

OWNER'S MANUAL

MultiVision

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

6OPT100C
6OPT100N

WARNING / CAUTION

- Please read these safety precautions carefully before using the product.
- In this manual, the illustration may be somewhat different from your product because it is just example to help the instruction.



TO REDUCE THE RISK OF ELECTRIC SHOCK DO NOT REMOVE COVER (OR BACK). NO USER SERVICEABLE PARTS INSIDE. REFER TO QUALIFIED SERVICE PERSONNEL.



The lightning flash with arrowhead symbol, within an equilateral triangle, is intended to alert the user to the presence of uninsulated "dangerous voltage" within the product's enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons.



The exclamation point within an equilateral triangle is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the appliance.

WARNING/CAUTION

TO REDUCE THE RISK OF FIRE AND ELECTRIC SHOCK. DO NOT EXPOSE THIS PRODUCT TO RAIN OR MOISTURE.

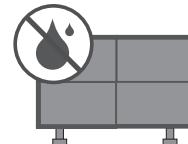
Read these instructions.

Keep these instructions.

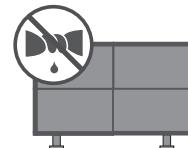
Heed all warnings.

Follow all instructions.

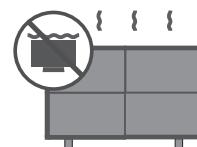
- Do not use this apparatus near water.



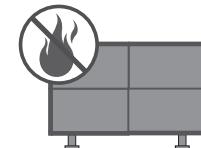
- Clean only with dry cloth.



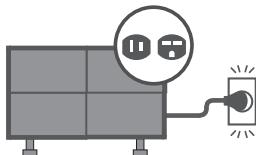
- Do not block any ventilation openings. Install in accordance with the manufacturer's instructions.



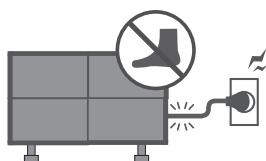
- Do not install near any heat sources such as radiators, heat registers, stoves, or other apparatus (including amplifiers) that produce heat.



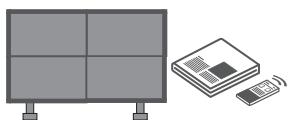
- Do not defeat the safety purpose of the polarized or grounding-type plug. A polarized plug has two blades with one wider than the other. A grounding type plug has two blades and a third grounding prong. The wide blade or the third prong are provided for your safety. If the provided plug does not fit into your outlet, consult an electrician for replacement of the obsolete outlet.



- Protect the power cord from being walked on or pinched particularly at plugs, convenience receptacles, and the point where they exit from the apparatus.



- Only use attachments/accessories specified by the manufacturer.

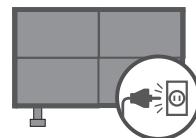


- Use only with a cart, stand, tripod, bracket, or table specified by the manufacturer, or sold with the apparatus. When a cart is used, use caution when moving the cart/apparatus combination to avoid injury from tip-over.

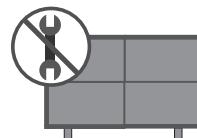


S3125A

- Unplug this apparatus during lighting storms or when unused for long periods of time.



- Refer all servicing to qualified service personnel. Servicing is required when the apparatus has been damaged in any way, such as power-supply cord or plug is damaged, liquid has been spilled or objects have fallen into the apparatus, the apparatus has been exposed to rain or moisture, does not operate normally, or has been dropped.

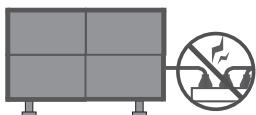


- Never touch this apparatus or antenna during a thunder or lighting storm.
- When mounting a monitor on the wall, make sure not to install the monitor by the hanging power and signal cables on the back of the monitor.
- Do not allow an impact shock or any objects to fall into the product, and do not drop onto the screen with something.

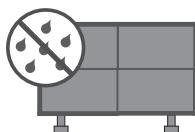
- CAUTION concerning the Power Cord: It is recommend that appliances be placed upon a dedicated circuit; that is, a single outlet circuit which powers only that appliance and has no additional outlets or branch circuits. Check the specification page of this owner's manual to be certain. Do not connect too many appliances to the same AC power outlet as this could result in fire or electric shock. Do not overload wall outlets. Overloaded wall outlets, loose or damaged wall outlets, extension cords, frayed power cords, or damaged or cracked wire insulation are dan-

gerous. Any of these conditions could result in electric shock or fire. Periodically examine the cord of your appliance, and if its appearance indicates damage or deterioration, unplug it, discontinue use of the appliance, and have the cord replaced with an exact replacement part by an authorized servicer. Protect the power cord from physical or mechanical abuse, such as being twisted, kinked, pinched, closed in a door, or walked upon. Pay particular attention to plugs, wall outlets, and the point where the cord exits the appliance.

Do not make the monitor with the power cord plugged in. Do not use a damaged or loose power cord. Be sure to grasp the plug when unplugging the power cord. Do not pull on the power cord to unplug the monitor.



- **WARNING** - To reduce the risk of fire or electrical shock, do not expose this product to rain, moisture or other liquids. Do not touch the monitor with wet hands. Do not install this product near flammable objects such as gasoline or candles or expose the monitor to direct air conditioning.



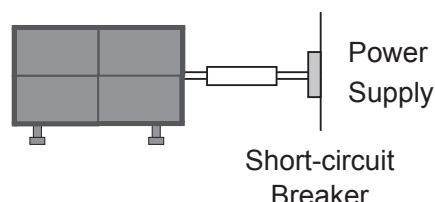
- Do not expose to dripping or splashing and do not place objects filled with liquids, such as vases, cups, etc. on or over the apparatus (e.g. on shelves above the unit).



• GROUNDING

Ensure that you connect the earth ground wire to prevent possible electric shock (i.e. a monitor with a three-prong grounded AC plug must be connected to a three-prong grounded AC outlet). If grounding methods are not possible, have a qualified electrician install a separate circuit breaker.

Do not try to ground the unit by connecting it to telephone wires, lightning rods, or gas pipes.



• DISCONNECTING DEVICE FROM MAIN Power

The power outlet must remain readily accessible in the event the device needs to be unplugged.

- 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.
- Do not attempt to modify this product in any way without written authorization from the manufacturer. Unauthorized modification could void the user's authority to operate this product.

• Cleaning

When cleaning, unplug the power cord and scrub gently with a soft cloth to prevent scratching. Do not spray water or other liquids directly on the monitor as electric shock may occur. Do not clean with chemicals such as alcohol, thinners or benzene.

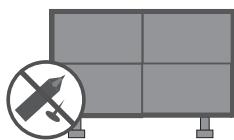
• Moving

Make sure the product is turned off, unplugged and all cables have been removed. It may take 2 or more people to carry larger monitors. Do not press against or put stress on the front panel of the monitor.

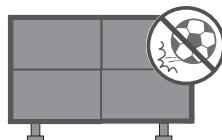
- **Ventilation**

Install your monitor where there is proper ventilation. Do not install in a confined space such as a bookcase. Do not cover the product with cloth or other materials (e.g.) plastic while plugged in. Do not install in excessively dusty places.

- Take care not to touch the ventilation openings. When watching the monitor for a long period, the ventilation openings may become hot.
- If you smell smoke or other odors coming from the monitor or hear strange sounds, unplug the power cord contact an authorized service center.
- When touching the monitor, use the pen provided. Do not use other sharp or pointed objects, such as your fingernail, a pen or a pencil etc.

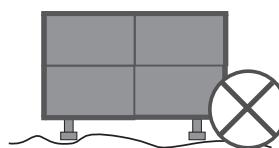


- Keep the product away from direct sunlight.
- Do not allow a impact shock or any objects to fall into the product, and do not drop onto the screen with something. You may be injured or the product can be damaged. A protection device is required for the set where shocks from the outside may occur.

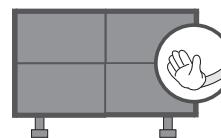


- The product should be installed where its weight can be supported. If the surface of the area where the product is installed is weak, the product may fall causing personal injury.

- Do not hang on the product or apply shock to the product. The product may fall causing personal injury.
- Install the product on a flat floor. If not (e.g., stairway and slope), the product may lose its balance and fall causing personal injury or damage to product.



- Disconnect the plug from the outlet before installation. Otherwise, it may cause an electric shock or fire.
- Wear working gloves when installing the product. Otherwise, it may cause personal injury.



The edges of the product are sharp. Be careful not to be injured by the edges during or after installation.

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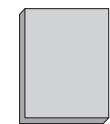
- 58 - GNU GENERAL PUBLIC LICENSE
- 62 - GNU Lesser General Public License
- 68 - Mozilla Public License 1.1 (MPL 1.1)

ASSEMBLING AND PREPARING

Unpacking

Check your product box for the following items. If there are any missing accessories, contact the local dealer where you purchased your product.

The illustrations in this manual may differ from the actual product and item.



Regulatory
Safety Instruction
Book



Power Cord



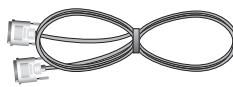
RS-232C Cable



LAN Cable



D-Sub Cable



DVI-D Cable



Cushion



Guide Fixer



Guide Fixer



M4 x 8

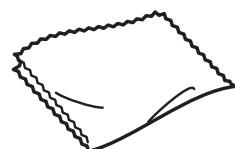
Screw for assembly



Guide pin



x 6



Polishing cloth

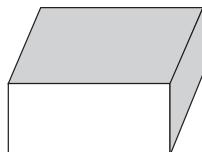
This is a class A product. In a domestic environment this product may cause radio interference, in which case the user may be required to take adequate measures.



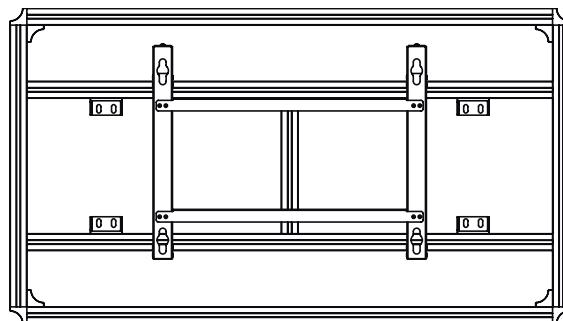
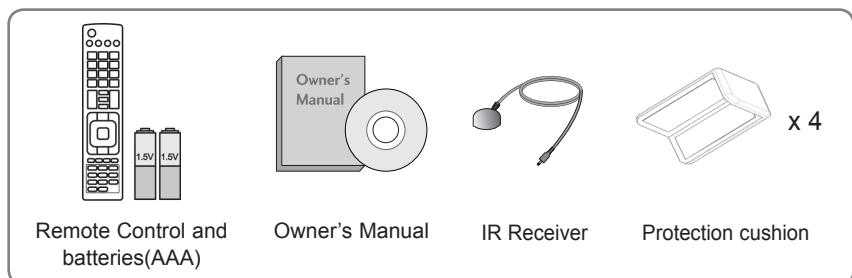
CAUTION

- Do not use any pirated items to ensure the safety and product life span.
- Any damages or injuries by using pirated items are not covered by the manufacturer's warranty.

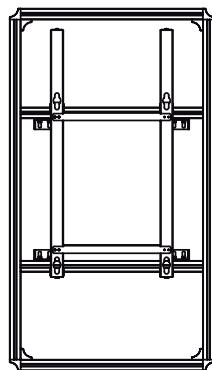
Additional accessories



Accessory box
(AA-VX200X)



MultiVision Mounting Bracket – Landscape

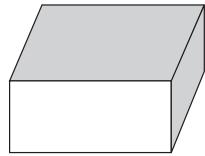


MultiVision Mounting Bracket – Portrait

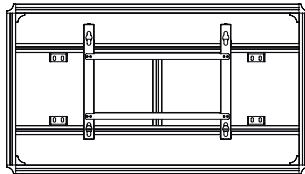
- A landscape or portrait-type rack is provided depending on the monitor purchased.
- Only one set of accessories is provided, regardless of the number of monitors purchased.

Separate purchase

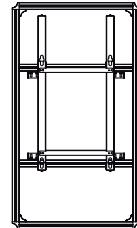
Separate purchase items can be changed or modified for quality improvement without any notification. Contact your dealer for buying these items.



Accessory box
(AA-VX200X)



MultiVision Mounting Bracket
- landscape
(AB-VL200X)

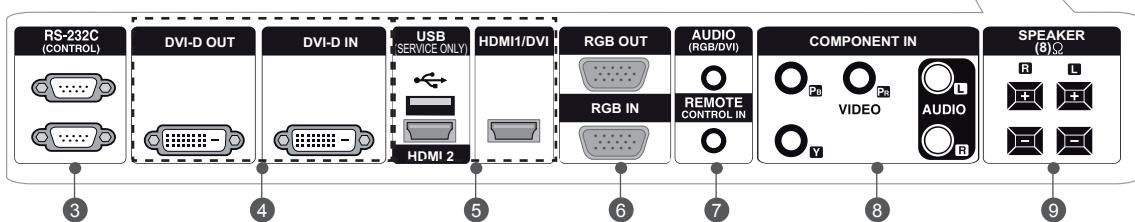
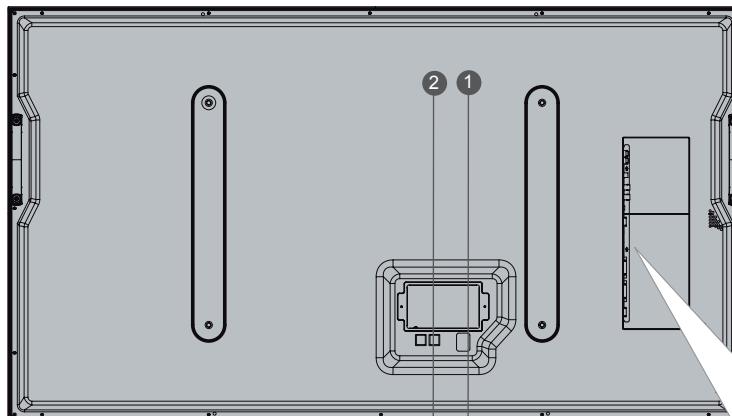


MultiVision Mounting Bracket
– Portrait
(AB-VP200X)

- Optional accessories differ depending on the monitor's use or installation method.
- To learn about optional accessories available for the monitor you purchased, please contact the local retailer.

