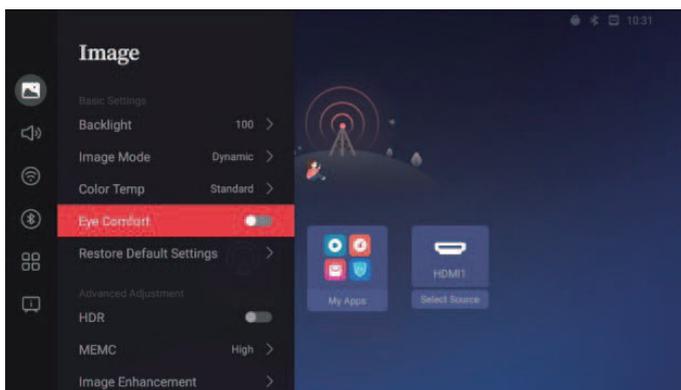
Press the remote control  /  key to select [Color Temp], mode. press the  key to enter this state. Adjust the color of the whole image.



Options : [Bright], [Standard], [Natural]

[Eye Comfort]

Press the remote control  /  key to select [Eye Comfort], press the  key to change the screen color temperature to warm color.



[Restore Default Settings]

Press the remote control  /  key to select [Restore Default Settings], You can reset the backlight brightness and eye protection mode to the default values.

[HDR]

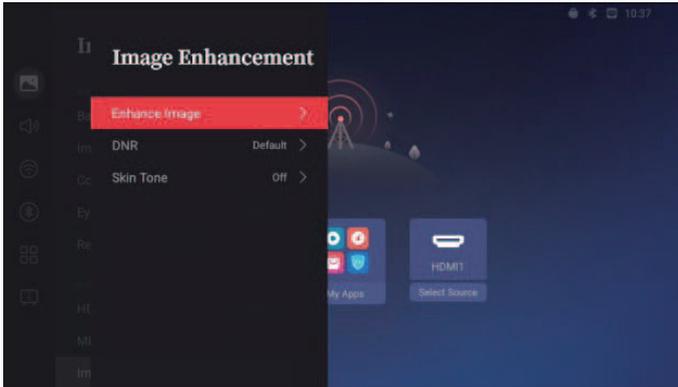
Press the remote control  /  key to select [HDR] mode, can improve the clarity of the picture.

[MEMC]

Press the remote control  /  key to select [MEMC] mode, this item can make the stuck video more smooth and smooth.

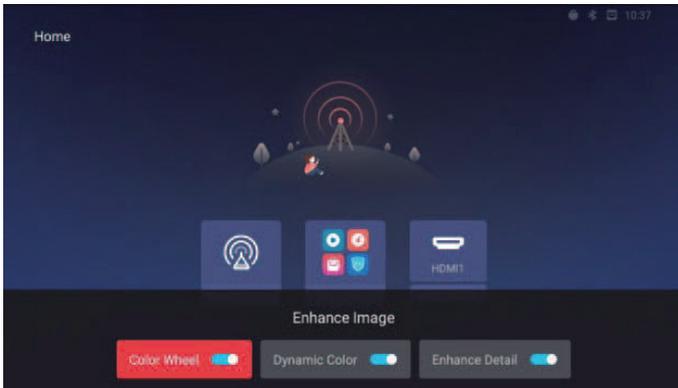
[Image Enhancement]

Press the remote control  /  key to select [Image Enhancement] mode, press the  key to enter this state. Adjustable [Enhance Image], [DNR], [Skin Tone].



[Enhance Image]

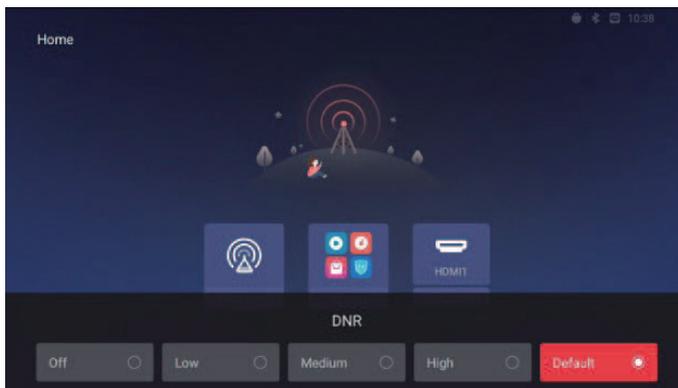
Press the remote control  /  key to select [Enhance Image] mode, you can enhance the video and picture display effect.



Options : [Color Wheel], [Dynamic Color], [Enhance Detail]

[DNR]

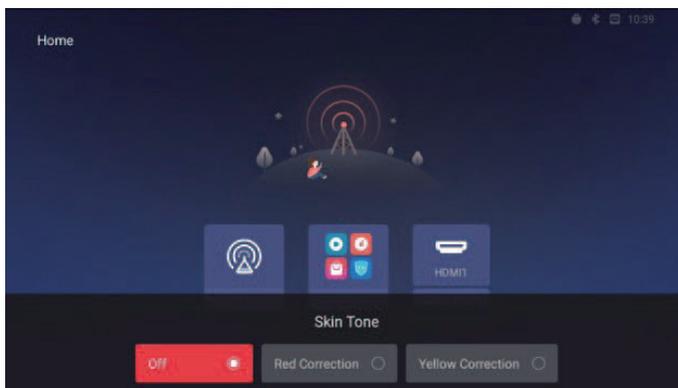
Press the remote control / key to select [DNR] mode, optimize the noise in the video.



