

TFT LCD MONITOR

USER MANUAL-(RS232)Version

LCD150AV-1DE/3DE

LCD154AV-1DE

LCD170AV-1DE/2DE

LCD200AV-1DE

LCD220AV-1DE

LCD260AV-1DE

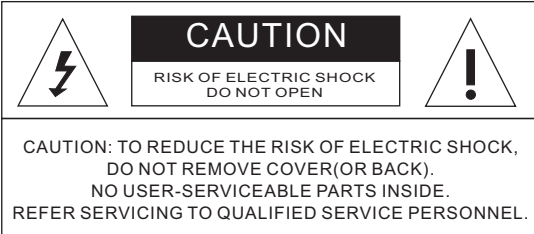
LCD320AV-1DE



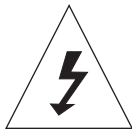
WARNING:

TO REDUCE THE RISK OF FIRE OR ELECTRIC SHOCK, DO NOT EXPOSE THIS PRODUCT TO RAIN OR MOISTURE.
DO NOT INSERT ANY METALLIC OBJECT THROUGH VENTILATION GRILLS.

CAUTION:



Explanation of Graphical Symbols



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 product.

Precautions

Safety-----

Should any liquid or solid object fall into the cabinet, unplug the unit and have it checked by the qualified personnel before operating it any further.

Unplug the unit from the wall outlet if it is not going to be used for several days or more. To disconnect the cord, pull it out by the plug. Never pull the cord itself.

Allow adequate air circulation to prevent internal heat built-up. Do not place the unit on surfaces(rugs, blankets, etc.) or near materials (curtains, draperies) that may block the ventilation holes.

Installation-----

Do not install the unit in an extremely hot or humid place or in a place subject to excessive dust or mechanical vibration.

The unit is not designed to be waterproof. Exposure to rain or water may damage the unit.

Cleaning-----

Clean the unit with a slightly damp soft cloth. Use a mild household detergent. Never use strong solvents such as thinner or benzine as they might damage the finish of the unit.

Retain the original carton and packing materials for safe transport of this unit in the future.

Federal Communications Commission (FCC) Statement

This Equipment has been tested and found to comply with the limits for a Class B 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 on a circuit different from that to which the receiver is connected.
 - Consult the dealer or an experienced radio/TV technician for help.
- You are cautioned that changes or modifications not expressly approved by that party responsible for compliance could void your authority to operate the equipment.

This device complies with Part 15 FCC Rules. Operation is subject to the following two conditions:

(1) This device may not cause harmful interference.

(2) This device must accept any interference received including interference that may cause undesired

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Features

LCD150AV-1DE/3DE

- Compatible with VGA (640 x 480), SVGA (800 x 600).XGA(1024x768)
- Support vertical refresh rate up to 75 Hz for VGA, SVGA.XGA
- Automatic or manual detection of separate synchronize and composite synchronize of VGA signal
- 15-inch LCD monitor with multiple inputs. (Composite video, Y/C and D-sub computer)
- High brightness of 400 cd/m² forLCD150AV- 3DE,250cd/m² for LCD150AV-1DE
- With 3D comb Filter.
- High contrast 500:1.
- High quality Horizontal and Vertical Scaling with 3D De-interlacing for Display
- Wide viewing of 160°, vertical and horizontal.
- Fast LCD response time of 12ms.
- Luminance transient improvement(LTI),Chrominance transient improvement(CTI)
- Video input support NTSC / PAL standard.
- Built-in high precision Y/C Input signal.
- Video out support auto termination (75 Ohms).
- Audio live-out function with stereo phone Jack output.
- Build-in 2W+2W speaker.
- Support IR remote controller.
- VESA standard (100mm x 100mm) bracket.
- Wall mountable capability.
- RS 232 control(option)
- DVI-Input(option)

Features

LCD154AV-1DE

- Compatible with VGA (640 x 480), SVGA (800 x 600).WXGA(1280x800)
- Support vertical refresh rate up to 75 Hz for VGA, SVGA.WXGA
- Automatic or manual detection of separate synchronize and composite synchronize of VGA signal
- 15.4-inch LCD monitor with multiple inputs. (Composite video,Y/C and D-sub & DVI computer)
- High brightness of 600 cd/m²for
- With 3D comb filter
- High contrast 800:1.
- High quality Horizontal and Vertical Scaling with 3D De-interlacing for Display
- Wide viewing of 120°, vertical and 100° horizontal.
- Fast LCD response time of 5ms
- Luminance transient improvement(LTI),Chrominance transient improvement(CTI)
- Video input support NTSC / PAL standard.
- Built-in high precision Y/C Input signal.
- Video out support auto termination (75 Ohms).
- Audio live-out function with stereo phone Jack output.
- Build-in 2W speaker.
- Support IR remote controller.
- VESA standard (100mm x 100mm) bracket.
- Wall mountable capability.
- RS 232 control(option)
- DVI-Input(option)

Features

LCD170AV-1DE/2DE

- Compatible with VGA (640 x 480), SVGA (800 x 600).XGA(1024x768).SXGA(1280x1024)
- Support vertical refresh rate up to 75 Hz for VGA, SVGA.XGA.(SXGA 60HZ)
- Automatic or manual detection of separate synchronize and composite synchronize of VGA signal
- 17-inch LCD monitor with multiple inputs. (Composite video, Y/C and D-sub computer)
- High brightness of 400 cd/m² for LCD170AV-2DE, 300cd/m² for LCD170AV-1DE
- With 3D comb filter
- High contrast 500:1.
- High quality Horizontal and Vertical Scaling with 3D De-interlacing for Display
- Wide viewing of 130°, vertical and 140° horizontal.
- Fast LCD response time of 8ms.
- Luminance transient improvement(LTI),Chrominance transient improvement(CTI)
- Video input support NTSC / PAL standard.
- Built-in high precision Y/C Input signal.
- Video out support auto termination (75 Ohms).
- Audio live-out function with stereo phone Jack output.
- Build-in 2W+2W speaker.
- Support IR remote controller.
- VESA standard (100mm x 100mm) bracket.
- Wall mountable capability.
- RS 232 control(option)
- DVI-Input(option)

Features

LCD200AV-1DE

- Compatible with VGA (640 x 480), SVGA (800 x 600).
- Support vertical refresh rate up to 75 Hz for VGA, SVGA of VESA standard specification.
- Automatic or manual detection of separate synchronize and composite synchronize of VGA signal
- 20-inch LCD monitor with multiple inputs. (Composite video, Y/C and D-sub computer)
- High brightness of 450 cd/m²
- With 3D comb filter
- High contrast 500:1.
- High quality Horizontal and Vertical Scaling with 3D De-interlacing for Display
- Wide viewing of 140°, vertical and 160° horizontal.
- Fast LCD response time of 16ms.
- Luminance transient improvement(LTI), Chrominance transient improvement(CTI)
- Video input support NTSC / PAL standard.
- Built-in high precision Y/C Input signal.
- Video out support auto termination (75 Ohms).
- Audio live-out function with stereo phone Jack output.
- Build-in 2W+2W speaker.
- Support IR remote controller.
- VESA standard (100mm x 100mm) bracket.
- Wall mountable capability.
- RS 232 control(option)
- DVI-Input(option)

Features

LCD-220AV-1DE

- Compatible with VGA (640 x 480), SVGA (800 x 600).XGA(1024x768).WXGA(1366x768)
- Support vertical refresh rate up to 75 Hz for VGA, SVGA ,XGA,WXGA 60HZ.
- Automatic or manual detection of separate synchronize and composite synchronize of VGA signal
- 22-inch LCD monitor with multiple inputs. (Composite video,Y/C and D-sub &DVI computer)
High brightness of 300 cd/m²
- With 3D comb filter
- High contrast 1000:1.
- High quality Horizontal and Vertical Scaling with 3D De-interlacing for Display
- Wide viewing of 160°, vertical and 170° horizontal.
- Fast LCD response time of 5ms.
- Luminance transient improvement(LTI),Chrominance transient improvement(CTI)
- Video input support NTSC / PAL standard.
- Built-in high precision Y/C Input signal.
- Video out support auto termination (75 Ohms).
- Audio live-out function with phone Jack output.
- Build-in 2W speaker.
- Support IR remote controller.
- VESA standard (100mm x 100mm) bracket.
- Wall mountable capability.
- RS 232 control(option)
- DVI-Input(option)