Back panel information

- Image shown may differ from your monitor.



① POWER CORD SOCKET

This set operates on an AC power. The voltage is indicated on the Specifications page. Never attempt to operate the set on DC power.

② CONTROL (TX, RX)

Connector to compensate the luminance difference.

Connect using LAN Cable inside the Accessory box.

Connect LAN Cable to TX, and connect to RX connector of other sets.

(This LAN port is a control port which does not connect to the internet. It is for APL communication when multiple sets are connected in Multi Vision mode.)

③ RS-232C INPUT(CONTROL&SERVICE) PORT OUT

For control the another set, connect a RS-232C Cable from RS-232C out port to another set's RS-232C input port.

IN

Connect to the RS-232C port on a PC.

④ DVI OUT, IN

DVI (VIDEO) signal to DVI port with DVI cable.

⑤ USB Input (For service)

Used for software updates.

HDMI/DVI

Connect an HDMI/DVI signal to HDMI/DVI.

⑥ RGB OUTPUT

You can watch the RGB signal on another set, connect RGB OUTPUT to another set's PC input port.

RGB INPUT

Connect the set output connector from a PC to the appropriate input port.

⑦ AUDIO (RGB/DVI)

1/8" headphone jack for analog PC audio input

REMOTE CONTROL IN

For a wired IR Receiver.

⑧ COMPONENT INPUT

Connect a component video/audio device to these jacks.

⑨ Speaker Ports

Connect to optional external speaker(s).

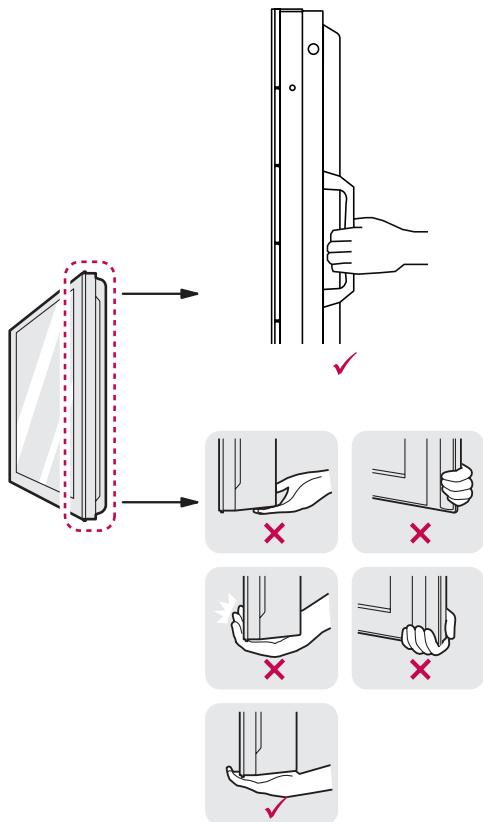
Transportation method for panel protection

When moving or lifting the monitor, read the following to prevent the monitor from being scratched or damaged and for safe transportation regardless of its type and size.

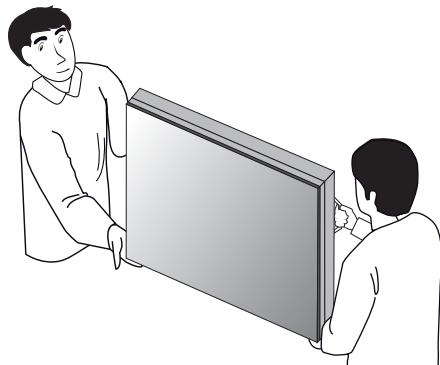


CAUTION

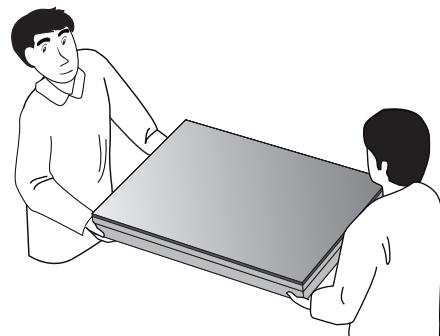
- Avoid touching the screen at all times, as this may result in damage on the screen.
- Use the handles of the monitor only to move.
- It is recommended to move the monitor in the box or packing material that the monitor originally came in.
- Before moving or lifting the monitor, disconnect the power cord and all cables.
- Hold firmly the handles and the bottom frame.



- When transporting the monitor, do not expose the monitor to jolts or excessive vibration.
- When transporting the monitor, keep the monitor upright, never turn the monitor on its side or tilt towards the left or right.
- When transporting the monitor by hand, hold the monitor as shown in the following illustration.
- When the product is carried upright, two persons should hold each handle on the top and the bottom corner, and when it is being put down, put down carefully for the panel not to be touched.

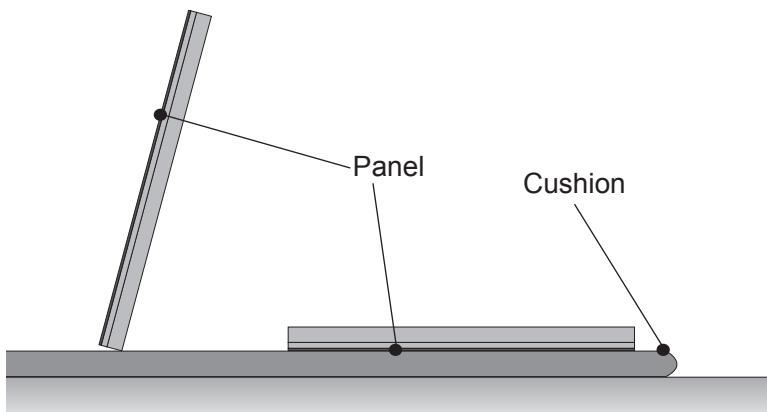


- When the product is carried laid down, 2 persons carry by holding the bottom of the back, and when it is being put down, put down carefully for the panel not to be touched.



Storage method for panel protection

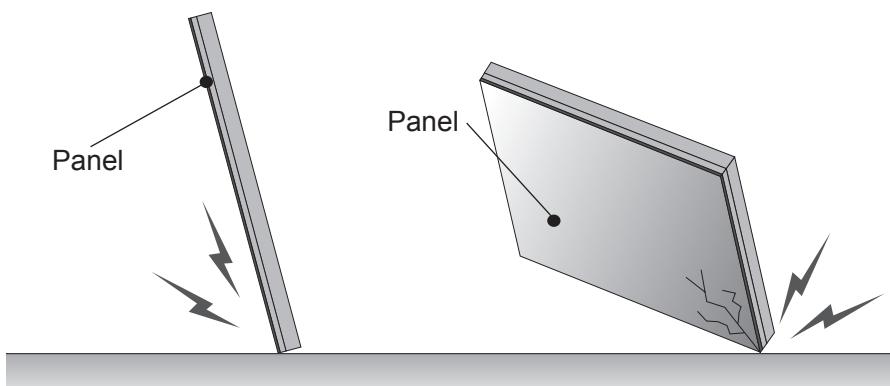
Correct method



If the product needs to be set upright, hold both sides of the product, and tilt backward carefully for the panel not to touch the floor. (The setting upright of the set is possible with the outer frame)

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

Incorrect method



If the product is tilted to the side of the panel, the bottom of the panel may be damaged.

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



NOTE

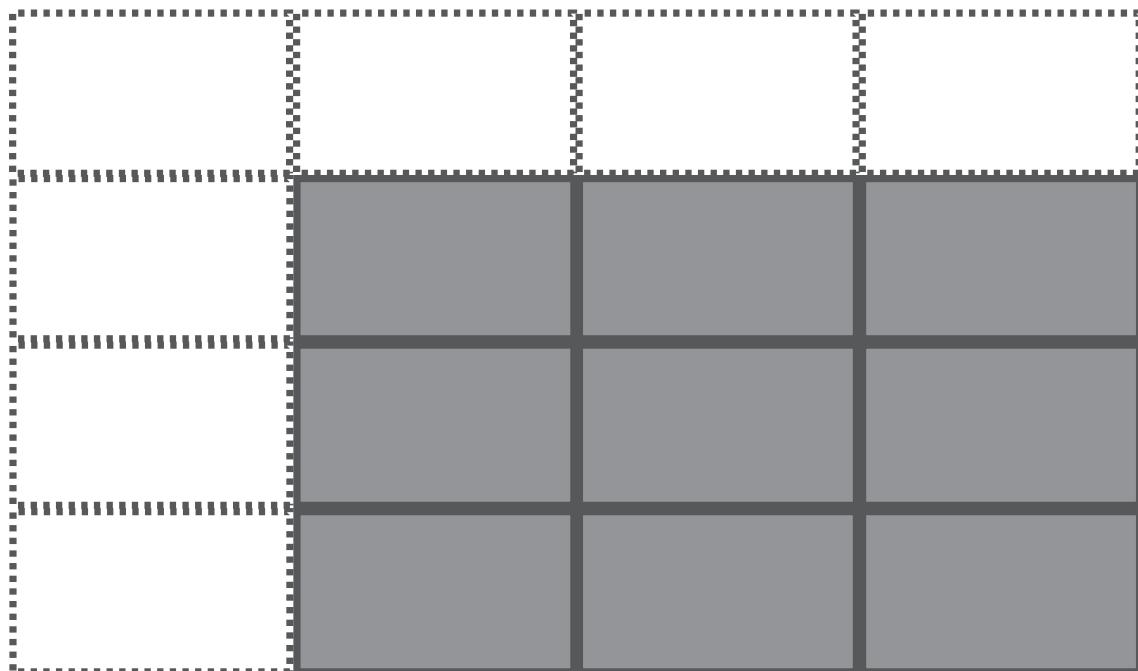
- Handle the product with care. The product may be damaged by shocks.

Panel array

Depending on usage and installation methods, the panels can be arranged in any format between 1x1 and 11x11.

Place each set as show in the figure below

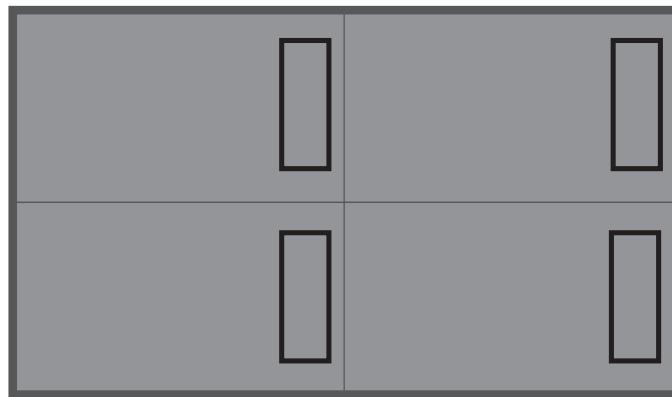
Front



minimum : 1x1

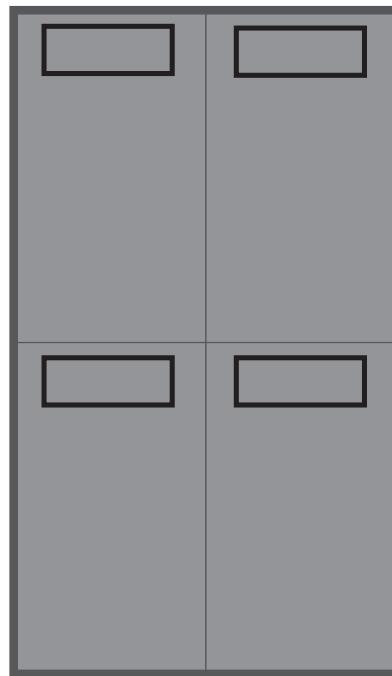
maximum : 11x11

Landscape type back



minimum : 1x1 maximum : 11x11

Portrait type back



minimum : 1x1 maximum : 11x11



NOTE

- In portrait type, panels must be installed so that the input ports are placed at the top of the set.

Installation method for panel protection

When you open the box, you will see that protection covers are attached to the weak parts of the product.

Place the set on the bracket, and remove the protection covers just before finishing installation by securely attaching it to the bracket.

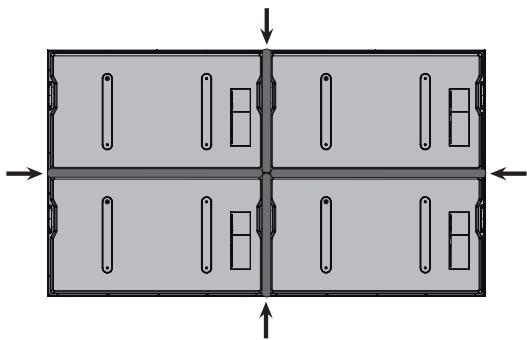


CAUTION

- After removing the panel protection cover, install the sets by tightly attaching them.
- When removing the panel protection cover, foreign substances may be stuck to it, however, this does not affect the performance. If necessary, please remove them with the cotton flannel provided.
- Excessive pressure may cause damage to the product.
- Please wipe out residues, if any, after removing the protective cover.

