VSP 198CVS

User Manual

- Manual #：RGB-RD-UM-V198CVSE001

- Revision: V1.0

- This User Manual Applies to VSP 198CV and VSP 198CVS!

RGBlink
视诚

VSP 198CVS·User Manual

Thank you for choosing our products!

In order to allow you to learn how to use the video processor quickly, we bring you the detailed user's guide. You can read the introduction and directions before using the video processor, please read all the information we provide carefully to use our products correctly.

Copyright

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Operators Safety Summary

The general safety information in this summary is for operating personnel.

Do Not Remove Covers or Panels

There are no user-serviceable parts within the unit. Removal of the top cover will expose dangerous voltages. To avoid personal injury, do not remove the top cover. Do not operate the unit without the cover installed.

Power Source

This product is intended to operate from a power source that will not apply more than 230 volts rms between the supply conductors or between both supply conductor and ground. A protective ground connection by way of grounding conductor in the power cord is essential for safe operation.

Grounding the Product

This product is grounded through the grounding conductor of the power cord. To avoid electrical shock, plug the power cord into a properly wired receptacle before connecting to the product input or output terminals. A protective-ground connection by way of the grounding conductor in the power cord is essential for safe operation.

Use the Proper Power Cord

Use only the power cord and connector specified for your product. Use only a power cord that is in good condition. Refer cord and connector changes to qualified service personnel.

Use the Proper Fuse

To avoid fire hazard, use only the fuse having identical type, voltage rating, and current rating characteristics. Refer fuse replacement to qualified service personnel.

Do Not Operate in Explosive Atmospheres

To avoid explosion, do not operate this product in an explosive atmosphere.

Terms In This Manual and Equipment Marking

WARNING

Highlights an operating procedure, practice, condition, statement, etc, which, if not strictly observed, could result in injury or death of personnel.

Note

Highlights an essential operating procedure, condition or statement.

CAUTION

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

Change History

The table below lists the changes to the Video Processor User Manual.

Format	Time	ECO#	Description	Principal
V1.0	2013-09-22	0000#	Release	Peter

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7. Common Questions and Solution 112

1. Introduction

This chapter is designed to introduce you to the VSP 198CVS User Manual. Areas to be covered are:

- Chapter Structure

- How to Use This Manual

- Terms and Definitions

- System Overview

- Application Questions

Chapter Structure

The following chapters provide instructions for all aspects of VSP 198CVS operations.

Chapter 1   Introduction

Chapter 2   Hardware Orientation

Chapter 3   Hardware Installation

Chapter 4   Menu Orientation

Chapter 5   Communication Software Guideline

Chapter 6   System Setup and Operations

Chapter 7   Common Questions and Solution

Appendix A   Specification

Appendix B   Contact information

Appendix C   Upgrading Software

How to Use This Manual

Following are important tips for streamlining your use of this User Manual in its electronic "PDF" form.

Navigating

Use Acrobat Reader's "bookmarks" to navigate to the desired location. All chapter files have the same bookmark structure for instant navigation to any section. Please note:

● Extensive hyperlinks are provided within the chapters.
● Use Acrobat's "**Go to Previous View**" and "**Return to next View**" buttons to trace your complete navigational path.

● Use the "**Previous Page**" and "**Next Page**" buttons to go to the previous or next page within a file.
● Use Acrobat's extensive search capabilities, such as the "**Find**" tool and "**Search Index**" tool to perform comprehensive searches as required.

Table of Contents and Index

Use the Table of Contents bookmarks to navigate a desired topic. Click any item to instantly jump to that section of the guide. You c an also use the **Index** to jump to specific topics within a chapter. E ach page number in the **Index** is a hyperlink.

General Operations

To ensure trouble-free operation, please follow all procedures as listed below:
● For detailed installation instructions, refer to chapter 3 "Hardware Installation" on page 35.
● For communication software control guide, refer to Chapter 5, "Communication Software Control Guide" on page 44.
● For system setup and operations, refer to Chapter 6, "System Setup and Operations" on page 73.

Should you have any questions regarding the installation or operation of VSP 198CVS, please consult with the factory. Refer to Appendix B, "Contact information" on page 114.

1. Introduction
Terms and Definitions

Terms and Definitions

The following terms and definitions are used throughout this guide.

- **"ASCII":** American Standard for Information Interchange. The standard code consisting of 7-bit coded characters (8 bits including parity check) used to exchange information between data processing systems, data communication systems, and associated equipment. The ASCII set contains control characters and graphic characters.

- **"Aspect ratio":** The relationship of the horizontal dimension to the vertical dimension of an image. In viewing screens, standard TV is 4:3, or 1.33:1; HDTV is 16:9, or 1.78:1. Sometimes the ":1" is implicit, making TV = 1.33 and HDTV = 1.78.

- **"AV":** Audio visual, or audio video.

- A **"Background"** is an unscaled source, typically originating from a computer. A background source appears at the system's lowest priority — visually in back of all other sources.

- **"Baudrate"**：Named of J.M.E. Baudot, the inventor of the Baudot telegraph code. The number of the electrical oscillations per second, called baud rate. Related to, but not the same as, transfer rate in bits per second (bps).

- **"Blackburst":** The video waveform without the video elements. It includes the vertical sync, horizontal sync, and the chroma burst information. Blackburst is used to synchronize video equipment to align the video output. One signal is normally used to set up an entire video system or facility. Sometimes it is called House sync.

- **"BNC":** Bayonet Neill-Concelman. A cable connector used extensively in television and named for its inventors. A cylindrical bayonet connector that operates with a twist-locking motion. To make the connection, align the two curved grooves in the collar of the male connector with the two projections on the outside of the female collar, push, and twist. This allows the connector to lock into place without tools.

- **"Brightness":** Usually refers to the amount or intensity of video light produced on a screen without regard to color. Sometimes called black level.

- **"CAT 5":** Category 5. Describes the network cabling standard that consists of four unshielded twisted pairs of copper wire terminated by RJ-45 connectors. CAT 5 cabling supports data rates up to 100 Mbps. CAT 5 is based on the EIA/TIA 568 Commercial Building Telecommunications Wiring Standard.

- **"Color bars":** A standard test pattern of several basic colors (white, yellow, cyan, green, magenta, red, blue, and black) as a reference for system alignment and testing. In NTSC video, the most commonly

1. Introduction
Terms and Definitions

used color bars are the SMPTE standard color bars. In PAL video, the most commonly used color bars are eight full field bars. In the computer, the most commonly used color bars are two rows of reversed color bars.

- ● ―Color burst": In color TV systems, a burst of subcarrier frequency located on the back porch of the composite video signal. This serves as a color synchronizing signal to establish a frequency and phase reference for the chroma signal. Color burst is 3.58 MHz for NTSC and 4.43 MHz for PAL.

- ● ―Color temperature": The color quality, expressed in degrees Kelvin(K), of a light source. The higher the color temperature, the bluer the light. The lower the temperature, the redder the light. Benchmark color temperature for the A/V industry include 5000°K, 6500°K, and 9000°K.

- ● ―Contrast ratio": The radio of the high light output level divided by the low light output level. In theory, the contrast radio of the television system should be at least 100:1, if not 300:1. In reality, there are several limitations. In the CRT, light from adjacent elements contaminate the area of each element. Room ambient light will contaminate the light emitted from the CRT. Well-controlled viewing conditions should yield a practical contrast ratio of 30:1 to 50:1.

- ● ―DVI": Digital Visual Interface. The digital video connectivity standard that was developed by DDWG (Digital Display Work Group). This connection standard offers two different connectors: one with 24 pins that handles digital video signals only, and one with 29 pins that handles both digital and analog video.

- ● ―EDID": Extended Display Identification Data – EDID is a data structure used to communicate video display information, including native resolution and vertical interval refresh rate requirements, to a source device. The source device will then output the optimal video format for the display based on the provided EDID data, ensuring proper video image quality. This communication takes place over the DDC – Display Data Channel.

- ● ―Ethernet": A Local Area Network (LAN) standard officially known as IEEE 802.3. Ethernet and other LAN technologies are used for interconnecting computers, printers, workstations, terminals, servers, etc. within the same building or campus. Ethernet operates over twisted pair and over coaxial cable at speeds starting at 10Mbps. For LAN interconnectivity, Ethernet is physical link and data link protocol reflecting the two lowest layers of the OSI Reference Model.

- ● ―Frame": In interlaced video, a frame is one complete image. A video frame is made up of two fields, or two sets of interlaced lines. In a film, a frame is one still image of a series that makes up a motion image.

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- "Gamma": The light output of a CRT is not linear with respect to the voltage input. The difference between what you should have and what is actually output is known as gamma.
- "HDMI" - High – Definition Multimedia Interface: An interface used primarily in consumer electronics for the transmission of uncompressed high definition video, up to 8 channels of audio, and control signals, over a single cable. HDMI is the de facto standard for HDTV displays, Blu-ray Disc players, and other HDTV electronics. Introduced in 2003, the HDMI specification has gone through several revisions.
- "HD-SDI": The high-definition version of SDI specified in SMPTE-292M. This signal standard transmits audio and video with 10 bit depth and 4:2:2 color quantization over a single coaxial cable with a data rate of 1.485 Gbit/second. Multiple video resolutions exists including progressive 1280x720 and interlaced 1920x1080 resolution. Up to 32 audio signals are carried in the ancillary data.
- "JPEG" (Joint photographic Expects Group): Commonly used method of lossy compression for photographic images using a discreet cosine transfer function. The degree of compression can be adjusted, allowing a selectable tradeoff between storage size and image quality. JPEG typically achieves 10:1 compression with little perceptible loss in image quality. Produces blocking artifacts.
- "MPEG": Motion image Expect Group. A standard committee under the auspices of the International Standards Organization working on algorithm standards that allow digital compression, storage and transmission of moving image information such as motion video, CD-quality audio, and control data at CD-ROM bandwidth. The MPEG algorithm provides inter-frame compression of video images and can have an effective compression rate of 100:1 to 200:1.
- "NTSC": The color video standard used in North America and some other parts of the world created by the National Television Standards Committee in the 1950s. A color signal must be compatible with black-and-white TV sets. NTSC utilizes an interlaced video signals, 525 lines of resolution with a refresh rate of 60 fields per second (60 Hz). Each frame is comprised of two fields of 262.5 lines each, running at an effective rate of 30 frames per second.
- "PAL": Phase Alternate Line. A television standard in which the phase of the color carrier is alternated from line to line. It takes four full images (8 fields) for the color-to-horizontal phase relationship to return to the reference point. This alternation helps cancel out phase errors. For this reason, the hue control is not needed on a PAL TV set. PAL, in many transmission forms, is widely used in Western Europe, Australia, Africa, the Middle East, and Micronesia. PAL uses 625-line, 50-filed

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(25 fps) composite color transmission system.

