CVW-42AK2
Video Wall User manual

Model No.: CVW-42AK2
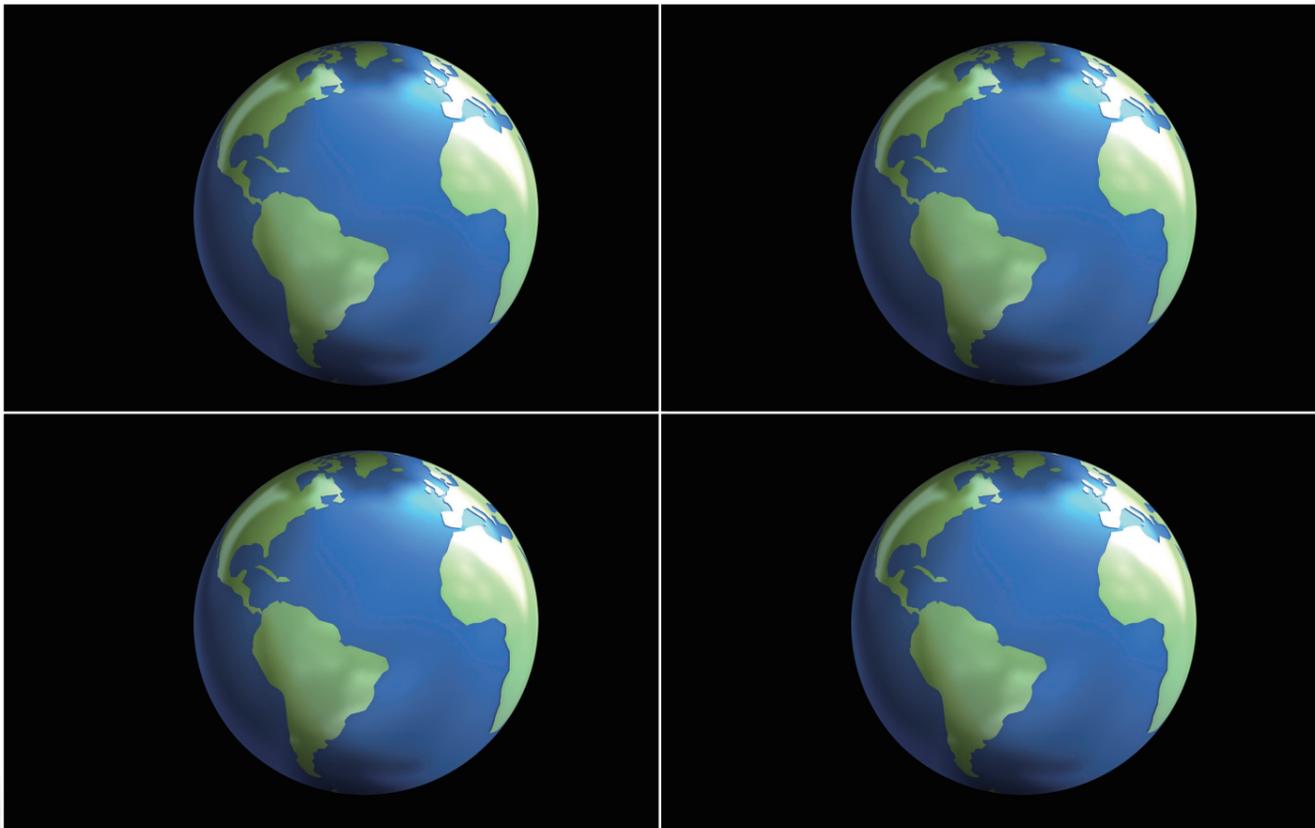
Operation Instructions

Thank you for purchasing this product. For optimal performance and safety, read these instructions carefully. Please keep this manual for future reference.

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Revision History

Version No	Date	Summary of Change
VR0	20120821	Preliminary Release
VR1	20121012	Add RS-232 Commands
VR2	20121126	OSD Menu

Table of Contents

Important Information Warning

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         ┌─────────────────────────┐
   ⚡     │       CAUTION           │     !