Features

LCD260AV-1DE

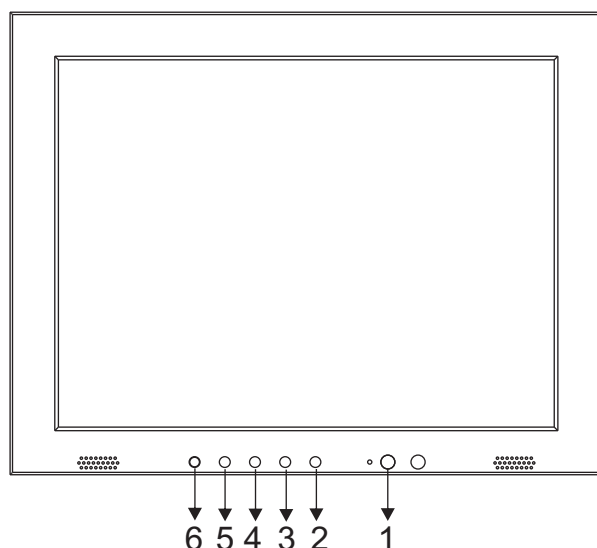
- Compatible with VGA (640 x 480), SVGA (800 x 600).WXGA
- Support vertical refresh rate up to 75 Hz for VGA, SVGA ,WXGA.
- Automatic or manual detection of separate synchronize and composite synchronize of VGA signal
- 26-inch LCD monitor with multiple inputs. (Composite video, Y/C and D-sub computer)
- High brightness of 500 cd/m²
- With 3D comb filter.
- High contrast 800:1.
- High quality Horizontal and Vertical Scaling with 3D De-interlacing for Display
- Wide viewing of 176°, vertical and 176° horizontal.
- Fast LCD response time of 8ms.
- Luminance transient improvement(LTI),Chrominance transient improvement(CTI)
- Video input support NTSC / PAL standard.
- Built-in high precision Y/C Input signal.
- Video out support auto termination (75 Ohms).
- Audio live-out function with stereo phone Jack output.
- Build-in 2W+2W speaker.
- Support IR remote controller.
- VESA standard (100mm x 100mm) bracket.
- Wall mountable capability.
- RS 232 control(option)
- DVI-Input(option)

CH-LCD-320AV-1DE

- Compatible with VGA (640 x 480), SVGA (800 x 600).WXGA
- Support vertical refresh rate up to 75 Hz for VGA, SVGA ,WXGA.
- Automatic or manual detection of separate synchronize and composite synchronize of VGA signal
- 31.5-inch LCD monitor with multiple inputs. (Composite video, Y/C and D-sub computer and DVI(option))
- High brightness of 500 cd/m²
- With 3D comb filter.
- High contrast 1500:1.
- High quality Horizontal and Vertical Scaling with 3D De-interlacing for Display
- Wide viewing of 178°, vertical and 178° horizontal.
- Fast LCD response time of 8ms.
- Luminance transient improvement(LTI),Chrominance transient improvement(CTI)
- Video input support NTSC / PAL standard.
- Built-in high precision Y/C Input signal.
- Video out support auto termination (75 Ohms).
- Audio live-out function with stereo phone Jack output.
- Build-in 2W+2W speaker.
- Support IR remote controller.
- VESA standard (75mm/100mm) bracket.
- Wall mountable capability.
- RS 232 control(option)
- DVI-Input(option)

Operating Instructions

(LCD150AV-1DE/3DE,170AV-1DE/2DE,200AV-1DE)



1. Power

Monitor power ON / OFF. At OFF mode, monitor will be at standby status.

LED-Green Light -- Power On

Red Light -- Standby mode

2. 3. Adjust ◀ / ▶

Increase or decrease the value on OSD menu.

◀ Decrease value on the OSD Menu

▶ Increase value on the OSD Menu

4. Item(Optional)

PIP/POP/ function selection.

5. Menu

OSD menu selection.

6. Source

Select input signal from AV1, AV2, S-Video or PC(or DVI).

***Note: PIP&POP Operating(Optional)--KEY Control**

A: Push "ITEM" key to open Sub-picture.

then push "ITEM" key to select the Sub-picture size on screen.

1/16-->1/9-->1/4-->1/2--->Full(Main-picture).

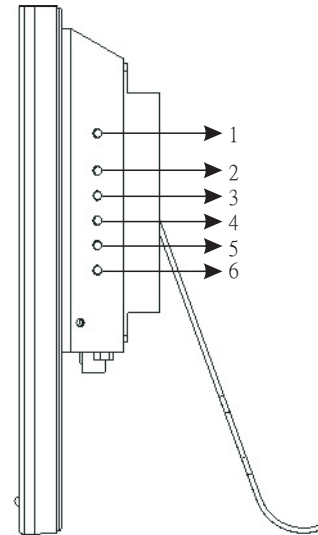
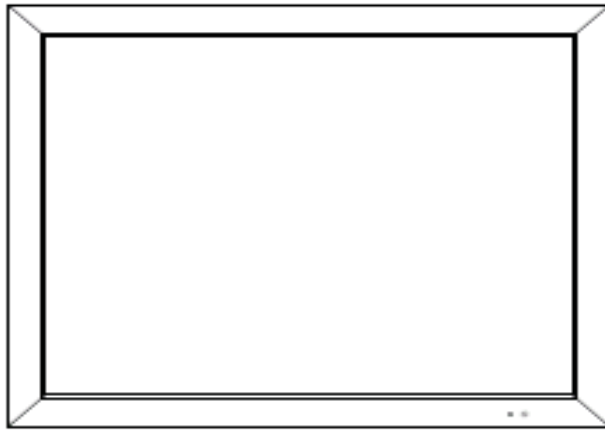
B: Push Down key to select Sub-picture position on screen.

C: Push Up key to select the Sub-picture source.

D: Push Source key to select Main-picture source.

Operating Instructions-Control

(LCD-154AV-1DE/LCD-220AV-1DE)



1. Power

Monitor power ON / OFF. At OFF mode, monitor will be at standby status.

LED-Green Light -- Power On

Red Light -- Standby mode

2. 3. Adjust /

Increase or decrease the value on OSD menu.

 Increase value on the OSD Menu.

 Decrease value on the OSD Menu.

4. Item(Optional)

PIP/POP/ function selection.

5. Menu

OSD menu selection.

6. Source

Select input signal from AV1, AV2, S-Video or VGA,DVI.

Note: PIP/POP Function:

A: Please push "ITEM or SELECT" key to open the pip/pop function then push "ITEM or SELECT" key to select picture size.

1/16-->1/9-->1/4-->1/2-->Full picture

B: Push Down key to select the pip position.

center, lower right, upper right, lower left ,upper left.

C: Push Up key to select the sub-picture source.

D: Push "Source" key to select Main-picture source.

Operating Instructions

(LCD260AV-1DE)



1. Power

Monitor power ON / OFF. At OFF mode, monitor will be at standby status.

LED-Green Light -- Power On

Red Light -- Standby mode

2. 3. Adjust ◀ / ▶

Increase or decrease the value on OSD menu.

◀ Decrease value on the OSD Menu

▶ Increase value on the OSD Menu

4. SELECT(Optional)

PIP/POP/ function selection.

5. FUNCTION

OSD menu selection.

6. Source

Select input signal from AV1, AV2, S-Video or PC(or DVI).

*Note: PIP&POP Operating(Optional)--KEY Control

A: Push "SELECT" key to open Sub-picture.

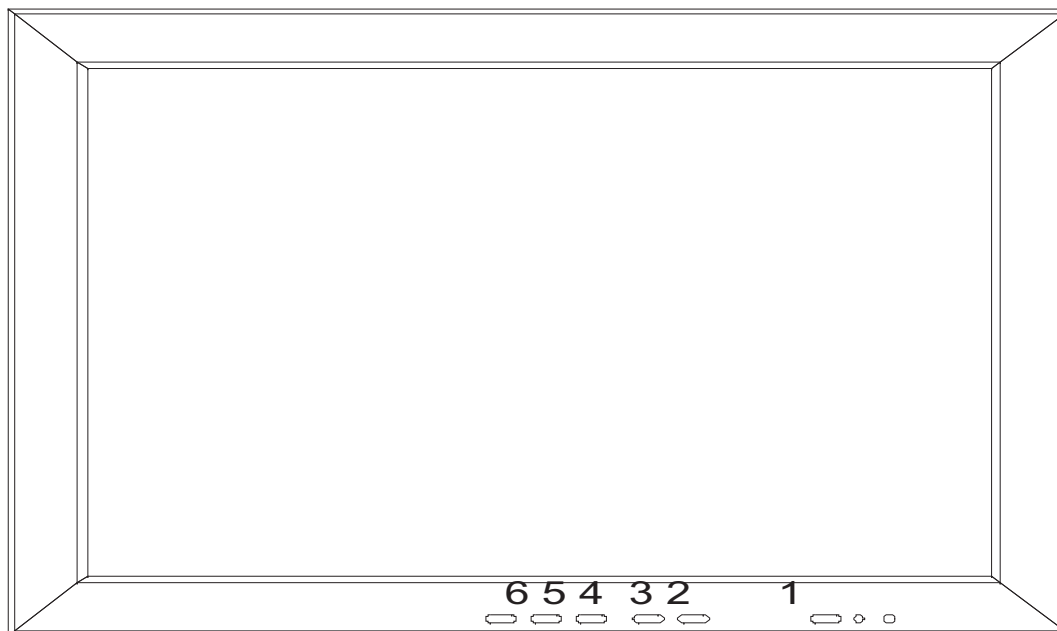
then push "SELECT" key to select the Sub-picture size on screen.
1/16-->1/9-->1/4-->1/2--->Full(Main-picture).