- **―Operator":** Refers to the person who uses the system.
- **―PIP":** image-in-image. A small image within a larger image created by scaling down one of the images to make it smaller. Each image requires a separate video source such as a camera, VCR, or computer. Other forms of PIP displays include image-by-image (PBP) and image-with-image (PWP), which are commonly used with 16:9 aspect display devices. PBP and PWP image formats require a separate scaler for each video window.
- **―Polarity":** The positive and negative orientation of a signal. Polarity usually refers to the direction or a level with respect to a reference (e.g. positive sync polarity means that sync occurs when the signal is going in the positive direction).
- **―RJ-45":** Registered Jack-45. A connector similar to a telephone connector that holds up to eight wires, used for connecting Ethernet devices.
- **―RS-232":** An Electronic Industries Association (EIA) serial digital interface standard specifying the characteristics of the communication path between two devices using either DB-9 or DB-25 connectors. This standard is used for relatively short-range communication and does not specify balanced control lines. RS-232 is a serial control standard with a set number of conductors, data rate, word length, and type of connector to be used. The standard specifies component connection standards with regard to the computer interface. It is also called RS-232-C, which is the third version of the RS-232 standard, and is functionally identical to the CCITT V.24 standard.
- **―Saturation":** Chroma, chroma gain. The intensity of the color, or the extent to which a given color in any image is free from white. The less white in a color, the truer the color or the greater its saturation. On a display device, the color control adjusts the saturation. Not to be confused with the brightness, saturation is the amount of pigment in a color, and not the intensity. Low saturation is like adding white to the color. For example, a low-saturated red looks pink.
- **―Scaling":** A conversion of a video or computer graphic signal from a starting resolution to a new resolution. Scaling from one resolution to another is typically done to optimize the signal for input to an image processor, transmission path or to improve its quality when presented on a particular display.
- **―SDI":** Serial Digital Interface. The standard based on a 270 Mbps transfer rate. This is a 10-bit, scrambled, polarity independent interface with common scrambling for both component ITU-R 601 and composite digital video and four channels of (embedded) digital audio.
- **―Seamless Switching":** A feature found on many Extron video

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switchers. This feature causes the switcher to wait until the vertical interval to switch. This avoid a glitch (temporary scrambling) which normally is seen when switching between sources.

- **"SMPTE":** Society of Motion image and Television Engineers. A global organization, based in the United States, that sets standards for baseband visual communications. This includes film as well as video and television standards.

- **"S-Video":** A composite video signal separated into the luma ("Y" is for luma, or black and white information; brightness) and the chroma ("C" is an abbreviation for chroma, or color information).

- **"Sync":** Synchronization. In video, sync is a means of controlling the timing of an event with respect to other events. This is accomplished with timing pulses to insure that each step in a process occurs at the correct time. For example, horizontal sync determines exactly when to begin each horizontal scan line. Vertical sync determines when the image is to be refreshed to start a new field or frame. There are many other types of sync in video system.(Also known as "sync signal" or "sync pulse.")

- **"TCP/IP":** Transmission Control Protocol/Internet Protocol. The communication protocol of the Internet. Computers and devices with direct access to the Internet are provided with a copy of the TCP/IP program to allow them to send and receive information in an understandable form.

- **"USB":** Universal Serial Bus. USB was developed by seven PC and telecom industry leaders (Compaq, DEC, IBM, Intel, Microsoft, NEC, and Northern Telecom). The goal was easy plug-and-play expansion outside the box, requiring no additional circuit cards. Up to 127 external computer devices may be added through a USB hub, which may be conveniently located in a keyboard or monitor. USB devices can be attached or detached without removing computer power. The number of devices being designed for USB continues to grow, from keyboards, mice, and printers to scanners, digital cameras, and ZIP drives.

- **"VESA":** Video Electronics Standards Association. A nonprofit number organization dedicated to facilitating and promoting personal computer graphics through improved standards for the benefit of the end-user. www.vesa.org

- **"VGA":** Video Graphics Array. Introduced by IBM in 1987, VGA is an analog signal with TTL level separate horizontal and vertical sync. The video outputs to a 15-pin HD connector and has a horizontal scan frequency of 31.5 kHz and vertical frequency of 70 Hz (Mode 1, 2) and 60 Hz (Mode 3). The signal is non-interlaced in modes 1, 2, and 3 and interlaced when using the 8514/A card (35.5 kHz, 86 Hz) in mode 4. It

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has a pixel by line resolution of 640×480 with a color palette of 16 bits and 256,000 colors.

- ● —"CrCb": Used to describe the color space for interlaced component video.
- ● —"PbPr": Used to describe the color space for progressive-scan (non-interlaced) component video.

1. Introduction

System Overview

The VSP 198CVS is a multiple outputs video processor that accepts a wide variety of video signals, including RGB computer graphic by DVI, VGA, Standard and HDTV video by HDMI, Composite, SDI (SD/HD/3G Compatible) .DVI and SDI supports loop through output for cascade or preview. VSP 198CVS combines truly seamless, fade in fade out, glitch-free switching with advanced scaling technologies to meet the requirements of high quality, high resolution video presentations. VSP 198S also launches the latest user defined image size and coordinate, dual image processing, multiple cascade mapping, different user configurations and controlling, Key in and out and other advanced functions for high-end show.

Features:

Multiple inputs

• VSP 198CVS provides 2x Composite (CVBS), 1x DVI (compatible with HDMI 1.3), 1x HDMI,2xVGA, 1 x 3G self-adaptive SDI input (3G SDI module), for the application if different signal inputs.

Multiple outputs:

• 1 x Preview VGA output

• 2 X DVI outputs are provided for splitting into two different images or distributing the same two images, the two DVI outputs can be connected with LED display or other display.

Loop through Interface

• Designed to boost the signal strength

• The same video can be connected to a local monitor

• The same video available for other equipment.

Multiple Control Methods

• Local Front Panel, remote Windows based software control by RS232、

USB, Ethernet.

Application Questions

RGBlink offers solutions to demanding technical problems. Any application questions, or required further information, please contact with our Customer Support Engineers. Refer to Appendix B for contact details.
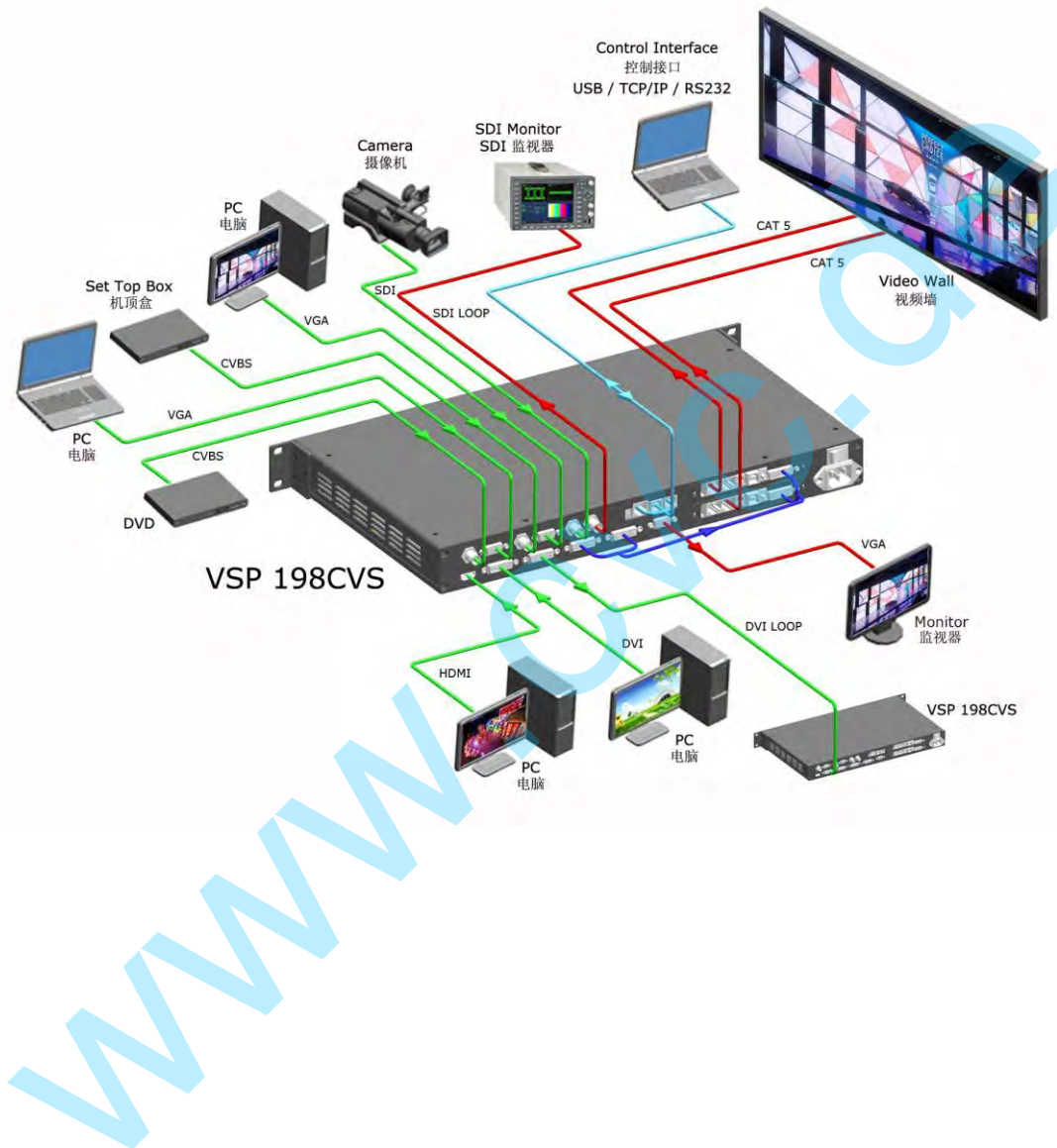
2. Hardware Orientation

In This Chapter

This chapter provides detailed information about the VSP 198CVS hardware. The following topics are discussed:
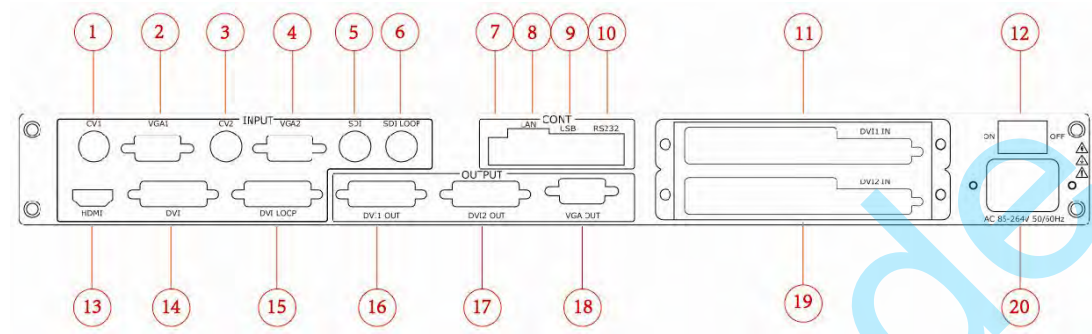
- VSP 198CVS Back Panel

- VSP 198CVS Front Panel

2. Hardware Orientation

VSP 198CVS Back Panel

The figure below illustrates the professional interface and control signals of

VSP 198CVS back panel.