Options : [Off], [Low], [Medium], [High], [Default]

[Skin Tone]

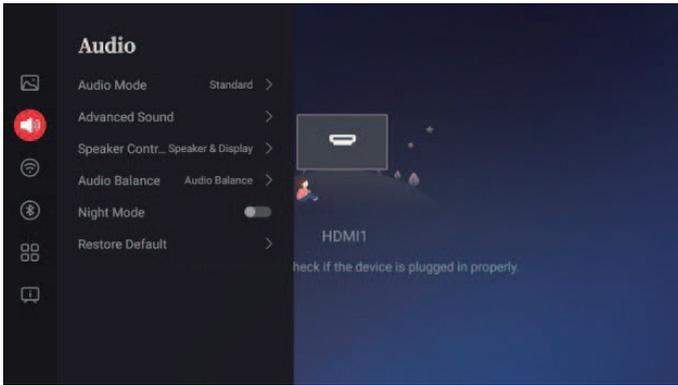
Press the remote control / key to select [Skin Tone] mode, adjust the screen display effect according to the skin color of the characters in the video.



Options : [Off], [Red Correction], [Yellow Correction]

[Audio]

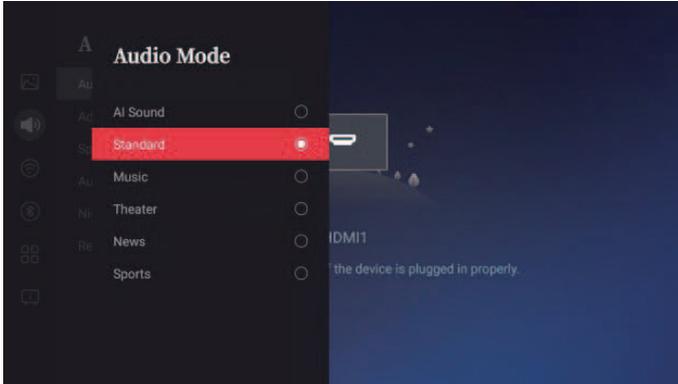
In [Audio] mode, right-click to enter the next-level menu. Users can choose from the menu as required.



Options : [Audio Mode], [Advanced Sound], [Speaker Control], [Audio Balance], [Night Mode], [Restore Default]

[Audio Mode]

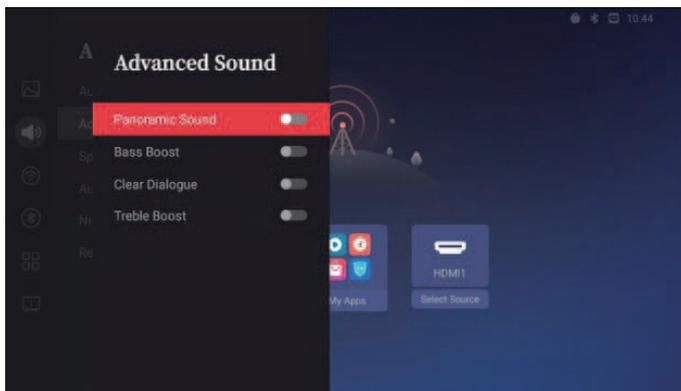
Press the remote control  /  key to select [Audio Mode], set the sound equalization effect.



Options : [AI Sound], [Standard], [Music], [Theater], [News], [Sports]; The default mode is standard.

[Advanced Sound]

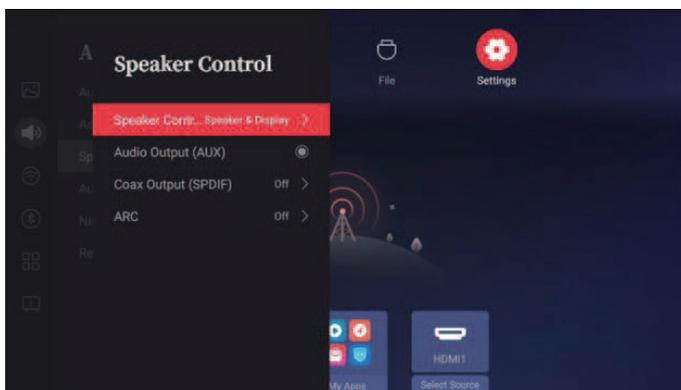
Press the remote control  /  key to select [Advanced Sound] mode, set bass and treble effects.



