



User's Guide
Benutzerhandbuch
Manuel d'utilisation
Manuale dell'utente
Guía de usuario



***DIGITAL
SIGNAGE***



MODELS.

- Base Frame Model : 32", 40", 42", 46", 47", 52", 55", 70", 82"
- Kiosk Model : 46", 52", 70"

U.S.A.

U.S.FEDERAL COMMUNICATIONS COMMISSION RADIO FREQUENCY INTERFERENCE STATEMENT INFORMATION TO THE USER

NOTE : This equipment has been tested and found to comply with the limits for a Class A digital device pursuant to Part 15 of the FCC Rules.

These limits are designed to provide reasonable protection against harmful interference in a residential installation.

This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications.

However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet of a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio / Monitor technician for assistance.

Changes or modification not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

Connecting of peripherals requires the use of grounded shielded signal cables.

DECLARATION OF CONFORMITY

For the following product :

All of Digital sigange HYUNDAI IT provides

Manufactured at :

(factory name, address)

1. Hyundai IT Corp. 1229 In-ri, Apo-eup Gimcheon, Gyeongsangbuk-do 740-860 Rep. of Korea

2. Hyundai IT Corp. San 136-1 Ami-ri, Bubal-eub, Ichon-si, Kyungki-Do, 467-860 Rep. of Korea

We herewith confirmed to comply with the requirements set put in the Council Directive on the Approximation of the Laws of the Member States relating to Electromagnetic Compatibility Directive (89/336/EEC), Low-Voltage Directive(73/23/EEC , 93/68/EEC) . For the evaluation regarding the Directives, the following standards were applied:

EN60065 : 2002

EN55022 : 1998+A1 : 2000 +A2 : 2003 CLASS A

EN55024 : 1998+A1 : 2001 +A2 : 2003

EN 61000-3-2 : 2000 +A2 : 2005

EN 61000-3-3 : 1995 +A1 : 2001 +A2 : 2005

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* REMOTE CONTROL / RS232C COMMAND SPEC

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Major features

This product has been designed to enable the user ease of use, and display information effectively and conveniently.

- TFT LCD Module adopted
- Vivid digital color display
- OSD control function
- Automatic Image control
- Automatic temperature control
- Analog/Digital RGB(HDMI) input and output
- Y Pb Pr/AV input and output
- Built in multi-vision function

Safety Information

This product is designed to ensure user's safety.

Avoid the following items to prevent serious electric shot and other dangers.

- Do not place wet objects on or around the product or the power cord.
- Do not cover or insert anything over or into the ventilation openings.
- Do not place in a location where damage can be caused by oil, smoke, high temperature, high humidity, dust etc.
- The product is not suitable for use at visual display workplaces according to §2 of the German Ordinance for Work with Visual Display Units.
- The main plug of the power supply cord shall remain readily operable.
- An apparatus with CLASS I construction shall be connected to a Mains socket outlet with a protective earthing connection.
- Make sure that the power cord and other cables are correctly plugged in.

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- Plug the power cord correctly into the end, do not wobble/jiggle, it may cause electric shock fire.
- Do not touch the power cord with wet hands, it may cause electric shock.
- Overloaded AC outlets and extension cables are as dangerous as the power cord being damaged, call service engineer for replacement as it may cause electric shock or fire.
- Do not use multiple devices in a single power outlet, it may cause overheating or fire.
- Do not use or place sharp objects near the LCD surface, as this can cause damage to the screen itself.
- When cleaning the LCD screen / Surface, do not use chemical cleaning products as this can seriously damage the special coatings on the screen. Only use water to dampen a soft cloth and lightly clear the screen.
- Over time dust deposits can build up inside the product, this can cause the product to overheat thus causing premature malfunction or fire. Please do not attempt to clean the inside of the product yourself, please contact the local service agent.
- Do not use alcohol or strong chemical solvent such as methyl, ethyl or a Isopropyl.
- In the case of cleaning, be sure to remove the power cord and wipe with a soft dry fabric.
- Keep batteries for the remote control out of children's sight.
- Batteries should be inserted using the correct polarity (+,-).
- Use only new batteries, do not mix old & new.
- Place unit on a stable bracket or surface.
- More than 2 people should work together when moving or installing.
- Do not hang on or jump to the product or mounting rack.
- When the product is left unused for a long time, be sure to unplug the power cord.
- In the case of damage or breakage do not attempt to self repair, please contact local service engineer.

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- In case of Kiosk Model, keep installing the product on the flat location and fixing the wheels not to move itself or fall down.
- On Kiosk Model, make sure to turn off the power before connecting cables.
- This manual contains general instructions for the display products only so refer to the provided CD-ROM manual and the driver installation manual for the driver installation instructions for touch screen and/or touch screen itself.
- The apparatus shall not be exposed to dripping or splashing and that no objects filled with liquids, such as vases, shall be placed on the apparatus.
- Shall be connected to a MAINS socket outlet with a protective earthing connection.
- The disconnect device shall remain readily operable.
- The socket-outlet shall be installed near the equipment and shall be easily accessible.
- 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.



Be sure to understand

Image quality of the product



CAUSE

Due to the nature of LCD's property, Afterimage can occur. Afterimage appears when identical frames / images are displayed continuously. If displayed for prolonged periods of time this can become permanent.



PREVENTION

When you display a freeze frame for a long time, lower the brightness and contrast (Brightness, 70/ Contrast, 80). Also it can be prevented by using moving frame.



COUNTERMEASURES

Temporary afterimage can be alleviated by displaying white or moving frame about 10 hours.(But, permanent afterimage cannot be disappeared according to the property of LCD) This method is used to remove temporary afterimage that may occur after displaying a still frame for a certain time.

It can take several minutes or hours to remove afterimage according to the severity. In the case that your cannot avoid displaying identical still image continuously, you can prevent it by displaying moving image for 2 or 3 minutes in every hour. As the brightness of still image and time of display are the cause of afterimage, you are recommended to lower the brightness in that case.

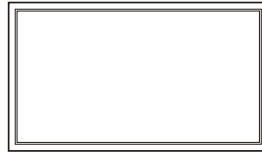


Above problem shall not be covered by warranty.

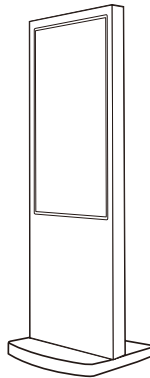
DIGITAL SIGNAGE

Check the product list

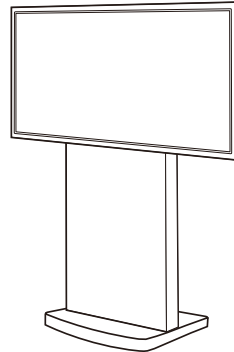
Please check the following components provided with the product after you open the box.



Base Frame Type



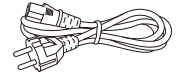
Kiosk Type (Portrait)



Kiosk Type (Landscape)



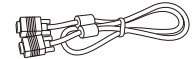
Remote control



Power Cord



User's manual



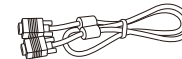
D-SUB Cable



HDMI to DVI Cable (Option)



HDMI cable



RS232C Cable (Option)



please check the following components provided with the product after you open the box and contact the dealer if any missing.

*** The contents may vary depending on models and sometimes the contents may be attached on the product.*

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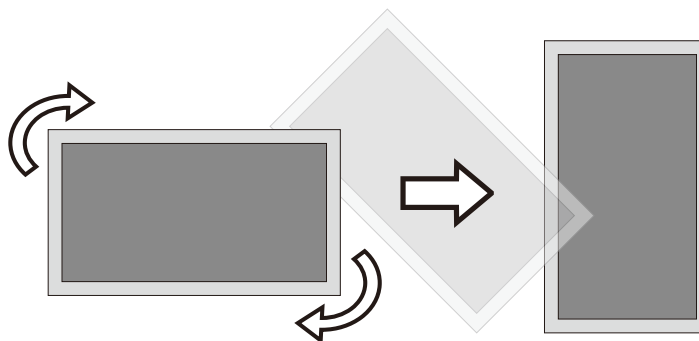
Proper location for product installation

1. Locate the product at least 30cm away from the electric appliance or heating product.
2. The product must be placed at least 10cm away from the wall and ground.
3. Keep the product out of direct ray of light and locate screen not to be reflected by the sunlight.
4. Make sure the mounting rack firmly tightened before installation.

! Please take extra care during installation, it is possible to cause damage if the unit is handled badly or knocked.