NO	INTERFACE	NO	INTERFACE
1.3	CVBS Input	11.19	Sending card interface
2.4	VGA Input	12	Power Switch
5	SDI Input	13	HDMI Input
6	SDI Loop Out	14	DVI Input
7	Push button switch	15	DVI Loop Out
8	10/100M Interface	16.17	DVI Output
9	USB Interface	18	VGA Output
10	RJ11(RS232) Interface	20	Power interface

CONT Interface

7. Dial Switch

8. 10/100M UDP Interface

9. USB Interface

Remote communication control interface, used to connect to the computer

or console.

10. RS232 Interface

Used to connect the computer or console.

2. Hardware Orientation

VSP 198CVSBack Panel

INPUT Interface

1) 2 CVBS inputs by BNC interfaces, (CV2 is CV module),

2) 2 VGA input by DB15 interface,(VGA2 is CV module)

3) 1 HDMI-A interface, can be compatible with HDMI inputs;

4) 1 DVI-I interface, can be compatible with HDMI, and supports loop through output for cascade or preview;

5) 3G SDI input (SDI module), and supports loop through output for cascade or preview.

3：CVBS Input

CVBS input: Can receive standard video signal from players, cameras etc. Input supported resolution 480i and 576i via BNC. Supported standards include: PAL, NTSC and SECAM.

4：VGA Input

VGA Interface: input the video signal from HD player and Computer, etc. Compatible with YPbPr via the DB15 interface.

Note

3 and 4 input interface is option CV module .

5：SDI Loop Out

SDI loop output: can connect the next level VSP 198CVS for cascade or the device with SDI input.

6：SDI Input

Can receive video signal from HD player, and HD camera, connect interface 16 via 75 ohm impedance BNC.

Note

5 and 6 input interface is option S module .

13：HDMI Input

HDMI input interface: Input the signal from HD player, DVD,

2. Hardware Orientation
VSP 198CVSBack Panel

Computer, and so on.

(This Connection does not support hot-plugging).

14：DVI Input

DVI input interface: Input the video signal from Computer, DVI signal

generator. Can be compatible with HDMI 1.3;

（This Connection does not support hot-plugging）.

15：DVI Loop Out

DVI loop out, can connect to the next level VSP 198CVS or the device with

DVI loop out.

OUTPUT Interface

16.17：DVI Output

Connect to the monitor or LED screen which has DVI interface（This DVI
connector does not support hot-plugging）.

18：VGA Output

VGA output connector can be connected to monitor or projector which has

VGA interface.

11.19：Sending Card interface

Sending card module port. Power has been already supplied by video
processor itself, no external power supply needed for sending card.

Switch and Power

12.20：Power Interface and Switch

AC 85-264V   50/60Hz   IEC-3 Power Interface

2. Hardware Orientation

VSP 198CVS Front Panel

Insert power cord and push power to ON position. OLED module on the front panel will show RGBLINK and go into its self verification before it load last setting config and send processed image to the target monitor. For the first setup, CV1 input is the default source. With front panel keyboard, user can operate VSP 198CVS through the menus on OLED module.

VSP 198CVS front panel as shown in figure:
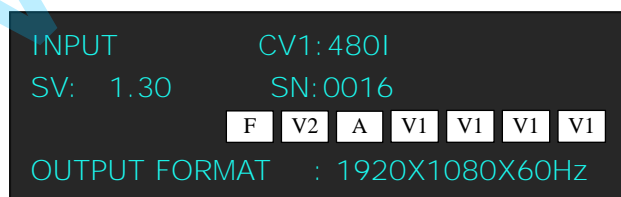
2. Hardware Orientation

VSP 198CVSFront Panel

VSP 198CVS front panel as following:
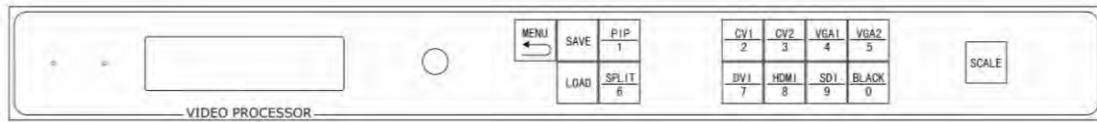
OLED Panel

Used to show button menu and menus for interactive communication;

Menu Buttons
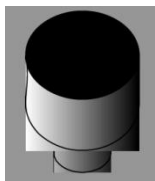
Used to adjust menu on OLED and for information interaction, push the rotary button to confirm current options.

Signal keys
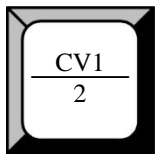
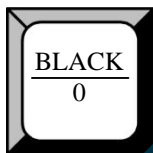CV1 input selection Button, its LED light turns on, output will be switched to this channel;
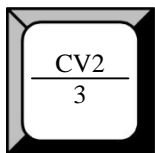
CV2 input selection Button, its LED light turns on, output will be switched to this channel;

VGA1 input selection Button, its LED light turns on, output will be switched to this channel (compatible with YPbPr);
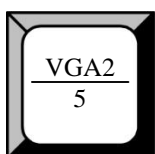
VGA2 input selection Button, its LED light turns on, output will be switched to

2. Hardware Orientation

this channel(compatible with YPbPr);
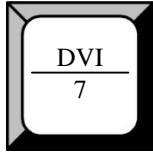
DVI input selection Button, its LED light turns on, output will be switched to this channel;
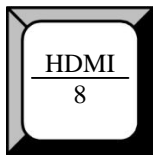
HDMI input selection Button, its LED light turns on, output will be switched to this channel;
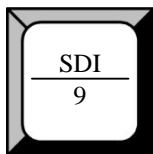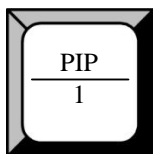
SDI input selection Button, its LED light turns on, output will be switched to this channel;

BLK button, its LED light turns on, default setting of the test pattern.Test pattern can be set and selected from OLED menu, press the button again, to disable pattern.

Function

PIP function button :Single image or dual image selection button: press the button ,Its LED light turns on, PIP function is open;It is LED light turns off ,PIP function is close ,change to single image. OLED as follows:
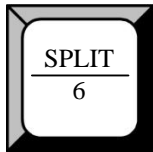
2. Hardware Orientation
VSP 198CVSFront Panel

```
—>PIP                          ON
   LAYOUT                  PIP L+T
   SELECT                  IMAGE A
   SWAP IMAGE                 OFF
```

For details please refer to MENU PIP function and How to Set up the PIP.

Note

> PIP mode，when front panel is only one button LED light ON,this is PIP image copy mode .

SPLIT
6

Split function button: press the button, Its LED light turns on, split function is open; Its LED light turns off ,split function is close . OLED menu as follows:

```
—>SPLIT                       OFF
```

Turn knob to open the,split function to be ON in the menu, as follows:

```
—>SPLIT                        ON
   H TOTAL                   ****
   V TOTAL                   ****
   H POS                     ****
```

For details please refer to MENU SPLIT function and How to Set up the SPLIT.

Note

> Support seamless split with any input sources, the best seamless split effect is by DVI or SDI loop through output,When other input signals to be used for seamless split, need signal distributor support.

Note

2. Hardware Orientation

VSP 198CVSFront Panel

SPLIT reuse function :PIP mode,SPLIT button is select image A or image B;

SAVE

Save button : Push to enter **SAVE** mode, turn the knob to select save position or push the user mode buttons which light up from 0~9 directly

Currently, it supports 10 saving modes, from 1，2，3，4，5，6，7，8，9，0 means SAVE 1~10.

The OLED menu will show Finish after finish saving.

For details please refer to MENU SAVE function and How to Set up the SAVE.
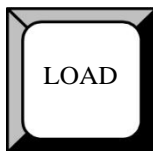
LOAD

LOAD button: Push to enter **LOAD** mode, turn the knob to select LOAD position or push the user mode buttons which light up from 0~9 directly.

Currently, it supports 10 loading modes from: 1，2，3，4，5，6，7，8，9，0 means LOAD user mode 1~10,

The OLED menu will show Finish after finish loading.

For details please refer to MENU LOAD function and How to Set up the LOAD.
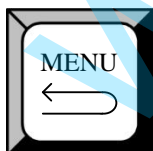
MENU

Advanced menu button : Push the **MENU** to enter the main menu. Turn the knob to select the relevant submenu. For details please refer to MENU in menu orientation.
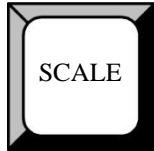
ESC reuse function button: Push the **MENU** to exit the menu

Effect switch function: Push the **MENU** button two times to enter the effect switch function menu.