B: Push Down key to select Sub-picture position on screen.

C: Push Up key to select the Sub-picture source.

D: Push Source key to select Main-picture source.

(LCD320AV-1DE)



1. Power

Monitor power ON / OFF. At OFF mode, monitor will be at standby status.

LED-Green Light -- Power On

Red Light -- Standby mode

2. 3. Adjust ◀ / ▶

Increase or decrease the value on OSD menu.

◀ Decrease value on the OSD Menu

▶ Increase value on the OSD Menu

4. PIP(Optional)

PIP/POP/ function selection.

5. MENU

OSD menu selection.

6. Source

Select input signal from AV1, AV2, S-Video or PC.

***Note: PIP&POP Operating(Optional)--KEY Control**

A: Push "PIP" key to open Sub-picture.

then push "PIP" key to select the Sub-picture size on screen.

1/16-->1/9-->1/4-->1/2--->Full(Main-picture).

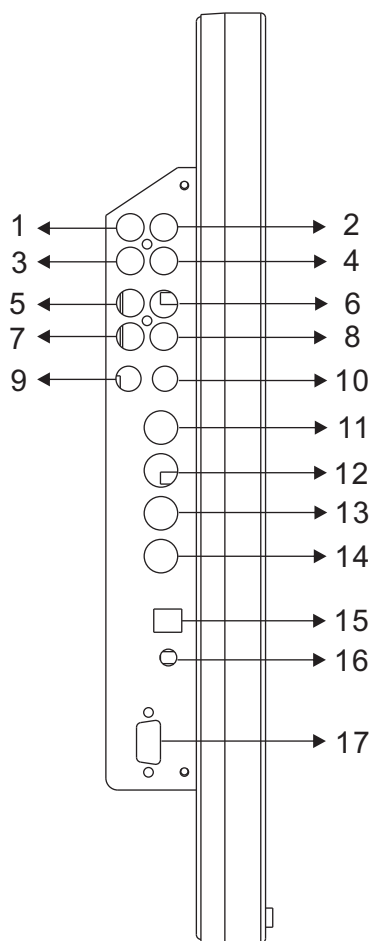
B: Push Down key to select Sub-picture position on screen.

C: Push Up key to select the Sub-picture source.

D: Push Source key to select Main-picture source.

Connections

(LCD150AV-1DE/3DE,170AV-1DE/2DE,200AV-1DE)

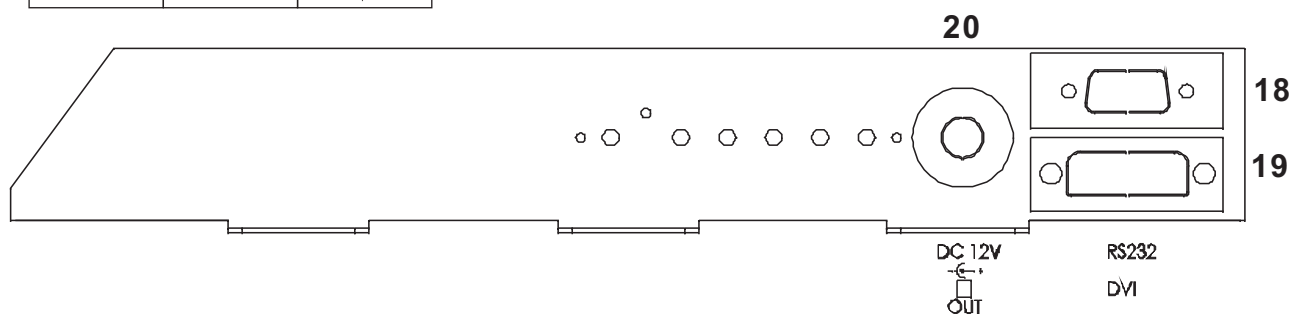


NOTE :

Connections of Audio

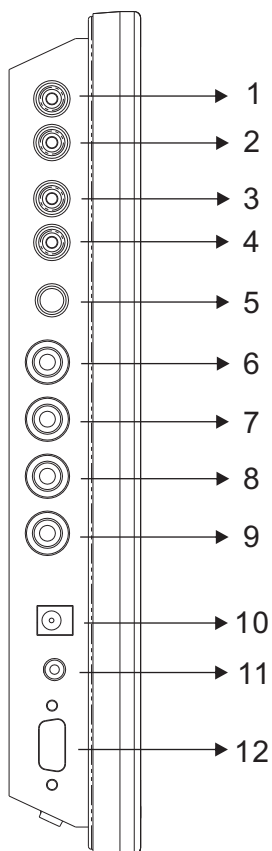
	Audio 1	Audio 2
VGA/DVI		✓
AV1	✓	
AV2		✓
S-Video		✓

- 1,2 AUDIO 2 OUT (L,R)**
Audio looping outputs for AUDIO 2
- 3,4 AUDIO 2 IN (L,R)**
Stereo Audio Signal Input, this input is for AV2, PC or Y/C (refer to Note below)
- 5,6 AUDIO 1 OUT (L,R)**
Audio looping outputs for AUDIO 1
- 7,8 AUDIO 1 IN (L,R)**
Stereo Audio Signal Input, this input is for AV1
- 9 Y/C IN (S-Video)**
Y/C separated signal input
- 10 Y/C OUT (S-Video)**
Y/C separated signal looping output
- 11 VIDEO 2 OUT**
Video looping output for VIDEO 2
- 12 VIDEO 2 IN**
Composite signal Input for VIDEO 2
- 13 VIDEO 1 OUT**
Video looping output for VIDEO 1
- 14 VIDEO 1 IN**
Composite signal Input for VIDEO1
- 15 Regulated DC12V Power Input (5A)**
- 16 AUDIO LIVE OUT(Stereo)**
- 17 PC VGA IN**
- 18 Rs232 IN**
- 19 DVI-IN**
- 20 DC12V OUT(option)**

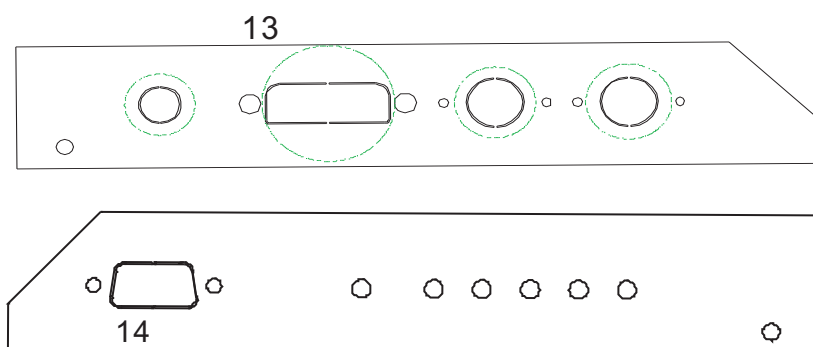


Connections

(LCD-154AV-1DE/LCD-220AV-1DE)



- 1 AUDIO 2 OUT**
Audio looping outputs for AUDIO 2
- 2 AUDIO 2 IN**
Audio Signal Input, this input is for AV2, PC or Y/C (refer to Note below)
- 3 AUDIO 1 OUT**
Audio looping outputs for AUDIO 1
- 4 AUDIO 1 IN**
Audio Signal Input, this input is for AV1
- 5 Y/C IN(S-Video)**
Y/C separated signal Input
- 6 VIDEO 2 OUT**
Video looping output for VIDEO 2
- 7 VIDEO 2 IN**
Composite signal Input for VIDEO 2
- 8 VIDEO 1 OUT**
Video looping output for VIDEO 1
- 9 VIDEO 1 IN**
Composite signal Input for VIDEO1
- 10 Regulated DC12V Power Input**
- 11 AUDIO LIVE OUT**
- 12 PC VGA IN**
- 13 DVI IN**
- 14 RS 232 IN**



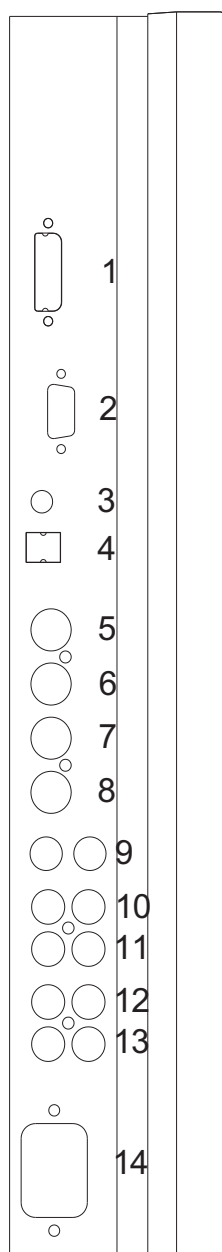
NOTE :