Options : [Panoramic Sound], [Bass Boost], [Clear Dialogue], [Treble Boost]

[Speaker Control]

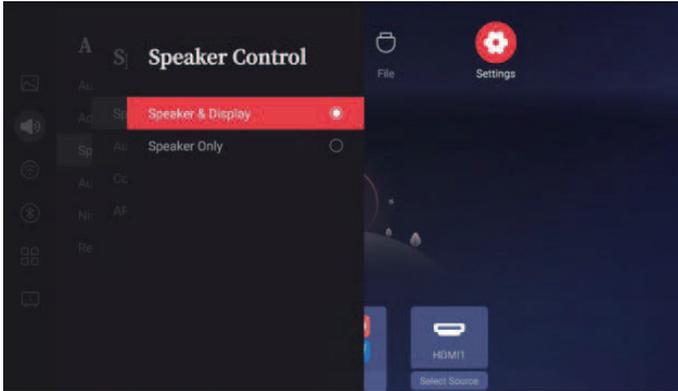
Press the remote control  /  key to select [Speaker Control] mode, set the sound output device.



Options : [Speaker Control], [Audio Output (AUX)], [Coax Output (SPDIF)], [ARC]

[Speaker Control]

Press the remote control $\left(\triangle\right) / \left(\square\right)$ key to select [Speaker Control] mode, press the $\left(\circ\right)$ key to enter this state. Set the sound output device.



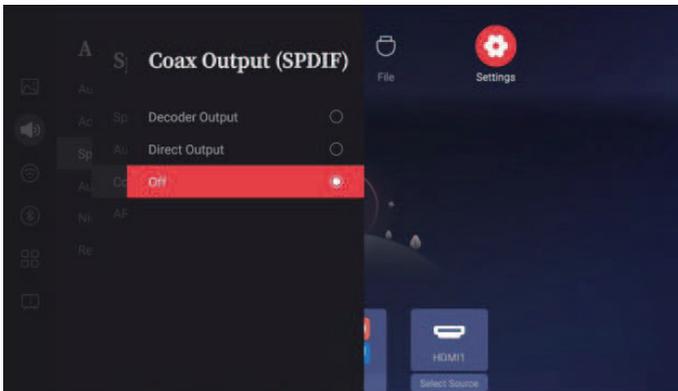
Options : [Speaker & Display], [Speaker Only]

[Audio Output (AUX)]

Press the remote control $\left(\triangle\right) / \left(\square\right)$ key to select [Audio Output (AUX)] mode, set the sound output through the display speaker.

[Coax Output (SPDIF)]

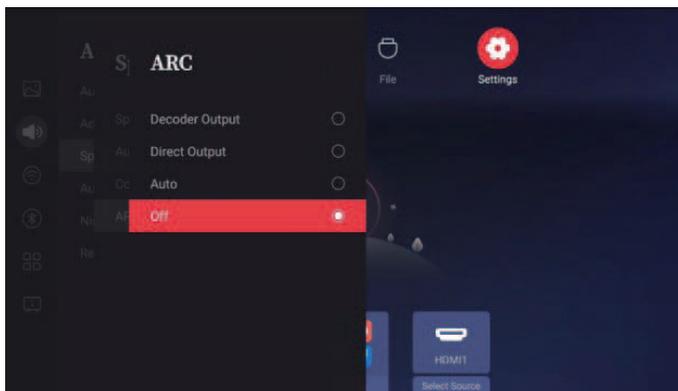
Press the remote control $\left(\triangle\right) / \left(\square\right)$ key to select [Coax Output (SPDIF)] mode, set the output mode of SPDIF.



Options : [Decoder Output], [Direct Output], [Off].

[ARC]

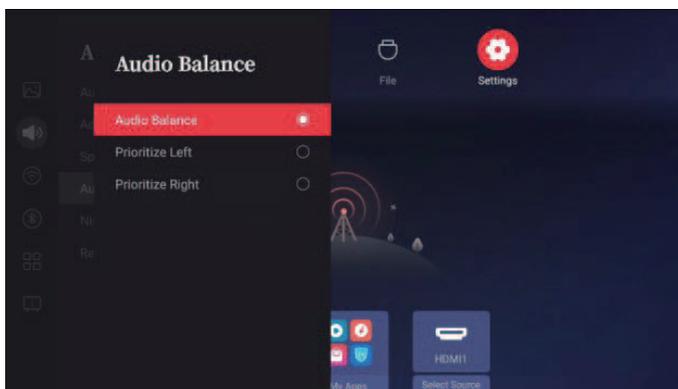
Press the remote control  /  key to select [ARC] mode, set the output mode of ARC.



Options : [Decoder Output], [Direct Output], [Auto], [Off].

[Audio Balance]

Press the remote control  /  key to select [Audio Balance] mode, set the volume of the left and right speakers.



Options : [Audio Balance], [Prioritize Left], [Prioritize Right]

[Night Mode]

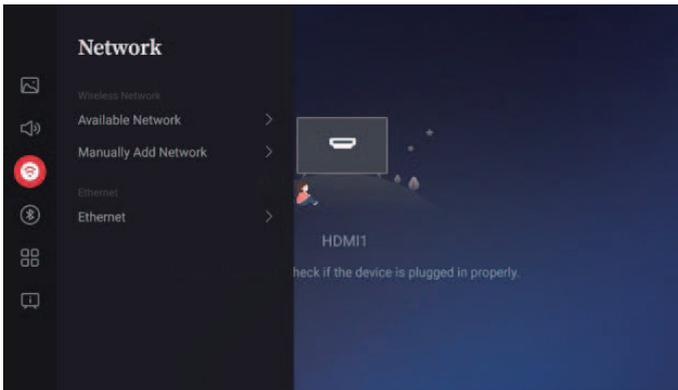
Press the remote control  /  key to select [Night Mode] mode, automatically adjust the volume to prevent sudden changes in sound.