2. Hardware Orientation

VSP 198CVSFront Panel

For details please refer to: QUICK MENU -- Special effects switching

SCALE

Scale function button : image size adjustment, push the button to enter the scale menu. Turn the knob to select the relevant submenu. For details please refer to MENU in menu orientation.and How to Set up the Size and Position of the Single Image

3. Hardware Installation

In This Chapter

This chapter provides comprehensive installation instruction for VSP

198CVS hardware:

Following is the mechanic info of VSP 198CVS for your reference.
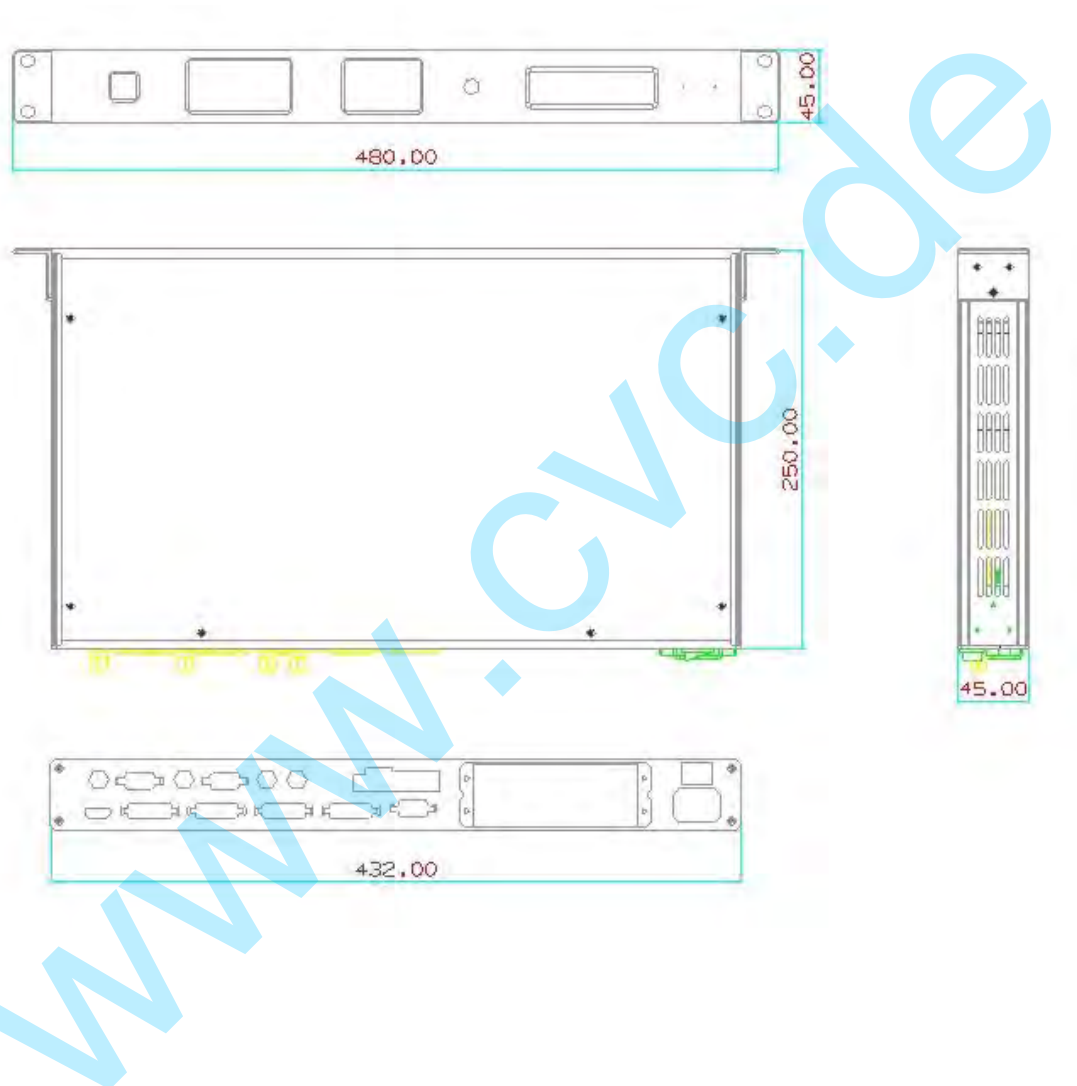
3. Hardware Installation

Safety Precautions

For all VSP 198CVS processor installation procedures, please observe the following important safety and handling rules to avoid damage to yourself and the equipment.

● To protect users from electric shock, ensure that the chassis connects to earth via the ground wire provided in the AC power Cord.

● The AC Socket-outlet should be installed near the equipment and be easily accessible.

Unpacking and Inspection

Before opening VSP 198CVS processor shipping box, inspect it for damage. If you find any damage, notify the shipping carrier immediately for all claims adjustments. As you open the box, compare its contents against the packing slip. If you find any shortages, contact your sales representative.

Once you have removed all the components from their packaging and checked that all the listed components are present, visually inspect the system to ensure there was no damage during shipping. If there is damage, notify the shipping carrier immediately for all claims adjustments.

Site Preparation

The environment in which you install your VSP 198CVS should be clean, properly lit, free from static, and have adequate power, ventilation, and space for all components.

4. Menu Orientation

In This Chapter

This chapter describes all VSP 198CVS processor menus, including how

they are accessed, the functions that are available, and descriptions of

each menu tree (in block diagram format).

The following topics are discussed:

- **MENU**

  ➢ OUTPUT FORMAT

  ➢ SCREEN PARAMETERS

  ➢ PICTURE

  ➢ IMAGE QUALITY

  ➢ ADJUST

  ➢ TEXT OVERLA

  ➢ SYSTEM

  ➢ LANGUVAGE

  ➢ LOCK FRONT PANEL

  ➢ FACTORY RESET

- **QUICK MENU**

  ➢ Special effects switching

  ➢ SAVE FUNCTION

  ➢ LOAD FUNCTION

  ➢ PIP FUNCTION

  ➢ SPLIT   FUNCTION

  ➢ SCALE FUNCTION

4. Hardware Installation

Menu   Orientation

MENU

Push the **MENU** to main menu, main menu as shown: Turn knob buttons to select menu items. > before the menu means it's in selected state. Press the knob to enter corresponding setting or view the menu.

MENU				
OUTPUT FORMAT	SCREEN PARAMETERS	PICTURE	IMAGE QUALITY	ADJUST
STANDARD	H SIZE	ZOOM	BRIGHTNESS	VGA1 SIGNAL TYPE
800x600x60	V SIZE	V UP	CONTRAST	VGA
1024x768x60	H POS	V DOWN	SATURATION	YPbPr
1024x768x75	V POS	V UP/DOWN	SHARPNESS	
1280x720x60	MODE	H LEFT	COLOR RED	VGA2 SIGNAL TYPE
1280x720x50	FULL SIZE	H RIGHT	COLOR GREEN	VGA
1280x768x60	SCREEN SIZE	H LEFT/RIGHT	COLOR BLUE	YPbPr
1280x800x60		CENTER	RESET	
1280x1024x60	RESET	RESET		VGA1 ADJUST
1360x768x60				H POS
1366x768x60		SCALE		V POS
1400x1050x60		H SIZE		CLOCK
1440x900x60		V SIZE		PHASE
1600x1200x60		H POS		AUTO ADJUST
1680x1050x60		V POS		
1920x1080x60		RESET		SDI/HDMI/VGA2 ADJUST
1920x1080x50				H POS
1920x1200x60				V POS
2048x1152x60				RESET
2560x812x60				
2560x816x60				ADC ADJUST
				ADC AUTO ADJUST
				ADC RESET ALL
CUSTOMIZED				
				GAMMA
				LINEAR
				sRGB
				-1.2
				1.2
				-1.4
				1.4
				-1.6
				1.6
				ASPECT RATIO
				4:3
				16:9
				DEFAULT
				OUTPUT ADJUST
				DVI1
				DVI2
				DVI MODE
				HDMI
				DVI
				DATA RANGE
				VIDEO
				IMAGE
				DE ADJUST
				DE ON/OFF
				H POS
				V POS
				H SIZE
				V SIZE
				H POLARITY
				V POLARITY
				RESET

4. Hardware Installation
Menu   Orientation

TEXT OVERLAY		SYSTEM		LANGUAGE	LOCK FRONT PANEL	FAC RESET
DSK		ETHERNET		ENG		FACTORY RESET
	ON/OFF		NETWORK ON/OFF	中文		RESET IP RESET
			IP 192.168.0.100			
PRESET		DISPLAY MODE				
	USER MODE		MODE			
	WhOnBk1(WhiteOnBlack1)			BLACK OUT		
	WhOnBk2(WhiteOnBlack2)			LIVE IMAGE		
	BkOnWh1(BlackOnWhite1)			FREEZE IMAGE		
	BkOnWh2(BlackOnWhite2)			PURE IMAGE		
	GmOnBk1(GreenOnBlack1)			TEST PATTERN		
	GmOnBk2(GreenOnBlack2)					
	GmOnWh1(GreenOnWhite1)		TEST PATTERN		OUTPUT DETAIL	
	GmOnWh2(GreenOnWhite2)			TEST PATTERN	DVI1	
	RedOnBk1(RedOnBlack1)			1-66	DVI2	
	RedOnBk2(RedOnBlack2)			AUTO SWITCH		FORMAT
	RedOnWh1(RedOnWhite1)			ON/OFF		DVI MODE
	RedOnWh2(RedOnWhite2)			1-10s		DATA RANGE
						DE ON/OFF
BLEND MODE		FLAT COLOR				DE H POS
BLEND LEVEL			RED			DE V POS
ABOVE/BELOW			GREEN			DE H SIZE
KEY IN/OUT			BLUE			DE V SIZE
RED						
GREEN		DELAY RECALL			SYSTEM INFO	
BLUE						CONT VER
		TECH SUPPORT				FIRMWARE
			SALES : 4008-592-114			SN
			CSH: 4008-592-315			IP
			Email:rgblinkcs@gmail.com			
			Web:www.rgblink.com		DATE&TIME	
			TEL:+86(592)5771197			DATE
						TIME
		INPUT DETAIL				CHANGE DATE
			CV1			CHANGE TIME
			CV2			
			CV3		WORK TIME	
			SV			CURRENT TIME
			DVI			LAST TIME
			YPbPr			TOTAL TIME
			VGA			BOOT TIMES
			SDI			
				FORMAT	OLED LUMINANCE	
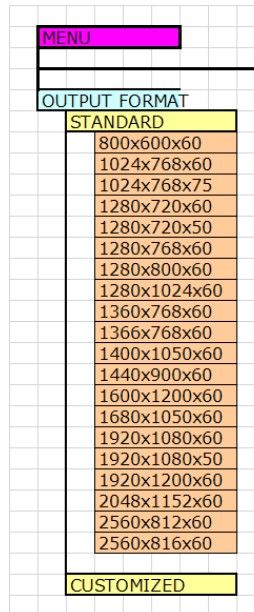
MENU---OUTPUT FORMAT

Push the [MENU] button,OLED display menu, push knob button to select

<OUTPUT FORMAT>,show menus as follows:

STANDARD：push knob button to select left or right menu item, turn the

knob to enter corresponding setting or view the menu.Users can choose

different output formats by turning the knob, this option includes 20

common standard output resolutions, shown as follows:

4. Hardware Installation

Menu　Orientation

CUSTOMIZED：the special display project or LED screen application would

like to require special resolution settings, to meet the requirement.

Details please refer to the instructions in the manual：How to do customized

output resolution .

MENU---SCREEN PARAMETERS

Push the [MENU] button to go into the main menu and turn the knob to

select <SCREEM PARAMETERS>,show menus as follows:

H SIZE: Width setting;

V SIZE: Height setting;

H Pos: Horizontal phase setting;

V Pos: Vertical phase setting;

Mode: window mode, can scale the（Screen）and（Full）switch.

RESET: If quality image distorts as improper operation, it can be initialized

to recover by factory reset.