Connections of Audio

	Audio 1	Audio 2
DVI/VGA		✓
AV1	✓	
AV2		✓
S-Video		✓

Connections

(LCD260AV-1DE-Old Version)



- 1 PC DVI- IN (Option)**
- 2 PC VGA-IN**
- 3 AUDIO LIVE OUT(Stereo)**
- 4 DC12V/1A OUT(Optional)**
- 5 VIDEO 1 IN**
Composite signal Input for VIDEO1
- 6 VIDEO 1 OUT**
Video looping output for VIDEO 1
- 7 VIDEO 2 IN**
Composite signal Input for VIDEO 2
- 8 VIDEO 2 OUT**
Video looping output for VIDEO 2
- 9 Y/C IN(S-Video)**
Y/C separated signal Input
- 10 AUDIO 1 IN(L,R)**
Audio Signal Input, this input is for Av1
- 11 AUDIO 1 OUT(L,R)**
Audio Looping output, for AUDIO1
- 12 AUDIO2 IN(L,R)**
Stereo Audio Signal Input, this input is for Av2, PC or Y/C (refer to Note below)
- 13 AUDIO 2 OUT(L,R)**
Audio Looping output, for AUDIO1
- 14 AC IN**

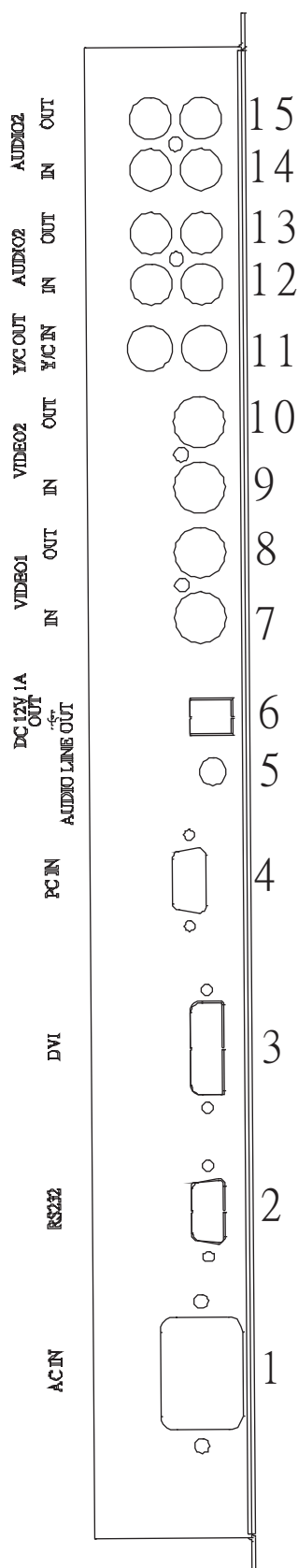
NOTE :

Connections of Audio

	Audio 1	Audio 2
VGA/DVI		✓
AV1	✓	
AV2		✓
S-Video		✓

Connections

(LCD320AV-1DE)



- 1 AC IN
- 2 RS232 - IN
- 3 PC DVI- IN
- 4 PC VGA-IN
- 5 AUDIO LIVE OUT (Stereo)
- 6 DC12V/1A OUT (Option)
- 7 VIDEO 1 IN
Composite signal Input for VIDEO 1
- 8 VIDEO 1 OUT
Video looping output for VIDEO 1
- 9 VIDEO 2 IN
Composite signal Input for VIDEO 2
- 10 VIDEO 2 OUT
Video looping output for VIDEO 2
- 11 Y/C IN/OUT (S-Video)
Y/C separated signal Input/Out
- 12 AUDIO 1 IN (L,R)
Audio Signal Input, this input is for Av1
- 13 AUDIO 1 OUT (L,R)
Audio Looping output, for AUDIO 1
- 14 AUDIO 2 IN (L,R)
Stereo Audio Signal Input, this input is for Av2, PC or Y/C (refer to Note below)
- 15 AUDIO 2 OUT (L,R)
Audio Looping output, for AUDIO 1

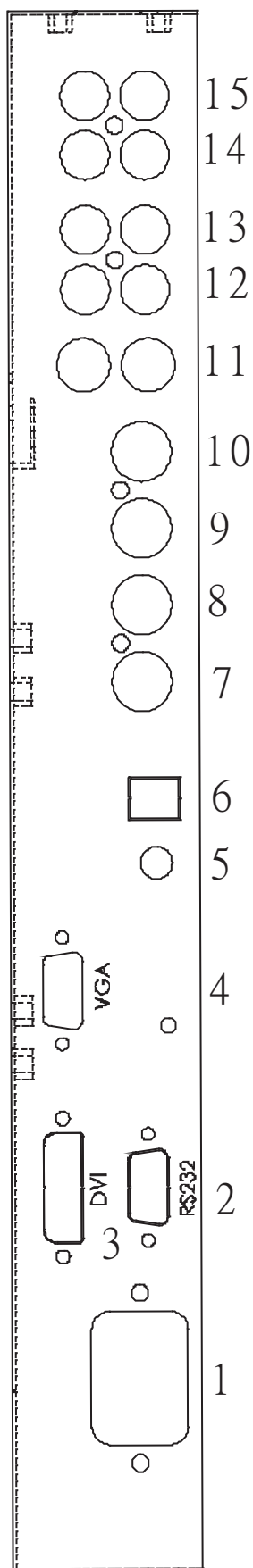
NOTE :

Connections of Audio

	Audio 1	Audio 2
VGA/DVI		✓
AV1	✓	
AV2		✓
S-Video		✓

Connections

(LCD260/320AV-1DE-New Version)



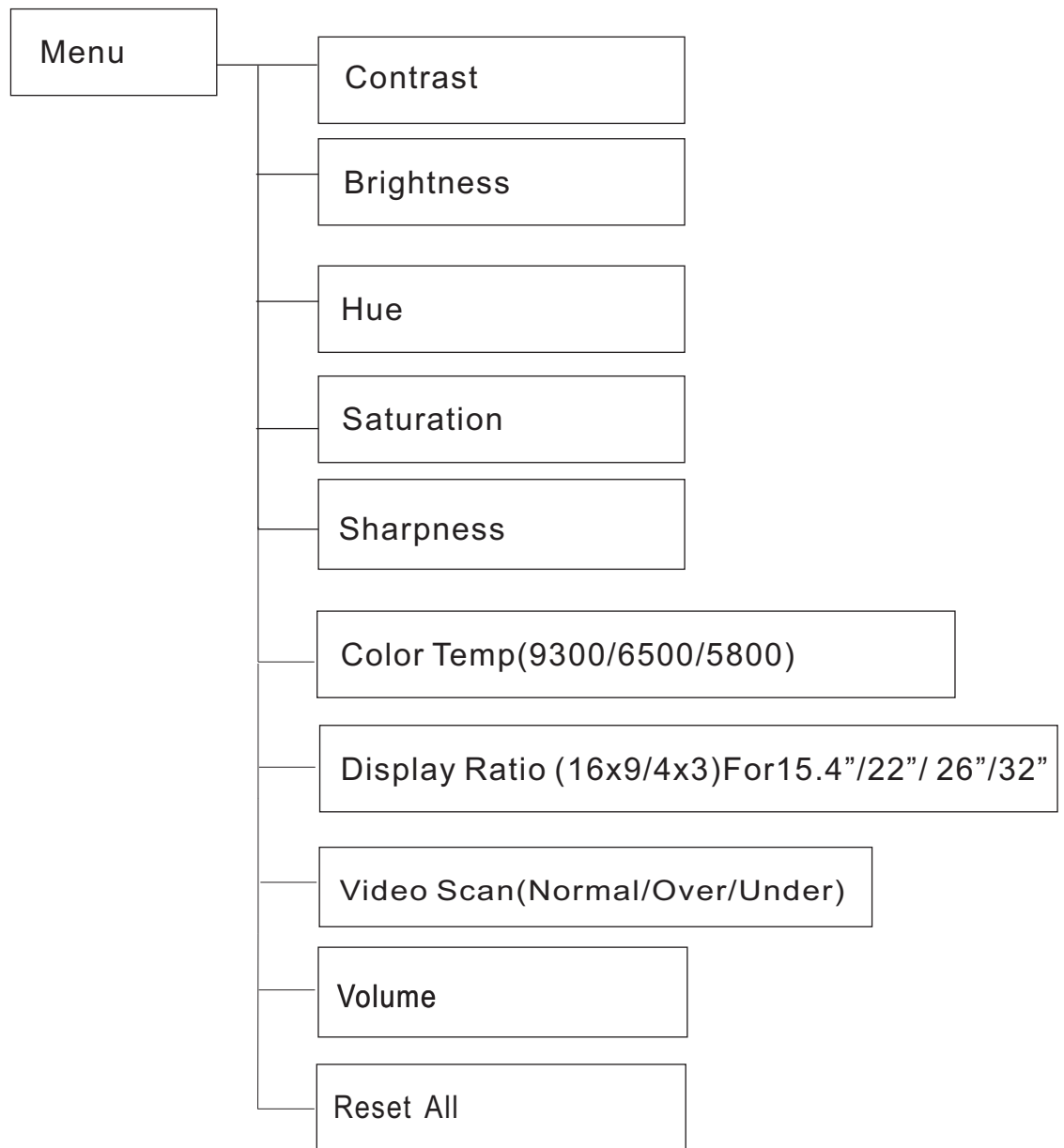
- 1 AC IN
- 2 RS232 - IN
- 3 PC DVI- IN
- 4 PC VGA-IN
- 5 AUDIO LIVE OUT (Stereo)
- 6 DC12V/1A OUT (Option)
- 7 VIDEO 1 IN
Composite signal Input for VIDEO1
- 8 VIDEO 1 OUT
Video looping output for VIDEO 1
- 9 VIDEO 2 IN
Composite signal Input for VIDEO 2
- 10 VIDEO 2 OUT
Video looping output for VIDEO 2
- 11 Y/C IN/OUT (S-Video)
Y/C separated signal Input/Out
- 12 AUDIO 1 IN (L,R)
Audio Signal Input, this input is for Av1
- 13 AUDIO 1 OUT (L,R)
Audio Looping output, for AUDIO1
- 14 AUDIO2 IN (L,R)
Stereo Audio Signal Input, this input is for Av2, PC or Y/C (refer to Note below)
- 15 AUDIO 2 OUT (L,R)
Audio Looping output, for AUDIO2

