



CVW-9000W

HDMI Multi-Digital Signage TV Wall
Control System



Operation Manual

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SAFETY PRECAUTIONS

Please read all instructions before attempting to unpack, install or operate this equipment and before connecting the power supply.

Please keep the following in mind as you unpack and install this equipment:

- Always follow basic safety precautions to reduce the risk of fire, electrical shock and injury to persons.
- To prevent fire or shock hazard, do not expose the unit to rain, moisture or install this product near water.
- Never spill liquid of any kind on or into this product.
- Never push an object of any kind into this product through any openings or empty slots in the unit, as you may damage parts inside the unit.
- Do not attach the power supply cabling to building surfaces.
- Use only the supplied power supply unit (PSU). Do not use the PSU if it is damaged.
- Do not allow anything to rest on the power cabling or allow any weight to be placed upon it or any person walk on it.
- To protect the unit from overheating, do not block any vents or openings in the unit housing that provide ventilation and allow for sufficient space for air to circulate around the unit.

REVISION HISTORY

VERSION NO.	DATE DD/MM/YY	SUMMARY OF CHANGE
RDV1	15/11/12	Preliminary Release
RDV2	24/10/13	Cancel 8x8



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1. INTRODUCTION

To capture the public's attention, the HDMI Multi-Digital Signage TV Wall Control System is ideal for advertising, entertaining and displaying information. The devices allow users to display HDMI sources to multiple TV/monitors with multi-screen, while using RS-232 to control and fully utilized the display screens over a TV wall. This device is designed to work with an HDMI matrix/splitter which allows sources to be select and display, video wall control systems that provides signal arrangement on the display and a mutil-RS-232 control system to organize and control over all the signal display formats. The HDMI Multi-Digital Signage TV Wall Control System is the idealist system for your multi-format digital signage display.

2. APPLICATIONS

- Digital Signage display and control
- Commercial advertising and control
- Show room Display and control
- Public information display and control
- Gaming competition display and control

3. PACKAGE CONTENTS

- 1 x UART Controller
- 1 x 5V/1A Power Adaptor
- HDMI Matrix/Splitter (Optional)
- Video Wall Control Systems CVW-11HS (Optional)
- Remote Control
- Operation Manual

4. SYSTEM REQUIREMENTS

- Input HDMI source equipments such as PS3/DVD/Blu-ray players (connect from HDMI device)
- D-Sub 9pin RS-232 cables (connected to HDMI device and Video Wall Control System)
- Output display TV/monitors (connect from HDMI device)

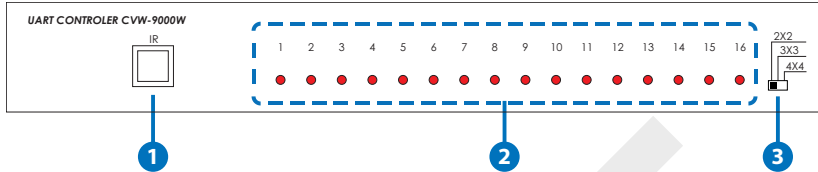
5. FEATURES

- Support video wall combinations of HxV: 3x2 and any customized combination.
- Supports both HDMI and PC input sources from Video Wall Control System
- Use RS-232 cables to cascade over every connected Video Control System box to remotely control each monitors with one setting only
- Use RS-232 cables to control over all output image display format
- Supports IR remote control

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6. OPERATION CONTROLS AND FUNCTIONS

6.1 UART Controller's Front Panel



1 IR:

IR receiver window (accepts the remote control signal of this device only)

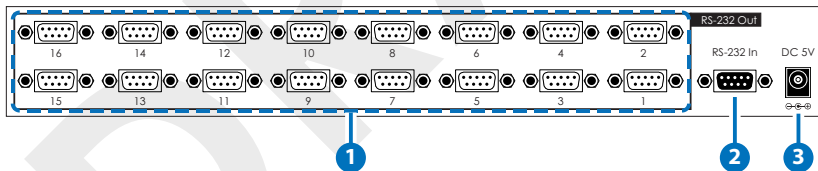
2 1~16 Input LED:

The LED will illuminate accordingly to which port is selected.