Details please refer to the instructions in the manual：How to Scale the

Screen Size and Full Size Switching

MENU---PICTURE

Push the [MENU] button to go into the main menu, turn the knob button to

select <PICTURE>,show menus as follows:

4. Hardware Installation

Menu   Orientation

```
—>ZOOM                          >>
   SCALE                        >>


```

ZOOM：It can adjust the image zoom size and positions, settings including as follows:

V UP--image to up zoom;

V DOWN--image to down zoom;

V UP/DOWN--image to up and down zoom ;

H LEFT--image to left zoom;

H RIGHT--image to right zoom;

H LIFT/RIGHT--image to left and right zoom;

CENTER--image from center to the edges zoom;

RESET: If image zoom setting goes to wrong as improper operation, it can be initialized to recover by factory reset.

Details please refer to the instructions in the manual：How to Set up image zoom.

SCALE：It can adjust the image scale size and image position settings including as follows:

H SIZE: Width setting;

V SIZE: Height setting;

H Pos: Horizontal phase setting;

V Pos: Vertical phase setting;

RESET: If image quality distorts as improper operation, it can be initialized to recover by factory reset.

NOTE

The SCALE button can also fulfill this setting.

Details please refer to the instructions in the manual：How to set up the Size

4. Hardware Installation

Menu   Orientation

and Position of the Single Image

MENU---IMAGE QUALITY

It can adjust the image quality settings including as follows:

BRIGHTNESS: It can change the image BRIGHTNESS via BRIGHTNESS

Settings;

CONTRAST: It can change the image CONTRAST via CONTRAST

Settings;

SATURATION: It can change the image SATURATION via SATURATION

Settings;

SHARPNESS: It can change the image SHARPNESS via SHARPNESS

Settings;

COLOR RED: It can change the image color Red via Red Settings;

COLOR GREEN: It can change the image color Green via Green Settings;

COLOR BLUE: It can change the image color Blue via Blue Settings;

RESET: If quality image distorts improper operation, it can be initialized to

recover by factory reset.

Note

Users can set according to their actual situation, this function mainly suitable for professional operator who knows how to set the image quality correctly. Others are not comments to do these operations. If image distorted by improper operation, it can be initialized to recover by factory reset.

MENU---ADJUST

Adjust menu including: Input signal sources adjust, Image quality

settings ,Output signal adjust.Menu as follows:

Input signal sources adjust :

VGA1 SIGNAL TYPE:

Program VGA1 button is VGA signal or YPbPr signal;

4. Hardware Installation

Menu Orientation

VGA2 SIGNAL TYPE：

Program VGA2 button is VGA signal or YPbPr signal;

VGA1 ADJUST：

Adjust VGA1 input signal ,sub menu as follows:

H POS:image horizontal position;

V POS:image vertical position;

CLOCK:input signal clock;

PHASE:input image phase;

Note

Only comments to professional operator .

AUTO ADJUST: auto adjust VGA1 input signal H POS,

V POS,CLOCK, PHASE; auto adjust to display in full screen

image.

Note

Comments customers to use this operation in adjusting the VGA input shiftment.

SDI/HDMI/VGA2 ADJUST：

When SDI/HDMI/VGA2 input signal image shift ,please

adjust image's H POS and V POS, to display in full screen

image.

sub menu as follows:

H POS: image horizontal position;

V POS: image vertical position;

RESET:Restore the factory Settings

Image quality settings

ADC ADJUST:

Mainly aim at the BRIGHTNESS to auto adjusting.

GAMMA: Gamma setting, press it to adjust the image

4. Hardware Installation

gamma value; Gamma values include: LINEAR, sRGB, -1.2,

-1.4, -1.6, 1.2, 1.4, 1.6;

ASPECT RATIO：change the value to convert the aspect

ratio for different wide and height ratio settings.

Normal: Original video ratio, 4:3 aspect ratio; 16:9 aspect

ratio;

Note

> The RATIO button can also active this setting.

OUTPUT ADJUST: Output adjust menu, the sub-menu as

following:

DVI1, setting as following:

DVI MODE: Can set the protocol as HDMI or DVI; default is

DVI output, HDMI signal output will enable when HDMI

option checked.

DATE RANGE: DVI1 output range can set as RGB (graphic

mode) or YCbCr （video mode）; RGB output scale range is

between 0-255, YCbCr range from 16 to 235.

DE ADJUST: DE adjust, the sub-menu as following:

DE ON/OFF: Can choose to open or close, when choose

open, it can be adjusted to DE, as follows:

H SIZE: Width setting;

V SIZE: Height setting;

H Pos: Horizontal phase setting;

V Pos: Vertical phase setting;

When the signal source of the screen appear black side, can

use this function to shift the black out of the screen.

RESET: If image distorts as improper operation, it can be

initialized to recover by factory reset.

DVI2: Including DVI MODE, DATA RANGE, DE ADJUST,

4. Hardware Installation

and RESET, same with DVI1.

Note

Only comments to professional operator .

MENU---TEXT OVERLAY

It can adjust the Text overlay function settings including as follows:

TEXT OVERLAY: Can select ―ON" or ―OFF", OFF is the default setting.

PRESET: Can preset value of the following functions, and total 13 modes:

User: User mode.

WhOnBk1: White On Black 1.

WhOnBk2: White On Black 2.

BkOnWh1: Black On White 1.

BkOnWh2: Black On White 2.

GrnOnBk1: Green On Black 1.

GrnOnBk2: Green On Black 2.

GrnOnWh1: Green On White 1.

GrnOnWh2: Green On White 2.

RedOnBk1: Red On Black 1.

RedOnBk2: Red On Black 2.

RedOnWh1: Red On White 1.

RedOnWh2: Red On White 2.

BLEND MODE: Blend mode, with two modes, ―Mode 1" and ―Mode 2".

Mode 1: Graphic content locate at the top and is non-transparent, background transparency is controlled by double-image transparency;

Mode 2: Graphic content is controlled by double-image transparency, the background is completely transparent;

BLEND LEVEL: Can set the image display transparency, regulating range between 0 - 16;

4. Hardware Installation

Menu　Orientation

ABOVE/BELOW:

ABOVE: In image 2, if the pixel value is higher than the setting value, then the image is the graphic content pixel, otherwise, it is the graphic background pixel. It should combined with "AND/OR" conditions when judging.

BELOW: In image 2, if the pixel value is lower than the setting value, then the image is the graphic content pixel, otherwise, it is the graphic background pixel. It should combined with "AND/OR" conditions when judging.

KEY IN/OUT:

KEY IN：the background to delete，the text title to keep;

KEY OUT：the　text title to delete，the background to keep;

RED: Red limit, cut-off point condition of ABOVE and BELOW condition in red channel, the range is 0 ~ 248;；

GREEN: Green limit, cut-off point condition of ABOVE and BELOW condition in green channel, the range is 0 ~ 248;

BLUE: Blue limit, cut-off point condition of ABOVE and BELOW condition in blue channel, the range is 0 ~ 248.

Details please refer to the instructions in the manual:How to Realize the Text Overlay setting.

MENU---SYSTEM

It can adjust the System function settings including as follows:

ETHERNET: Network setting, including:

NETWORK ON/OFF: Can choose "ON" or "OFF".

IP ADDRESS: 192.168.000.100.

SUBNET MASK: 255.255.255.000.

GATEWAY: 192.168.000.001.

DISPLAY MODE:

MODE: Image mode selection, user can choose different output modes

4. Hardware Installation

according to their requirement, such as: black, video image, freeze image, pure color image, test pattern;

TEST PATTERN: Test pattern setting, rotate the knob, there are 1-66 kinds of modes for choose.

FLAT COLOR: When the output mode is pure color image, choose corresponding red, green and blue color value in this option to meet the practical needs.

Details please refer to the instructions in the manual:How to Realize the test pattern output　and settings..

DELAY CALL: Set delay the output time. When more than one equipment power on, and the processor is the end equipment in order to improve question that can't identify the input signal and phenomenon that LED screen appear messy code and flash screen, now need to delay the input time1-255s.

TECH SUPPORT: Can view the factory sales, after sales, factory address, contact information, etc.

INPUT DETAIL：Can view information about display input signal sources.

OUTPUT DETAIL：Can view information about display output signal.

SYSTEM INFO: System information.

MCU VER: Information of MCU version.

VIDEO VER: Information of VIDEO version.

SN: It is the Factory serial number of VSP 198CVS which is used to search the information of VSP 198CVS.

IP: IP address.

DATE&TIME: Display date or time.

DATE: Display date.

TIME: Display time.

WORK TIME: Display the working time from boot to present.

TOTAL TIME: Total working time.

4. Hardware Installation

Menu Orientation

BOOT TIMES: Boot times.

TIMING CONTROL: Timing control switch.

CHANGE DATE.

CHANGE TIME.

Note

> If use timing function, DTAT and TIME need to set up accurate.

LOCK FRONT PANEL: Through this setting can choose whether to lock the front panel operation, if the front panel operation is locked, the menu will shows: "please push MENU and SEL buttons together to release lock mode!" User can push two buttons together to unlock the equipment.

LICENSE SETUP: The device will not work if excess the prescribed time, there are no signal output, it needs to input password and modify the using time to continue to work.

CAN USE TIME: Display the rest of the working time as LICENSE SETUP.

OLED LUMINANCE：adjust OLED panel luminance，set the range 0-15 ;

MENU --- LANGUAGE

Through this option, user can choose Chinese or English according to their needs to operate the interface more quickly.

MENU---LOCK FRONT PANEL

Enter can set whether lock front panel; If open it, operating other buttons are invalid; release it, shall also press < Menu > and press 3S key to unlock! This function mainly in order to prevent the user misoperation.

MENU --- FACTORY RESET

Enter FACTORY RESET to reset; choose YES and push the knob to confirm; then VSP 198CVS is reset to its factory settings. After 5 seconds, it completes factory settings and is ready for more operations.

4. Hardware Installation

Menu   Orientation

4. Menu Orientation

QUICK MENU

Quick menu function are including: Special effects switching function,SAVE

function,LOAD function,PIP function,SPLIT function,SCALE function;these

functions are separate button defined,so not included in the MENU.

QUICK MENU --Special effects switching

Press the **MENU** button two times,enter the effect switch function menu.