[Restore Default]

Press the remote control  /  key to select [Restore Default] mode, restore the sound setting to the default value.

[Network]

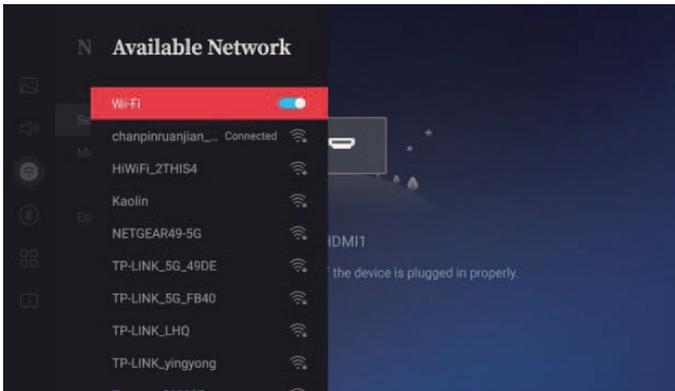
In [Network] mode, press the  key to access the next-level menu. Users can choose from the menu as required.



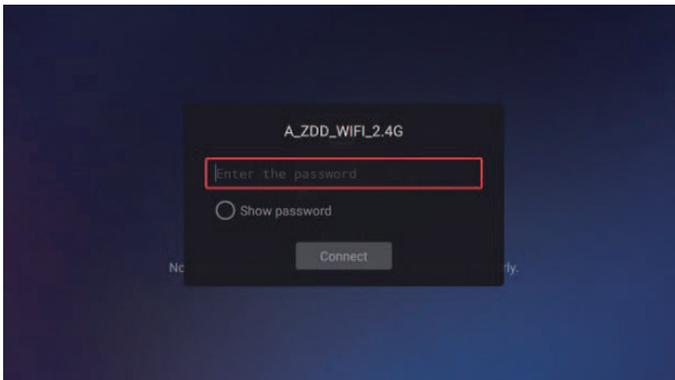
Options : [Available Network], [Manually Add Network], [Ethernet]

[Available Network]

Press the remote control / key to select [Available Network] mode, search and connect to available hotspots.



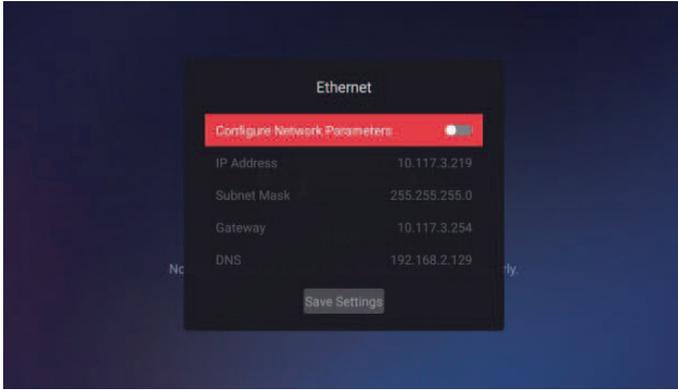
When no network cable is connected, click the wireless network switch to display the list of searched wifi.



Click a wifi, and the password input box will pop up. Enter the corresponding password and click connect.

[Manually Add Network]

Press the remote control / key to select [Manually Add Network] mode, manually add WIFI.



[Ethernet]

Press the remote control / key to select [Ethernet] mode, set the parameters of the wired network. (This function can be used only when the network cable is connected.)

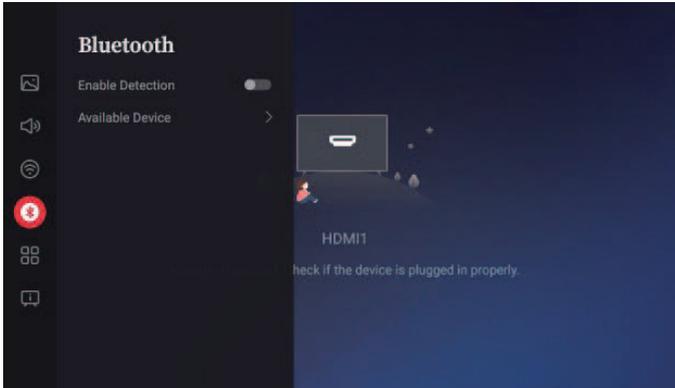
[Bluetooth]

In [Bluetooth] mode, press the  key to enter the next menu. Users can select according to their own needs.

Options : [Enable Detection], [Available Device]

[Enable Detection]

Press the remote control  /  key to select [Enable Detection] mode, set whether the Bluetooth of this machine can be searched.