NOTE

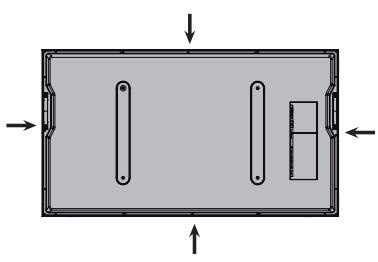
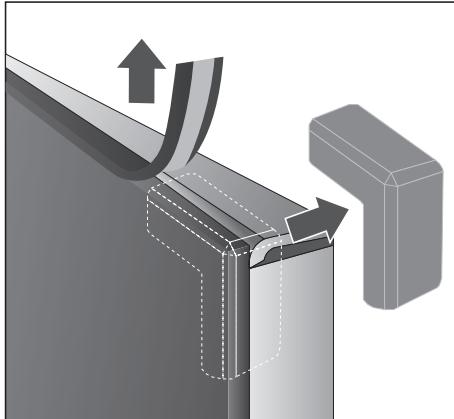
- To make the area behind the seam between the sets invisible after securely placing the set on the bracket, attach the felt provided to the area.
- Attach the felt provided between the back of the sets in the same way for both landscape and portrait types.



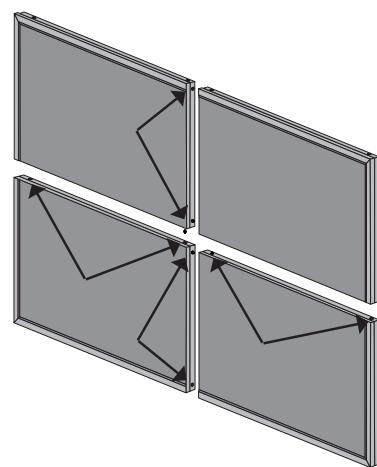
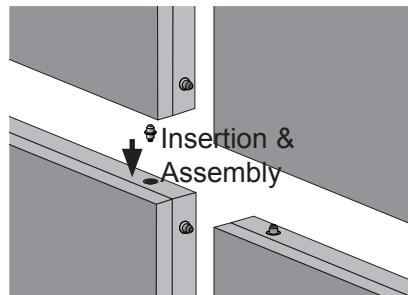
Guide pin

Guide pins are useful to align the sets.

Insert Guide pins as shown in the figure below.



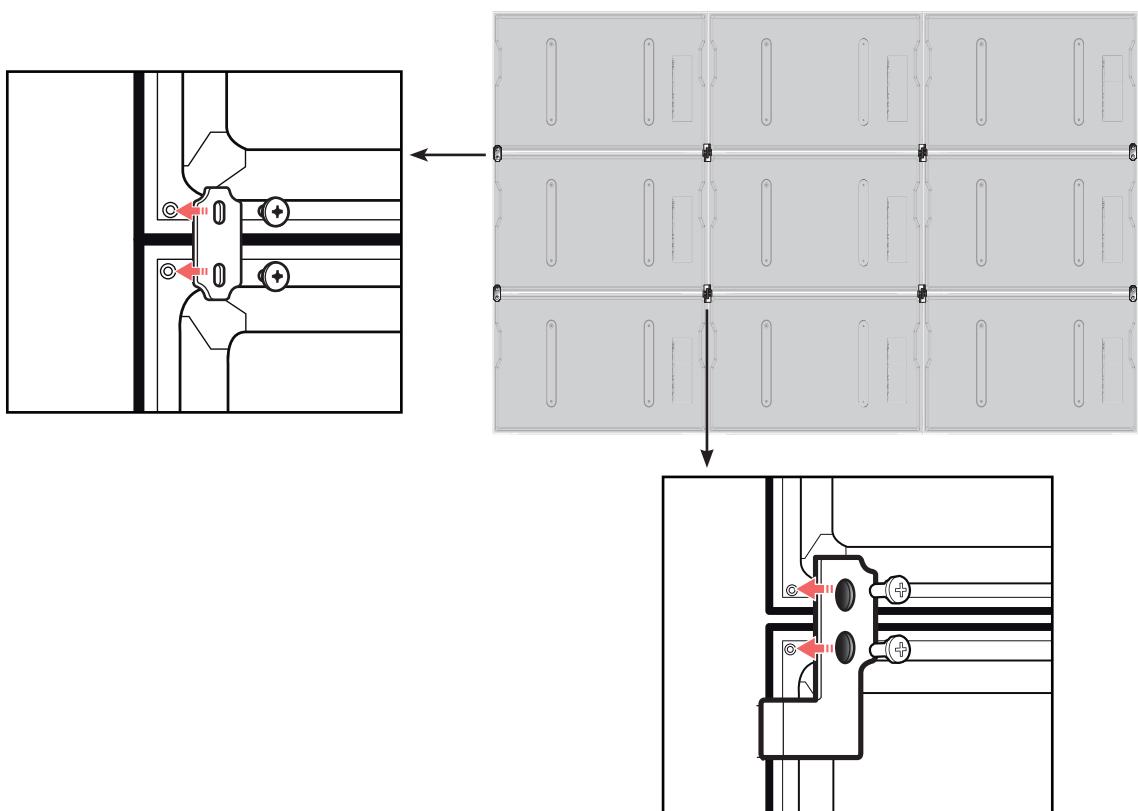
Rubber tape



Guide Fixer

Align the sets using guide pins before installing a guide fixer. This ensures that the sets are aligned properly.

- 1 Align a guide fixer with the holes and fasten them with the screws.



- 2 When installation of the sets is complete, attach the protection cushion provided.

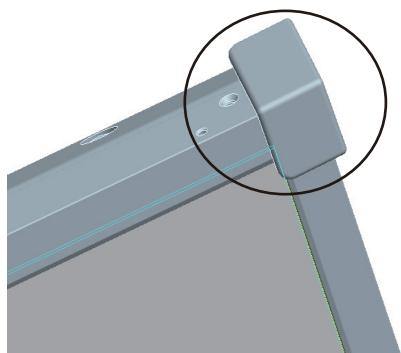
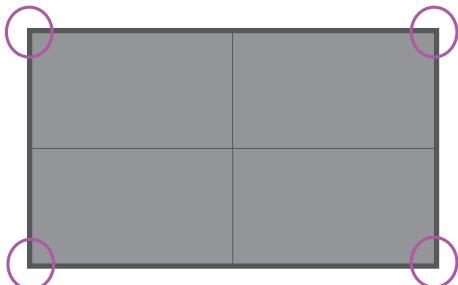


NOTE

For a portrait type, there is also a fixer fixing point in the center.
Its position can be changed if necessary.(You do not have to use them all.)

Protection cushion attachment

- We recommend that you attach the protection cushion, as shown in the picture below, to prevent damage.



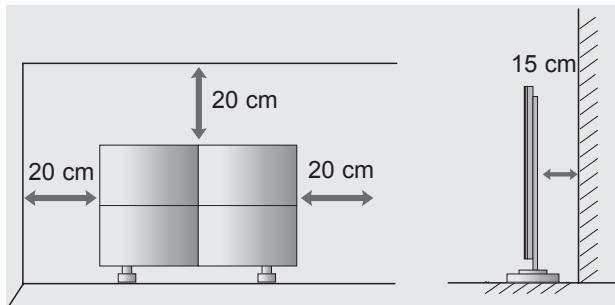
NOTE

- It is recommended that you attach a separate frame to the edge of the set to prevent damage.

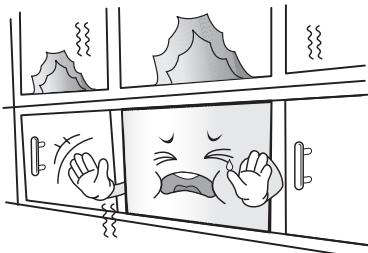
Transportation method for panel protection

- Image shown may differ from your monitor.

For adequate ventilation and maintenance service, secure a minimum distance of 20 cm as shown below before installation.

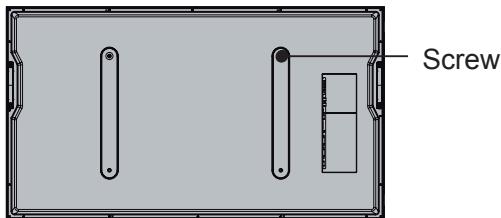


CAUTION



- When sets are built in to a wall, the internal temperature may rise to such an extent that it causes overheating, which may lead to a fire. To prevent the set from overheating, please follow the instructions below.
- Avoid completely sealed installation.
- To ensure adequate ventilation, keep the top, the bottom and the sides of the set a minimum of 20 cm from the wall. (The back of the set should be a minimum of 15 cm from the wall.)
- If there is not enough space, a separate ventilation device is required.
- If you install four or more sets on top of one another, you will need to ensure a ventilator is used. (for example, a forced draft fan.)

Set mount screw



NOTE

- Use a M8 screw for a wall mount screw hole.
- The insertion depth of the screw should be at least 8 mm.

Cautions on installation

Stand type

- Do not install the product in a location where vibration or shock is likely to occur. Objects may be dropped on the product causing damage to it.
- Do not install the product next to a sprinkler sensor. The sprinkler may operate accidentally because of the heat from the product.
- Do not install the product near high-tension wires. The image on the screen may not be properly displayed.
- Do not install the product near a heater. This may cause product malfunction.

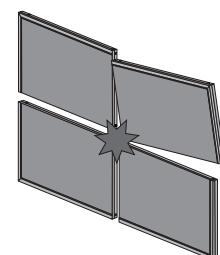
Wall-mount type

- Check whether the wall is stable enough to install the product. If the wall is weak, it may cause an accident. Reinforce the wall before installation.
- Secure enough space for cabling before finishing the wall mounting process.

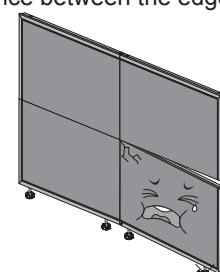


NOTE

- Put down a panel slowly during installation to avoid panel damage by bumping into each other.



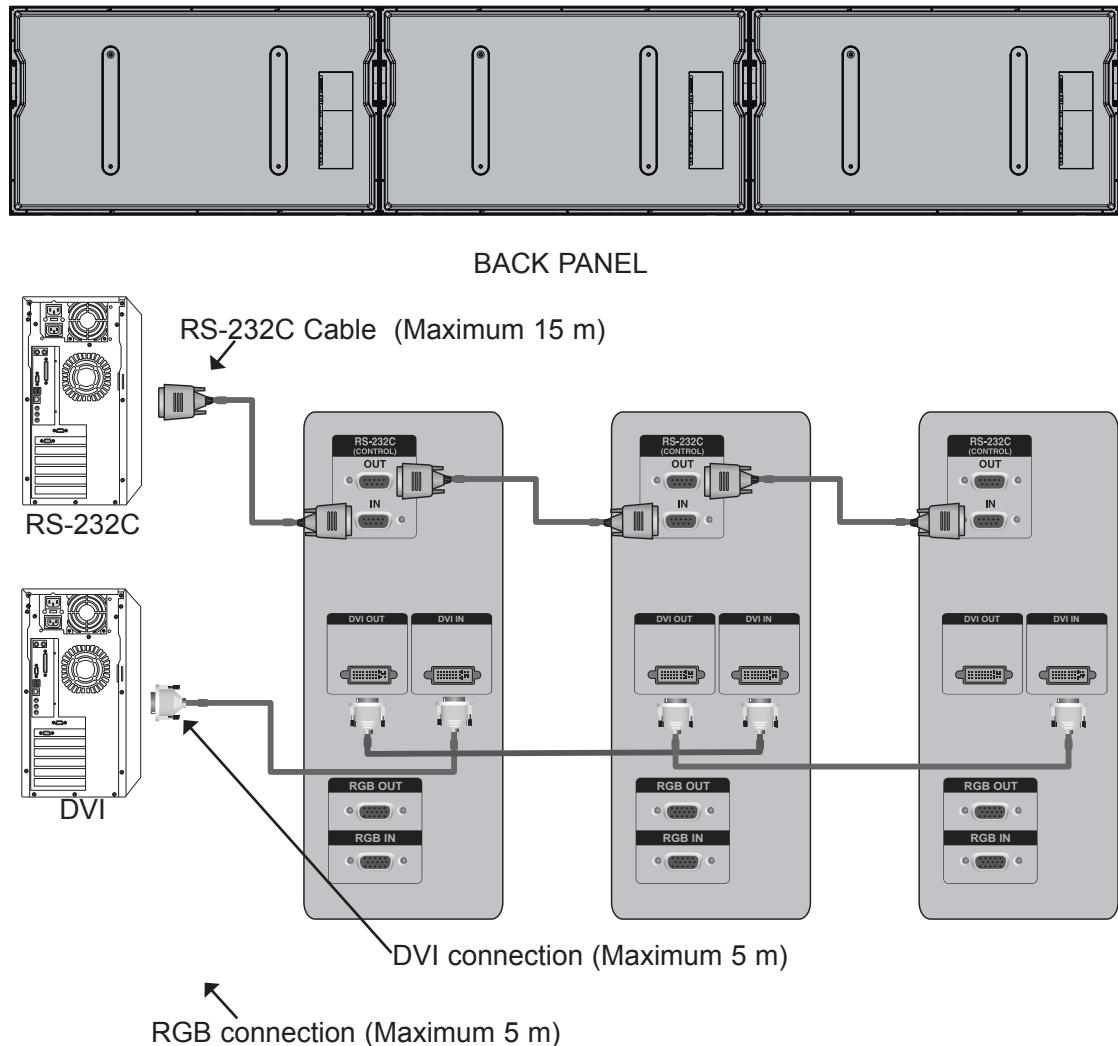
- When adjusting the interval between the sets, make sure that the sets are balanced vertically and horizontally. If the set is tilted as shown in the figure, this may cause damage to the product due to interference between the edges.