MODE：Special effects switching mode

DISSOLVE：fide in and fide out Special effects switching

CUT：fast switching

WIPE SOUARE IN：
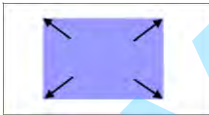
WIPE SOUARE OUT：
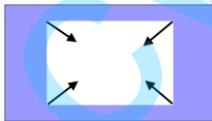
WIPE TOP LIEFT IN：

WIPE TOP LIEFT：
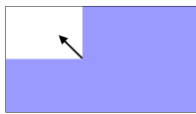
WIPE TOP RIGHT IN：

WIPE TOP RIGHT ：

WIPE BOTTOM LEFT IN：

WIPE BOTTOM LEFT ：

4. Menu Orientation
QUICK MENU

WIPE BOTTOM RIGHT IN：

WIPE BOTTOM LEFT ：

WIPE LEFT IN：

WIPE LEFT：

WIPE RIGHT IN：

WIPE RIGHT：

WIPE TOP IN：

WIPE TOP ：

WIPE BOTTOM IN：

WIPE BOTTOM：
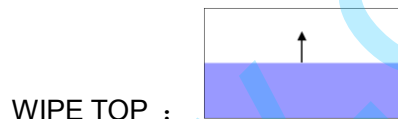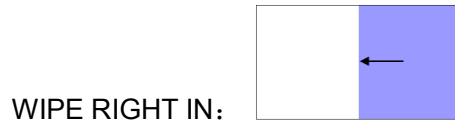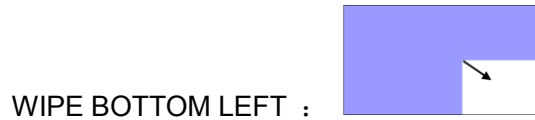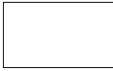
Note:　　　　　　　On behalf of the image emerging;

　　　　　　　　　On behalf of the image disappearing.

Arrows represents the direction of the image move, that is, the image that

arrow point, is compressed or stretched to the direction that arrow indicates,

until disappear or full screen.

FADE TIME: Switch time setting. Rotate the knob to choose the time and

press the knob to confirm. The switching time ranges from 0 to1.0.

ALPHA: It can set the image transparency, regulating range between 0 -

4. Menu Orientation
QUICK MENU

16.
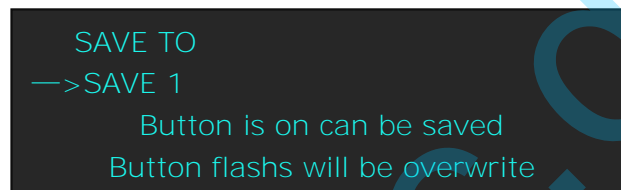
DEINTERLACE: Force Deinterlace function, can choose ~~ON~~" or ~~OFF~~".

ON: Force deinterlace, no effect switching.

OFF: No deinterlace, with effect switching.

QUICK MENU -- SAVE FUNCTION

Press the **SAVE** button ,button led light turn on ,enter the save function

menu.OLED screen as follows:
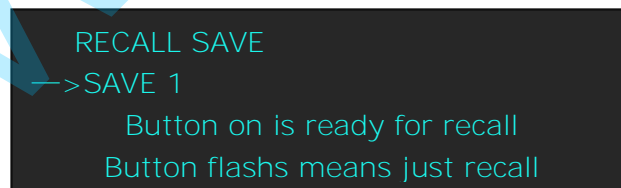
```
    SAVE TO
—>SAVE 1
         Button is on can be saved
         Button flashs will be overwrite
```

According to the OLED display information to save operation

Details please refer to the instructions in the manual：How to Set up the

SAVE.

QUICK MENU --LOAD FUNCTION

Press the **LOAD** button ,button led light turn on ,enter the load function

menu.OLED screen as follows:

```
    RECALL SAVE
—>SAVE 1
         Button on is ready for recall
         Button flashs means just recall
```

According to the OLED display information to LOAD operation

Details please refer to the instructions in the manual：How to Set up the

LOAD .

QUICK MENU --PIP FUNCTION

Press the **PIP** button ,button led light turn on ,enter the pip function

menu.OLED screen as follows:

4. Menu Orientation
QUICK MENU

PIP setting, choose PIP and choose ON to set PIP mode.

LAYOUT: Thera are 7 pip layouts,Can choose PIP layouts anyone, the corresponding results are as follows;
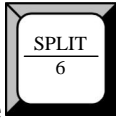
PIP L+T   PBP L+R   PBP T+B

SELECT: Can choose to set the size or position of IMAGE A or IMAGE B individually;

Note

Function reuse kye ,selecting image A or image B

SWAP IMAGE: It can set PIP to swap exchange, when choose ON, it can realize the main and sub-image exchange.

ALPHA: Can set the image display transparency, regulating range between 0 - 16;

Details please refer to the instructions in the manual：How to Set up the PIP .

QUICK MENU—SPLIT FUNCTION

Press the SPLIT button ,button led light turn on ,enter the SPLIT function menu.touch the knob and turn the knob,open split function ,OLED screen as follows:

```
—>SPLIT                          ON
   H TOTAL                      1920
   H TOTAL                      1080
   H POS                          0
```

4. Menu Orientation
QUICK MENU

```
V POS                          0
H SIZE                      1920
V SIZE                      1080
RESET
```

H TOTAL: Horizontal total.

V TOTAL: Vertical total.

H POS: Horizontal phase setting.

V POS: Vertical phase setting.

H SIZE: Width setting.

V SIZE: Height setting.

RESET:Restore the factory Settings

Details please refer to the instructions in the manual：How to Set up the

Size and Position of the Single Image

QUICK MENU --SCALE FUNCTION

Press the SCALE button ,button led light turn on ,enter the SCALE function

menu.touch the knob and turn the knob,open split function ,OLED screen as

follows:

```
H SIZE                      1920
V SIZE                      1080
H POS                          0
V POS                          0
```

H SIZE: Width setting.

V SIZE: Height setting.

H POS: Horizontal phase setting.

V POS: Vertical phase setting.

RESET:Restore the factory Settings

Details please refer to the instructions in the manual：How to Set up the

image scale .

5. Communication Software Guideline

In This Chapter

This chapter provides detailed information about the control

communication software. The following topics are discussed:

- **Software Installation**

- **Software Operation**

- **How to Connect Upper Monitor by RS232 Interface?**

- **How to Connect Upper Monitor by USB Interface?**

- **How to Connect PC through LAN Interface?**
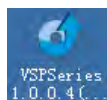
Software Installation

VSP 1698CVS video processor is very easy to be configured with user

friendly communication software, support drag and drop operation for edit

and display. Also it can be customized with schedule function.
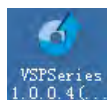
Double click [VSPSeries 1.0.0.4(...] to install, English version default for use, click –select"

to next dialog:
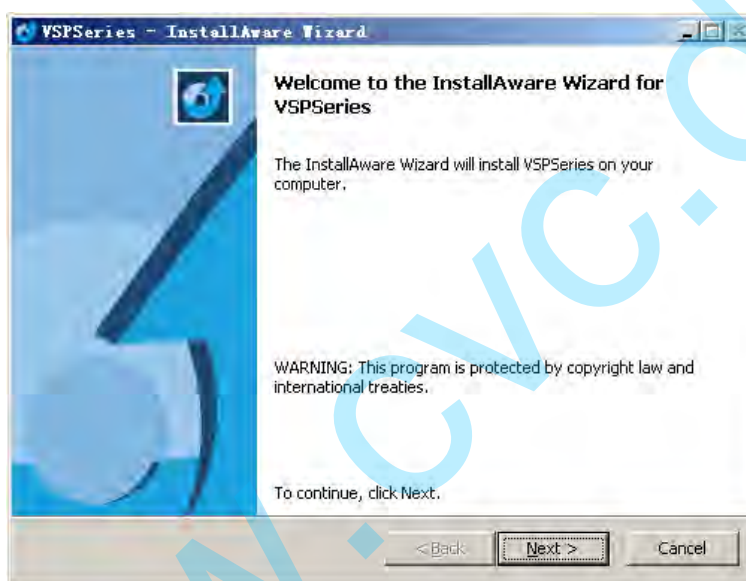
And in next dialog is the user agreement of the software, click Agree to go