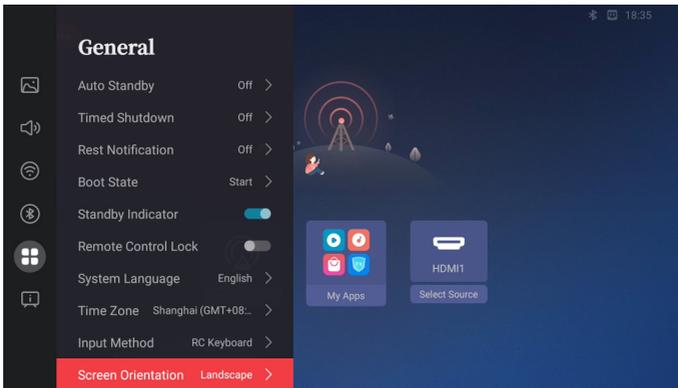
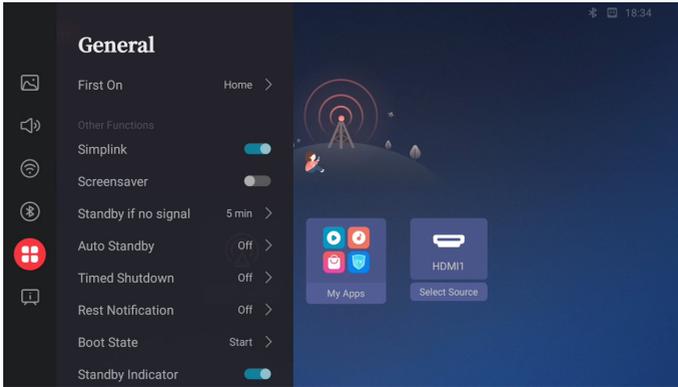
[Available Device]

Press the remote control  /  key to select [Available Device] mode, search for nearby Bluetooth, and pair and connect.



[General]

In [General] mode, press the  key to enter the next menu. You can select a menu based on your own requirements.



Options : [Screensaver], [No Signal Standby], [Auto Standby], [Timed Shutdown], [Rest Notification], [Boot State], [Standby Indicator], [Remote Control Lock], [System Language], [Input Method]

[First On]

After booting, the initial screen displays the home screen or the connected input source screen.

Options : [Home], [Source]

- [Home] : Display the home screen.
- [Source] : Displays the connected HDMI screen.

[Simplink]

Enables interoperability between HDMI connected devices.

[Screensaver]

Press the remote control  /  key to select [Screensaver] mode, the screensaver can be turned on/off. If no operation is performed for 1 minute on the home screen, the screensaver is opened.

[No Signal Standby]

Press the remote control  /  key to select [No Signal Standby] mode, if no source signal is active in set time, the display will enter standby.

Options : Off, 5 Min, 10 Min, 30 Min, 60 Min, 240 Min

[Auto Standby]

Press the remote control  /  key to select [Auto Standby] mode, if you do not operate the remote control or update the UI screen within the set time, the device will automatically stand by.

Options : Off, 240 Min

[Timed Shutdown]

Press the remote control  /  key to select [Timed Shutdown] mode, automatically standby after setting the time, even if there is a key input, the time will not be updated.

Options : Off, 30 Min, 60 Min, 90 Min, 240 Min

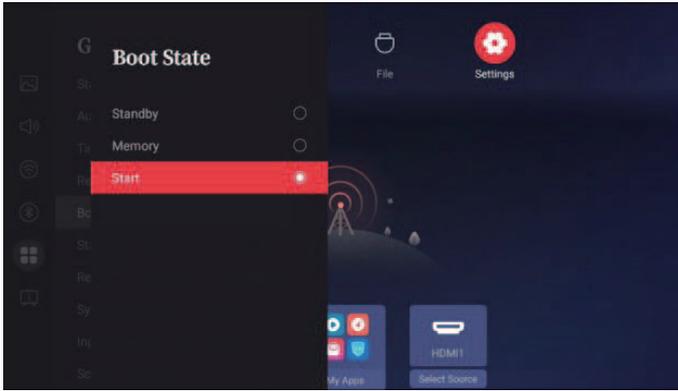
[Rest Notification]

Press the remote control  /  key to select [Rest Notification] mode, after the set time, the prompt word [You have been watching for %1\$d hours in a row. Take a break!] will be displayed.

Options : Off, 1 Hr, 2 Hrs, 3 Hrs

[Boot State]

Press the remote control / key to select [Boot State] mode, set the action of the device after power-on.



Options: [Standby], [Memory], [Start]

[Standby Indicator]

Press the remote control / key to select [Standby Indicator] mode, after the set time, set whether the LED indicator is on when in standby.

[Remote Control Lock]

Press the remote control / key to select [Remote Control Lock] mode, the remote control operation will be locked, long press the blue button of the remote control (IR lock: ON, IR Lock: on off), select the [Remote Control Lock] and press  to remove the status..

[System Language]

Press the remote control / key to select [System Language] mode, set system language.