Video and Control Connector

Use this feature to input the same video or control signals into all products.

- To use panels together, link one end of the cable to the OUT connector of one panel, and the other end to the IN connector of another panel.

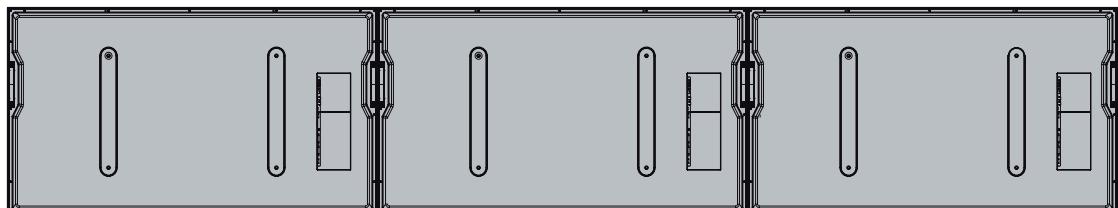


NOTE

- This connection is supported only in RGB, DVI and RS-232C.
- If you need longer connection, please use DVI boosters or DVI fiber-optic cable.
- The maximum length of the cable from the video equipment to the panel is 5 m (RGB, DVI component, HDMI).
- Up to four RGB/DVI connections are supported. (If you want to add any more, we recommended that you use a distributor.)
- For RS232C, up to 20 connections are supported.

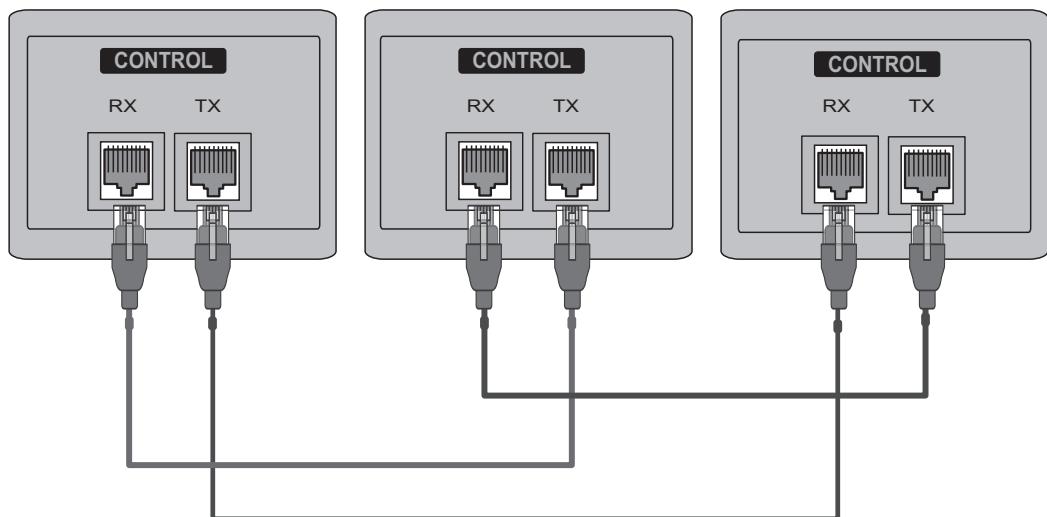
Brightness Adjustment Connector

It is a connector to compensate the luminance difference, and connect it using the LAN Cable inside the Accessory box.



BACK PANEL

Connect LAN Cable to TX, and connect to RX connector of other sets.



Dip switch setting

To control each monitor separately, set up monitor ID using the dip switch.

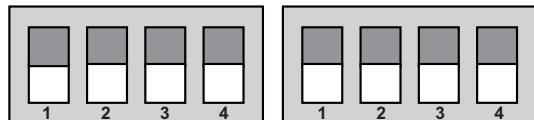
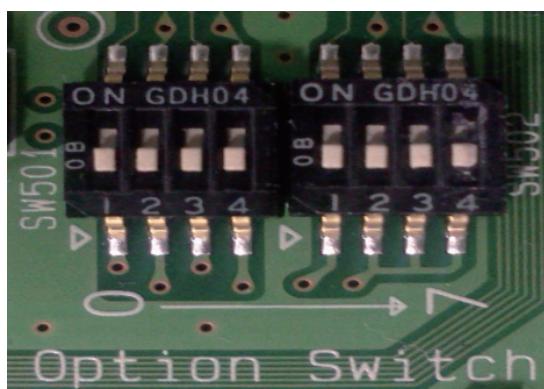
The far left monitor becomes #1 when you stand in front of the monitors. Number the monitors in sequence from the far left to right.



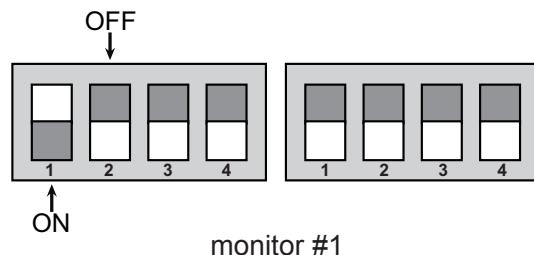
- 1 Open the cover at the marked position on the back of each monitor.



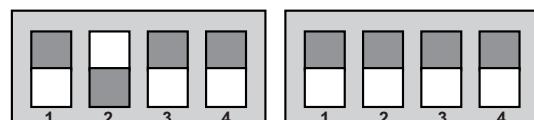
- 2 Start setting up from #0 switch as shown in the figure below.



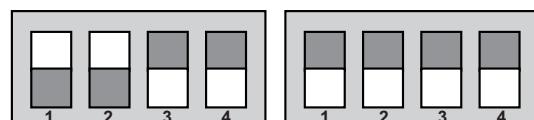
Factory reset



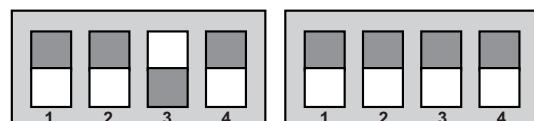
monitor #1



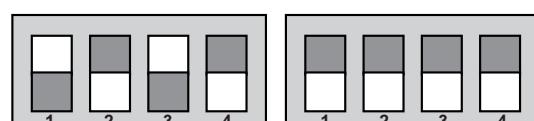
monitor #2



monitor #3



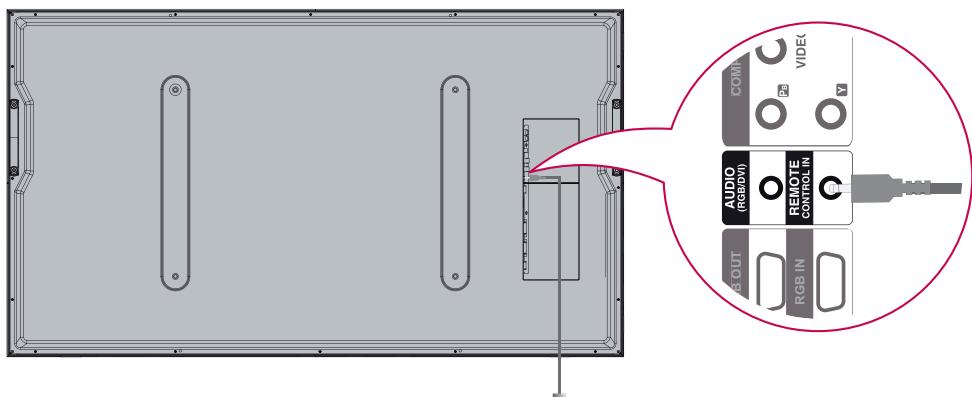
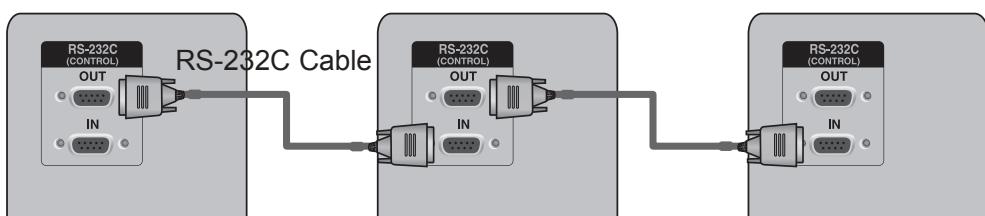
monitor #4



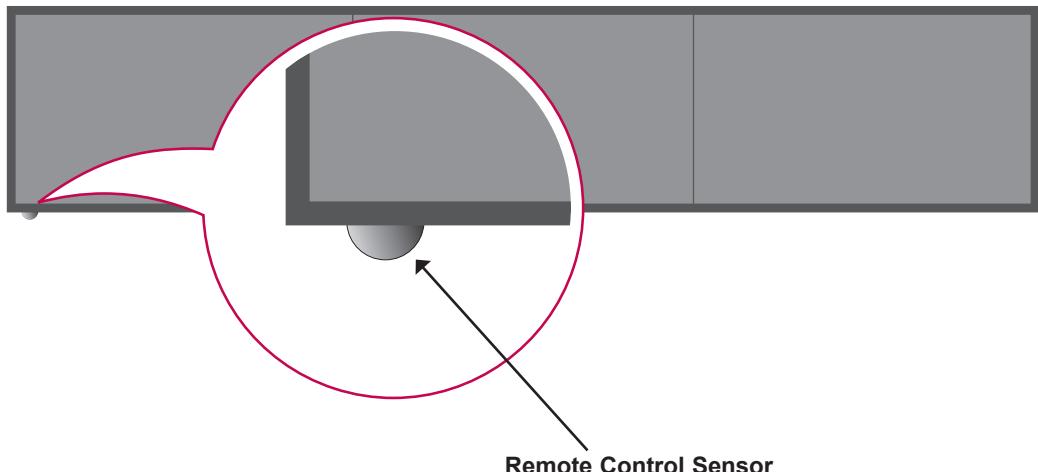
monitor #5

IC Receiver

It has the role of enabling to receive the signal of the remote control by connecting to the set.



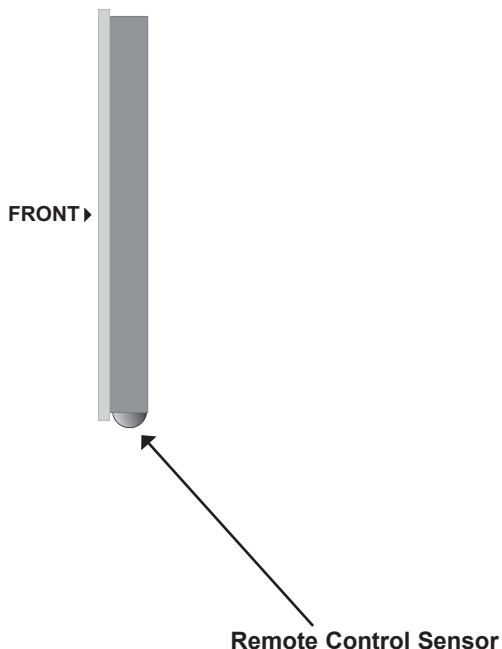
Front



NOTE

- Install the IR receiver in the first set connected to the computer and the RS-232C cable.
- The IR signal of the remote control is sent through the RS-232C cable in cascade.

Side



NOTE

- Attach the remote control sensor to the middle cabinet (BK frame).

Using ferrite core



CAUTION

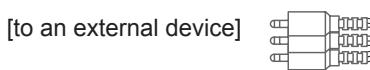
- Do not use any pirated items to ensure the safety and product life span.
- Any damages or injuries by using pirated items are not covered by the manufacturer's warranty.



NOTE

- Product specifications or contents of this manual may be changed without prior notice due to upgrade of product functions.
- Image shown may differ from your monitor.
- How to use the ferrite core

1 Use the ferrite core to reduce the electromagnetic interference in the component Y,Pb,Pr cable. Wind the power cable on the ferrite core twice. Place the ferrite core close to the monitor.



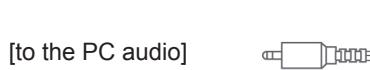
[Figure 1]



[Cross Section of Ferrite Core]

2 Use the ferrite core to reduce the electromagnetic interference in the PC audio cable or an external audio device cable.

Wind the PC audio cable or external device cable on the ferrite core thrice. Place the ferrite core close to audio(RGB/DVI) jack on the monitor.

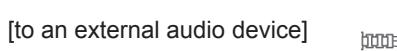


10 mm(+/- 5 mm)

[Figure 2]



[Cross Section of Ferrite Core]

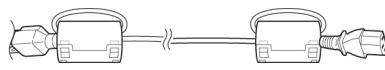


[to the monitor]

[Figure 3]

3 Use the ferrite core to reduce the electromagnetic interference in the power cable.

Wind the power cable on the ferrite core once. Place the ferrite core close to the monitor and a wall plug.