on:
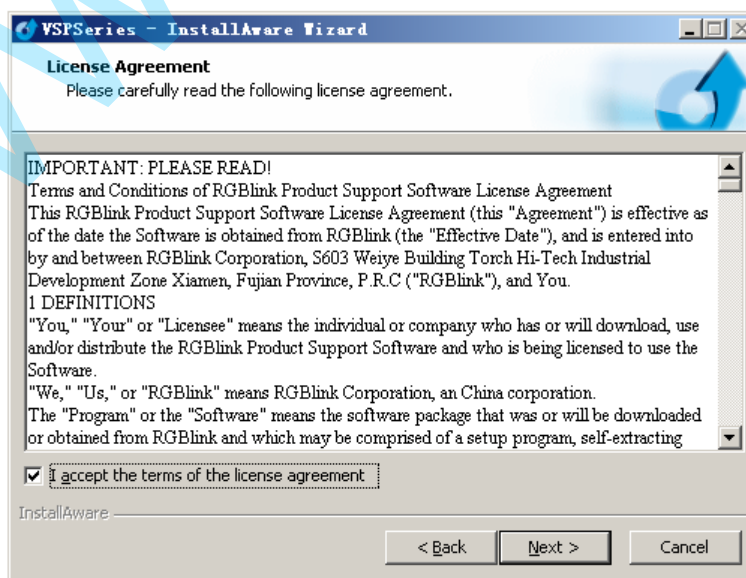
5. Communication Software Guideline
Software Installation
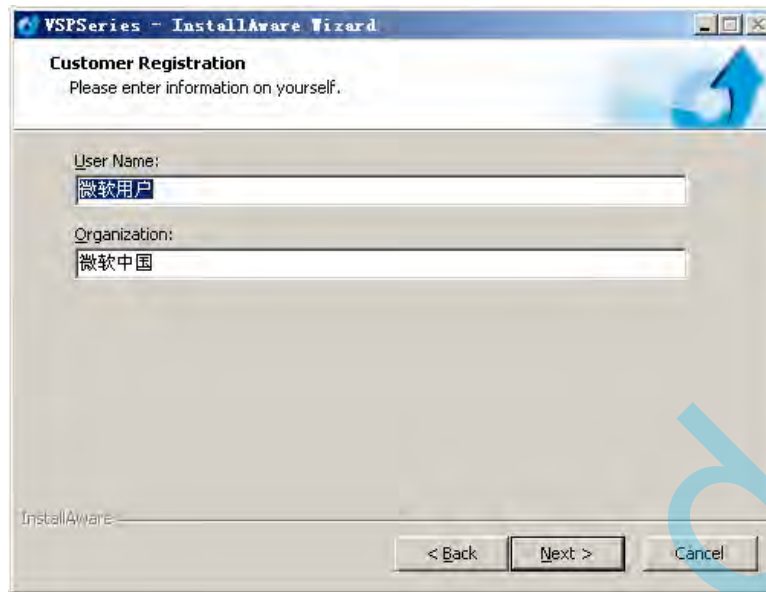
User can select "Change" to choose the VSP 198CVS install software:
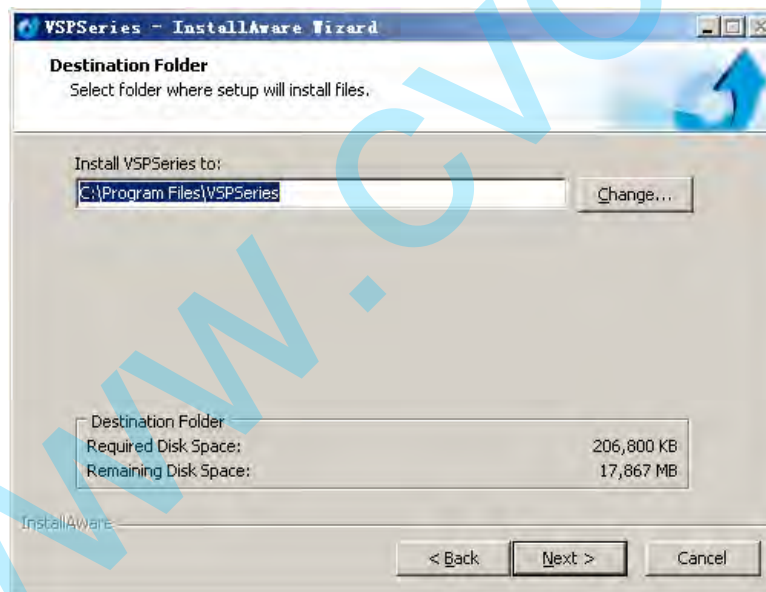
5. Communication Software Guideline
Software Installation
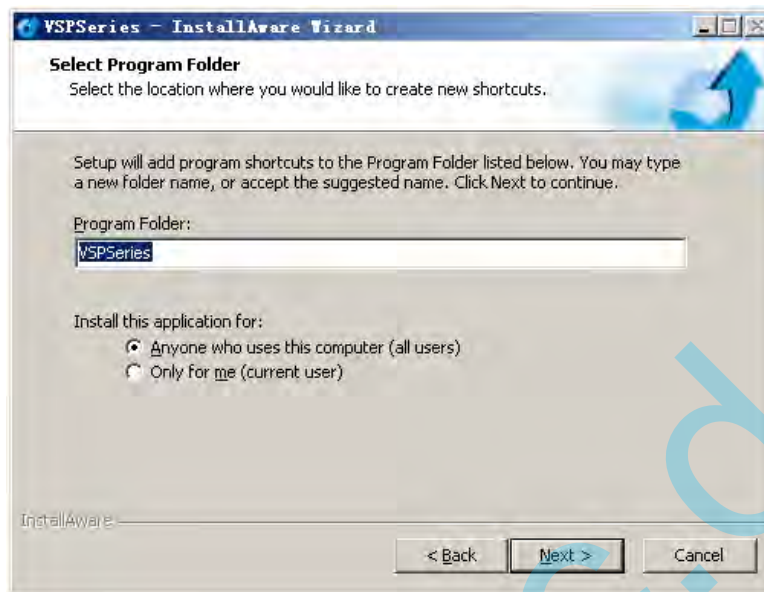
Click "Next" to go on:

Click "Next" to go on：
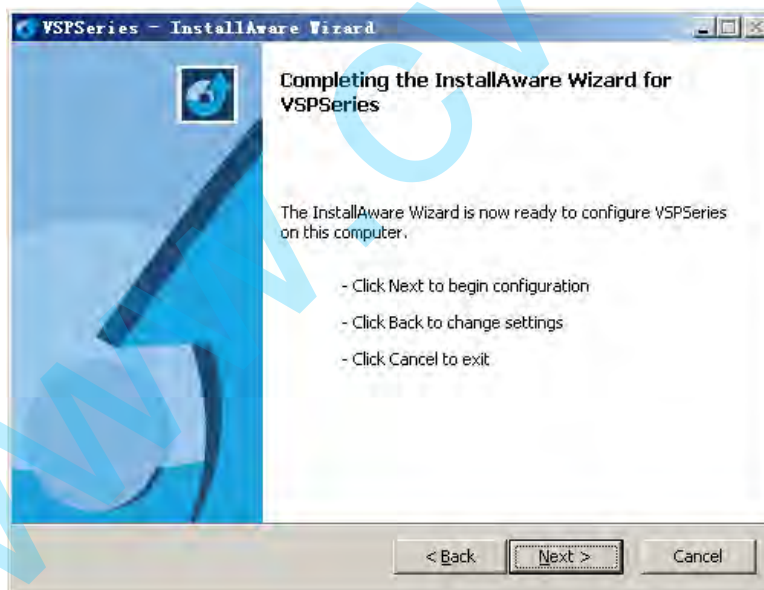
5. Communication Software Guideline
Software Installation

Click "Next" to go on:
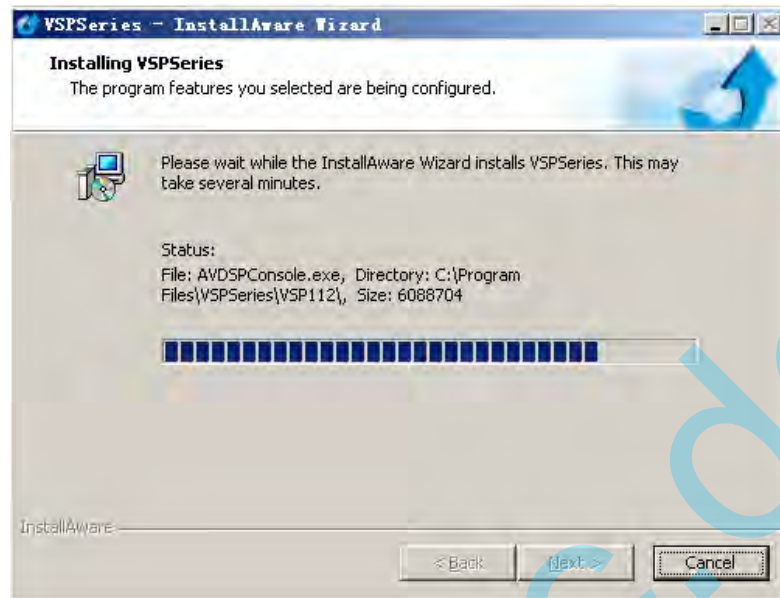
Click "Finish" and ready to run VSP 198CVS console:

Software Operation

Install communication which comes with the package of VSP 198CVS

device. Double click ![icon] icon from home screen to run the software.

Double click ![icon] icon, then choose and double click to run the

software.

VSP 198CVS communication software interface as shown:
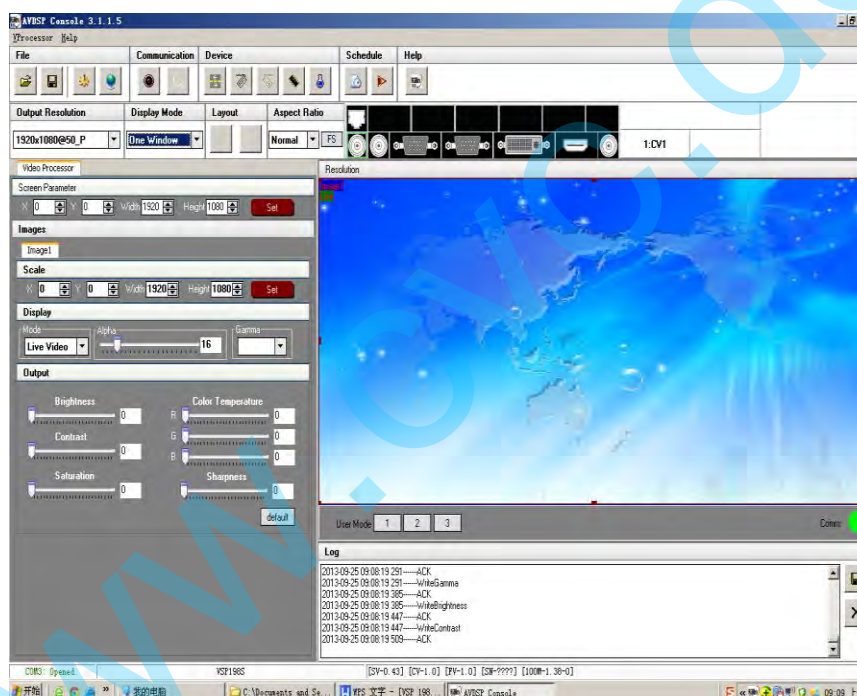
Connection

When control video processor through PC software, besides the power

cord, the product default equip with a line that is COM (RS-232), 9-pin

(DB9F), RJ11 COM crystal head (6 B4C). Below are the details about

connection of steps:

First connect 9-pin (DB9F) to the computer on the corresponding port, and

connect COM crystal to RS232 port on video processor. Open video

processor; Next, operate the computer, back to computer desktop, right

click【My computer】to【Properties】, find the【Hardware】option card,

5. Communication Software Guideline
Software Installation

as follows, left click【Device manager】:
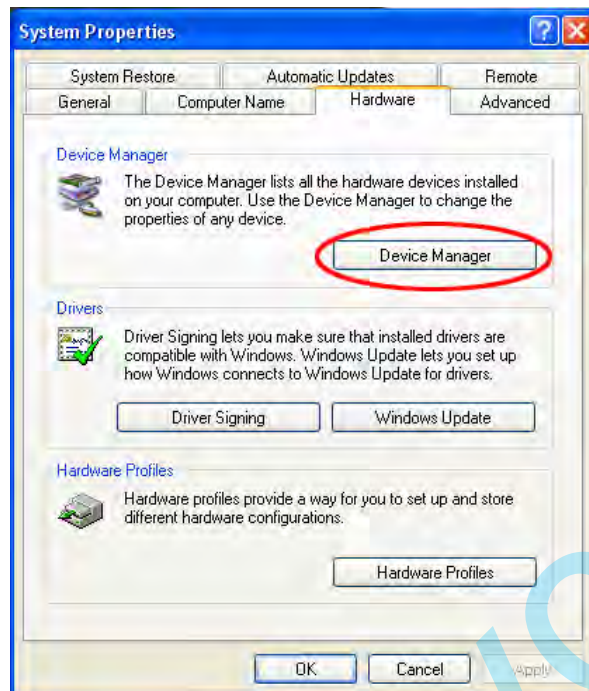
Find 【(COM and LPT)】 port in 【device manager】, click the plus sign on

the left, record serial interface name that computer provides, as following chart,

the serial port is COM1.
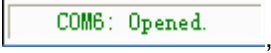
Confirm used COM and open control software, click 【**communication**】

page，enter setup option，Serial is the default COM，click icon to

refresh COM number，choose available COM，default Baud rate is115200.