         ├─────────────────────────┤
         │ RISK OF ELECTRIC SHOCK  │
         │      DO NOT OPEN        │
         └─────────────────────────┘
   CAUTION: TO REDUCE THE RISK OF ELECTRIC
            SHOCK, DO NOT REMOVE SCREWS.
            NO USER-SERVICEABLE PARTS
            INSIDE.
            REFER SERVICING TO QUALIFIED
            SERVICE PERSONNEL.
```

The lightning flash and exclamation mark are intended to tell which parts inside this product are at risk of electric shock.

Warning: To reduce the risk of fire or electric shock, do not expose this apparatus to rain or moisture. Do not place liquid containers (flower vase, cups, cosmetics, etc.) above the set (including on shelves above, etc.).

1. Power Supply

Only operate this product from the type of power supply included in the package. If you are not sure what the voltage is in your home or office please consult your local power provider. Disconnect the product before installation or maintenance.

2. Overloading

Do not overload a wall outlet, extension cord or adapter as this may result in fire or electric shocks.

3. Liquids

This product should not be exposed to any liquid. Also, no containers filled with liquid should be placed on the device.

4. Cleaning

Disconnect the product before cleaning. Please wipe the screen gently with a soft cloth. Do not use chemical solvents to clean this product as this will damage the exterior casing, tinted glass and the remote controller.

5. Mounting

Mount this product on a stable, even surface.

6. Cable

Do not intertwine, pull or compress the power cable, otherwise it can wear out and get damaged. When this system is being installed do not place any cable beneath the product, otherwise electric shocks or short circuits could occur.

1. Introduction

The video wall is the best solution for advertise, entertainment and display the information to the public. To attract audience's attention is captured by the bright, moving, constantly changing and relevant messages. Through RS-232 control, it allows users to control different views from the video wall.

2. Features

- Supports 2x2 / 3x3 / 4x4 / 5x5 video wall
- Supports Full HD 1920 x 1080 LCD panel.
- Through RS-232 control video wall.
- Using one single remote control to select different combination to the display.

3. Applications

Video Wall systems can operate and apply for public places, Control rooms, Retail Sales Environments, Schools, Hotels and more.

4. Specifications

Model. No	CVW-42AK2
SPECIFICATION	
Screen Size (Inches)	42
Aspect Ratio	16:9
Contrast Ratio	3500:1
Viewing Angle Range	178°
Panel Resolution	1920 x 1080
Response Time (ms)	8
Brightness	700 cd/m2
VIDEO	
HDMI Compatibility	SD: 480p, 576p, HD: 720 p@50/60,1080i@50/60,1080p@50/60
VGA Compatibil i t y	VGA 640x480@60,72,75 SVGA 800x600@56,60,72,75 XGA 1024x768@60,70,75 SXGA 1280x1024@60 1920x1080@60
INPUT/OUTPUT	
HDMI Interface	1 rear
RS-232	2 rear (1 male in use, 1 female in use)
15 Pin D-Sub	1 rear
IR Port	1 rear
GENERAL	
Power Supply	100V~240V
Power Consumption (W)	180
On Screen Display Languages	Chinese, English
Dimension (H X V X D) mm	957.4 x 550.2 x 110.5
Package Dimension (H X V X D) mm	1080 x 690 x 220
Net Weight (Kg)	21
Gross Weight (Kg)	23
Accessory	
Power Cord	1
Remote Control With Batteries For RS-232 Control And Video Wall	1/Video wall
User Manual	Yes
Warranty Card	Yes
HDMI Splitter	Option
DCE to DTE RS-232 Cable	1
IR Extension Cable	1/Video wall
Mounting Kit	Option

Note: Panel vender different the specification will be different.

5. LCD TV Panel Installation (For one unit only)

Panel Installation: Use of this product with any accessory not included in the original package may cause serious problems which could result in injury.