[to the monitor]

[Figure 4]



[Cross Section of Ferrite Core]

Number of ferrite core

*Component Y, Pb, Pr cable : 1 EA

*PC audio, External audio cable : 3 EA

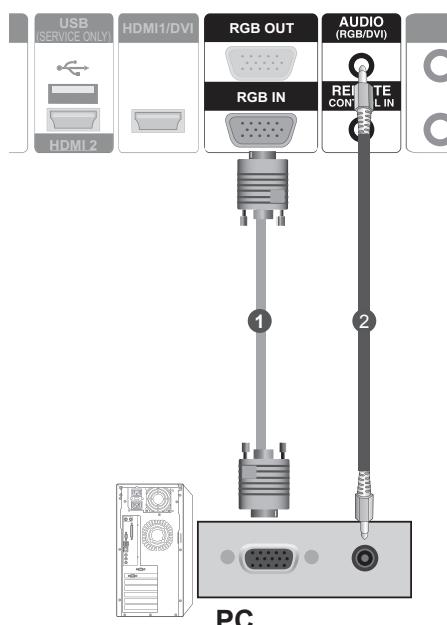
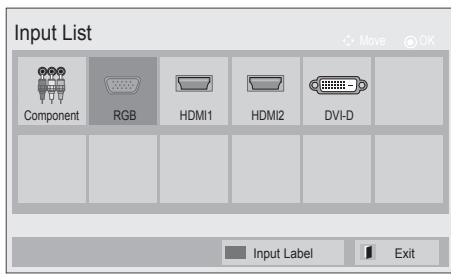
*Power code : 2 EA

MAKING CONNECTIONS

- Image shown may differ from your monitor.

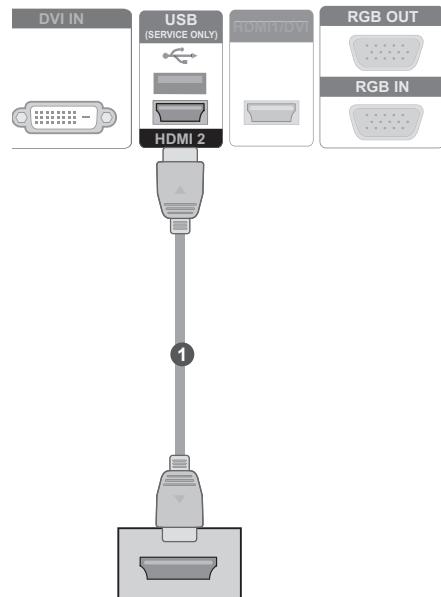
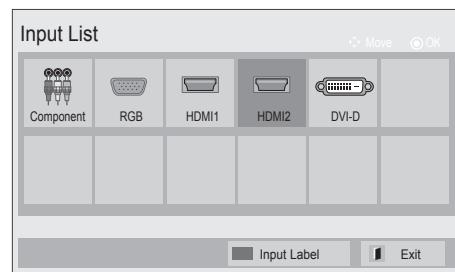
RGB input

- 1 Connect the RGB output of the PC to the **RGB IN** jack on the monitor.
- 2 Connect the audio output of the PC audio output to the **AUDIO (RGB/DVI)** jack on the monitor.
- 3 Turn on the PC and the monitor.
- 4 Select an input signal. Press the **INPUT** button on the remote control to select the input signal.



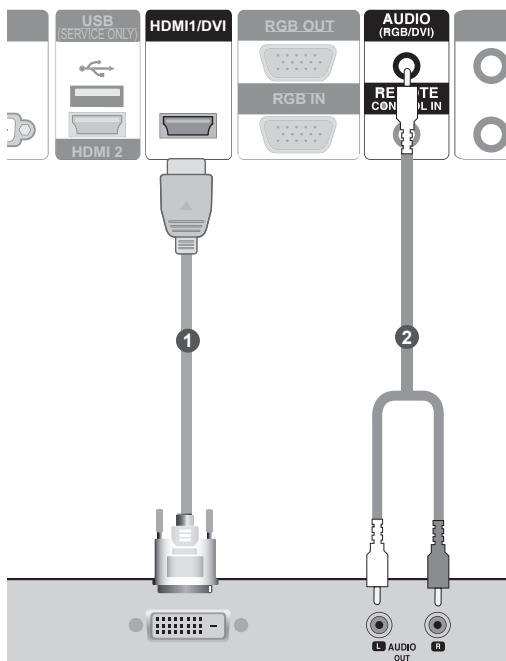
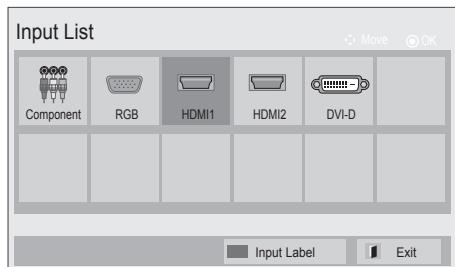
HDMI input

- 1 Connect the HDMI output of the external equipment (digital set-top box, DVD, etc.) to **HDMI2** or **HDMI1/DVI** jack on the monitor.
- 2 Turn on the external equipment. (Refer to the external equipment's manual for operating instructions.)
- 3 Select an input signal. Press the **INPUT** button on the remote control to select the input signal. (**HDMI2** or **HDMI1**)



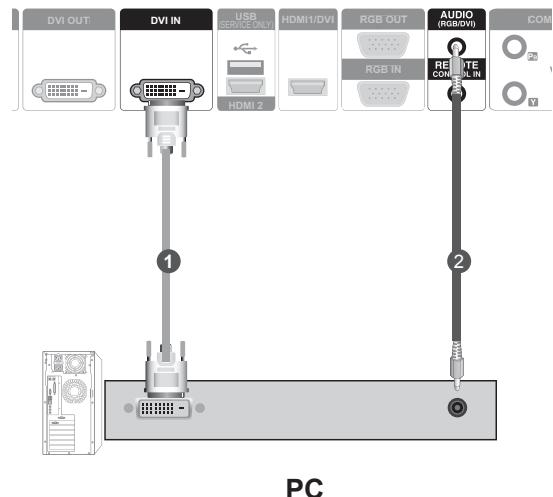
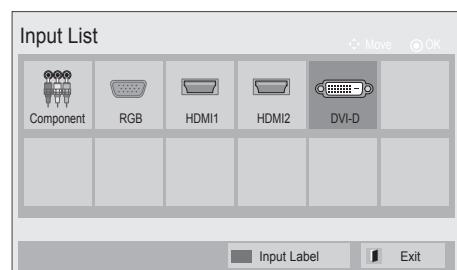
HDMI to DVI input

- 1 Connect the digital set-top box or the DVI output of the PC to **HDMI1/DVI** jack on the monitor.
- 2 Connect the audio output of the digital set-top box or the PC audio output to the **AUDIO (RGB/DVI)** jack on the monitor.
- 3 Turn on the digital set-top box or the PC and the monitor. (Refer to the digital set-top box or the PC manual for operating instructions.)
- 4 Select an input signal. Press the **INPUT** button on the remote control to select the input signal.



DVI input

- 1 Connect the DVI output of the PC to the **DVI IN** jack on the monitor.
- 2 Connect the audio output of the PC audio output to the **AUDIO (RGB/DVI)** jack on the monitor.
- 3 Turn on the PC and the monitor.
- 4 Select an input signal. Press the **INPUT** button on the remote control to select the input signal.

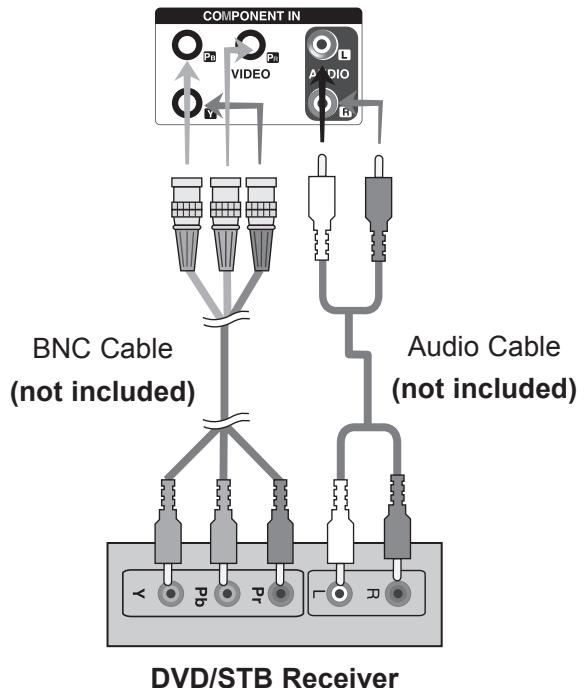
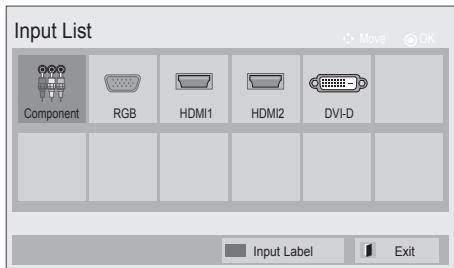


NOTE

- It does not support HDCP(High-bandwidth Digital Content Protection) function when it is Cascade connected.
- HDCP function may not be supported for some models of the distributor.
- This function works in the only PC mode.

Component input

- 1 Connect the video/audio cable as shown in the below figure and then, connect the power cord
 - Connect the input terminal with a proper color match.
- 2 Select an input signal. Press the **INPUT** button on the remote control to select the input signal.



Component input ports

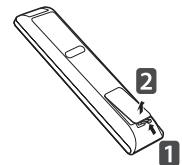
To get better picture quality, connect a DVD player to the component input ports as shown below.

| Component ports on the monitor | Y | P _B | P _R |
|----------------------------------|---|----------------|----------------|
| Video output ports on DVD player | Y | P _B | P _R |
| | Y | B-Y | R-Y |
| | Y | Cb | Cr |
| | Y | Pb | Pr |

REMOTE CONTROL

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

To replace batteries, open the battery cover, replace batteries (1.5 V AAA) matching \oplus and \ominus ends to the label inside the compartment, and close the battery cover. Be sure to point the remote control toward the remote control sensor on the monitor.

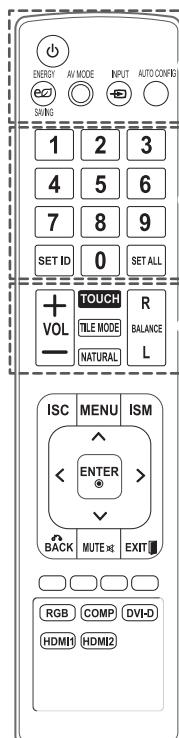


To remove the batteries, perform the installation actions in reverse.



CAUTION

- Do not mix old and new batteries, as this may damage the remote control.



\oplus (POWER)

Switches the monitor on from standby or off to standby.

To turn on the sets at once in standby mode, wait 10 seconds before pressing the power button.

ENERGY SAVING

Adjusts the brightness of the screen to reduce energy consumption.

AV MODE

It helps you select and set images and sounds when connecting AV devices.

INPUT

External input mode rotate in regular sequence.

AUTO CONFIG

Automatic adjustment function. (Operational for the analog signal only)

Numeric buttons

Enters numbers.

SET ID

You can run SET only that you wanted.

(Press the SET ID button and the number of the monitor you want to control.)

When you select one of Set1, the power key works for all sets.

SET ALL

You can operate together all sets.

When SET ALL is selected, each set may have different settings.

VOL + -

Adjusts the volume level.

TOUCH

Uses Pentouch functions. (This function is not supported for this model.)

TILE MODE

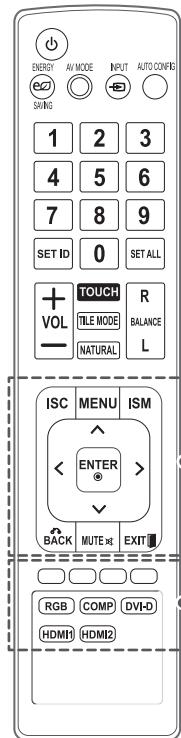
Must be displayed with various other products.

NATURAL

The image is omitted by the distance between the screens to be naturally shown.

BALANCE R L

Use this function to balance sound from the left and right speakers.

**ISC**

This function can reduce image sticking.

(Contact your installation company for details about this function and more information on how to use it.)

MENU

Displays on screen menus one by one.

Exits the current menu.

Memorizes menu changes.

ISM

Removes a ghost image on the screen.

The color block with the screen moved a little and the white pattern are alternately displayed.

Navigation buttons (up/down/left/right)

Allows you to navigate the on-screen menus and adjust the system settings to your preference.

ENTER

Accepts your selection or displays the current mode.

BACK

Allows the user to move return one step in an interactive application.

MUTE

Switches the sound on or off.

EXIT

Clears all on-screen displays and return to monitor viewing from any menu.

Colored buttons

(You can use them to run additional functions.)

RGB

Select it when using PC depends on connector.

Memorizes menu changes.

COMP

Select it when using the DVD or the Digital set-top box depends on connector.

DVI-D

Select it when using PC depend on connector.

HDMI1/HDMI2

Select it when using DVD, PC or Digital set-top box depend on connector.

INITIALIZING SETUP

When you turn the monitor on for the first time, the Initial setting screen appears. Select a language and customize the basic settings.

- 1 Connect the power cord to a power outlet.
- 2 In Standby mode, press **↓(POWER)** to turn the monitor on.

The Initial setting screen appears if you turn the monitor on for the first time.



NOTE

- You can also access **Factory Reset** by accessing **OPTION** in the **MENU - OPTION - Factory Reset**.

- 3 Select the language desired when the screen below appears.



NOTE

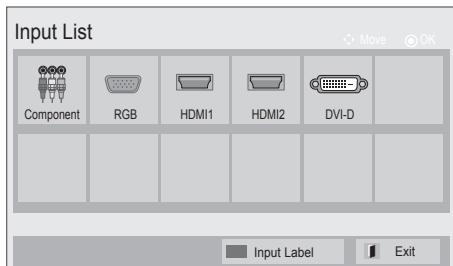
- If you do not complete the Initial setting, it will appear whenever the monitor turns on.
- If you time out on the OSD (On Screen Display) the installation menu will continuously appear until the set up is completed whenever the monitor is switched on.