3 2x2/3x3/4x4:

This function is not available.

6.2 UART Controller's Rear Panel



1 1~16 RS-232 Out:

Connect to RS-232 equipped devices for RS-232 controls. Here it is to connect to HDMI device (Out 1) and Video Wall Control System (Out 2).

2 RS-232 In:

Connect to a PC/NB with D-Sub 9-pin cable for the transmission of RS-232 commands with different display mode control.

3 DC 5V:

Plug the 5V DC power supply into the unit and connect the adaptor to an AC outlet.

6.3 Remote Control

1 POWER:

Press this button to switch ON UART Controller then the device will also switch on the connected HDMI device and VideoWall Control System.

2 POWER OFF:

Press this button to switch OFF UART Controller and the connected HDMI device.

3 Video Wall Setting:

Press any of these hot keys to switch the video display format.

4 ▲▼◀▶OK:

Press these key inside the menu function to select the desire function or adjustment and press OK to confirm the selection.

5 RETURN:

Press this button to exit or return from the OSD menu functions.

6 MENU:

Press this button to bring up the OSD menu of Video Wall Control Systems.

7 HDMI:

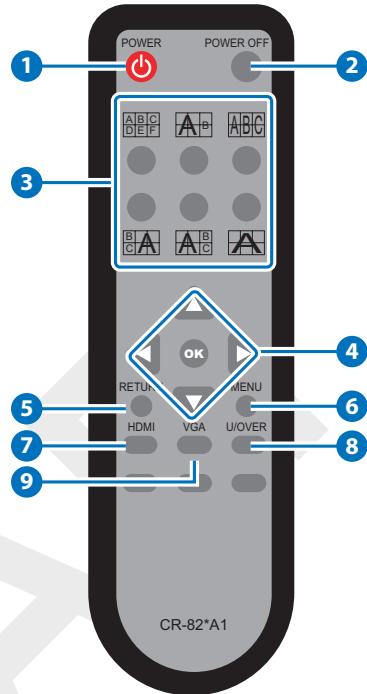
Press this button to switch input from HDMI source with Video Wall Control Systems.

8 U/OVER:

Press this button to display the image overscan/underscan on the TV/monitor.

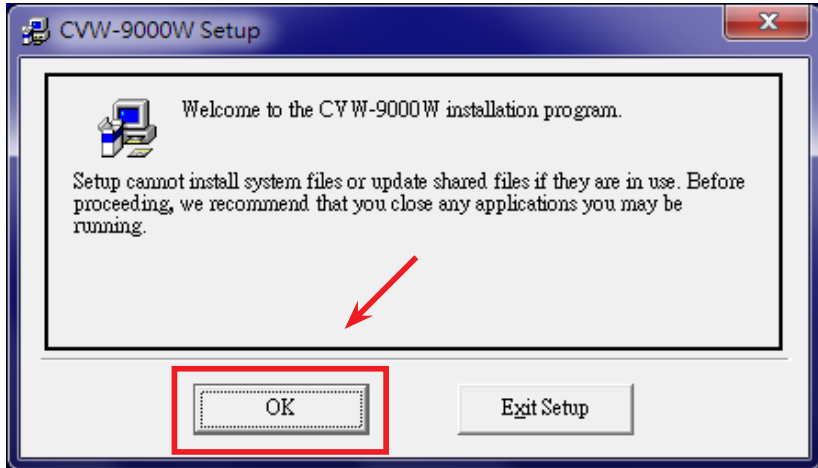
9 VGA:

Press this button to switch input from VGA source with Video Wall Control Systems.