NOTE :

Connections of Audio

	Audio 1	Audio 2
VGA/DVI		✓
AV1	✓	
AV2		✓
S-Video		✓

A. OSD Function



Under AV1, AV2, S-Video mode:

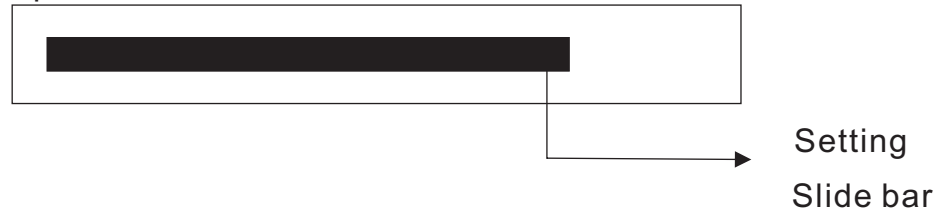
Press the MENU button to bring up the OSD Menu.

Press ◀ ▶ "to Decrease or Increase value on the OSD Menu.

Contrast:

Permits adjustment for contrast between light or dark areas of the picture.

Example:

**Brightness:**

Adjusts the overall picture shade and brightness.

Tip: Use the Brightness to make details in the dark areas of the picture to be just visible, and Contrast to "brighten" the picture without causing noises and foreheads to turn white.

Hue:

Adjust all the colors on the screen, but is most noticeable to the eye in reds and yellows, and is also usually set for pleasing face tones.

Note: Appears in NTSC mode only.

Saturation:

Adds coloring to the black and white picture content (of a color signal), and is usually set for viewer's preference in color saturation.

Sharpness:

Sets the desired sharpening enhancement to the picture.

Color Temp:

Adjust the screen color temperature 9300/6500/5800

Display Ratio:

To selecting 16X9 or 4X3.

Video Scan:

Adjust the screen size to Normal/ Over/Under scan.

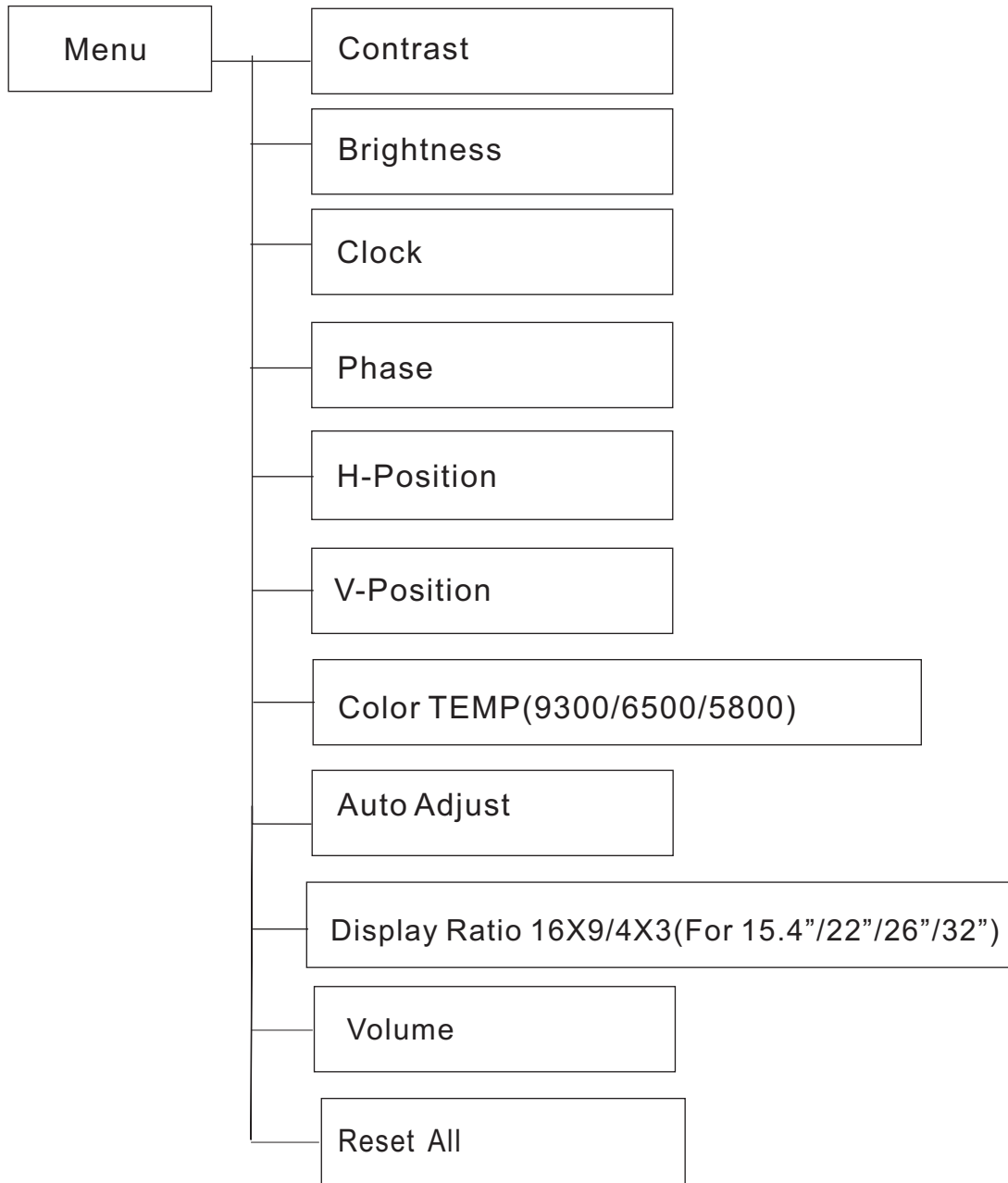
Volume:

Control built-in speakers' output Volume.

Reset All:

Returns all controls back to factory setting.

B. OSD Function (PC Mode Only)



Under Image mode:

Press the MENU button to bring up the OSD Menu.

Press ◀ ▶ to Decrease or Increase value on the OSD Menu.

Contrast: Adjusts foreground white level of the screen image.

Brightness: Adjusts background black level of the screen image.

H-Position: Controls the picture horizontal position.

V-Position: Controls the picture vertical position.

Clock: Adjust the internal pix clock lag in order to optimize the screen image.

Phase: Adjust the internal clock time lag in order to optimize the screen image.

Auto Adjust: Automatically selects the optimal settings for image parameters.

Display Ratio: To selecting 16X9 or 4X3

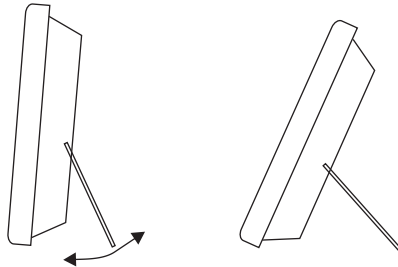
Volume: Control built-in speakers' output Volumes

Reset All: Returns all controls back to factory setting.