WATCHING MULTIVISION

Using the input list

Selecting an input source

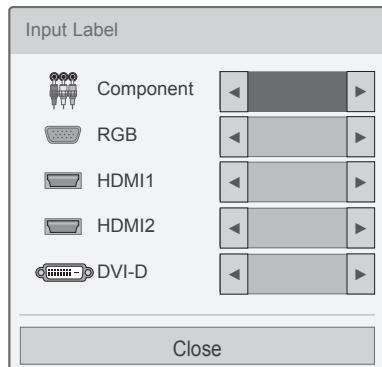
- 1 Press **INPUT** to access the input sources.
 - The connected device displays on each input source.
- 2 Press the Navigation buttons to scroll to one of the input sources and press **ENTER**.
- Image shown may differ from your monitor.



| Input source | Description | |
|--------------|---|--|
| Component | Watch video from a DVD or other external devices, or through a digital set-top box. | |
| RGB | Use the monitor as a computer monitor. | |
| DVI-D | | |
| HDMI | Watch video from a HTS or other high definition devices. | |

Adding an Input label

Add a label to an input source, press the blue button. you can easily identify a device connected to each input source.



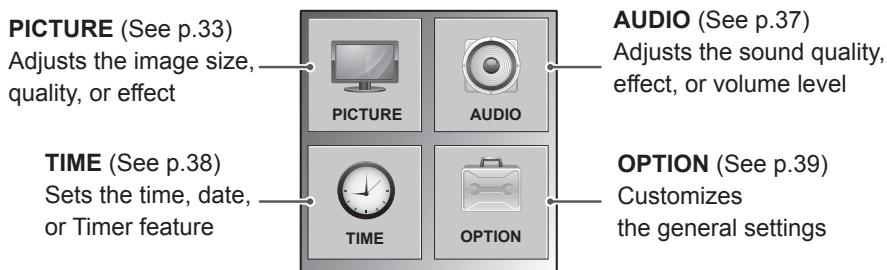
- 1 Press **INPUT** to access the input sources.
- 2 Press the blue button.
- 3 Press the Navigation buttons to scroll to one of the input sources.
- 4 Press the Navigation buttons to scroll to one of the input labels.
- 5 When you are finished, press **EXIT**.

When you return to the previous menu, press **BACK**.

CUSTOMIZING MONITOR SETTINGS

The SETUP Menu

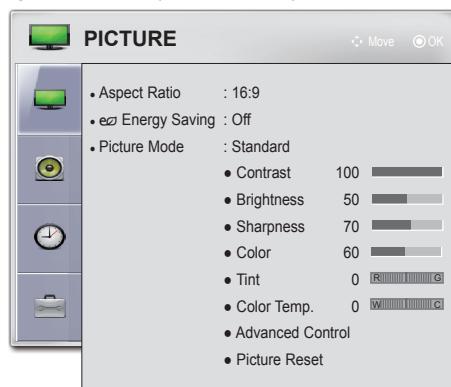
- 1 Press **MENU** to access the Home menu.
- 2 Press the Navigation buttons to scroll to one of the following menus and press **ENTER**.
- 3 Press the Navigation buttons to scroll to the setting or option you want and press **ENTER**.
- 4 When you are finished, press **EXIT**.



PICTURE Settings

- 1 Press **MENU** to access the menu.
- 2 Press the Navigation buttons to scroll to **PICTURE** and press **ENTER**.
- 3 Press the Navigation buttons to scroll to the setting or option you want and press **ENTER**.
 - To return to the previous level, press **BACK**.
- 4 When you are finished, press **EXIT**.

- Image shown may differ from your monitor.



| Setting | Description |
|---|---|
| Aspect Ratio (only landscape type) | Changes the image size to view images at its optimal size (See p.36). |
| Energy Saving | It reduces the Monitor's power consumption. The default factory setting is adjusted to the comfortable level to be viewed at home. |
| Option | |
| Off | The Energy Saving is off. |
| On | The Energy Saving is on. |

| Setting | Description | |
|-------------------------------|---|--|
| Picture Mode | Selects one of the preset image or customizes options in each mode for the best monitor screen performance. You are also able to customize advanced options of each mode. The available preset picture modes vary depending on the monitor. | |
| Mode | | |
| Vivid | Strengthen the contrast, brightness, color and sharpness for vivid picture. | |
| Standard | The most general screen display status. | |
| Cinema | Optimizes video for watching movies. | |
| Studio | Optimizes video for being used in a studio environment. | |
| Game | Optimizes video for playing games. | |
| SCREEN (only RGB mode) | Customizes the PC display options. | |
| Option | | |
| Resolution | To view a normal picture, match the resolution of RGB mode and selection of PC mode.(1024x768, 1280x768, 1360x768) | |
| Auto Configure | This function is for automatic adjustment of the screen position, size, and phase. The displayed image will be unstable for a few seconds while the auto configuration is in progress. | |
| |  NOTE <ul style="list-style-type: none"> • If the position of the image is still not correct, try Auto adjustment again. • If picture needs to be adjusted again after Auto adjustment in RGB, you can adjust the Position, Size or Phase. | |
| Position | This function is to adjust picture to left/right and up/down as you prefer. | |
| Size | This function is to minimize any vertical bars or stripes visible on the screen background. And the horizontal screen size will also change. | |
| Phase | This function allows you to remove any horizontal noise and clear or sharpen the image of characters. | |
| Reset | Returns Position, Size and Phase to the factory default settings. | |

Basic image options

| Setting | Description |
|-------------------------|--|
| Contrast | Adjusts the signal level between black and white in the picture. You may use Contrast when the bright part of the picture is saturated. |
| Brightness | Adjusts the base level of the signal in the picture. |
| 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. | Adjust to left direction to make a picture reddish or adjust to right direction to make a picture bluish. |
| Advanced Control | You can calibrate the screen for each Picture Mode or set the video value according to the special video screen. You can set the video value differently for each input. To reset to the factory default screen after making adjustments to each video mode, execute the "Picture Reset" function for each Picture Mode. |
| Picture Reset | Settings of the selected picture modes return to the default factory settings. |

Advanced image options

| Setting | Description |
|-------------------------|---|
| Dynamic Contrast | Adjusts the contrast to keep it at the best level according to the brightness of the screen. The picture is improved by making bright parts brighter and dark parts darker. |
| Dynamic Color | Adjusts screen colors so that they look livelier, richer and clearer. This feature enhances hue, saturation and luminance so that red, blue and green white look more vivid. |
| Noise Reduction | Reduces screen noise without compromising video quality. |
| Gamma | You can adjust brightness of dark area and middle gray level area of the picture. <ul style="list-style-type: none"> » Low: Make the dark and middle gray level areas brighter. » Medium: Express the original picture level. » High: Make the dark and middle gray level area darker. |
| Black Level | This function enables to select 'Low' or 'High' in the following mode: HDMI or Component or DVI. <ul style="list-style-type: none"> » Low: The reflection of the screen gets darker. » High: The reflection of the screen gets brighter. |

Adjusting aspect ratio



NOTE

- You can also change the image size by accessing **Aspect Ratio** in the **PICTURE** menus.
- You can adjust the enlarge proportion using the Navigation buttons.
- When Tile Mode is set to On, only the aspect ratio of 16:9 is supported.
- **Aspect Ratio** is not activated in portrait mode. (Fixed as 16:9)

- **4:3**: This picture format is 4:3 aspect ratio.

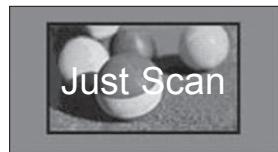


- **Zoom** : 4:3 programmes are magnified until they fill the 16:9 screen. The top and bottom will be cut off.

- **16:9**: Wides screen mode.



- **Just Scan**: Allows you to enjoy the transmitted data fully without any images cut off. (* This menu is activated only in 720p, 1080p and 1080i in Component/HDMI-DTV mode.).



- **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.



NOTE

- If there is noise in original Picture, You can see the noise at the edge.

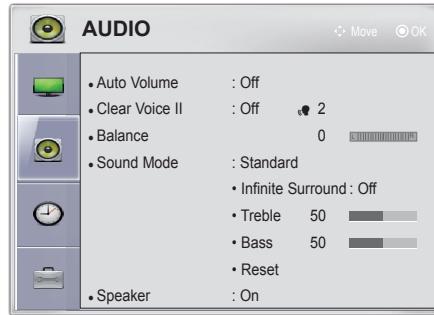
Supported Aspect Ratio

| | Component | RGB | HDMI | DVI-D | HDMI- PC |
|-------------|-----------|-----|------|-------|----------|
| 16:9 | O | O | O | O | O |
| Just Scan | O | X | O | X | X |
| 4:3 | O | O | O | O | O |
| Zoom | O | X | O | X | X |
| Cinema Zoom | O | X | O | X | X |

AUDIO Settings

- Image shown may differ from your monitor.

- 1 Press **MENU** to access the menu.
- 2 Press the Navigation buttons to scroll to **AUDIO** and press **ENTER**.
- 3 Press the Navigation buttons to scroll to the setting or option you want and press **ENTER**.
 - To return to the previous level, press **BACK**.
- 4 When you are finished, press **EXIT**.



| Setting | Description | |
|--------------------------|--|--|
| Auto Volume | To adjust uneven sound volumes across all signals automatically to the most appropriate level. To use this feature, select On. | |
| Clear Voice II | By differentiating the human sound range from others, it helps users listen to human voices better. | |
| Balance | Use this function to balance sound from the left and right speakers. | |
| Sound Mode | You can select your preferred sound setting; Standard, Music, Cinema, Sport or Game and you can also adjust the Treble, Bass. Sound Mode lets you enjoy the best sound without any Special adjustment as the Monitor sets the appropriate sound options based on the programme content. Standard, Music, Cinema, Sport and Game are preset for optimum sound quality at the factory. | |
| Mode | | |
| Standard | Offers standard-quality sound. | |
| Music | Optimizes sound for listening to music. | |
| Cinema | Optimizes sound for watching movies. | |
| Game | Optimizes sound for playing games. | |
| Option | | |
| Infinite Surround | Select this option to sound realistic. | |
| Treble | Controls the dominant sounds in the output. When you turn up the treble, it will increase the output to the higher frequency range. | |
| Bass | Controls the softer sounds in the output. When you turn up the bass, it will increase the output to the lower frequency range. | |
| Sound Reset | Settings of the selected Sound Mode return to the default factory settings. | |
| Speaker | You can adjust the Monitor external speaker status. In COMPONENT, RGB or DVI-D with HDMI to DVI cable, the speaker can be operational even when there is no video signal. | |

TIME Settings

- 1 Press **MENU** to access the menu.
- 2 Press the Navigation buttons to scroll to **TIME** and press **ENTER**.
- 3 Press the Navigation buttons to scroll to the setting or option you want and press **ENTER**.
 - To return to the previous level, press **BACK**.
- 4 When you are finished, press **EXIT**.

- Image shown may differ from your monitor.



| Setting | Description |
|-------------------------|---|
| Clock | You must set the time correctly before using on/off timer function. If current time setting is erased by a power failure or the monitor is unplugged, reset the clock |
| Off Time/On Time | The Off time function automatically switches the Monitor to standby at a preset time. The Off time function overrides the On time function if both are set to the same time. The Monitor must be in standby mode for the On time to work. To cancel On/Off Time function, select Off. |
| Sleep Timer | You do not have to remember to switch the Monitor off before you go to sleep. The sleep timer automatically switches the Monitor to standby after the preset time has elapsed. |
| Power On Delay | When connecting multiple monitors and turning the power on, the monitors are turned on individually to prevent overload. |
| Auto Off | If Auto Off is active and there is no input signal, the set switches to off mode automatically after 15 minutes. |



NOTE

- You must set the time correctly before using on/off timer function.
- If current time setting is erased by a power failure or the Monitor is unplugged, reset the clock.
- In the event of power interruption (disconnection or power failure), the clock must be reset.
- Once the on or off time is set, these functions operate daily at the preset time.
- When On time is operated, input screen is turned on as it was turned off.