Portrait Mode

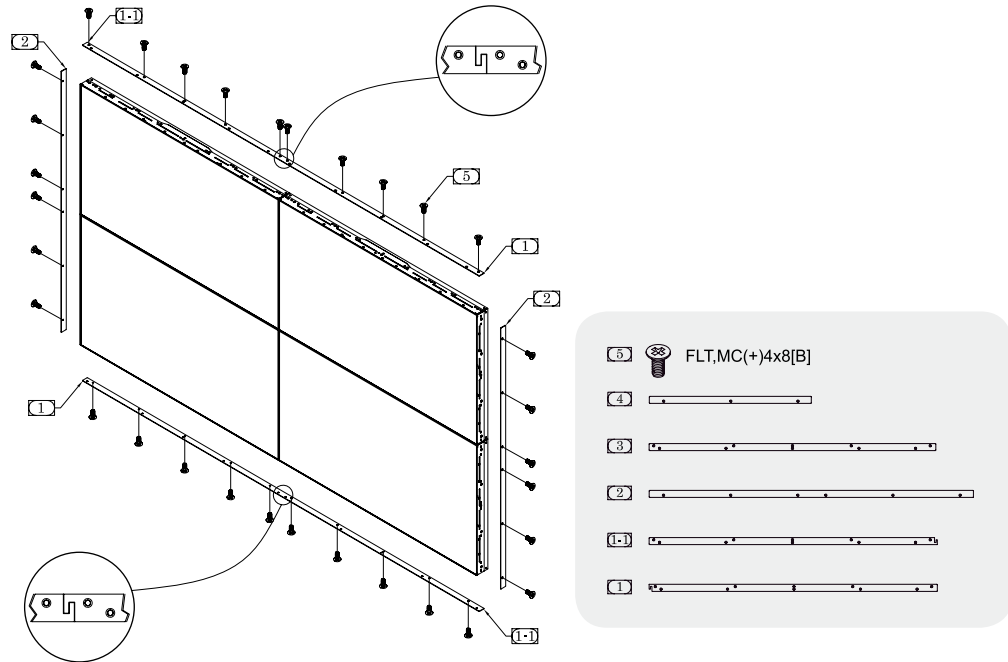
- Only on some models.
- When installing in portrait mode, rotate the monitor clockwise



DIGITAL SIGNAGE

Installing a Bracket (Option)

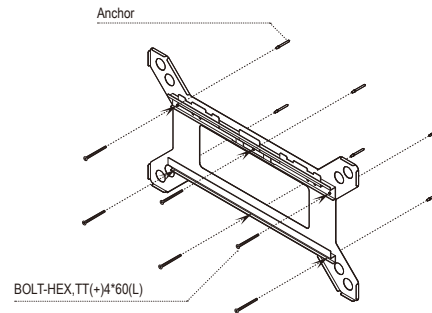
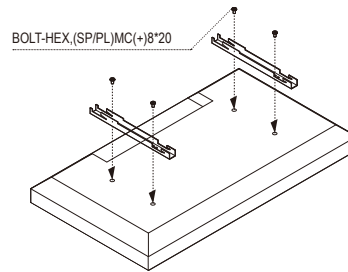
- The contents may vary depending on models



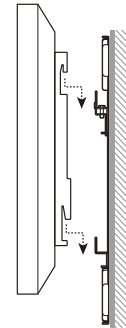
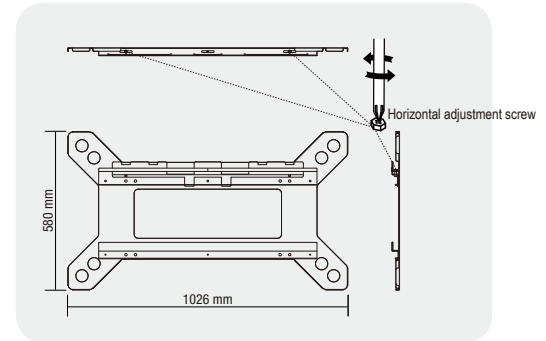
DIGITAL SIGNAGE

Installing a Wall Mount (Option)

- Only install the product on a vertical wall.
- To ensure product performance and avoid damage, it is strongly recommended that you avoid the following installation locations :
 - Near the sprinkler sensor, Near the heater
 - Where vibration or shock may occur



- Near high-tension wires
- Use an appropriate installation method for the material of the wall. Check the safety of the wall surface first and reinforce the wall if the wall strength is not enough for installation.
- Do not install the wall mount inside the wall.

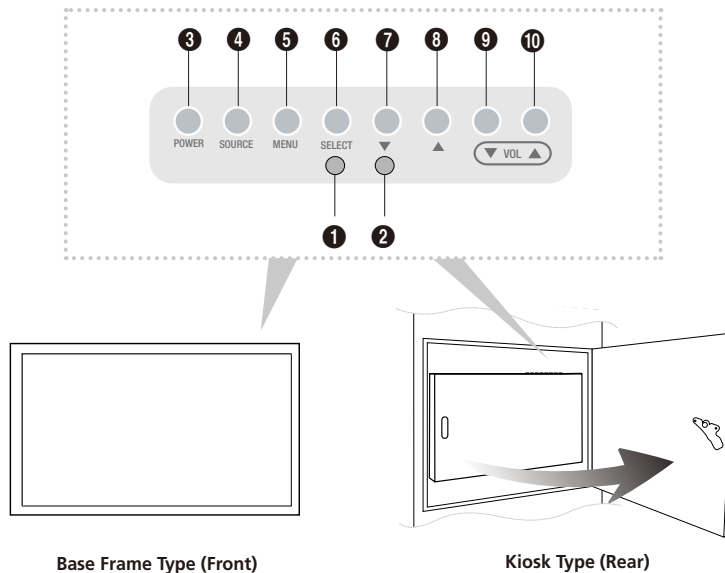


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Title and function of each part

Control Panel

- ❶ Remote control receiving sensor.
- ❷ Power display LED red-stand by/ Green-working.
- ❸ ~ ❿ OSD button.
- ❹ Power button ; to turn the power on or off.
- ❺ Menu button : to display menu or exit from the menu.
- ❻ select button.
- ❼ To move down in OSD menu.
- ❽ To move up in OSD menu.
- ❾ To move left and control the volume down in OSD menu.
- ❿ To move right and control the volume up OSD menu.

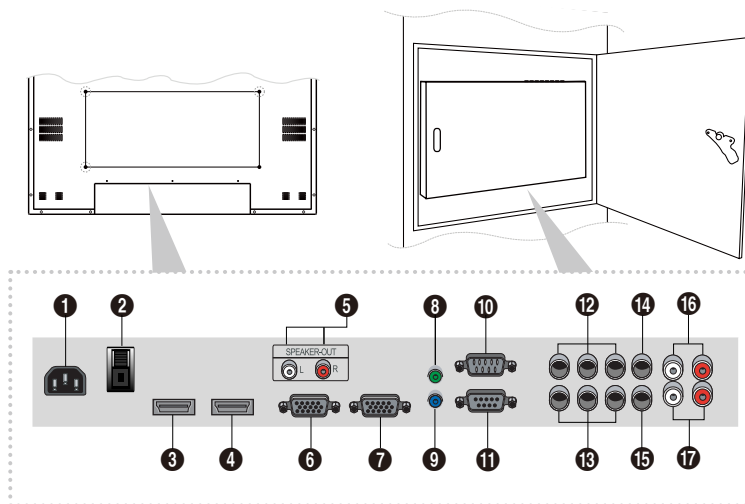


**** The locations of OSD board and remote control receiving sensor may vary depending on models.**

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Terminal panel

- | | | |
|-------------------|--------------------------|----------------------------|
| ❶ AC IN | ❷ PC D-SUB OUT | ❸ COMPONENT OUT (Y/Pb/Pr) |
| ❹ AC POWER SWITCH | ❸ UPGRADE | ❹ CVBS IN |
| ❺ HDMI IN | ❹ PC AUDIO IN | ❺ CVBS OUT |
| ❻ HDMI OUT | ❺ RS-232C OUT | ❻ COMPONENT AUDIO IN (L/R) |
| ❼ SPEAKER OUT | ❻ RS-232C IN | ❼ COMPOSITE AUDIO IN (L/R) |
| ❽ PC D-SUB IN | ❼ COMPONENT IN (Y/Pb/Pr) | |



**** The locations of connectors may vary depending on models.**

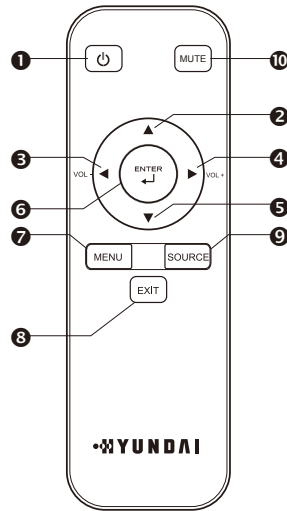
- The items no. 12-17 are optional items.

- When you select the "Source" button on the remote control, the "Source" menu of the "Option" item is displayed.

DIGITAL SIGNAGE

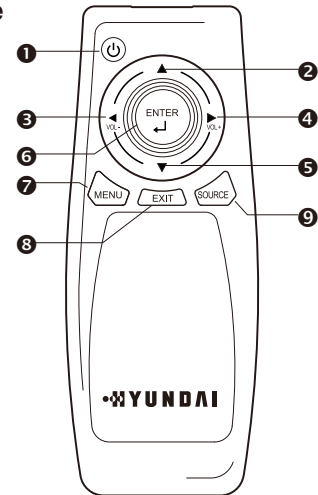
Remote control

A-type



- ❶ To turn the power on or off.
- ❷ Move up in OSD menu.
- ❸ To move left or control the volume down in OSD menu.
- ❹ To move right or control the volume up in OSD menu.
- ❺ To move down in OSD menu.

B-type



- ❻ Select in OSD menu.
- ❼ Display the menu screen.
- ❽ Close the menu screen.
- ❾ Convert the input signal.
- ❿ Temporary sound switch off.