① Product spec:
Maximum weight: 90kg Net weight: 5kg
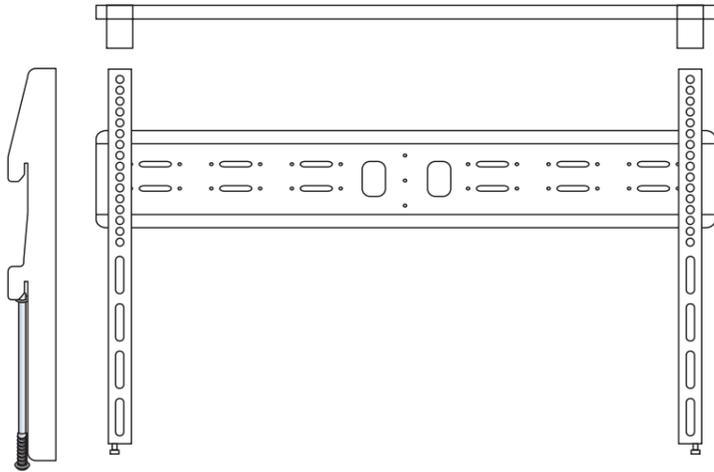
② Required accessories:
Make sure all the accessories are included in the package.

Ⓑ ● Holding strip x 1
Ⓒ ● 1/4 Expansion bolts x 4
Ⓓ ● #12 Wood screw x 8
Ⓔ ● M5 Assembly screw x 4
Ⓐ ● Hanging Strip x 2
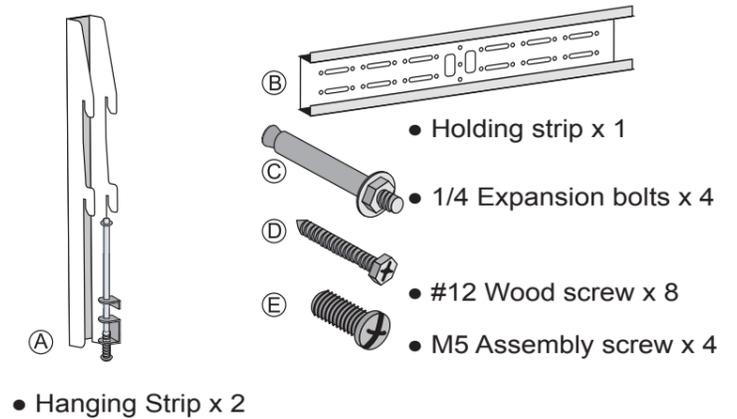
③ Installation:

⑴ Choosing the right wall
● Select a wall with a thickness of at least 5cm
● The wall should be made of a strong material
● If the system is being set up on a wood wall, please use the 8 x #12 wood screws (D)
● If set up is to occur on a concrete wall, please use 4 x 1/4 Expansion bolts. (C)

(C)

(D)
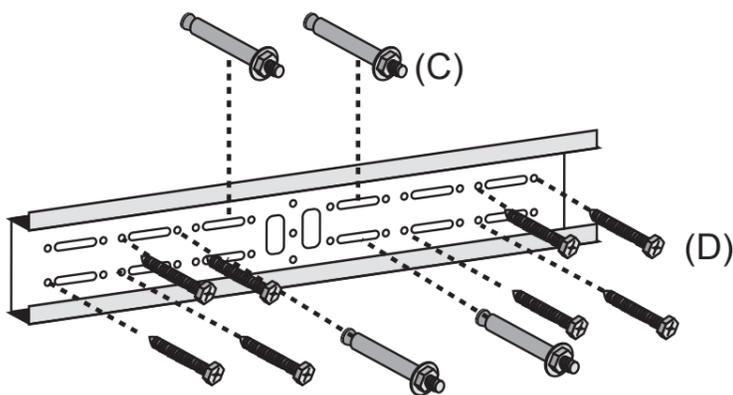
⑵ Hanging Strip Assembly :
● When assembling the Hanging Strip make sure the LCD panel is safely secured.
● During the installation make sure the power plug is disconnected.
● Using 4 x M5 Assembly screws (E) Screw the Hanging strip and LCD panel together.

(E)
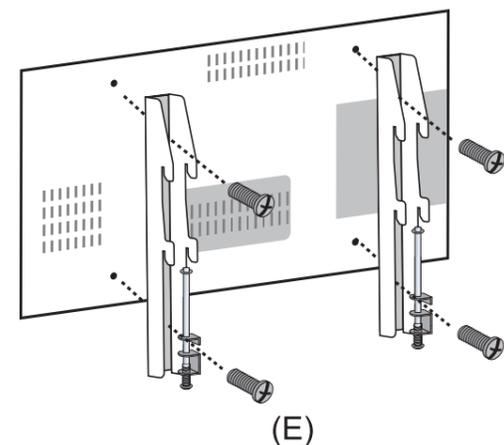
⑶ Attaching the Hanging Strip:
● When attaching the Hanging Strip make sure the LCD panel is safely secured.