OPTION Settings

- 1 Press **MENU** to access the menu.
- 2 Press the Navigation buttons to scroll to **OPTION** and press **ENTER**.
- 3 Press the Navigation buttons to scroll to the setting or option you want and press **ENTER**.
 - To return to the previous level, press **BACK**.
- 4 When you are finished, press **EXIT**.



| Setting | Description | |
|-------------------------|--|--|
| Language | Selects a language for the display. | |
| ISM Method | A frozen or still picture displayed on the screen for prolonged periods will result in a ghost image remaining even when you change the image. Avoid allowing a fixed image to remain on the screen for prolonged periods. | |
| | Mode | |
| Panel ISM Off/On | If image sticking is never a problem, ISM is not necessary - set to Panel ISM Off. | |
| Color Wash | Removes a ghost image on the screen. The color block with the screen moved a little and the white pattern are alternately displayed. It is difficult to sense the afterimage occurred while the temporary afterimage is removed and the color pattern is operating. | |
| White Wash | Removes a ghost image on the screen. White wash removes permanent images from the screen. Note: An excessive permanent image may be impossible to clear entirely with White Wash. | |
| ISC Method | The ISC method reduces image sticking, which occurs when a fixed image is played for a long period of time. (Contact your installation company for details about this function and more information on how to use it.) | |
| Factory Reset | This function initializes all settings. When the Factory Reset is completed, you must restart the Initializing setup. | |
| Set ID | When controlling multiple monitors with the RS232C control or the remote control, each monitor can be identified with its monitor ID. Use the dip switch to set up a monitor ID during installation of a set. (See p.21) | |
| OSD Pivot | The OSD appears vertically. When the panels are installed vertically, set the OSD Pivot option to On. | |

| | | |
|------------------|--|---|
| Tile Mode | Tile mode choose Tile alignment and set the ID of the current product to set location. | |
| | Option | |
| | Tile mode | 11 x 11 available. Configuration of an integration screen is also available as well as configuration of One by one Display. It is used to enlarge the screen and also used with several products to view screen. |
| | Tile ID | The Tile ID determines the location of the Tile. |
| | Auto Config-ure | Automatically adjusts the picture position and minimizes image instability. After adjustment, if the image is still not correct, your Monitor is functioning properly but needs further adjustment. This function is for automatic adjustment of the screen position, size, and phase. The displayed image will be unstable for a few seconds while the auto configuration is in progress. |
| | Position | If the picture is not clear after auto adjustment and especially if characters are still trembling, adjust the picture position manually. |
| | Size | This function is to minimize any vertical bars or stripes visible on the screen background. And the horizontal screen size will also change. |
| | Natural | The image is omitted by the distance between the screens to be naturally shown. |
| | Reset | Returns Position, Size and Phase to the factory default settings. |

TROUBLESHOOTING

Abnormal operation

| Problem | Resolution |
|---------------------------------|---|
| The remote control doesn't work | <ul style="list-style-type: none"> Check to see if there is any object between the Monitor and the remote control causing an obstruction. Ensure you are pointing the remote control directly at the Monitor. Ensure that the batteries are installed with correct polarity (+ to +, - to -). Install new batteries. |
| Monitor turns off suddenly | <ul style="list-style-type: none"> Is the sleep timer set? Check the power control settings. Power interrupted. |

Video problems

| Problem | Resolution |
|--|---|
| No picture & No sound | <ul style="list-style-type: none"> Check whether the product is turned on. Is the power cord inserted into wall power outlet? Test the wall power outlet, plug another product's power cord into the outlet where the product's power cord was plugged in. |
| Picture appears slowly after switching on | <ul style="list-style-type: none"> This is normal, the image is muted during the product startup process. Please contact your service center, if the picture has not appeared after five minutes. |
| No or poor color or poor picture | <ul style="list-style-type: none"> Adjust Color in menu option. Keep a sufficient distance between the product and the VCR. Are the video cables installed properly? Activate any function to restore the brightness of the picture. |
| Horizontal/vertical bars or picture shaking | <ul style="list-style-type: none"> Check for local interference such as an electrical appliance or power tool. |
| No picture when connecting HDMI | <ul style="list-style-type: none"> If the HDMI cables don't support High Speed HDMI, it can cause flickers or no screen display. In this case use the latest cables that support High Speed HDMI. |
| Brightness is significantly different from monitor to monitor. | <ul style="list-style-type: none"> Check that the dip switch of the monitor is set correctly. Check that the brightness adjustment connector is working correctly. |

Audio problems

| Problem | Resolution |
|---------------------------------------|---|
| No output from one of the speakers | <ul style="list-style-type: none"> Adjust Balance in menu option. |
| Unusual sound from inside the product | <ul style="list-style-type: none"> A change in ambient humidity or temperature may result in an unusual noise when the product is turned on or off and does not indicate a fault with the product. |
| No sound when connecting HDMI | <ul style="list-style-type: none"> Check High Speed HDMI cable. |

PC Mode problems

| Problem | Resolution |
|--|---|
| The signal is out of range | <ul style="list-style-type: none">• Adjust resolution, horizontal frequency, or vertical frequency on the PC.• Check the input source. |
| Vertical bar or stripe on background & Horizontal Noise & Incorrect position | <ul style="list-style-type: none">• Activate the Auto configure feature or adjust size, phase, or H/V position. (Option) |
| Screen color is unstable or single color | <ul style="list-style-type: none">• Check the signal cable.• Reinstall the PC video card. |
| When connecting the HDMI cable to the PC, there is no audio. | <ul style="list-style-type: none">• Check the manual for the video card in the PC to see if it supports HDMI audio and how to set it up properly. |

SPECIFICATIONS

ENGLISH

| MODELS | | 60PT100C / 60PT100N |
|---------------------------|--------------------|--------------------------------|
| | | 60PT100C-WA |
| Dimensions (W x H x D) | | 1322.4 mm x 745.7 mm x 82.7 mm |
| Weight | Set | 31.6 kg |
| | Land scape bracket | 8.4 kg |
| | Portrait bracket | 6.4 kg |
| Power requirement | | AC 100 - 240 V~ 50 / 60 Hz |

| | | |
|-----------------------|-----------------------|-----------------|
| Environment condition | Operating Temperature | 0 °C to 40 °C |
| | Operating Humidity | Less than 80 % |
| | Storage Temperature | -20 °C to 60 °C |
| | Storage Humidity | Less than 85 % |

Product specifications shown above may be changed without prior notice due to upgrade of product functions.

For the power supply and power consumption, refer to the label attached to the product.

MULTI-OUTLET POWER STRIP SPECIFICATIONS

Specification

- Type : Outlets with surge protector and safety ground
- Electrical Spec : 250V, 3.2A or higher per hole / 125V, 7A or higher per hole.
Multi-outlet total wattage should be determined by considering each hole specification and the number of plugged display pieces.
- Special function : Overload blocking.

Warnings & Recommendations

- Do not plug other electrical products or equipments into the multi-outlet that is used for this product.
- It is recommended to plug the multi-outlet power strip into the wall outlet that is considered total wattage or higher.
- It is recommended to use the multi-outlet certified by safety standards in your country.

Safety Standard

| | Mark |
|-----------|--|
| Japan |  |
| China |  |
| Taiwan |  |
| Singapore |  XXXXXX - XX |
| Mexico |  |
| Argentina |  |

Use the multi-outlet certified by safety standards in your country except for the countries mentioned above.

PC mode - Preset mode

| Resolution | | Horizontal Frequency (kHz) | Vertical Frequency (Hz) |
|------------|-----------|----------------------------|-------------------------|
| 1 | 640x350 | 31.468 | 70.09 |
| 2 | 720x400 | 31.469 | 70.08 |
| 3 | 640x480 | 31.469 | 59.94 |
| 4 | 800x600 | 37.879 | 60.31 |
| 5 | 1360x768 | 47.712 | 60.015 |
| 6 | 1024x768 | 48.363 | 60.00 |
| 7 | 1280x1024 | 63.981 | 60.020 |
| 8 | 1600x1200 | 75.00 | 60.00 |
| 9 | 1920x1080 | 67.50 | 60.00 |

DTV mode

| Signal | Component | HDMI(DTV) |
|------------|-----------|-----------|
| 480i/576i | O | X |
| 480p/576p | O | O |
| 720p/1080i | O | O |
| 1080p | O | O |

- 1 to 8 : HDMI / DVI-D mode
- 1 to 7 : RGB mode

HDMI/DVI-DTV supported mode

| Resolution | | Horizontal Frequency (kHz) | Vertical Frequency (Hz) |
|------------|-------------|----------------------------|-------------------------|
| 1 | 720 x 480 | 15.75 | 60.00 |
| 2 | 720 x 480 | 15.73 | 59.94 |
| 3 | 720 x 576 | 15.625 | 50.00 |
| 4 | 720 x 480 | 31.47 | 59.94 |
| 5 | 720 x 480 | 31.50 | 60.00 |
| 6 | 720 x 576 | 31.25 | 50.00 |
| 7 | 1280 x 720 | 44.96 | 59.94 |
| 8 | 1280 x 720 | 45.00 | 60.00 |
| 9 | 1280 x 720 | 37.50 | 50.00 |
| 10 | 1920 x 1080 | 33.72 | 59.94 |
| 11 | 1920 x 1080 | 33.75 | 60.00 |
| 12 | 1920 x 1080 | 28.125 | 50.00 |
| 13 | 1920 x 1080 | 67.432 | 59.94 |
| 14 | 1920 x 1080 | 67.50 | 60.00 |
| 15 | 1920 x 1080 | 56.250 | 50.00 |
| 16 | 1920 x 1080 | 27.00 | 24.00 |
| 17 | 1920 x 1080 | 33.75 | 30.00 |

- 1 to 15 : Component mode
- 4 to 17 : HDMI mode

IR CODES

| Code (Hexa) | Function | Note | Code (Hexa) | Function | Note |
|-------------|---------------|-----------------------|-------------|----------|-----------------------|
| 95 | ENERGY SAVING | Remote control Button | 5B | EXIT | Remote control Button |
| 30 | AV MODE | Remote control Button | 61 | Blue | Remote control Button |
| 0B | INPUT | Remote control Button | D5 | RGB | Remote control Button |
| 99 | AUTO CONFIG | Remote control Button | BF | COMP | Remote control Button |
| 10 | 0 | Remote control Button | C6 | DVI-D | Remote control Button |
| 11 | 1 | Remote control Button | CE | HDMI1 | Remote control Button |
| 12 | 2 | Remote control Button | CC | HDMI2 | Remote control Button |
| 13 | 3 | Remote control Button | 08 | POWER | Remote control Button |
| 14 | 4 | Remote control Button | 72 | Red | Remote control Button |
| 15 | 5 | Remote control Button | 71 | Green | Remote control Button |
| 16 | 6 | Remote control Button | 63 | Yellow | Remote control Button |
| 17 | 7 | Remote control Button | | | |
| 18 | 8 | Remote control Button | | | |
| 19 | 9 | Remote control Button | | | |
| 56 | SET ID | Remote control Button | | | |
| 46 | SET ALL | Remote control Button | | | |
| 02 | VOL + | Remote control Button | | | |
| 03 | VOL - | Remote control Button | | | |
| 6B | TOUCH | Remote control Button | | | |
| 7B | TILE MODE | Remote control Button | | | |
| 87 | NATURAL | Remote control Button | | | |
| 5D | BALANCE R | Remote control Button | | | |
| 5C | BALANCE L | Remote control Button | | | |
| C9 | ISC | Remote control Button | | | |
| 43 | MENU | Remote control Button | | | |
| 83 | ISM | Remote control Button | | | |
| 06 | > (Arrow Key) | Remote control Button | | | |
| 07 | < (Arrow Key) | Remote control Button | | | |
| 40 | ↖ (Arrow Key) | Remote control Button | | | |
| 41 | ↙ (Arrow Key) | Remote control Button | | | |
| 44 | ENTER | Remote control Button | | | |
| 28 | BACK | Remote control Button | | | |
| 09 | MUTE | Remote control Button | | | |

EXTERNAL CONTROL DEVICE SETUP

RS-232C Setup

Connect the RS-232C (serial port) input jack to an external control device (such as a computer or an A/V control system) to control the product's functions externally.

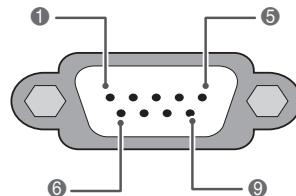
Connect the serial port of the control device to the RS-232C jack on the product back panel.



NOTE

- RS-232C on this monitor is intended to be used with third party RS-232C control hardware and software. The instructions below are provided to help with programming software or to test functionality using telenet software.
- RS-232C connection cables are not supplied with the product.

Type of connector; D-Sub 9-Pin Male



| No. | Pin name |
|-----|----------------------|
| 1 | No connection |
| 2 | RXD (Receive data) |
| 3 | TXD (Transmit data) |
| 4 | DTR (DTE side ready) |
| 5 | GND |
| 6 | DSR (DCE side ready) |
| 7 | RTS (Ready to send) |
| 8 | CTS (Clear to send) |
| 9 | No Connection |

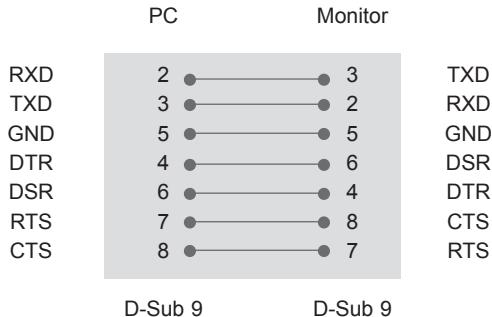
RS-232C Configurations

Set ID

Set ID number. "Real Data Mapping" (See p.55)

ENGLISH

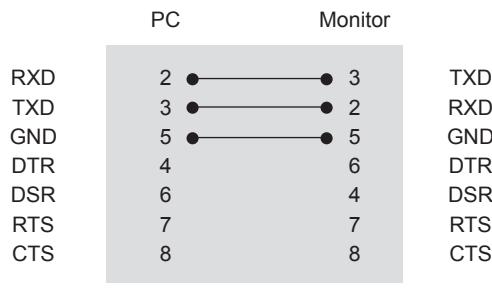
7-Wire Configurations (Standard RS-232C cable)



D-Sub 9

D-Sub 9

3-Wire Configurations(Not standard)



D-Sub 9

D-Sub 9

Communication Parameters

- Baud rate: 9600 bps (UART)
- Data length: 8 bits
- Parity : None
- Stop bit: 1 bit
- Communication code: ASCII code
- Use a crossed (reverse) cable.