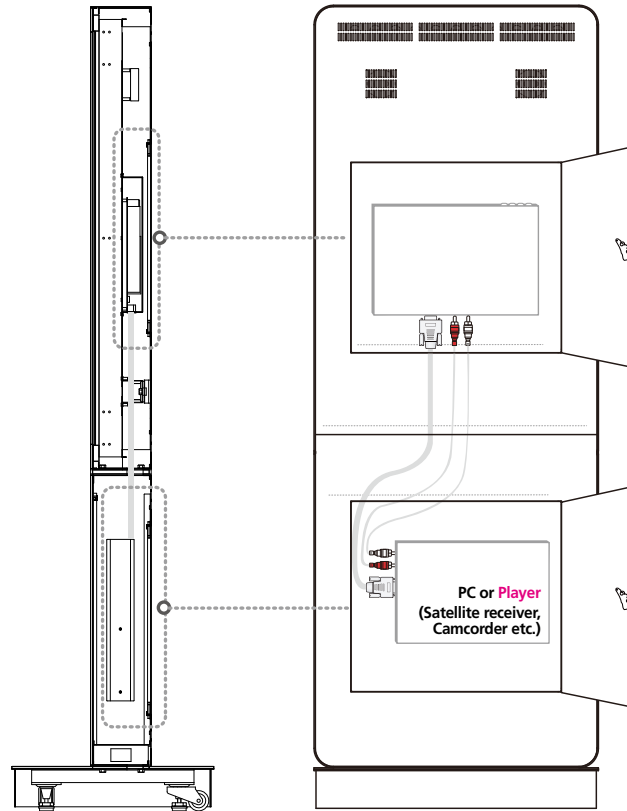
[TIP] If it doesn't need to control display by a remote-controller, press button of remote-controller in order following.

MENU → SOURCE → EXIT → ▼ → ENTER

* Press button once again in order above so that original condition is returned.

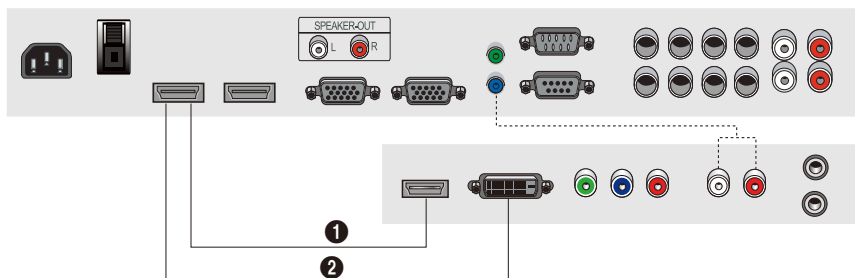
DIGITAL SIGNAGE

How to Connecting Kiosk



DIGITAL SIGNAGE

How to Connecting Digital RGB(HDMI)



1. Please ensure that the power to the device is switched off, then connect each cable one after another before restoring power.
 - ① when connect HDMI to HDMI cable
 - ② when connect DVI to HDMI cable
 - must utilize device with DVI signal output from peripheral device
2. Connect the power code to the product.
3. Turn on the power of the product and peripheral device. Screen shows up within 10 seconds.
4. Select "HDMI" input by pressing "SOURCE" on OSD button or remote control.
 - HDMI input gives better video quality than analog RGB input.
 - Both HDMI and analog RGB support plug and play.

DIGITAL SIGNAGE

Support timing for HDMI

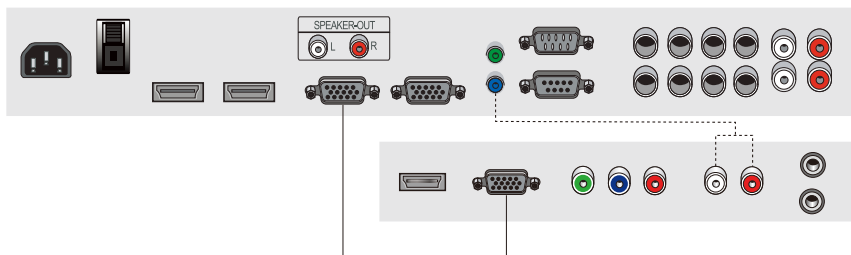
NO	Resolution	Horizontal frequency (KHz)	Vertical frequency (Hz)
1	480p	640 x 480p	60
2	576p	720 x 576p	50
3	720p	1280 x 720p	50 / 60
4	1080i	1920 x 1080i	50 / 60
5	640 x 480	31.47	59.94
6	800 x 600	37.88	60.32
7	1024 x 768	48.36	60
8	1366 x 768	63.98	60
9	1280 x 1024	64.00	60
*10	1920 x 1080	67.50	60
*11	1080p	1920 x 1080p	60



*10 and *11 are for Full HD model only.

DIGITAL SIGNAGE

How to Connecting analog RGB (PC D-SUB)



1. Please ensure that the power to the device is switched off, then connect each cable one after another before restoring power.
2. Connect D-SUB to D-Sub cable. Then tighten the screw of the cable after connecting PC D-SUB.
3. Connect the power cord to the product.
4. Turn on the power of the product and PC . The screen will appear within 10 seconds.
5. Select "PC" input by pressing "SOURCE" on OSD button or remote control.
 - HDMI input gives better video quality than analog RGB input.
 - Both HDMI and analog RGB support plug and play.

DIGITAL SIGNAGE

Support timing for PC

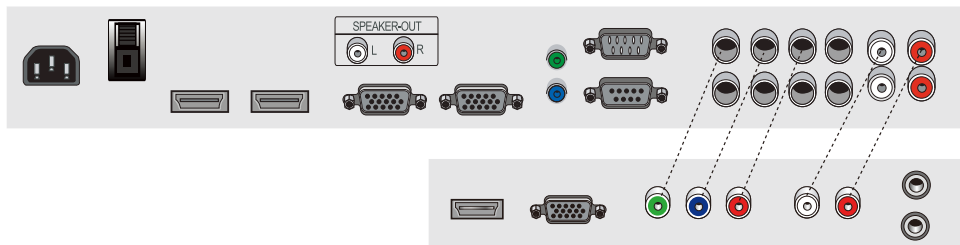
NO	Resolution	Horizontal frequency (KHz)	Vertical frequency (Hz)
1	640 x 480	31.47	59.94
2	800 x 600	37.88	60.32
3	1024 x 768	48.36	60.00
4	1366 x 768	47.71	60.00
5	1280 x 1024	63.98	60.00
*6	1920 x 1080	67.50	60.00



*6 is for Full HD model only.

DIGITAL SIGNAGE

How to Connecting the component (Option)



1. Please ensure that the power to the device is switched off, then connect each cable one after another before restoring power.
2. Connect the component cables to Y, Pb, and Pr correctly.
Connect BNC cable and tighten.
3. Connect the power cord to the product.
4. Turn on the power of the product and peripheral device .
The screen will appear within 10 seconds.
5. Select "COMPONENT" input by pressing "SOURCE" on OSD button or remote control.

DIGITAL SIGNAGE

Support timing for
component & AV

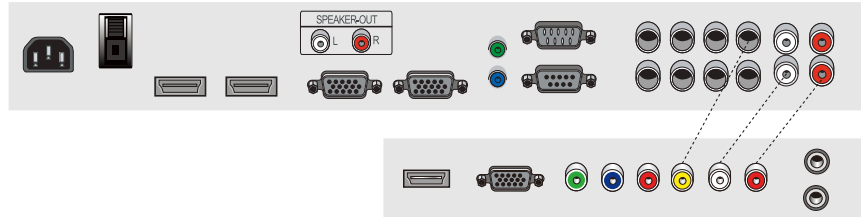
NO	Resolution	Horizontal frequency (KHz)	Vertical frequency (Hz)
1	480i	640 x 480i	59.94 / 60
2	480p	640 x 480p	59.94 / 60
		720 x 480p	59.94 / 60
3	576p	720 x 576p	50
4	720p	1280 x 720p	59.94 / 60 / 50
5	1080i	1920 x 1080i	59.94 / 60 / 50
*6	1080p	1920 x 1080p	60 / 50



*6 is for Full HD model only.

DIGITAL SIGNAGE

How to Connecting the video (Option)



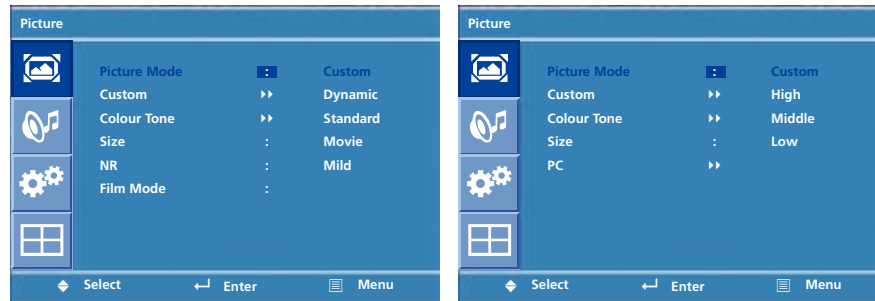
1. Please ensure that the power to the device is switched off, then connect each cable one after another before restoring power.
2. Connect video cable and BNC cable, and then tighten.
3. Connect the power cord to the product.
4. Turn on the power of the product and peripheral device .
The screen will appear within 10 seconds.
5. Select AV input by pressing "SOURCE" on OSD button or remote control.