● Attach the Hanging Strip to the Holding Strip (Make sure the Holding Strip is properly aligned with the Hanging Strip.)
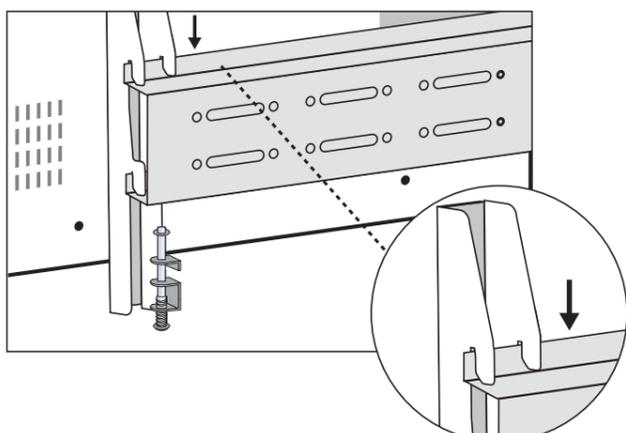
⑷ Screw Hanging Strip :
● Make sure the Safety bolts are screwed in correctly.
● The Safety bolts need to be screwed in correctly to prevent the LCD panel from dropping.

Note: The Safety bolts need to be screwed in correctly.
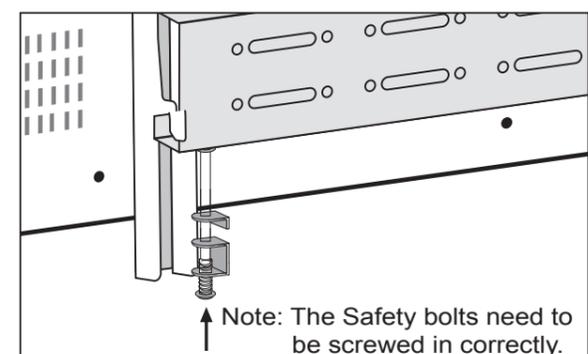
6. LCD Panel Rear Side
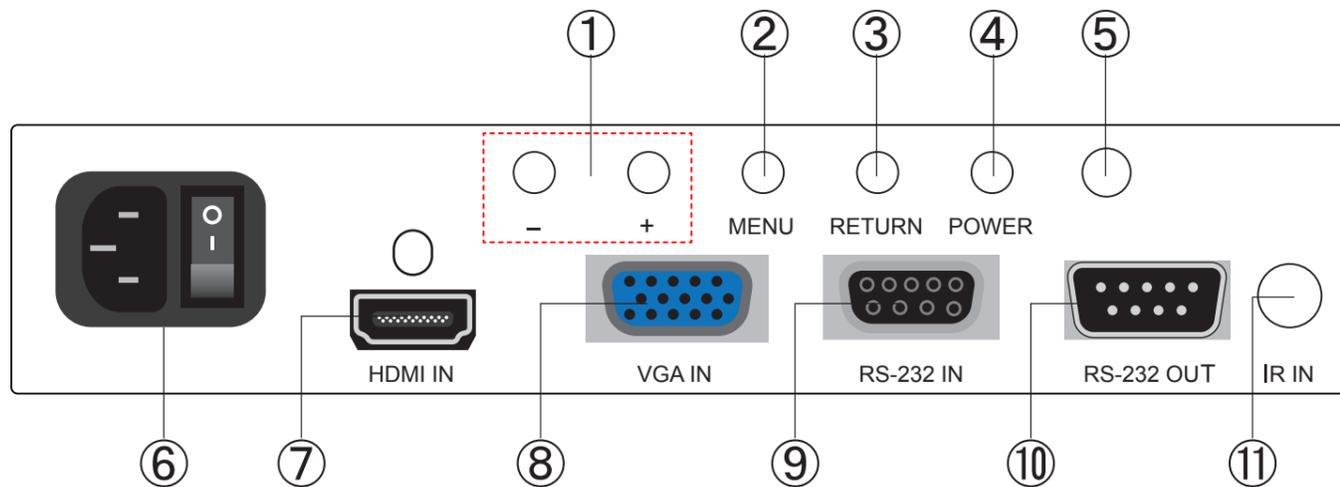
① -/+ Buttons: Press these buttons to scroll down/up in the Menu selection and value setting.