LCD monitor Mounting Guide

A. Desktop

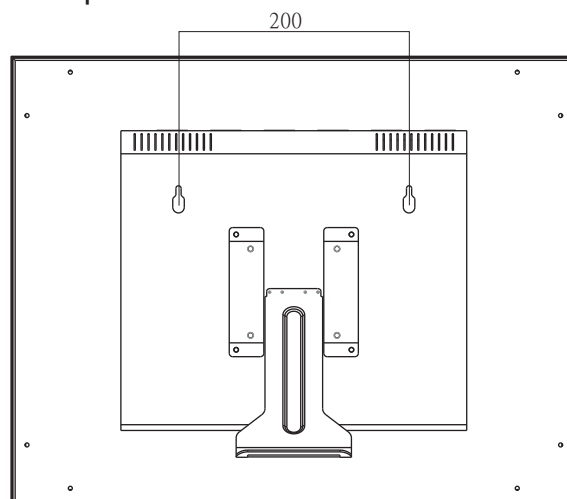
Adjust the viewing angle of LCD to fit most comfortable monitoring status.



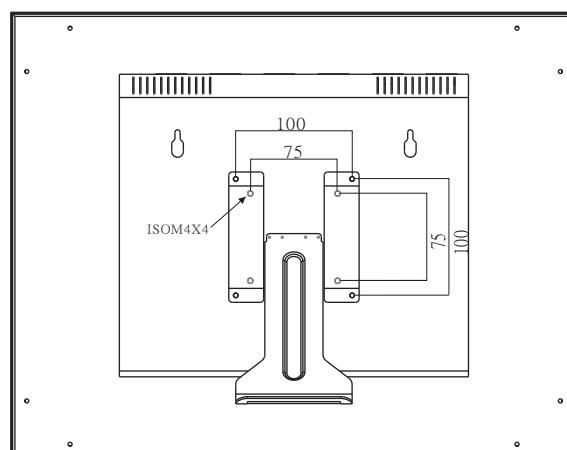
B. Wall mount

Free your space with wall mount design.

Please follow the fix-hole size in back panel to install the LCD to the wall.

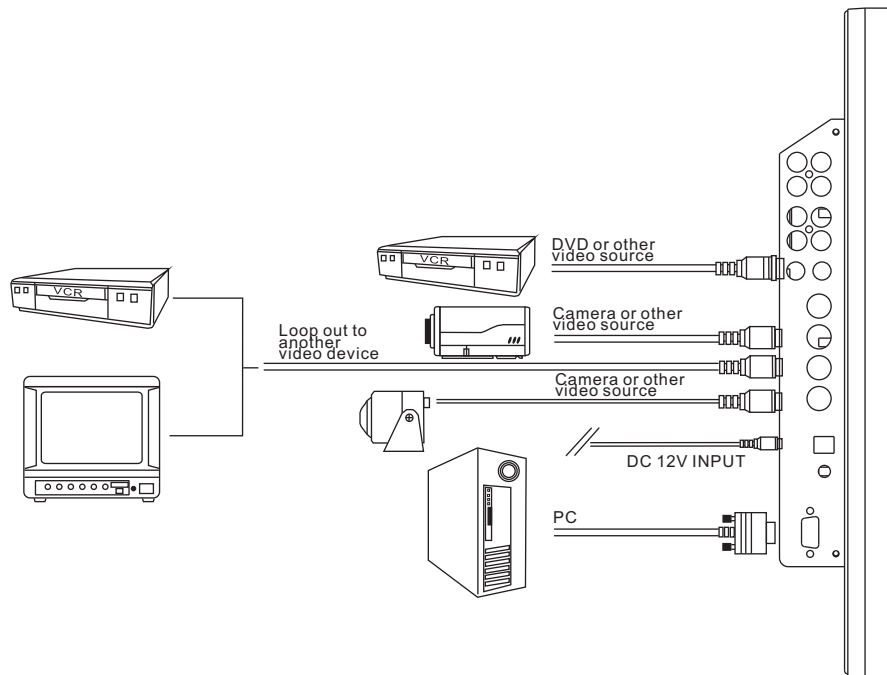


C. VESA Bracket



Connecting Device

(LCD150AV-1DE/3DE、LCD170AV-1DE/2DE、LCD200AV-1DE)



- Connect PC to Monitor through VGA connector as shown on the above picture
- Connect External device such as DVD or Game Player to Monitor as shown on the above picture
- Connect CCD Camera 1 and 2 to Monitor through Video Input 1 and 2 (BNC Connect) as showing on the above picture
- Support Resolution:

LCD150AV-1DE/3DE

640 x 480 60Hz	800 x 600 60Hz	1024 x 768 60Hz
640 x 480 72Hz	800 x 600 70Hz	1024 x 768 70Hz
640 x 480 75Hz	800 x 600 72Hz	1024 x 768 75Hz
	800 x 600 75Hz	

LCD170AV-1DE/2DE

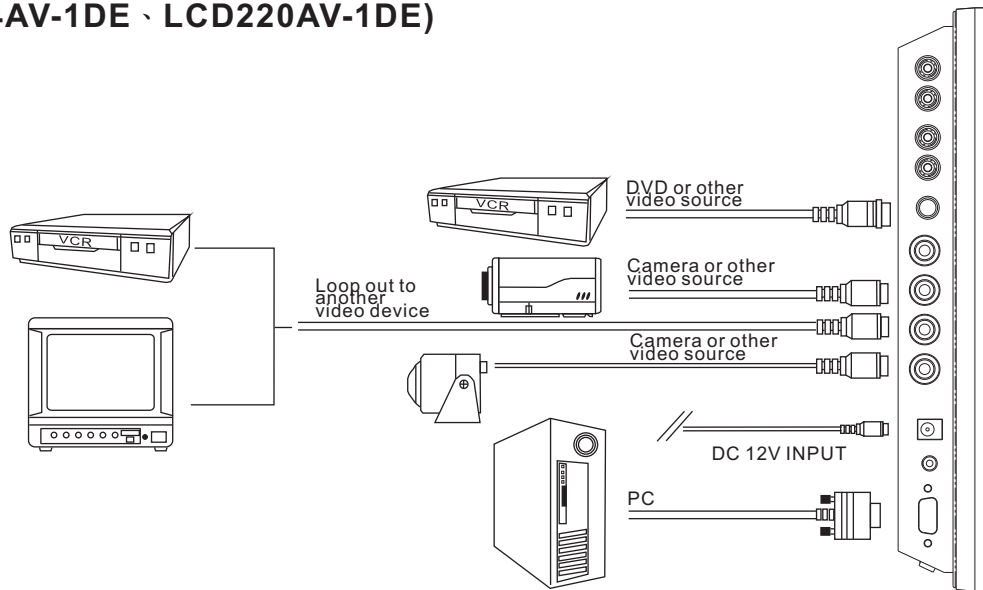
640 x 480 60Hz	800 x 600 60Hz	1024 x 768 60Hz
640 x 480 72Hz	800 x 600 70Hz	1024 x 768 70Hz
640 x 480 75Hz	800 x 600 72Hz	1024 x 768 75Hz
	800 x 600 75Hz	1280 x 1024 60Hz

LCD200AV-1DE

640 x 480 60Hz	800 x 600 60Hz
640 x 480 72Hz	800 x 600 70Hz
640 x 480 75Hz	800 x 600 72Hz
	800 x 600 75Hz

Connecting Device

(LCD154AV-1DE、LCD220AV-1DE)



- Connect PC to Monitor through VGA connector as shown on the above picture
- Connect External device such as DVD or Game Player to Monitor as shown on the above picture
- Connect CCD Camera 1 and 2 to Monitor through Video Input 1 and 2 (BNC Connect) as showing on the above picture
- Support Resolution