[Time Zone]

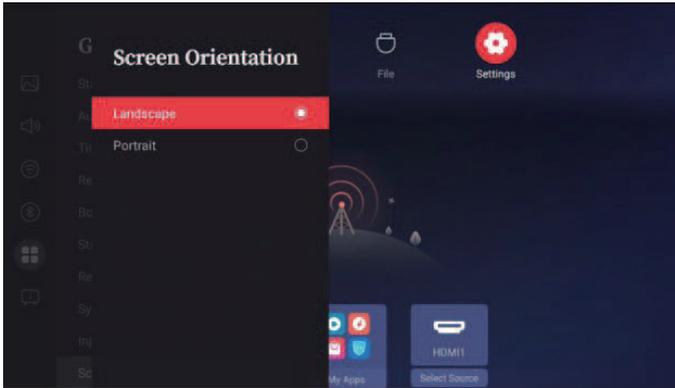
Press the remote control / key select [Time Zone] mode, set time zone.

[Input Method]

Press the remote control / key to select [Input Method] mode, set system input method.

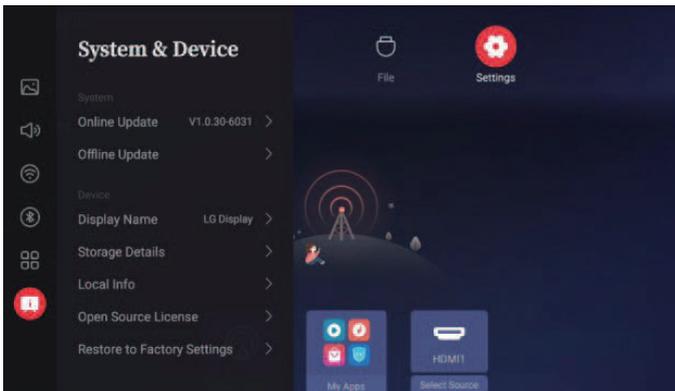
[Screen Orientation]

Press the remote control (▲) / (▼) key to select [Screen Orientation] mode, set screen orientation. (This function is only applicable to 98 inch models.)



[System & Device]

In [System & Device] mode, right-click to access the lower-level menu. You can choose from the shortcut menu as required.



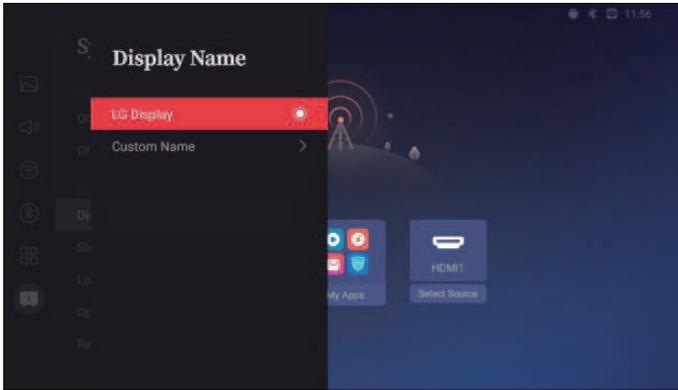
Options : [Online Update], [Display Name], [Storage Details], [Local Info], [Open Source License], [Restore to Factory Settings]

[Online Update]

Press the remote control / key to select [Online Update] mode, OTA upgrade package detection, online upgrade.

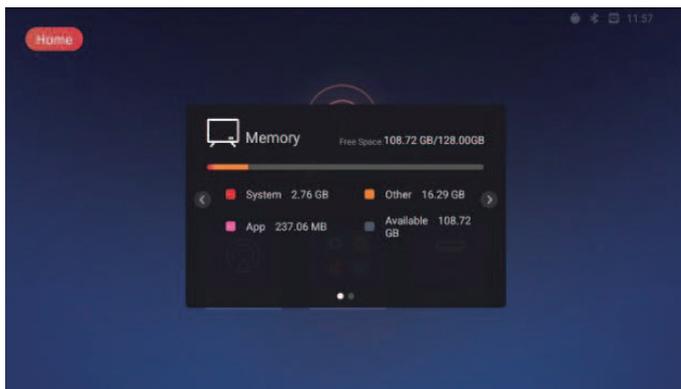
[Display Name]

Press the remote control / key to select [Display Name] mode, set display name, Bluetooth name. You can also edit the name in [Custom Name].



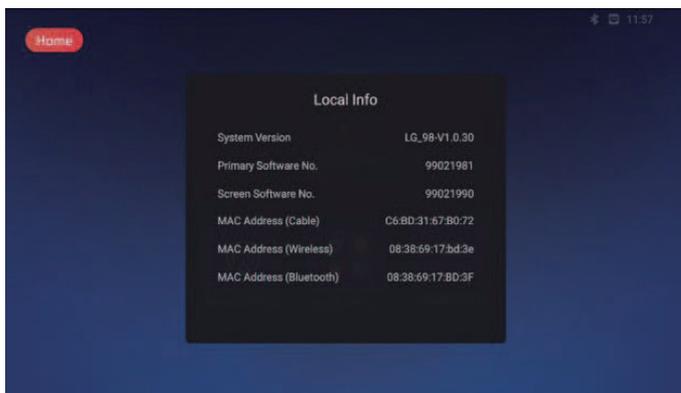
[Storage Details]

Press the remote control (▲) / (▼) key to select [Storage Details] mode, display device storage information, press left and right to switch storage devices.