DIGITAL SIGNAGE

Adjusting OSD and explanation of its function

How to Select the Picture Mode

Users can automatically adjust the picture mode according to the input mode.













1. Press Menu button. Menu items appear on the screen.
 2. Press  button to select "Picture" Icon. "Picture mode" is highlighted.
 3. Press  or  buttons to select "Picture mode".
 4. The menu changes in the following order.
AV/Component input : Custom -> Dynamic -> Standard -> Movie -> Mild
PC/HDMI Input : Custom -> High -> Middle -> Low
 5. Press EXIT button to escape OSD MENU or press MENU button to return to the previous menu.
 - Custom : When the user wants to set the values directly.
 - Dynamic : Clear display
 - Standard : Most video contents are appropriate to this mode.
 - Movie : When watching a movie
 - Mild : Soft display.
- ✓ Menu of PC doesn't appear on OSD when user uses HDMI signal.

DIGITAL SIGNAGE

How to Set the Desired Picture

Users can manually adjust their desired picture



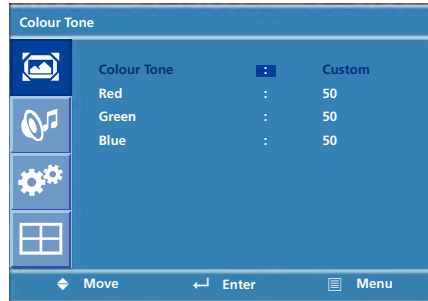
1. Press Menu button.
Menu items appear on the screen.
2. Press  button to select "Picture" Icon.
"Picture mode" is highlighted.
3. Press  /  buttons to move to "Custom" and press  or  buttons to select "Custom".
4. Select required option by pressing the  /  or  button, then Press  /  button to adjust.
5. Press EXIT button to escape OSD MENU or press MENU button to return to the previous menu.








- Brightness : Adjust the brightness of the entire picture.
- Contrast : Adjust the brightness and darkness of the object and backgrounds.
- Colour : Adjust colors into deeper or lighter colors.(not operational in PC and HDMI mode)
- Tint : Adjust colors naturally.(not operational in PC, HDMI and component mode)
- Sharpness : Adjust the clarity of object outlines.(not operational in PC and HDMI mode)

DIGITAL SIGNAGE

How to Select a Colour Tone

Users can adjust Color as users want.



1. Press Menu button.
Menu items appear on the screen.
2. Press  button to select "Picture" Icon.
"Picture Mode" is highlighted.
3. Press  /  buttons to move to "Colour Tone"
4. Press  or  buttons to select "Colour Tone" .
5. Press  /  buttons, then the menu changes in the following order.
Custom -> Cool2 -> Cool1 -> Normal -> Warm1 -> Warm2

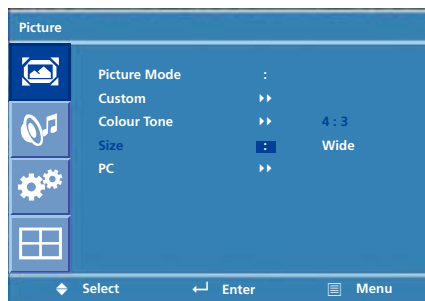
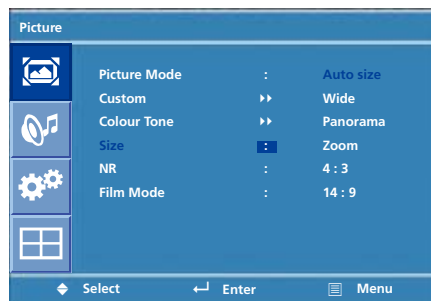
6. Press EXIT button to escape OSD menu or press MENU button to return to the previous menu.









- Custom : When the user wants to set the degree of RGB directly.
- Cool : For cool colors with bluish tone.
- Normal : For a general Colour Tone.
- Warm : For warm colors with reddish tone.

DIGITAL SIGNAGE

How to Set the Display Size

Users can adjust the display scale as they want



1. Press Menu button. Menu items appear on the screen.
2. Press  button to select "Picture" Icon. "Picture Mode" is highlighted.
3. Press  /  buttons to move to "Size".
4. Press  /  or  buttons and press  /  then the mode change in the following order.
 - AV/Component Inputs : Auto Size ->Wide -> Panorama -> Zoom -> 4 : 3 -> 14 : 9
 - PC/HDMI input : Wide -> 4 : 3
5. Press EXIT button to escape OSD MENU or press MENU button to return to the previous menu.
 - Auto Size - Screen size adjust automatically by screen signal.
 - Wide - General broadcast picture is adjusted to 16:9.
 - Panorama - Picture enlarged to 16:9 format, letter box format.
 - Zoom - Zoom in 16:9 in vertical direction
 - 4 : 3 - 4 : 3 general picture size
 - 14 : 9 - 14 : 9 picture size

✓ Menu of PC doesn't appear on OSD when user uses HDMI signal.

DIGITAL SIGNAGE

How to set image adjustment in PC mode (Supported only in PC mode)



1. Press Menu button.
Menu items appear on the screen.
2. Press \downarrow button to select "Picture" Icon.
"Picture Mode" is highlighted.
3. Press \uparrow / \downarrow buttons to move to PC and press
 \rightarrow or \downarrow buttons to select to "PC"
4. "Auto Adjust" is high lighted.
5. Press \downarrow button to execute the "Auto Adjust"
6. Select the required option by pressing the \leftarrow / \rightarrow or \downarrow
button, then press \leftarrow / \rightarrow button to adjust

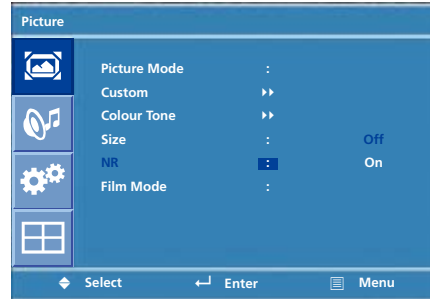
7. Press EXIT button to escape OSD MENU or press MENU button to return to the previous menu.

- Auto Adjust : Horizontal/vertical positions are automatically adjusted.
- Phase : To eliminate the shake of the picture.
- H-Position : To adjust the horizontal position of the picture.
- V-Position : To adjust the vertical position of the picture.
- Frequency : To eliminate the shake of picture.
- Resolution : Selecting resolution is allowed to only set to 1024x768, 1280x768, 1360x768, 1366x768.
Select corresponsive resolution with specified resolution of image.

DIGITAL SIGNAGE

How to Set Noise Reduction(NR)

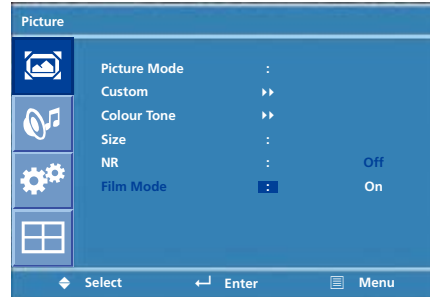
User can eliminate noises on the screen in AV/Component mode.(Not supported in PC/HDMI mode)



1. Press Menu button.
Menu items appear on the screen.
2. Press button to select "Picture" Icon.
"Picture Mode" is highlighted.
3. Press / buttons to move to "NR" .
4. Press / buttons to select to "NR".
5. Press / or buttons to set "On/Off".
6. Press EXIT button to escape OSD MENU or press MENU button to return to the previous menu.

How to Select Film Mode

This implement the most suitable screen for watching movie.

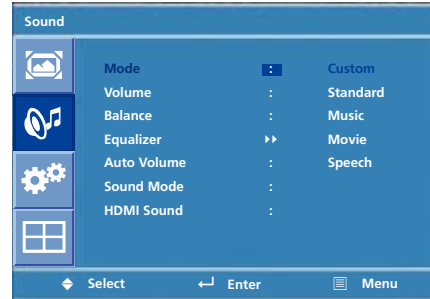


1. Press Menu button.
Menu items appear on the screen.
2. Press button to select "Picture" Icon.
"Picture Mode" is highlighted.
3. Press / buttons to move to "Film Mode" .
4. Press / buttons to select to "Film Mode".
5. Press / or buttons to set "On/Off".
6. Press EXIT button to escape OSD MENU or press MENU button to return to the previous menu.

DIGITAL SIGNAGE

How to Select the Audio Mode

Users can adjust sound mode automatically as they want.



1. Press Menu button. Menu items appear on the screen.
2. Press ▲ / ▼ buttons to move to "Sound" Icon.
3. Press ↵ button to select "Sound" Icon. "Mode" is highlighted.
4. Press ► or ◀ buttons, to select to Sound mode. then the menu changes in the following order. Custom->Standard -> Music -> Movie -> Speech
5. Press EXIT button to escape OSD MENU or press MENU button to return to the previous menu.