LCD154AV-1DE

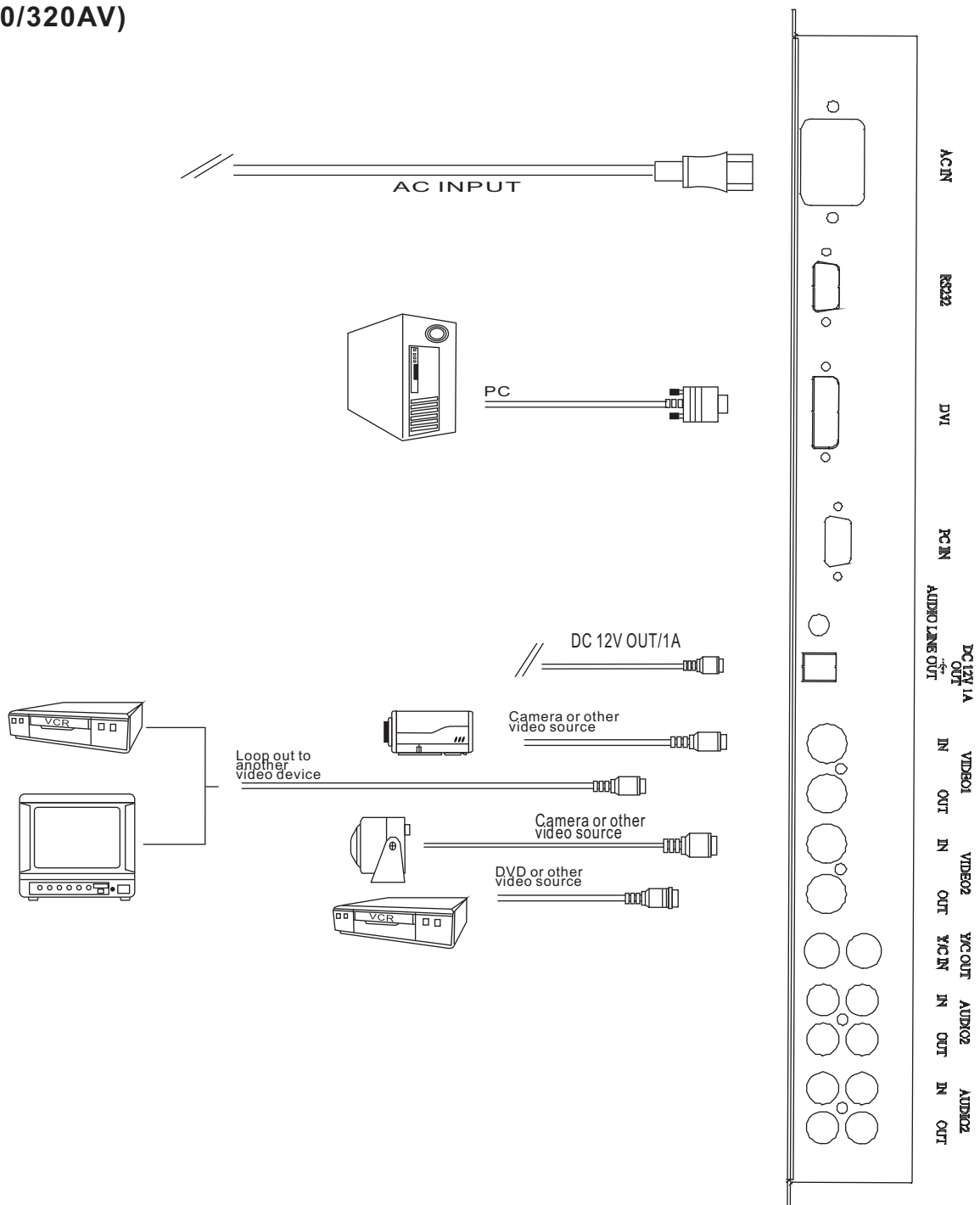
640 x 480 60Hz	800 x 600 56Hz	1024 x 768 60Hz
640 x 480 72Hz	800 x 600 70Hz	1024 x 768 70Hz
640 x 480 75Hz	800 x 600 72Hz	1024 x 768 75Hz
	800 x 600 75Hz	1280 x 800 60Hz

LCD-220AV-1DE

640 x 480 60Hz	800 x 600 56Hz	1024 x 768 60Hz
640 x 480 72Hz	800 x 600 70Hz	1024 x 768 70Hz
640 x 480 75Hz	800 x 600 72Hz	1024 x 768 75Hz
	800 x 600 75Hz	1366 x 768 60Hz

Connecting Device

(LCD260/320AV)



- Connect PC to Monitor through VGA connector as shown on the above picture
- Connect External device such as DVD or Game Player to Monitor as shown on the above picture
- Connect CCD Camera 1 and 2 to Monitor through Video Input 1 and 2 (BNC Connect) as showing on the above picture
- Support Resolution:

LCD260/320AV-1DE

640 x 480 60Hz	800 x 600 60Hz	1024 x 768 60Hz
640 x 480 72Hz	800 x 600 70Hz	1024 x 768 70Hz
640 x 480 75Hz	800 x 600 72Hz	1024 x 768 75Hz
	800 x 600 75Hz	1366X768 60HZ

Specification

Model	LCD150AV-1DE/3DE	
LCD Panel	15" TFT LCD	
Display Colors	262K	
Display area	304.128 x 228.096mm	
Resolution	1024x 768 (XGA)	
Brightness	250cd/m ²	400cd/m ²
Contrast Ratio	500:1 typ.	
Response Time	12 ms(Tr+tf)	
View angle	L/R	±80°
	U/D	±80°(up)/55°(Down)
3D Comb Filter	Yes	
Input Signal	1.0Vp-p Composite { BNCx2 Input BNC x 2 Output (Auto Termination) VGA ————— D-Sub 15Pin Input S-Video ————— { 4 Pin Min Din x 1 Input 4 Pin Min Din x 1 Output	
DVI/PIP-POP/RS232	Option	
Audio In/Out	RCA(R/L) x 2 set Input RCA(R/L) x 2 set Output 2Wx2W/8ohm	
Operating	Power ON/OFF OSD Control Function	
Power Supply	W/Power Adapter In: AC 96~260V/50/60Hz Out:DC12V 5A	
Power Consumption	20W	30W
Dimension	385.8x309.5x81.3	419.6x352x81.3
Weight	4.2kg	5.7kg
Temperature	0~40℃	
Humidity	20%~80%	

Specification

Model	LCD154AV-1DE	
LCD Panel	15.4" TFT LCD	
Display Colors	262K	
Display area	329 x 204mm	
Resolution	1280x 800 (WXGA)	
Brightness	600cd/m ²	
Contrast Ratio	800:1 typ.	
Response Time	5ms(Tr+tf)	
View angle	L/R	60/60
	U/D	40/60
3D Comb Filter	Yes	
Input /Out Signal	1.0 Vp-p Composite BNCx2 Input BNC x 2 Output (Auto Termination) VGA ————— D-Sub 15Pin Input DVI ————— DVI Input(digital only in)(option) S-Video ————— 4 Pin Min Din x 1 Input	
RS 232	Option	
PIP-POP	Option	
Audio In/Out	RCA x 2 set Input RCA x 2 set Output 2W/8ohm	
Operating	Power ON/OFF OSD Control Function	
Power Supply	W/Power Adapter In: AC 96~260V/50/60Hz Out:DC12V 5A	
Power Consumption	18W	
Dimension	380X255x51	
Weight	3.0kg	
Temperature	0~40℃	
Humidity	20%~80%	

Specification

Model		LCD170AV-1DE/2DE	
LCD Panel		17" TFT LCD	
Display Colors		16.2 M	
Display area		337.92 x 270.336mm	
Resolution		1280x 1024 (SXGA)	
Brightness		300cd/m ²	400cd/m ²
Contrast Ratio		500:1 typ.	
Response Time		5ms(Tr+tf)	
View angle	L/R	±70°	
	U/D	±70°(up)/70°(Down)	
3D Comb Filter		Yes	
Input Signal		1.0Vp-p Composite ┌ BNCx2 Input └ BNC x 2 Output (Auto Termination) VGA ————— D-Sub 15Pin Input S-Video ————— ┌ 4 Pin Min Din x 1 Input └ 4 Pin Min Din x 1 Output	
DVI/PIP-POP/RS232		Option	
Audio In/Out		RCA(R/L) x 2 set Input RCA(R/L) x 2 set Output 2Wx2W/8ohm	
Operating		Power ON/OFF OSD Control Function	
Power Supply		W/Power Adapter In: AC 96~260V/50/60Hz Out:DC12V 5A	
Power Consumption		30W	
Dimension		419.6x352x81.3	
Weight		5.7kg	
Temperature		0~40℃	
Humidity		20%~80%	

Specification

Model		LCD200AV-1DE
LCD Panel		20" TFT
Level		TV
3D Comb Filter		Yes
Display area		408 x 306mm
Resolution		800x 600
Brightness		450cd/m ² @6mA
Contrast Ratio		500:1 typ.
Response Time		16ms
View angle	L/R	80(left),80(right)
	U/D	80(up),60(down)
Input Signal		1.0 Vp-p Composite — BNCx2 Input BNC x 2 Output (Auto Termination) VGA ————— D-Sub 15Pin Input S-Video ————— 4 Pin Min Din x 1 Input 4 Pin Min Din x 1 Output
DVI/PIP-POP/RS232		Option
Audio In/Out		RCA(R/L) x 2 set Input RCA(R/L) x 2 set Output
Operating		OSD Control Function
Power Supply		Adapter AC 96~260V/50/60Hz/DC12V 5A
Power Consumption		45W
Dimension		490.5x388.5x83.3
Weight		6.8kg
Temperature		0~40℃
Humidity		20%~80%