② MENU: Press this button to enter into the menu selection and press it again to confirm the selection.

③ RETURN: Press this button to return from the selection and get back to the upper menu or exit OSD function.

④ POWER: Press this button to switch on or set the device to standby mode.

⑤ Power LED: This LED will illuminated in green when the device is switched on and red when in standby mode.

⑥ AC IN & Power switch: Plug the power cord included in the package and connect it with AC wall outlet. Toggle the switch to turn on and off the power.

⑦ HDMI IN: Connect with input source equipment such as DVD/Blu-ray player for image display on the LCD panel/video wall.

⑧ VGA IN: Connect with input srouce equipment such as PC/NB for image display on the LCD panel/wall.

⑨ RS-232 IN: Connect from PC/NB with the RS-232 cable included in the package for RS-232 command sending and control over the LCD panel/ video wall. (See section 9 for detail commands)

⑩ RS-232 OUT: Connect to the RS-232 IN of the next panel with the RS-232   cable included in the package for video wall signal extending. (Detail connection please referes to next section)

⑪ IR IN: Connect the IR extender on the first panel only for recieving the IR signal from the remote control of the device.

7. LCD Pannel Rear Side Installation Instruction

1. Connect the source to the HDMI splitter (CHDMI-4M) input port and the HDMI splitter output ports connected to each Monitor's HDMI input port (no need to follow the panel connection sequences).

2. The IR receiver cable need to connect to the first Monitor's IR receiver port (from the rear side, the right top side is the first Monitor). If the user connected to the wrong Monitor, the IR will work abnormal.

3. For 2 by 2 Video Wall, the package will included 3 sets of RS-232 control cable (DCE to DTE RS-232 control cable), the cables connection sequence as below:
   First RS-232 cable: Connect the DCE of RS-232 to first set of Monitor's RS-232 output port (DTE connector), and connect the DTE of RS-232 to the second set of Monitor's RS-232 input port (DCE connector).
   Second RS-232 cable: Connect the DCE of RS-232 to second set of Monitor's RS-232 output port (DTE connector), and connect the DTE of RS-232 to the third set of Monitor's RS-232 input port (DCE connector).
   Third RS-232 cable: Connect the DCE of RS-232 to third set of Monitor's RS-232 output port (DTE connector), and connect the DTE of RS-232 to the forth set of Monitor's RS-232 input port (DCE connector).
   Note: 3 by 3, 4 by 4 and 5 by 5 vice versa.