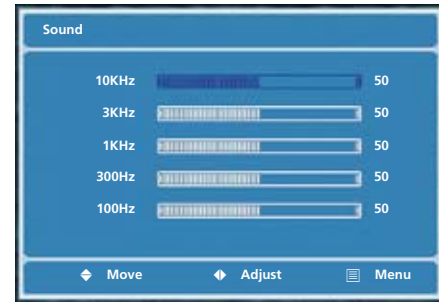
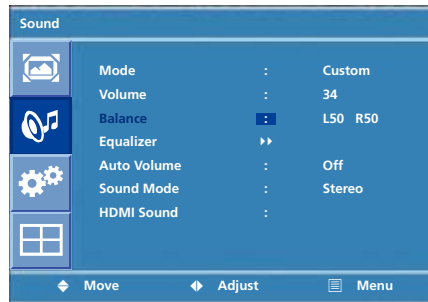
- Custom : When the user wants to set the values directly.
- Standard : For the general sound. Most audio contents are appropriate to this mode.
- Music : For enjoying original sound.
- Movie : Grandiose sound.
- Speech : Clear sound.

✓ Menu of HDMI Sound appear on OSD when user uses DVI signal.

DIGITAL SIGNAGE

How to Adjust the Desired Audio Mode

Users can adjust sound mode automatically as they want.



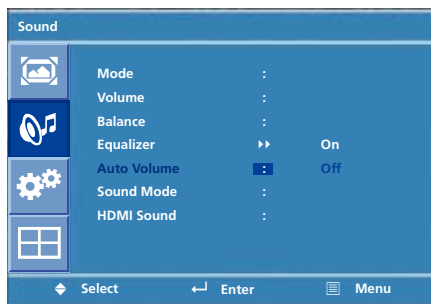
1. Press Menu button. Menu items appear on the screen.
2. Press ▲ / ▼ buttons to move to "Sound" Icon.
3. Press ↵ button to select "Sound" Icon. "Mode" is highlighted.
4. Press ▲ / ▼ buttons to move to "Balance" or "Equalizer" .
5. Press ↵ buttons to select "Balance" or "Equalizer". Balance or Equalizer menu appears.
6. Select required option by pressing the ▲ / ▼ buttons, then Press ◀ / ▶ buttons to adjust.
7. Press EXIT button to escape OSD MENU or press MENU button to return to the previous menu.

- Balance : Adjusts the balance of left and right speakers.
- Equalizer : Adjusts the audio output signal in the desired band.

DIGITAL SIGNAGE

How to Select Auto Volume

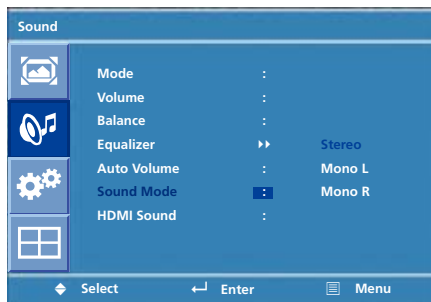
This function will automatically give a similar volume size to each channel.



1. Press Menu button.
Menu items appear on the screen.
2. Press ▲ / ▼ buttons to move to "Sound" Icon.
3. Press ↵ button to select "Sound" Icon.
"Mode" is highlighted.
4. Press ▲ / ▼ buttons to move to "Auto Volume".
5. Press ◀ / ▶ or ↵ buttons to select "On/Off".
6. Press ▲ / ▼ or ↵ buttons to set to "On/Off".
7. Press EXIT button to escape OSD MENU or press MENU button to return to the previous menu

How to Select Sound Mode

Depending on the particular program being broadcast, you can select stereo or mono.

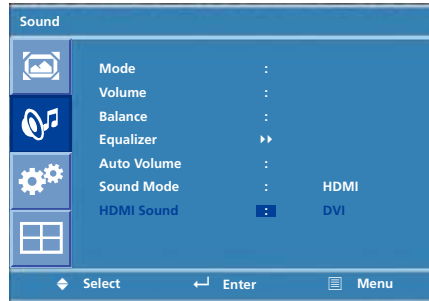









1. Press Menu button.
Menu items appear on the screen.
2. Press ↵ button to select "Sound" Icon.
"Mode" is highlighted.
3. Press ▲ / ▼ buttons to move to "Sound Mode".
4. Press ▶ or ↵ buttons to select "Sound Mode".
5. Press ▲ / ▼ buttons to select to "Stereo", "Mono L" or "Mono R".
6. Press exit button to escape OSD MENU or press MENU button to return to the previous menu

- Choose "Stereo" for channels that are broadcasting in Stereo.
- Choose "Mono" for channels that are broadcasting in Mono, or if you are having difficulty receiving a Stereo signal.

DIGITAL SIGNAGE

How to Select HDMI Sound

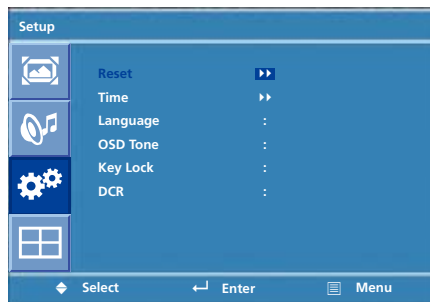


1. Press Menu button.
Menu items appear on the screen.
2. Press  button to select "Sound" Icon.
"Mode" is highlighted.
3. Press  /  buttons to move to "HDMI Sound".
4. Press  or  buttons to select to "HDMI Sound".
5. Press  /  buttons to select to "DVI".
6. Press exit button to escape OSD MENU or press MENU button to return to the previous menu

✓ *Menu of HDMI Sound appear on OSD when user uses DVI signal.*

DIGITAL SIGNAGE

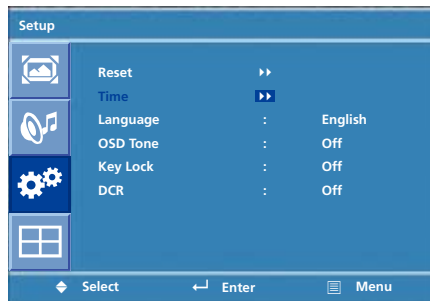
How to Reset



1. Press Menu button.
Menu items appear on the screen.
2. Press \downarrow button to select "Setup" Icon.
"Reset" is highlighted.
3. Press \rightarrow or \downarrow buttons to select to "Reset".
4. Press \downarrow buttons to choose to "Reset".
5. Press EXIT button to escape OSD MENU or press MENU button to return to the previous menu.

When you select "Reset" user setting Value will initialize.

How to Set Clock,Sleep Time, ON/OFF Time

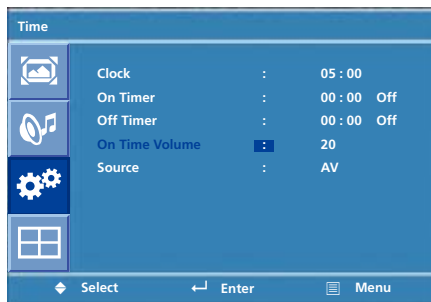


1. Press Menu button.
Menu items appear on the screen.
2. Press \downarrow button to select "Setup" Icon.
"Reset" is highlighted.
3. Press \uparrow / \downarrow buttons to move to "Time".
4. Press \rightarrow or \downarrow buttons to select "Time".
Time menu appears, then "Clock" is highlighted.
5. Press \leftarrow / \rightarrow buttons to move between Hour, Minute and Press \uparrow / \downarrow buttons to set Hour, Minute.

When the power supply(AC main power) is cut off, the clock is reset to the value before the Timer set.

DIGITAL SIGNAGE

Choosing the Your Languages



<go to step 11 if you need to set the "Source">

11. Press ▲ / ▼ buttons to move to "Source"
12. Press ► or ◀ buttons to select to "Source"
13. Press ▲ / ▼ buttons to set to Source



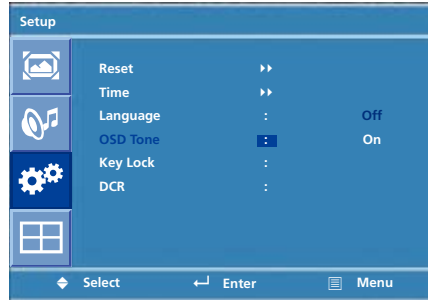
<Go to step 6 if you need to set the "On or Off Timer">

6. Press ▲ / ▼ buttons to move to "On or Off Timer".
 7. Press ► or ◀ buttons to select "On or Off Timer" .
 8. Press ◀ / ► buttons to move between Hour, Minute and on/off and Press ▲ / ▼ buttons to set Hour, Minute and on/off
- <go to step 9 if you need to set the "On Time Volume">
9. Press ▲ / ▼ buttons to move to "On Time Volume".
 10. Press ◀ / ► buttons to adjust Volume.

1. Press Menu button.
Menu items appear on the screen.
2. Press ◀ button to select "Setup" Icon.
"Reset" is highlighted.
3. Press ▲ / ▼ button to move to "Language" and press ► or ◀ button to select to Language.
4. Press EXIT button to escape OSD MENU or press MENU button to return to the previous menu.