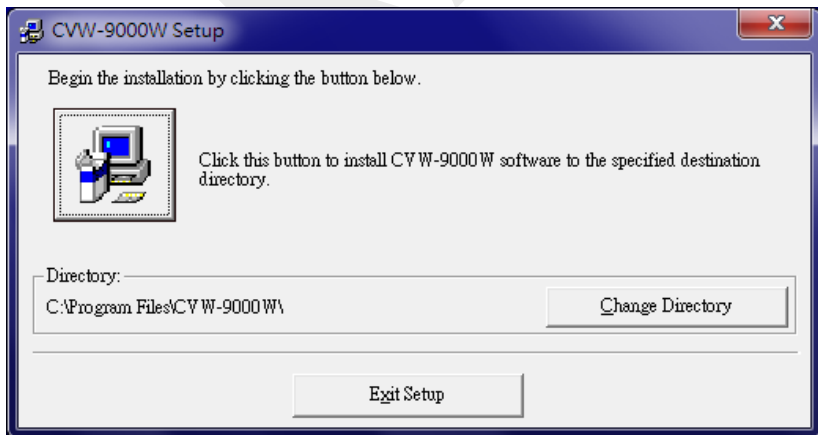


6.4 Software Installation

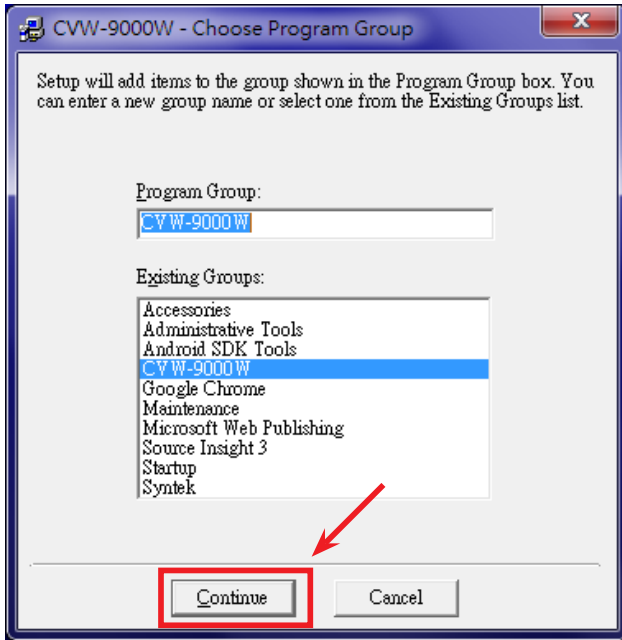
Insert the software into the PC/NB that is going to connect to CVW-9000W and click on Setup file.



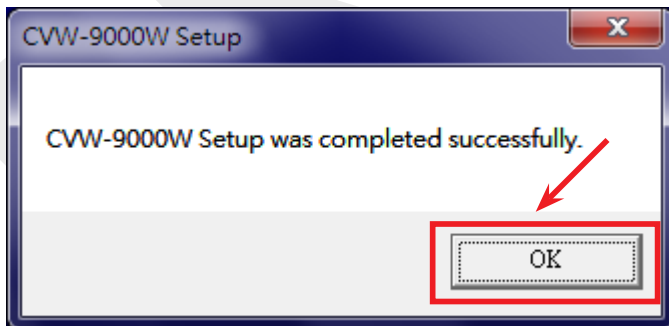
Click "OK" to begin the installation.



Set the specified destination directory and click on the icon.