[Local Info]

Press the remote control (▲) / (▼) key to select [Local Info] mode, display detailed information of the device.

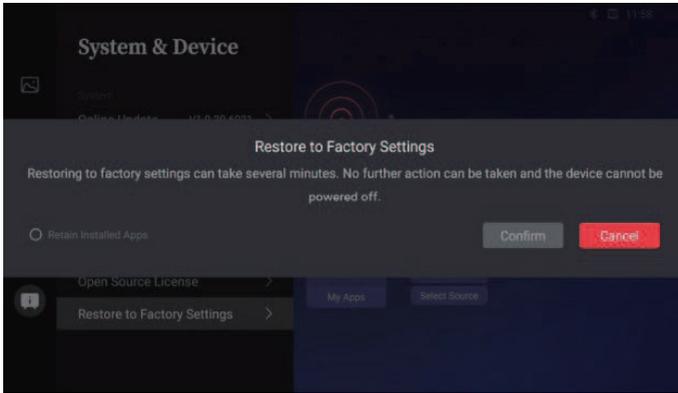


[Open Source License]

Press the remote control / key to select [Open Source License] mode, display Open source list.

[Restore to Factory Settings]

Press the remote control / key to select [Restore to Factory Settings] mode, Restore to factory settings, select [Retain Installed Apps], you can not know the APP and its data.



TROUBLESHOOTING

- » Each model may have different points to check.
- » For information on your PC settings, refer to the Windows Help.

Model corresponding to sentence color

COMMON	VIDEO WALL	SMALL INCH	ENCLOSURE	OLED	STRETCH	TOUCH
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Issues Related to Use

- The power won't turn on.
 - Check if the power cord is correctly plugged into the power outlet.
 - When operating in below zero temperature, the enclosure may not work for up to one hour to raise the internal temperature of the enclosure.
 - For models with a circuit breaker, check whether the circuit breaker has been connected properly. The switch of the circuit breaker must be set to on (red).
 - Try turning the power on after disconnecting the AC adapter and cleaning the contacting port.
 - Ensure whether LAN cable is damaged or not when using POE.
 - Do not connect AC adapter when using POE power.
- The 'Unknown Product' message appears when the product is connected.
 - Check if the driver of PC(graphics card) has been installed.
 - Check if the plug and play function is supported by the PC(graphics card) user manual.

Issues Related to Screen (Video)

- A message saying 'No signal' or 'Invalid Format' appears.
 - The signal cable is not connected between the PC and the product, or the cable connection status is unstable. Check the signal cable.
 - Access the input menu to check the input signal.
 - 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.
- The position of the screen is incorrect.
 - Check if the graphics card resolution and frequency are supported by the product. If the frequency exceeds the supported range, use PC settings to set the resolution to the recommended value.
 - 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 the adjustment is not satisfactory, adjust the display settings manually in the OSD menu.

- The screen is displayed abnormally.
 - Connect the signal cable that matches with the source input signal.
 - Condensation may appear on the screen. It will disappear in a certain period of time after the product is powered on.
 - The condensation formed inside the product is a natural phenomenon and is not covered under warranty. (IPX6 is a standard to protect the product from 100L of water per minute and not from infiltration of moisture in the air into the set.)
 - When connecting the panel and the Signage box, check their serial numbers and make sure they match. If the serial numbers match, unplug the power cord and plug it in again to run the Clear Panel Noise feature. (The system will reboot automatically after running the feature.)
You can also run the feature in **⚙️ (Settings)** → [Display] → [Advanced Settings] → [OLED Panel Settings] → [Clear Panel Noise] menu.
- The PC BIOS configuration screen is not displayed correctly.
 - On some PCs, the BIOS configuration screen may not display correctly because the atypical aspect ratio is not supported before the graphics card driver is configured. This is not a problem of the product; it is due to the design of the graphics card's BIOS configuration screen aspect ratio. To access the PC BIOS configuration screen, please connect a standard aspect ratio (4:3 or 16:9) monitor, then perform the BIOS configuration.
- Images are flickering or fluttering on the screen.
 - If you turn the monitor on when it is cold, the screen may flicker. This is normal.
 - Make sure that the current resolution and frequency settings of the graphics card are supported by the monitor.
- Stripes appear in the background.
 - 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 the adjustment is not satisfactory, adjust the display settings manually in the OSD menu.
- Horizontal noise appears or the characters look blurred.
 - 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 the adjustment is not satisfactory, adjust the display settings manually in the OSD menu.
- The image is not displayed.
 - Check that the cable is properly connected between the panel and the Signage box.

Issues Related to Screen (Color)

- Screen has poor color resolution (16 colors).
 - Use PC settings to set the color to 24 bits (True Color) or above.
- Screen color is unstable or mono-colored.
 - Check the connection status of the signal cable. Or, re-insert the PC graphics card.
- Black spots or bright spots appear on the screen.
 - Some pixels (red, green, blue, black) are visible on the screen due to the unique characteristics of the display panel. This is not a malfunction of the product.
- The screen's brightness seems dark.
 - Adjust brightness and contrast again.
 - Backlight may need repair.
 - If the internal temperature of the enclosure rises, the screen's brightness may darken. Clean the heat exchanger or filter in the enclosure periodically.