Command reference list

| | COMMAND1 | COMMAND2 | DATA (Hexadeci- mal) | | COMMAND1 | COMMAND2 | DATA (Hexadeci- mal) |
|----------------------------|----------|----------|----------------------------|----------------------------|----------|----------|----------------------------|
| 01. Power | k | a | 00 to 01 | 24. Tile V Position | d | f | 00 to 64 |
| 02. Input select | x | b | See p.50 | 25. Tile ID | d | i | 01 to 79 |
| 03. Aspect Ratio | k | c | See p.50 | 26. Tile H Size | d | g | 00 to 64 |
| 04. Screen Mute | k | d | See p.50 | 27. Tile V Size | d | h | 00 to 64 |
| 05. Volume Mute | k | e | 00 to 01 | 28. Natural Mode | d | j | 00 to 01 |
| 06. Volume Control | k | f | 00 to 64 | 29. Picture Mode | d | x | 00 to 04 |
| 07. Contrast | k | g | 00 to 64 | 30. Sound Mode | d | y | 01 to 04 |
| 08. Brightness | k | h | 00 to 64 | 31. Fan Fault Check | d | w | FF |
| 09. Color | k | i | 00 to 64 | 32. Elapsed Time Return | d | l | FF |
| 10. Tint | k | j | 00 to 64 | 33. Temperature Value | d | n | FF |
| 11. Sharpness | k | k | 00 to 64 | 34. Auto Volume | d | u | 00 to 01 |
| 12. OSD Select | k | l | 00 to 01 | 35. Speaker | d | v | 00 to 01 |
| 13. Remote Control Lock | k | m | 00 to 01 | 36. Sleep Time | f | f | 00 to 08 |
| 14. Treble | k | r | 00 to 64 | 37. Auto Sleep | f | g | 00 to 01 |
| 15. Bass | k | s | 00 to 64 | 38. Power On Delay | f | h | 00 to 64 |
| 16. Balance | k | t | 00 to 64 | 39. Language | f | i | 00 to 0b |
| 17. Color Temperature | x | u | 00 to 64 | 40. Reset | f | k | 00 to 02 |
| 18. ISM Method | j | p | See p.52 | 41. H Position | f | q | 00 to 64 |
| 19. Energy Saving | j | q | 00 to 01 | 42. V Position | f | r | 00 to 64 |
| 20. Auto Configuration | j | u | 01 | 43. H Size | f | s | 00 to 64 |
| 21. Key | m | c | See p.53 | 44. Serial No. | f | y | FF |
| 22. Tile Mode | d | d | See p.53 | 45. S/W Version | f | z | FF |
| 23. Tile H Position | d | e | 00 to 64 | | | | |



NOTE

- For Tile H Position, Tile V Position, Tile H Size, Tile V Size, H Position, V Position, H Size Command
- The default value is Data 32H.
- The allowed range differs depending on the input and resolution.
- When the entered data is out of the allowed range (within 0H to 64H of the data range), an error occurs in ACK.

Transmission / Receiving Protocol

Transmission

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

| | |
|-------------|---|
| [Command 1] | First command to control the set.(Z) |
| [Command 2] | Second command to control the set. |
| [Set ID] | Set ID wants to communicate with the multi vision |
| [Data] | Command for test is 00. |
| | The information passed to the multi vision |
| [Cr] | Carriage Return |
| | ASCII code '0x0D' |
| [] | ASCII code 'space (0x20)' |

OK Acknowledgement

[Command2][][Set ID][][OK][Data][x]

| | |
|-------------|---|
| [Command 2] | Use as command |
| [Set ID] | Set ID of the multi vision which responded. |
| [Data] | Getting at multi vision. |

01. Power (Command: k a)

- To control Power On/Off of the Multi Vision.

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

Data 00 : Power Off 01 : Power On

Ack [a][][Set ID][][OK/NG][Data][x]

* In a like manner, if other functions transmit 'FF' data based on this format, Acknowledgement data feed-back presents status about each function.

* Note: In this model, Multi Vision will send the Acknowledge after power on processing completion.

There might be a time delay between command and acknowledge.

02. Input Select (Command: x b)

- To select input source for Multi Vision.

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

Data 40: Component

60: RGB-PC

90: HDMI 1

91: HDMI 2

92: DVI-D

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

* Use the feature depending on your model.

03. Aspect Ratio (Command: k c)

- To adjust the screen format.

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

Data 01: 4:3

02: 16:9

04: Zoom

09: Just scan

10: Cinema Zoom1

~

1F: Cinema Zoom16

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

* This function is unavailable in portrait mode.

04. Screen Mute (Command: k d)

- To select screen mute on/off.

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

Data 00: Screen mute off (Picture on), Video-out Mute off

01: Screen mute on (Picture off)

10: Video-out Mute on

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

* In case of Video-out Mute on only, Multi Vision will display On Screen Display (OSD). But, in case of screen mute on, Multi Vision will not display On Screen Display (OSD).

05. Volume Mute (Command: k e)

- ▶ To control volume mute on/off.
You can also adjust mute using the MUTE button on remote control.

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

Data 00: Volume mute on (Volume off)

01: Volume mute off (Volume on)

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

06. Volume Control (Command: k f)

- ▶ To adjust volume.
You can also adjust volume with the volume buttons on remote control.

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

The data range is from 00 to 64(in Hex)

* Refer to 'Real data mapping'. See p.55.

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

07. Contrast (Command: k g)

- ▶ To adjust screen contrast.
You can also adjust contrast in the PICTURE menu.

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

The data range is from 00 to 64(in Hex)

* Refer to 'Real data mapping'. See p.55.

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

08. Brightness (Command: k h)

- ▶ To adjust screen brightness.
You can also adjust brightness in the PICTURE menu.

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

The data range is from 00 to 64(in Hex)

* Refer to 'Real data mapping'. See p.55.

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

09. Color (Command: k i)

- ▶ To adjust screen color.
You can also adjust color in the PICTURE menu.

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

The data range is from 00 to 64(in Hex)

* Refer to 'Real data mapping'. See p.55.

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

10. Tint (Command: k j)

- ▶ To adjust screen tint.
You can also adjust tint in the PICTURE menu.

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

Data Red: 00 - Green: 64 (*transmit by Hexadecimal code)

* Refer to 'Real data mapping'. See p.55.

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

11. Sharpness (Command: k k)

- ▶ To adjust screen sharpness.
You can also adjust sharpness in the Picture menu.

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

The data range is from 00 to 64(in Hex)

* Refer to 'Real data mapping'. See p.55.

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

12. OSD Select (Command: k l)

- ▶ To select OSD (On Screen Display) on/off.

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

Data 00: OSD off

01: OSD on

Ack [l][][Set ID][][OK/NG][Data][x]

13. Remote Control Lock Mode (Command: k m)

- ▶ To lock the remote control.

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

Data 00: Lock off

01: Lock on

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

If you're not using the remote control controls on the Multi Vision, use this mode. When main power is on/off, remote control lock is released.

14. Treble (Command: k r)

- ▶ To adjust treble.
You can also adjust treble in the Audio menu.

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

The data range is from 00 to 64(in Hex)

* Refer to 'Real data mapping'. See p.55.

Ack [r][][Set ID][][OK/NG][Data][x]

15. Bass (Command: k s)

- ▶ To adjust bass.
You can also adjust bass in the Audio menu.

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

The data range is from 00 to 64(in Hex)

* Refer to 'Real data mapping'. See p.55.

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

16. Balance (Command: k t)

- ▶ To adjust balance.
You can also adjust balance in the Audio menu.

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

The data range is from 00 to 64(in Hex)

* Refer to 'Real data mapping'. See p.55.

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

17. Color Temperature (Command: x u)

- ▶ To adjust color temperature.
You can also adjust color temperature in the Picture menu.

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

The data range is from 00 to 64(in Hex)

* Refer to 'Real data mapping'. See p.55.

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

18. ISM Method (Command: j p)

- ▶ To avoid having a fixed image remain on screen.

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

Data 04: White Wash

08: Panel ISM On

20: Colore Wash

88: Panel ISM Off

Ack [p][][Set ID][][OK/NG][Data][x]

19. Energy Saving (Command: j q)

- ▶ To control the energy saving function.

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

Data 00: Off

01: On

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

20. Auto Configuration (Command: j u)

- ▶ To adjust picture position and minimize image shaking automatically.
Auto configuration only works in RGB-PC mode.

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

Data 01: To set

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

21. Key (Command: m c)

- ▶ To send IR remote control code.

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

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

22. Tile Mode(Command : d d)

- ▶ Change a Tile Mode.

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

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

| Data | Description |
|------|--------------------------|
| 00 : | Tile mode is off |
| 12 : | 1 x 2 mode(row x column) |
| 13 : | 1 x 3 mode |
| 14 : | 1 x 4 mode |
| : | |
| bb : | 11 x 11 mode |

* The maximum value changes depending on the installation method.

23. Tile H Position(Command : d e)

- ▶ To set the Horizontal position.

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

Data Min : 00H ~ Max : 64H

* Refer to 'Real data mapping'. See p.55.

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

24. Tile V Position(Command : d f)

- ▶ To set the Vertical position.

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

Data Min : 00H ~ Max : 64H

* Refer to 'Real data mapping'. See p.55.

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

25. Tile ID (Command : d i)

- ▶ To assign the Tile ID for Tiling function.

Transmission [d][i][][Set ID][][Data][x]

Data Min : 01H ~ Max : 79H

(Hexadecimal code)

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

* The maximum value changes depending on the installation method.

26. Tile H Size(Command : d g)

- ▶ To set the Horizontal size.

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

Data Min : 00H ~ Max : 64H

* Refer to 'Real data mapping'. See p.55.

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

27. Tile V Size(Command : d h)

- ▶ To set the Vertical size.

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

Data Min : 00H ~ Max : 64H

* Refer to 'Real data mapping'. See p.55.

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

28. Natural Mode (In Tile mode) (Command : d j)

- ▶ To assign the Tile Natural mode for Tiling function.

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

Data 0: Natural Off

1: Natural On

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

29. Picture Mode (Command : d x)

- ▶ To adjust the picture mode.

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

Data 00: Vivid

01: Standard

02: Cinema

03: Studio

04: Game

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

30. Sound Mode (Command : d y)

- To adjust the sound mode.

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

Data 01: Standard

02: Music
03: Cinema
04: Game

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

31. Fan Fault Check (Command : d w)

- To check the Fan fault.

Transmission [d][w][][Set ID][][Data][Cr]

The data is always FF(in Hex).

Data ff: Read Status

Ack [w][][Set ID][][OK/NG][Data][x]

* Data is the status value of the Fan fault.

Data 00: Fan fault

01: Fan OK

32. Elapsed time return (Command : d l)

- To read the panel used time.

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

The data is always FF(in Hex).

Ack [l][][Set ID][][OK/NG][Data][x]

The data means used hours

(Hexadecimal code)

33. Temperature value (Command : d n)

- To read the inside temperature value.

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

The data is always FF(in Hex).

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

The data means temperature value

(Hexadecimal code)

34. Auto volume (Command : d u)

- Automatically adjust the volume level.

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

Data 0 : Off

1 : On

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

35. Speaker (Command : d v)

- Turn the speaker on or off.

Transmission [d][v][][Set ID][][Data][Cr]

Data 0 : Off

1 : On

Ack [v][][Set ID][][OK/NG][Data][x]

36. Sleep Time (Command : f f)

- Set Sleep Time.

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

Data 0 : Off

Data 5 : 90

1 : 10

6 : 120

2 : 20

7 : 180

3 : 30

8 : 240

4 : 60

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

37. Auto Sleep (Command : f g)

- Set Auto Sleep.

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

Data 0 : Off

1 : On

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

38. Power On Delay (Command: f h)

- Set the schedule delay when the power is turned on (Unit: second)

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

The data range is from 00 to 64(in Hex)

(* 00H: Off)

* Refer to 'Real data mapping'. See p.55.

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

*** Real data mapping**

| | |
|------|---------------------|
| 00 : | Step 0 |
| : | |
| A : | Step 10 (Set ID 10) |
| : | |
| F : | Step 15 (Set ID 15) |
| 10 : | Step 16 (Set ID 16) |
| : | |
| 64 : | Step 100 |
| : | |
| 6E : | Step 110 |
| : | |
| 73 : | Step 115 |
| 74 : | Step 116 |
| : | |
| CF : | Step 199 |
| : | |
| FE : | Step 254 |
| FF : | Step 255 |

39. Language (Command : f i)

- Set the OSD language.

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

| | |
|------------------|----------------|
| Data 0. Korean | 7. Portuguese |
| 1. Chinese | 8. Spanish(EU) |
| 2. Japanese | 9. Arabic |
| 3. English | a. Persian |
| 4. French | b. Turkish |
| 5. German | |
| 6. Spanish (SCA) | |

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

40. Reset (Command : f k)

- Execute the Picture, Screen and Factory Reset functions.

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

Data 0 : Picture Reset

1 : Screen Reset

2 : Factory Reset

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

41. H Position (Command : f q)

- To set the Horizontal position.

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

The data range is from 00 to 64(in Hex)

* Refer to 'Real data mapping'. See p.55.

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

* This function is only working in Tile Off Mode.

42. V Position (Command : f r)

- To set the Vertical Position.

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

The data range is from 00 to 64(in Hex)

* Refer to 'Real data mapping'. See p.55.

Ack [r][][Set ID][][OK/NG][Data][x]

* This function is only working in Tile Off Mode.

43. H Size (Command : f s)

- To set the Horizontal size.

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

The data range is from 00 to 64(in Hex)

* Refer to 'Real data mapping'. See p.55.

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

* This function is only working in Tile Off Mode.

44. Serial No.Check (Command : f y)

► To read the serial numbers.

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

Data FF (to read the serial numbers)

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

45. S/W Version (Command : f z)

► Check the software version.

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

Data FF (to read the S/W version)

Ack [z][][Set ID][][OK/NG][Data][x]

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The model and serial numbers of the monitor is
located on the back of the monitor
Record it below should you ever need service.

MODEL _____

SERIAL _____