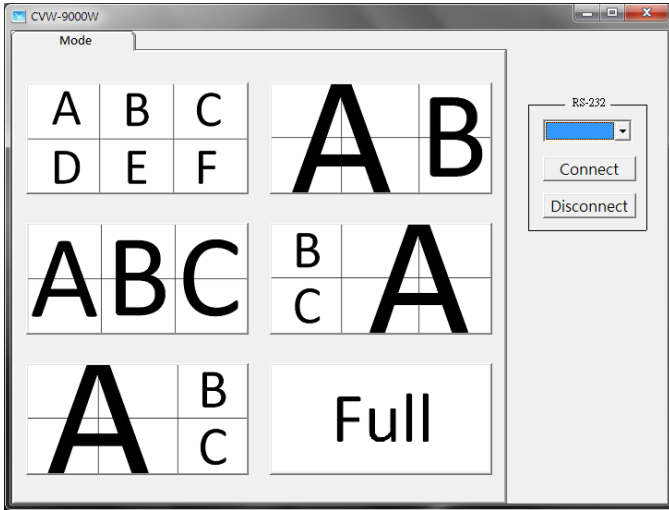


Set the group name in the Program Group box and click Continue.

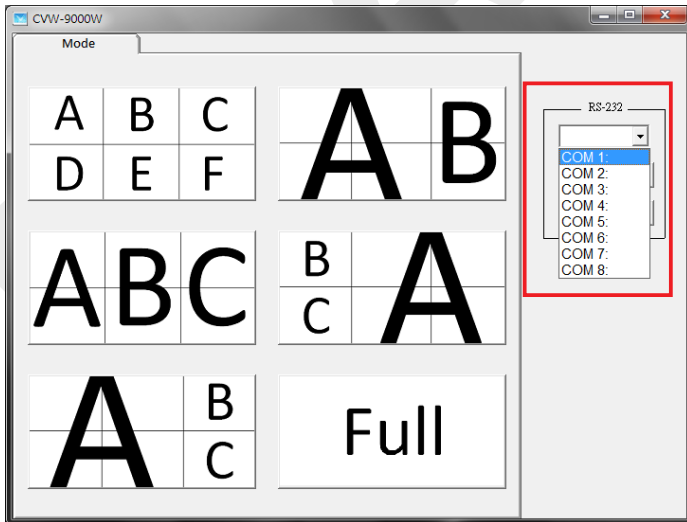


Click OK to finish the Setup.

Open the application program "CVW-9000W" where it had been saved.

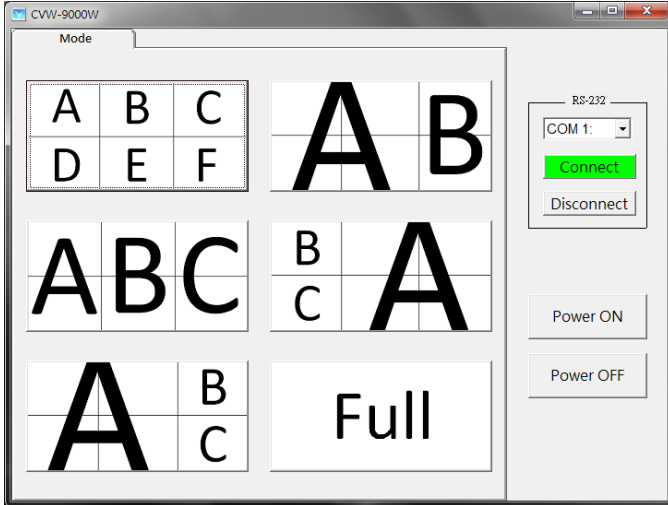


Connect the RS-232 COM port first.