DIGITAL SIGNAGE

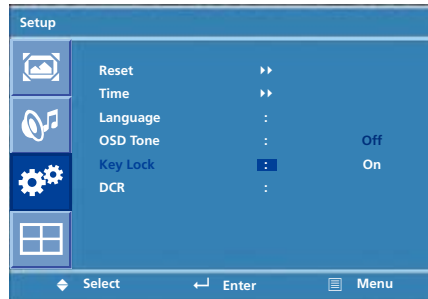
How to set OSD tone



1. Press Menu button.
Menu items appear on the screen.
2. Press button to select "Setup" Icon.
"Reset" is highlighted.
3. Press / buttons to move to "OSD Tone"
4. Press or buttons to select to "OSD Tone".
5. Press / or buttons to set to "On/Off".

How to Set Key-Lock

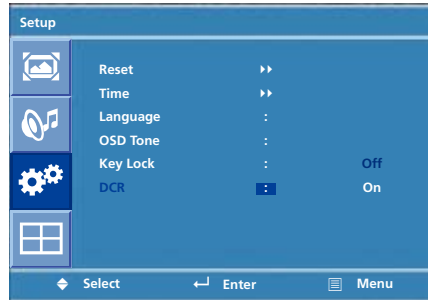
User can lock the control buttons on the front bottom of the Monitor.



1. Press Menu button.
Menu items appear on the screen.
2. Press / button to move to "Setup" Icon.
3. Press button to select "Setup" Icon.
"Reset" is highlighted
4. Press / buttons to move to "Key Lock".
5. Press or buttons to select to "Key Lock".
6. Press / or buttons to set to "On/Off".
7. Press EXIT button to escape OSD MENU or press MENU button to return to the previous menu.

DIGITAL SIGNAGE

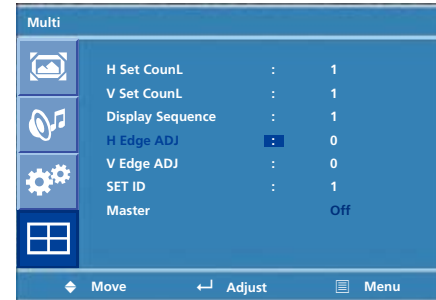
How to select DCR



1. Press Menu button.
Menu items appear on the screen.
2. Press ▲ / ▼ button to move to "Setup" Icon.
3. Press ↵ button to select "Setup" Icon.
"Reset" is highlighted.
4. Press ▲ / ▼ buttons to move to "DCR".
5. Press ► or ↵ buttons to select to "DCR".
6. Press ▲ / ▼ or ↵ buttons to set to "On/Off".
7. Press EXIT button to escape OSD MENU or press MENU button to return to the previous menu.

DIGITAL SIGNAGE

How to Set the Multi Function



1. Press Menu button. Menu items appear on the screen.
2. Press ▲ / ▼ button to move to "Multi" Icon.
3. Press ▢ button to select "Mutli" Icon. "Mutli Function" is highlighted
4. Press ▲ / ▼ buttons to set up and change the location of the screen to be displayed. H Set Count/ V Set Count/Display Sequence / H Edge ADJ / V Edge ADJ / SET ID/ Master

(Example of installation) install 3x2 with 6 units

Product 1	Product 2	Product 3
Product 4	Product 5	Product 6

DIGITAL SIGNAGE

Set up Value

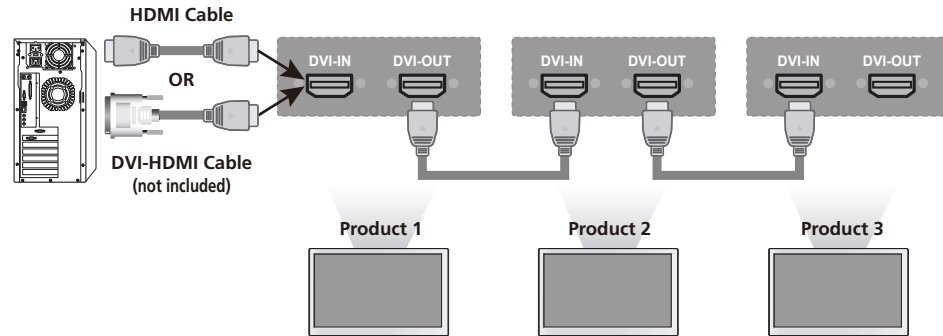
installation item	Product 1	Product 2	Product 3	Product 4	Product 5	Product 6
H Set Count	3	3	3	3	3	3
V Set Count	2	2	2	2	2	2
Display Sequence	1	2	3	4	5	6
H Edge ADJ / V Edge ADJ	These are the set up value to make up the un-displayed area of Bezel Part. It can be adjustable according to the contents					
SET ID	It is necessary to control via RS232 communication port on PC. But do not need to set up or change when they are not controlled by PC					
Master	You are recommended to use the Master on state only one of products that you are using					

[Cautions]

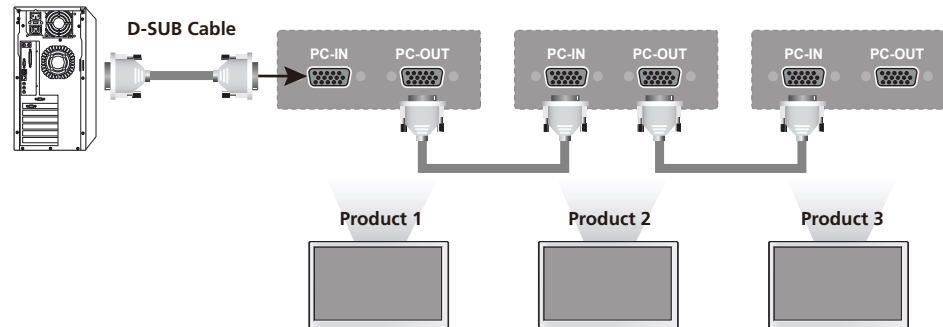
- In case of connecting the products in series from the input device(HDMI, analog RGB, component, video, etc.), a distributor is recommended because there may be loss of screen quality.
- You are recommended to use the component and progressive frequency of digital RGB in case of using multi-vision function.
(It may not be displayed properly when using Video input and interlace frequency)

DIGITAL SIGNAGE

To connect multiple monitors to the PC in HDMI mode



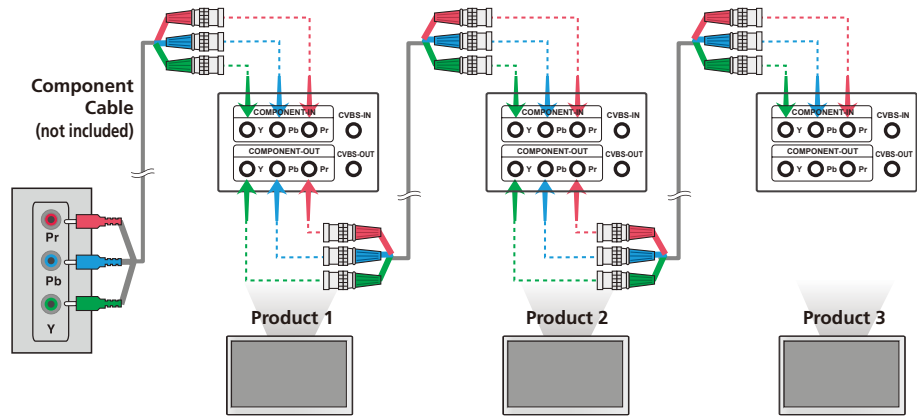
To connect multiple monitors to the PC in RGB mode



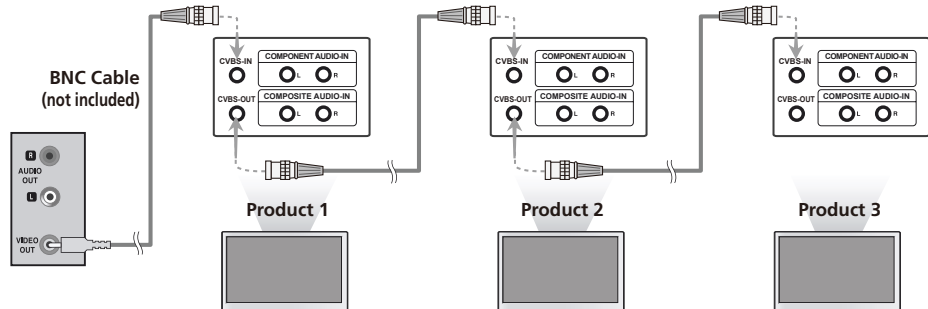
** When multi-connecting in/out cascade format, loss of display quality can happen.
We recommend using a cable distributor.*

DIGITAL SIGNAGE

To connect multiple monitors to the PC in Component mode



To connect multiple monitors to the Video in AV mode

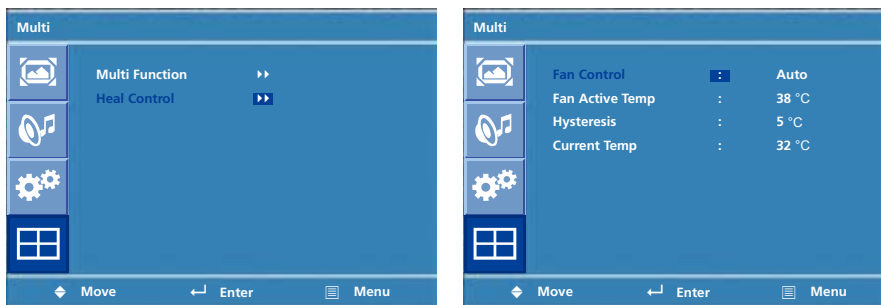


** When multi-connecting in/out cascade format, loss of display quality can happen.
We recommend using a cable distributor.*

DIGITAL SIGNAGE

How to Set the Heat Control

"Heat control" allows you set up fan operation according to interior temperature of the product



1. Press Menu button. Menu items appear on the screen.
2. Press ▲ / ▼ button to move to "Multi" Icon.
3. Press ↵ button to select "Multi" Icon. "Multi Function" is highlighted
4. Press ▲ / ▼ buttons to move to "Heat Control".
5. Press ► or ◀ buttons to set up and change the Heat Control.