Specification

Model	LCD-220AV-1DE
LCD Panel	22 TFT LCD
Display Colors	16.7 M
Display area	473.76 x 296mm
Resolution	1680x 1050
Brightness	300cd/m ²
Contrast Ratio	1000:1 typ.
Response Time (Tr+tf)	3.6/1.4 ms (5 ms)
View angle L/R U/D	85/85 80/80
3D Comb Filter 3D De-Interlace	Yes
PIP/POP Function	OPTION
Input /Out Signal	1.0 Vp-p Composite — BNCx2 Input BNC x 2 Output (Auto Termination) VGA ————— D-Sub 15Pin Input DVI ————— DVI Input(digital only in) S-Video ————— 4 Pin Min Din x 1 Input
Rs232	OPTION
PIP-POP	OPTION
Audio In/Out	RCA x 2 set Input RCA x 2 set Output 2W/8ohm
Operating	Power ON/OFF OSD Control Function
Power Supply	W/Power Adapter In: AC 90~264V/50/60Hz Out:DC12V 5A
Power Consumption	43W
Dimension(with stand)	527x348x71mm
Weight	5.6kg
Environment	Operating: 0℃~40℃ / Humidity: 10%~85% Storage: -20℃~60℃ / Humidity: 10%~85%

Specification

Model		LCD260AV-1DE	
LCD Panel		26" TFT	
Level		TV	
3D Comb Filter		Yes	
Display area		575.769x323.712mm	
Resolution		1366x768	
Brightness		500cd/m ²	
Contrast Ratio		800:1 typ.	
Response Time		8ms	
View angle	L/R	88(left),88(right)	
	U/D	88(up),88(down)	
Input Signal		1.0 Vp- p Composite — BNCx2 Input BNC x 2 Output (Auto Termination) VGA ————— D-Sub 15Pin Input S-Video ————— 4 Pin Min Din x 1 Input 4 Pin Min Din x 1 Output	
DVI/PIP-POP/RS232		Option	
Audio In/Out		RCA(R/L) x 2 set Input RCA(R/L) x 2 set Output	RCA(R/L)X2set Input RCA(R/L)X2 set Input
Operating		OSD Control Function	
Power Supply		AC 96V~260V/1.2A	
Power Consumption		120W	
Dimension		668x415x85.5	
Weight		6.1kg	
Temperature		0~40℃	
Humidity		20%~80%	

Specification

Model		LCD-320AV-1DE
LCD Panel		31.5” TFT
Level		TV
3D Comb Filter		Yes
Display area		697.68x392.25mm
Resolution		1366x768
Brightness		500cd/m ²
Contrast Ratio		1500:1 typ.
Response Time		8ms
View angle	L/R	89(left),89(right)
	U/D	89(up),89(down)
Input Signal		1.0 Vp- p Composite – BNCx2 Input BNC x 2 Output (Auto Termination) PC-IN————— D-Sub 15Pin(VGA)/ DVI-input S-Video ————— 4 Pin Min Din x 1 Input 4 Pin Min Din x 1 Output
DVI		YES
Audio In/Out		RCA(R/L)X2set Input RCA(R/L)X2 set Input
RS232		OPTION
STAND		OPTION
PIP/POP		OPTION
Operating		OSD Control Function
Power Supply		AC90~260V
Power Consumption		168W
Dimension(w/o stand)		785.6X477.2X102.68mm
Weight(N.W)		12.3 kg
Temperature		0~40℃
Humidity		20%~80%

A. TROUBLE SHOOTING

Problem:

1.No power

2.No video or audio

3.Bad video or audio

4.Image not stable

5.Ab-normal line

6.Ghost image

7.Desired video disappear

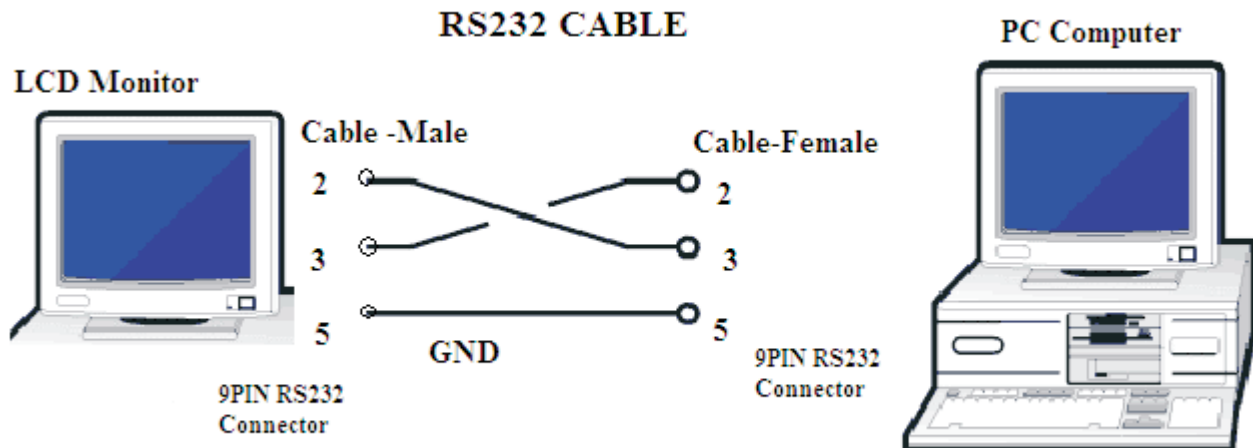
Checking:

- Power-cord connecting Power-on
- Change to right input channel?
- Check signal cable?
- Any interrupt from other devices?
- Adjust video control on OSD?
- Adjust video source?

Package List

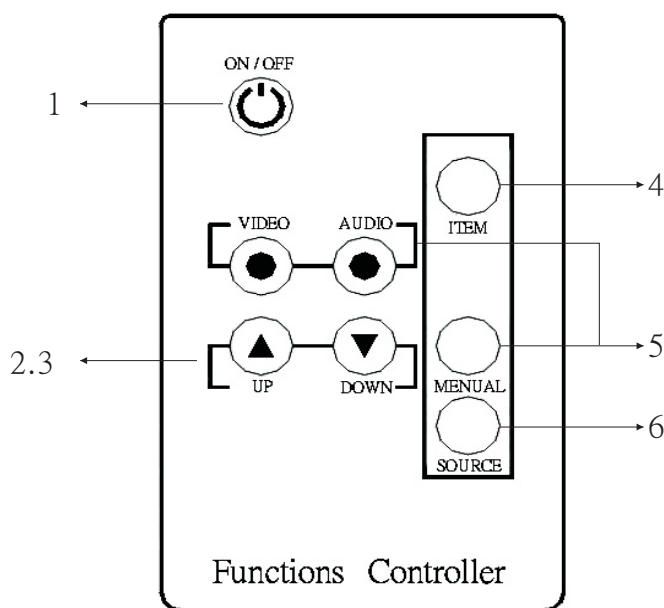
A.	LCD Monitor	x 1
B.	Power Cord	x 1
C.	Accessory Kit	
	a.DB15-DB15 VGA Cable x1	x 1(option)
	b.1/8" male to 1/8" male audio cable	x 1(option)
D.	User Manual	x 1
E.	12V Power Adapter	x 1(Exception 26"/32")
F.	Remote Control	x 1

B:RS232 Cable pin definition:



C:RS232 Communication data:

Serial Settings for communication with Screen.					
These are the settings that need to be set on a PC/control system for it to communicate with the screen.					
The RS232 serial cable used should be a "Crossed over" type. See diagram above.					
Baud rate	= 9600 bps				
Parity	= None				
Character length	= 8 bit				
Stop bit	= 1 bit				
Flow control	= None				
Serial commands					
Power Commands					
=====					
\x02PON\x03	Power On				
\x02POF\x03	Power Off				
=====					
Volume Commands					
=====					
\x02AVL:XXX\x03	Volume preset. XXX = the value 000 to 100				
=====					
Source Selection					
=====					
\x02IMS\x03	Input select(toggle)				
\x02IMS:SL1\x03	AV1				
\x02IMS:SL2\x03	AV2				
\x02IMS:SL3\x03	S-Video				
\x02IMS:PC1\x03	PC Input				
\x02IMS:PC2\x03	DVI In				
=====					



1. Power

Monitor power ON / OFF. At OFF mode, monitor will be at standby status.

LED- Green Light -- Power On

Red Light -- Standby mode

2. 3. Adjust /

Increase or decrease the value on OSD menu.

 Increase value on the OSD Menu

 Decrease value on the OSD Menu

4. Item(Option)

PIP/POP selection.

5. Menu

OSD Menu control.

6. Source

Select input signal from AV1, AV2, S-Video or PC(orDVI).