Issues Related to Sound

- There is no sound output.
 - See if the audio cable is connected properly.
 - Adjust the volume of the product or external device.
 - See if the sound is set properly.
- Sound is too dull.
 - Select the appropriate equalizer sound.
- Sound is too low.
 - Adjust the volume of the product or external device.
- For some models, you will need to purchase external speakers separately since they do not have speakers built-in.

Other Issues

- The power suddenly turned off.
 - Check if the auto-off function is activated on the settings related time.
 - Power source has not being supplied properly. See if the product power cord is connected properly.
 - Check the power control settings.
 - If the internal temperature of the enclosure rises, the power may shut down. Clean the heat exchanger or filter in the enclosure periodically.
 - Check if the fan is working properly.
View the fan status in  (SETTINGS) → [General] → [System Information] → [Fan Status].

CAUTION

- Since afterimage can occur when a specific fixed screen is used for a long time, To reduce after-images, it is recommended not to exceed the recommended daily operation time set for the screen size and to display the video content with a small number of fixed characters or logos.
Recommended daily operation time (55 inches: 18 hours, 65 inches: 12 hours)
- A few horizontal lines may appear on the screens while running the [Clear Panel Noise] feature. This is normal, so there is no need for concern. If the power is turned on or a power failure occurs while the [Clear Panel Noise] feature is running, the feature may not work properly.
- Turn the power on five minutes after running the [Clear Panel Noise] feature.
- The external speakers connected to the product may make a sound while you are running the [Clear Panel Noise] feature.
- [Clear Panel Noise]: Correct issues that may arise on the screen when it is turned on for a long period of time.
- Use the [Screen Protection Mode Setting] feature in [OLED Panel Settings] to effectively prevent the formation of an afterimage.

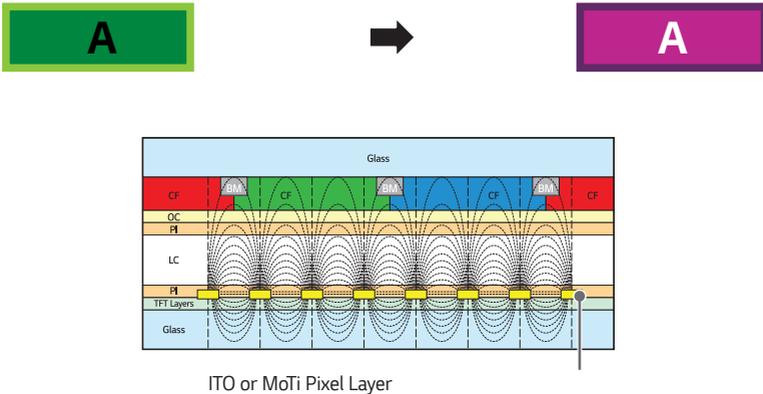
Issues Related to Touch

- Touch does not respond.
 - This may occur when the USB cable between PC and product is not connected. Remove the USB cable and connect it again in 10 seconds.
 - Make sure that your PC's power cord is firmly plugged into a power outlet and restart your PC.
 - Touch may not respond when the system is down due to the unstable network. Reconnect the LAN cable or restart your PC.
 - If your PC and product are not connected using a signal cable, touch does not respond. Check the signal cable connection.
 - Touch may not respond when the product is powered off. Check the product power.
 - If you do not use a grounded outlet, it may cause a break or touch error. Always connect the power cord to a grounded outlet.
 - Check if the screen is currently on.
 - A break or touch error may occur as below case.
 - If touching the screen only with nail or fingertip
 - If holding the tip of the touch pen or near the tip of the touch pen
 - If using the touch pen while pressing it with strong force on the screen
- The location of a touch does not correspond to the touch coordinates.
 - This may occur when the touch screen is not calibrated properly. Change your tablet PC settings.
- A touch is applied to a monitor other than the one I intended.
 - This may occur if the monitor is not set as the default monitor when you are using multiple monitors. Set the monitor as the default monitor.
 - This may occur when the touch screen is not calibrated properly. Change your tablet PC settings.
- Multi-touch does not respond.
 - The content played (e.g. Paint, etc.) may not support Multi-touch points. Make sure that you use a content that supports Multi-touch point.
 - Remove the USB cable and connect it again in 10 seconds.
 - Run the content (e.g. Paint, etc.) again.
 - Restart your PC.
 - On the edge of the touch screen, multi-touch may work unstably.
 - If the interval between two touches is too short, a touch error may occur.

Image sticking

- After-image appears when the product is turned off.
 - If you use a fixed image for a long time, the pixels may be damaged. Use the screen-saver function.
 - When a dark image is displayed on the screen after an image with high contrast (black and white or gray), this may cause image sticking. This is normal for display products.
- 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.
- 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

- 1 Change the background and the character colors using the same time interval.
 - When changing colors, using complementary colors helps to prevent image sticking.



- 2 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.