"Fan Control" - AS the fan operation options, following 3 options are available

- Off : Fan is idle in Off status.
- On : Fan is working in On-status.
- Auto : Fan start working when the working temperature is higher than the measured temperature.
- Fan active Temp -set up value to start the fan.
- Hysteresis- tolerance value of fan operation temperature.
- Temperature- measured current temperature by sensor affixed to PCB'A

DIGITAL SIGNAGE

Diagnosis

When the product is not working properly, please check before you call customer center.

Symptoms	How to solve the problem
Screen displays late after the power is on.	It happens not to show the screen noise when the power is on. Therefore it is not a defect. But if the screen doesn't show up within 5 minutes from turning on, please contact the customer center.
The screen is too dark or bright?	Adjust the brightness or contrast.
The screen doesn't show up indicating "Out of range".	You are using a signal which is outside the operating frequencies of the product (Unsupported), please change you video signal.
when the screen is scrambled.	please check the cable connection and the signal generator and contact customer center.
Automatic switching-on function is not working / the input data were disappeared when reboot the system after setting up the time	Automatic switching-on function is working when the product has been turned off via remote control or power button on main body. It is because that the set-up values are deleted when the power cord is unplugged.
The screen and sound are not synchronized	Check if the power is on, suspended or is correctly plugged into the outlet. Plug the power cord of other peripheral device to the outlet that the product is being connected.

DIGITAL SIGNAGE

Symptoms	How to solve the problem
The screen displays without the sound.	check the volume up and down with remote control and audio connection cable
No sound from either right speaker or left speaker.	Confirm the status of the sound balance on OSD menu and check the connection of speaker cable.
Remote control doesn't work.	Check if any foreign substances in the sensor and the polarity of battery inserted. If the batteries are drained, replace them with new batteries.
PC D-SUB doesn't work.	Set up the resolution referring to frequency table of input terminal. And re-boot the system as it supports Plug and Play.
Fan on the rear doesn't work	Check the status of temperature control on OSD menu
The screen doesn't show up when display the multi-vision.	check if it is set up to video input. Confirm if Interlace Timing was inputted. (Refer to the cautions on Page 34)

- If any problem unsolved by above diagnosis, please call customer center.

DIGITAL SIGNAGE

Specifications

Model List

- D320ML(I/G)
D462FL
D466ML
D468FL

LCD	1366 x 768 Pixel (HD)
Screen size (HxV/mm)	D320ML(I/G) : 697.7 x 392.3 D462FL / D466ML / D468FL : 1018.4 x 572.5
Recommended resolution	1366 x 768 @60Hz
Input	Digital RGB, Analog RGB, Component(Optional), Video(Optional), PC Audio L/R, Component Audio L/R(Optional), Composite Audio L/R(Optional), RS232C
Output	Digital RGB, Analog RGB, Component(Optional), Video(Optional), Speaker Out L/R, RS232C
Power	AC 100- 240V 50/60Hz
Consumption (Typical)	D320ML(I/G) :100 W D462FL : 180 W D466FL : 310 W D468FL : 260 W
Control type	Remote control, key control

- Above specification may be changed without prior notification for quality improvement.

DIGITAL SIGNAGE

Specifications

Model List

- D405ML(I/G)
D407ML(I/G/P/T)
D425ML(I/G/P/T)
D465ML(I/G)
D467ML(I/G/P/T)
D471ML(I/G/T)
D523ML
D525ML(I/G)
D557ML(I/G/T)
D558FL
D705ML(I/G)
D825ML(I/G)

LCD	1920 x 1080 Pixel (Full HD)
Screen size (HxV/mm)	D405ML(I/G) / D407ML(I/G/P/T) : 885.6 x 498.2 D425ML(I/G/P/T) : 930.25 x 523 D465ML(I/G) / D467ML(I/G/P/T) : 1018.1 x 572.7 D471ML(I/G/T) : 1039.7 x 584.8 D523ML(I/G) / D525ML(I/G) : 1152.00 x 684.00 D557ML(I/G/T) : 1209.6 x 680.4 D558FL : 1209.6 x 680.4 D705ML(I/G) : 1549.4 x 871.6 D825ML(I/G) : 1805.8 x 1015.7
Recommended resolution	1920 x 1080 @ 60Hz
Input	Digital RGB, Analog RGB, Component(Optional), Video(Optional), PC Audio L/R, Component Audio L/R(Optional), Composite Audio L/R(Optional), RS232C
Output	Digital RGB, Analog RGB, Component(Optional), Video(Optional), Speaker Out L/R, RS232C
Power	AC 100- 240V 50/60Hz
Consumption (Typical)	D405ML(I/G) / D407ML(I/G/P/T) : 160 W D425ML(I/G/P/T) : 220 W D465ML(I/G), D467ML(I/G/P/T) : 190 W D471ML(I/G/T) : 280 W D523ML(I/G), D525ML(I/G) : 320 W D557ML(I/G/T) : 330 W D558FL/G/T) : 235 W D705ML(I/G) : 700 W D825ML(I/G) : 1 KW
Control type	Remote control, key control

- Above specification may be changed without prior notification for quality improvement.

DIGITAL SIGNAGE

Specifications

Model List

- D465SL(I/G)
D467SL(I/G)
D525SL(I/G)
D705SL(I/G)

LCD	1920 x 1080 Pixel (Full HD)
Screen size (HxV/mm)	D465SL(I/G) / D467SL(I/G) : 1018.1 x 572.7 D525SL(I/G) : 1152.0 x 648.0 D705SL(I/G) : 1549.4 x 871.6
Recommended resolution	1920 x 1080 @ 60Hz
Input	Digital RGB, Analog RGB, Component(Optional), Video(Optional), PC Audio L/R, Component Audio L/R(Optional), Composite Audio L/R(Optional), RS232C
Output	Digital RGB, Analog RGB, Component(Optional), Video(Optional), Speaker Out L/R, RS232C
Power	AC 100- 240V 50/60Hz
Consumption (Typical)	D465SL(I/G) / D467SL(I/G) : 190 W D525SL(I/G) : 320 W D705ML(I/G) : 700 W
Control type	Remote control, key control

- Above specification may be changed without prior notification for quality improvement.

< REMOTE CONTROL SPEC >

1. REMOTE CONTROL WAVE FORM

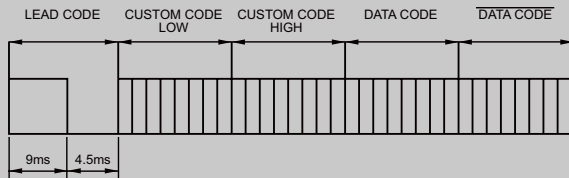
1) Remote Control System Infrared rey system

fosc=455KHZ fc=fosc/2=37.917KHZ

2) Signal code

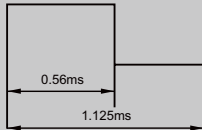
- Transmission

- One pulse

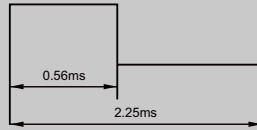


- Bit Description

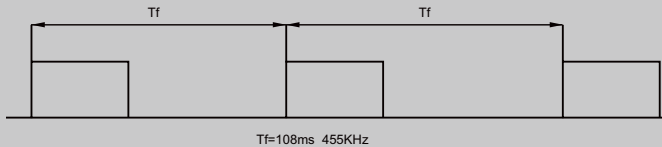
Bit "0"



Bit "1"



- Flame Interval

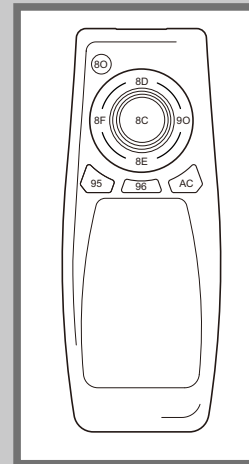


2. REMOTE CONTROL KEY CODE TABLE

Custom Code : 7788H

KEY	DATA
POWER	0x80
MENU	0x95
EXIT	0x96
SOURCE	0xAC
ENTER	0x8C
UP	0x8D
DOWN	0x8E
LEFT	0x8F
RIGHT	0x90

DATA LAYOUT

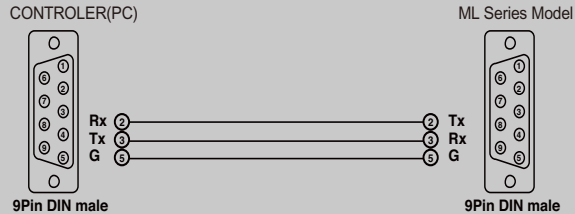


< RS232C COMMAND SPEC >

1. CONFIGURATION

1) SPEED : 9600 Baud/s, 8 bit, No parity, 1 Stop bit.