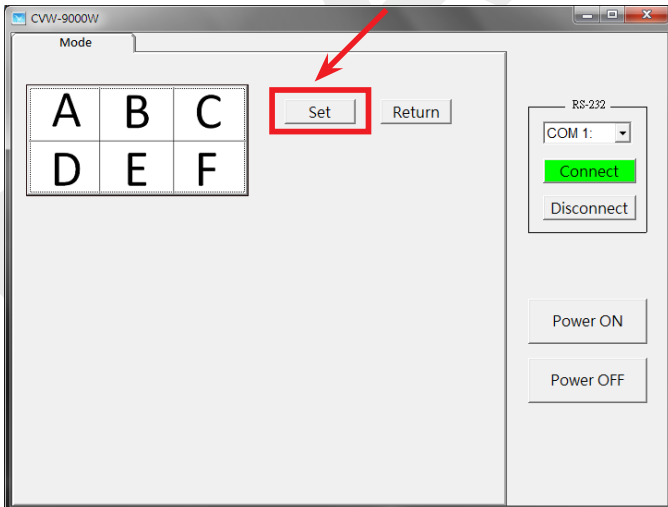


Choose the video wall mode or power on/off after the RS-232 COM port connects

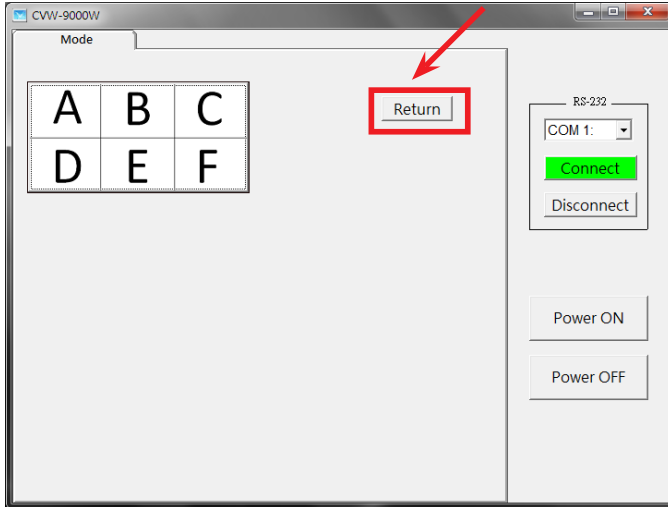
(The "Connect" button will turn to green color).



Click on any one of the video wall modes and enter into the next page, then click the "Set" button to confirm the video wall setting.



The "Set" button will disappear after confirmed, click on "Return" to go back to the main page.



6.5 UART Controller's RS-232 Pin Assignment

RS-232 IN			RS-232 OUT	
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	Connect to Pin 8		7	Connect to Pin 8
8	Connect to Pin 7		8	Connect to Pin 7
9	NC		9	NC