2 by 2 Video Wall installation:
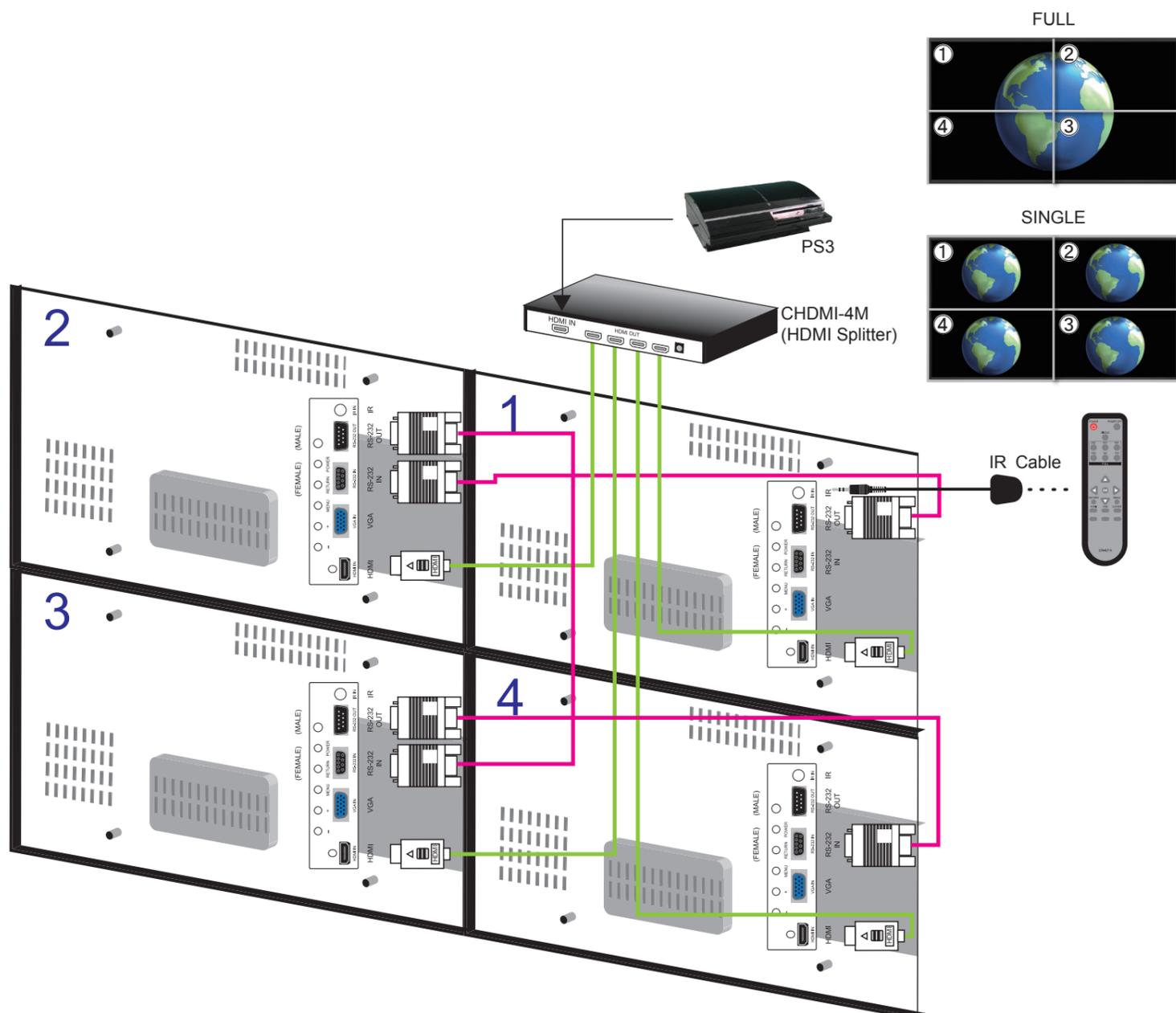
Different combination will have different sets of accessory

Video wall Accessory	2x2	3x3	4x4	5x5
Monitor	4	9	16	25
Power Cord	4	9	16	25
RS-232 cable (DCE to DTE)	3	8	15	24
IR cable	1	1	1	1
Remote Control	1	1	1	1
CHDMI-4M	1	x	x	x
CHDMI-210T	x	1	x	x
CLUX-16E	x	x	1	2

8.   System Operation

After the system installation is completed, the user can select the desired display combinations with the remote control. For additional information on how to use the remote control please refer to section 9.