2) Cable Connction



2. COMMAND FORMAT

- SET ID must select from the OSD menu and can't be select through the COMMAND.
- Only one unit can be set as Master unit, select Master ON from the OSD Menu. (DEFAULT OFF)
- For viewing COMMAND from Hyper Terminal windows, One unit must set as MASTER ON

• Data Format

Item	HEADER	SET ID	COMMAND	END
ascii	did:	xxx- or all-	follow 2.2	.
hexa	0x64 0x69 0x64 0x3A	0x78 0x78 0x78 0x2D or 0x61 0x6C 0x6C 0x2D	follow 2.2	0x2E

HEADER : Command head code.

SET ID : Set ID.

all unit control - "xxx- or all-"
unit no : "01 ~ 99"

COMMAND : follow 2.2

END : inform end of send data.

Example. 1 To power on Set ID No 1

Item	HEADER	SET ID	COMMAND	END
ascii	did:	01-	pn	.
hexa	0x64 0x69 0x64 0x3A	0x30 0x31 0x2D	0x70 0x6E	0x2E
decimal	100 105 100 58	48 49 45	112 110	46

Example. 2 To FAN on Set ID No 2

Item	HEADER	SET ID	COMMAND	END
ascii	did:	02-	fn	.
hexa	0x64 0x69 0x64 0x3A	0x30 0x32 0x2D	0x70 0x6E	0x2E
decimal	100 105 100 58	48 50 45	102 110	46

• Command Type

Item	Command	Description	hexa
Power	pn	power on	0x70 0x6E
	pf	power off	0x70 0x66
	ps	on, video out / on, video in / off, video out / off, video in / on, dpms mode	0x54 0x65 0x6D 0x70
Input - Source	sd	input hdmi	0x73 0x64
	sp	input pc	0x73 0x70
	sc	input component	0x73 0x63
	sa	input av	0x73 0x61
	is	input source status	0x69 0x73
Remote	mtn	remote controller active on	0x72 0x6D 0x74 0x6E
	mtf	remote controller active off	0x72 0x6D 0x74 0x66
	mts	remote controller active status	

Item	Command	Description	hexa
Factory	fr	factory reset	0x66 0x72
	fo	factory option view "lp:?, am:?, av:?, si:?, pwm:?, mot:?" - last power, aging, av enable, source, pwm, motion	0x66 0x6F
	mn	model number ex) model no 1:DID D400 SEC HD.	0x6D 0x6E
	fv	firmware version ex) fw:DID IN HD EU V4.84 110217.	0x66 0x76
	dp	dpms on / dpms off	0x64 0x70
Factory Color Control	cr	Enable Color Control Mode	0x63 0x72
	q	quit (from ir & cr mode)	0x71
	sbu	sub-brightness 1 step up	0x73 0x62 0x75
	sbd	sub-brightness 1 step down	0x73 0x62 0x64
	rou	red offset 1 step up	0x72 0x6F 0x75
	rod	red offset 1 step down	0x72 0x6F 0x64
	gou	green offset 1 step up	0x67 0x6F 0x75
	god	green offset 1 step down	0x67 0x6F 0x64
	bou	blue offset 1 step up	0x62 0x6F 0x75
	bod	blue offset 1 step down	0x62 0x6F 0x64
	scu	sub-contrast 1 step up	0x73 0x63 0x75
	scd	sub-contrast 1 step down	0x73 0x63 0x64
	rgu	red gain 1 step up	0x72 0x67 0x75
	rgd	red gain 1 step down	0x72 0x67 0x64
	ggu	green gain 1 step up	0x67 0x67 0x75
	ggd	green gain 1 step down	0x67 0x67 0x64
	bgu	blue gain 1 step up	0x62 0x67 0x75
	bgd	blue gain 1 step down	0x62 0x67 0x64
	blu	backlight value 1 step up	0x62 0x6C 0x75
	bld	backlight value 1 step down	0x62 0x6C 0x64

Item	Command	Description	hexa
Picture Mode	pmc	picture mode custom	0x70 0x6D 0x63
	pmh	picture mode high	0x70 0x6D 0x68
	pmm	picture mode middle	0x70 0x6D 0x68
	pml	picture mode low	0x70 0x6D 0x6C
	pbu	picture mode custom brightness 1 step upstep up	0x70 0x62 0x75
	pbd	picture mode custom brightness 1 step upstep down	0x70 0x62 0x64
	pcu	picture mode custom contrast 1 step up	0x70 0x63 0x75
	pcd	picture mode custom contrast 1 step down	0x70 0x63 0x64
	pcb	picture mode custom brightness Brightness 70 (01~100) : ex) pcd70	0x50 0x63 0x62 value 0x50 0x63 0x62 0x37 0x30
	pcc	blue offset 1 step down Contrast 55 (01~100) : ex) pcc55	0x70 0x63 0x63 value 0x70 0x63 0x63 0x35 0x35
Picture Color	tru	picture color tone red up	0x73 0x63 0x75
	trd	picture color tone red down	0x73 0x63 0x64
	tgu	picture color tone green up	0x72 0x67 0x75
	tgd	picture color tone green down	0x72 0x67 0x64
	tbu	picture color tone blue up	0x67 0x67 0x75
	tbd	picture color tone blue down	0x67 0x67 0x64
	ptcm	picture color tone custom	0x70 0x74 0x63 0x6D
	ptc2	picture color tone cool2	0x70 0x74 0x63 0x32
	ptc1	picture color tone cool1	0x70 0x74 0x63 0x31
	ptnl	picture color tone normal	0x70 0x74 0x6E 0x6C
	ptw2	picture color tone warm2	0x70 0x74 0x77 0x32
	ptw1	picture color tone warm1	0x70 0x74 0x77 0x31
	rgb-r	color tone red ex) rgb-r55	0x72 0x67 0x62 0x2D 0x72 value 0x72 0x67 0x62 0x2D 0x72 0x35 0x35
	rgb-g	color tone green ex) rgb-g56	0x72 0x67 0x62 0x2D 0x67 value 0x72 0x67 0x62 0x2D 0x67 0x35 0x36
	rgb-b	color tone blue ex) rgb-b45	0x72 0x67 0x62 0x2D 0x62 value 0x72 0x67 0x62 0x2D 0x62 0x34 0x35

Item	Command	Description	hexa
Picture Option	pc	picture size center	0x70 0x63
	pw	picture size wide	0x70 0x77
	otf	osd tone off	0x6F 0x74 0x66
	otn	osd tone on	0x6F 0x74 0x6E
	at	auto adjust	0x61 0x74
	rt	resolution “ ?x?, h?, v?.” ex) “1920x1080, h47, v60.”	0x72 0x68
Multi	Chxvy	H Set Count is x, V Set Count is y	0x43 0x68 X Value 0x76 Y Value
	Nhxy	H Set window is x, V Set window is y	0x4E 0x68 X Value 0x76 Y Value
	Ehxy	H Edge ADJ is x, V Edge ADJ is y	0x45 0x68 X Value 0x76 Y Value
	x	Display sequence no is x	0x78
	fs	fan status	0x66 0x65 0x6D 0x70
	ft	fan active temperature ? : 020~100 ft? “fan active temp [?’C]”	0x66 0x74 Value 0x66 0x74 0x34 0x30
	fh	fan hysteresis ? : 00~20 fh? “hysteresis temp [?’C]”	0x66 0x68 Value 0x66 0x68 0x30 0x33
	ff	fan control off	0x66 0x66
	fn	fan control on	0x66 0x6E
	fa	fan control auto	0x66 0x61
	la	light sensor auto	0x6C 0x61
	lh	light sensor high	0x6C 0x68
	lm	light sensor middle	0x6C 0x6D
	ll	light sensor low	0x6C 0x6C
	tp	temperature “temp: [?’C]”	0x74 0x70
	ir	Enable Ir Mode, can use keyboard buttons as RMC	0x69 0x72
	q	quit (from ir & cr mode)	0x71
IR	p	power	0x70
	u	up	0x75
	n	down	0x6E

Item	Command	Description	hexa
IR	j	left	0x6A
	k	right	0x6B
	e	enter	0x65
	m	menu	0x6D
	x	exit	0x78
	i	input	0x69
	r	mute	0x72
	The others	quit (from Ir mode)	The others
	hdc-p-s	hdc-p-status HDCP Vector - x x x x x [Hex] HDCP Index - x x x x [Hex] HDCP Checksum - x x [Hex]	0x68 0x64 0x63 0x2D 0x73
	did:all-wn=si	Change all units 'Display Sequence' to 'SET ID'	0x64 0x69 0x64 0x3A 0x61 0x6C 0x6C 0x2D 0x77 0x6E 0x3D 0x73 0x69 0x2E
	did:allfst-hxvy	Set all units to 'H SET Count' = x, 'V SET Count' = y, Display Sequence' = 'Select to SET ID	0x64 0x69 0x64 0x3A 0x61 0x6C 0x6C 0x66 0x73 0x74 0x2D 0x68 X Value 0x76 Y Value 0x2E
	Error	“Error.”	