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

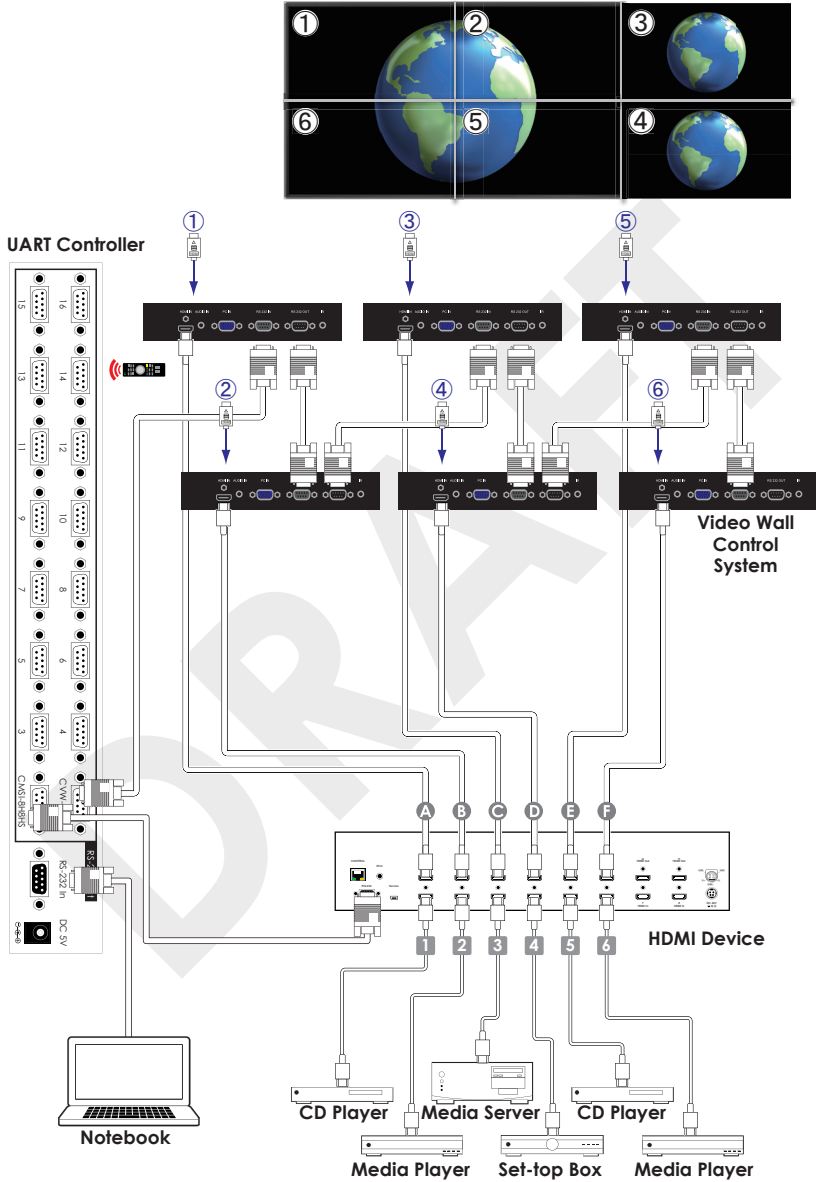
6.6 UART Controller's RS-232 Commands

Commands	Description
0xEF 0x04 0xE3 0xC2 0x33 0xEE	Mode 1
0xEF 0x04 0xE4 0xC2 0x34 0xEE	Mode 2
0xEF 0x04 0xE5 0xC2 0x35 0xEE	Mode 3
0xEF 0x04 0xE6 0xC2 0x36 0xEE	Mode 4
0xEF 0x04 0xE7 0xC2 0x37 0xEE	Mode 5
0xEF 0x04 0xE8 0xC2 0x38 0xEE	Mode 6
0xEF 0x04 0xE9 0xC2 0x39 0xEE	Power Off
0xEF 0x04 0xEA 0xC2 0x3A 0xEE	Power On

Note: All the RS-232 command will be not executed unless followed with a carriage return. Commands are Case-Sensitive.

Mode 1	Mode 2																
<table border="1"> <tr><td>A</td><td>B</td><td>C</td></tr> <tr><td>D</td><td>E</td><td>F</td></tr> </table>	A	B	C	D	E	F	<table border="1"> <tr><td colspan="2">A</td><td>B</td></tr> <tr><td colspan="2">A</td><td>B</td></tr> </table>	A		B	A		B				
A	B	C															
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A		B															
A		B															
Mode 3	Mode 4																
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A			B	C													
A			B	C													
B	A																
C	A																
Mode 5	Mode 6																
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A		B															
A		C															
Full																	

7. CONNECTION AND INSTALLATION



8. SPECIFICATIONS

Input Port	1xRS-232 (Female Jack)
Output Port	16xRS-232(Male Jack)
Power Supply	5V DC/ 1A (US/EU standards, CE/FCC/UL certified)
ESD Protection	Human body model: ±8kV (air-gap discharge) ±4kV (contact discharge)
Dimensions (mm)	320(W) x 95(D) x 45(H)
Weight(g)	978
Chassis Material	Metal
Silkscreen Color	Black
Operating Temperature	0°C ~ 40°C / 32 °F ~ 104 °F
Storage Temperature	-20°C ~ 60°C / -4 °F ~ 140 °F
Relative Humidity	20 ~ 90% RH (non-condensing)
Power Consumption	1W

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