9.   RS-232 Commands

CVW-42AK2			PC Control Interface	
PIN	Assignment		PIN	Assignment
1	NC		1	NC
2	TxD		2	RxD
3	RxD		3	TxD
4	NC		4	NC
5	GND		5	GND
6	NC		6	NC
7	NC		7	NC
8	NC		8	NC
9	NC		9	NC

RS-232 Protocol:
Baud Rate: 19200bps
Data bit: 8 bits
Parity: None
Stop Bit: 1 bit
Flow Control: None

COMMAND	ACTION
0x23 0x53 0x30 0x30 0x31 0x23	POWER ON
0x23 0x53 0x30 0x30 0x30 0x23	POWER OFF
0x23 0x43 0x30 0x30 0x31 0x23	UNDER SCAN
0x23 0x43 0x30 0x30 0x30 0x23	OVER SCAN
0xEF 0x06 0xD2 0xC0 0x20 0x00 0x04 0xEE	SINGLE
0xEF 0x06 0xD3 0xC0 0x20 0x01 0x04 0xEE	2x2
0xEF 0x06 0xD7 0xC0 0x20 0x01 0x08 0xEE	3x2
0xEF 0x06 0xD8 0xC0 0x20 0x01 0x09 0xEE	3x3
0xEF 0x06 0xE0 0xC0 0x20 0x01 0x11 0xEE	4x3
0xEF 0x06 0xDF 0xC0 0x20 0x01 0x10 0xEE	4x4
0xEF 0x06 0xDF 0xC0 0x20 0x01 0x19 0xEE	5x5
0xEF 0x05 0xD7 0xC0 0x22 0x07 0xEE	HDMI
0xEF 0x05 0xD0 0xC0 0x22 0x00 0xEE	VGA

10. Remote Control
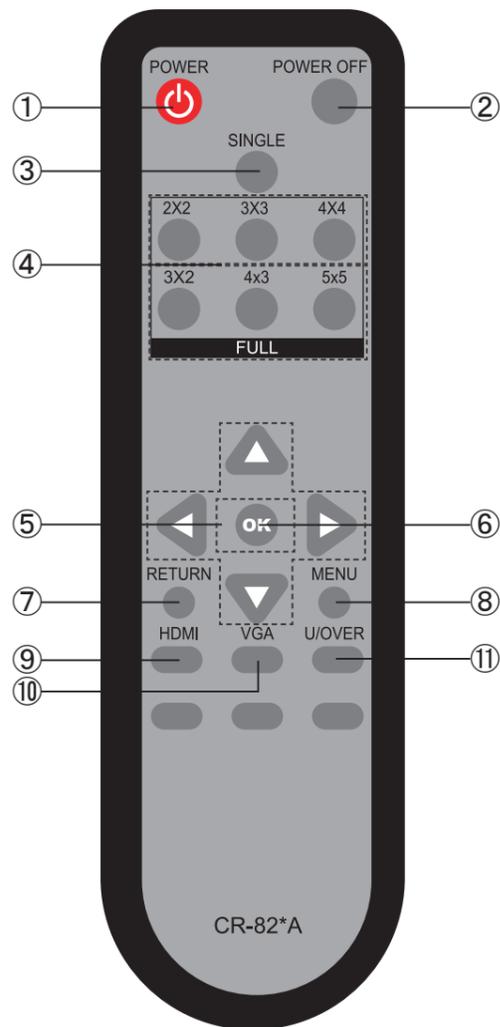
① POWER: Turn the system on.

② POWER OFF: Turn the system off.

③ SINGLE: This option allows one input source to be shown on all displays identically.

④ FULL: This option allows one input source to be enlarge four times bigger and display on a 2x2 video wall.

   Note: 3x3 and 4x4 video walls have additional combinations.

⑤ ▲ / ▼ / ◄ / ►: After entering the menu press up/down/left/right to setup each LCD panel.

⑥ OK: Enter into factory mode.

⑦ RETURN: Press to go back to the previous setting.

⑧ MENU: Press to enter each LCD TV menu.

⑨ HDMI:Press to switch to HDMI input.

⑩ VGA: Press to switch to VGA input.

⑪ U/OVER: When the display under full screen, press to over or under scan the picture.

   Note: Item n 3,4 and 11, only work when HDMI input.

11. On-Screen Menu Display

Certain menu items cannot be changed. Adjusting the menu settings depends on the signal, input source and the specific menu setting.

Press ⬤ to display the menu screen
MENU

For Menu Screen only

For HDMI only

Main Menu
Picture Menu
Setup Menu

Picture Menu	
Picture Mode	User
Standard	Off
Contrast	00
Brightness	00
Colour	00
Tint	+0
Sharpness	00

Setup Menu	
Language	English

For PC only

Main Menu
Picture Menu
Setup Menu

Picture Menu	
Standard	Off
Contrast	00
Brightness	00

Setup Menu	
Auto	Off
Horizontal	+0
Vertical	+0
Clock	+0
Phase	00
Language	English