5. Communication Software Guideline
Software Installation

After serial setting, click [icon] icon，the icon becomes [icon] [icon] when successfully connected，on the left button showing `COM6: Opened.`，meaning has connected video processor through COM, and can control video processor through the PC software.
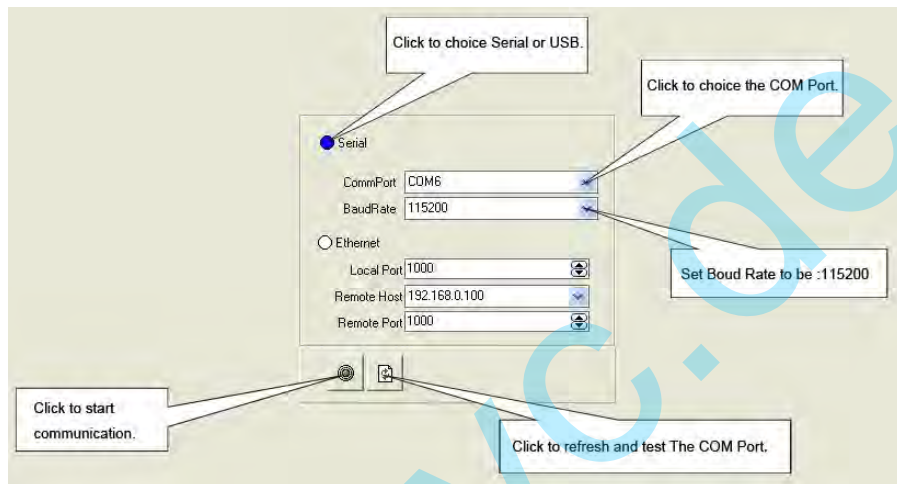
For more detailed information, please refer to: **─How to connect upper monitor by RS232 interface？** ". In addition, we also equipped with USB line, you can also connect the computer and video processor with it to control PC software. Please refer to ─How to control processor with console software by USB?" for more detailed information.

Note

> RS 232 COM line can upgrade 100M program, while USB can't.
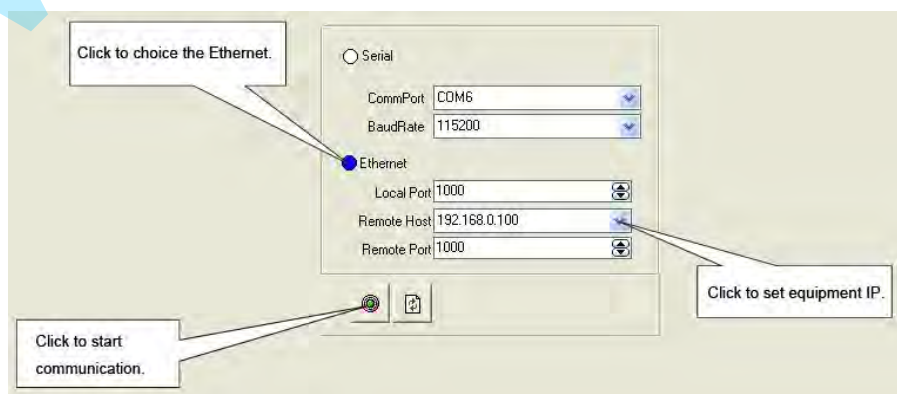
Ethernet ，user can fill any number less than 1023 in local port，the remote
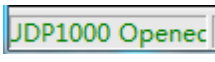
5. Communication Software Guideline

port must be 192.168.0.100 and the remote port must be 1000. After

setting above, click the icon ![icon] to connect with the net work. If

successful connect, the icon becomes ![icon], status on the left button

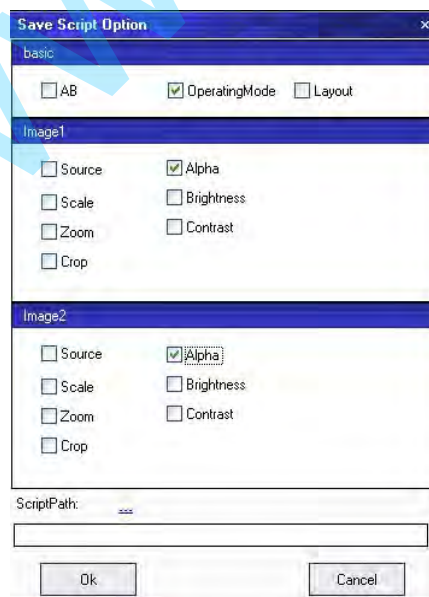showing UDP1000 Openec。

Use

File Toolbar

![folder icon]：Open script. User can open saved script and alter its parameters.
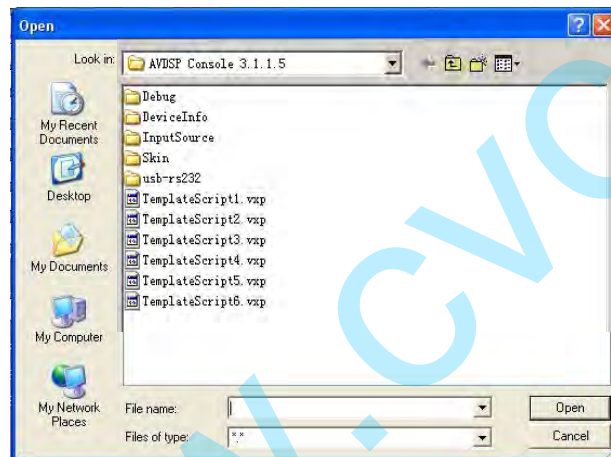
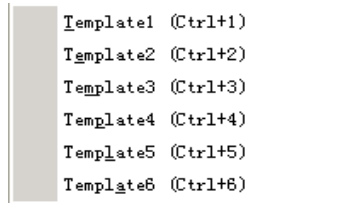![save icon]：Save script. Save current user parameters as script to the

prescribed path.

5. Communication Software Guideline
Software Installation

 ：Import template. There are six templates for user. Users can setup one of templates as the common one.

```
Template1 (Ctrl+1)
Template2 (Ctrl+2)
Template3 (Ctrl+3)
Template4 (Ctrl+4)
Template5 (Ctrl+5)
Template6 (Ctrl+6)
```

 ：Export template. Export current config as template.

```
Template1 (Ctrl+1)
Template2 (Ctrl+2)
Template3 (Ctrl+3)
Template4 (Ctrl+4)
Template5 (Ctrl+5)
Template6 (Ctrl+6)
```
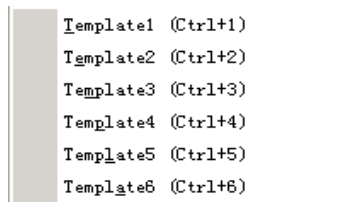
 ：Option: User can choose open device when start and using script saved before or execute schedule edited before when start.

If user choose open device when start, user can use last run, use script file or none when user start. User can click to choose which script user want to open.
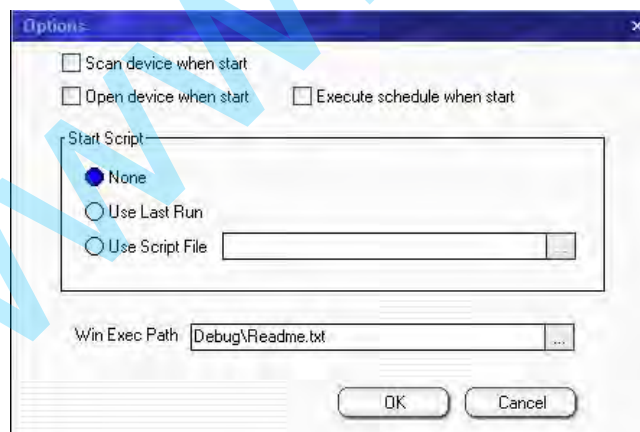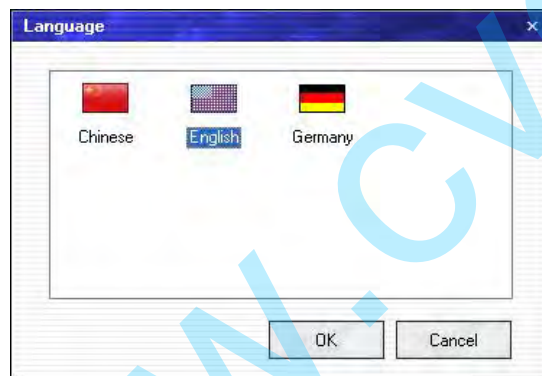

If user choose execute schedule when start, the next dialogue will display when software run.

5. Communication Software Guideline
Software Installation
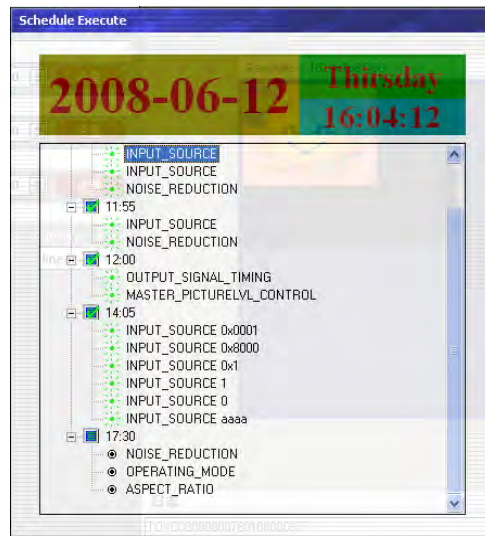
：Language: The software supports Chinese, English and German version.

Communication Toolbar
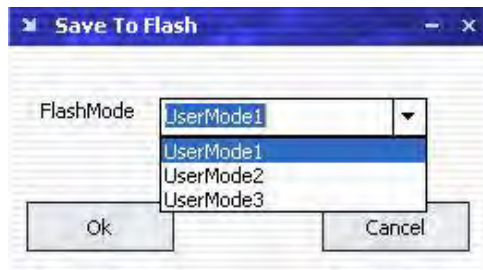
：Open COM.

：Close COM

：Set COM.

Device Toolbar

：Synchronization.

：Save to flash.

5. Communication Software Guideline
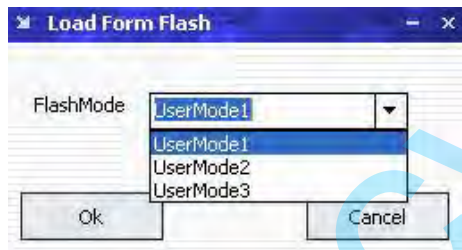Software Installation

Note

Same as MENU ➔ SAVE

：Load form Flash.

Note

Same as   MENU➔ LOAD

：Factory setup；

：Advance

Note

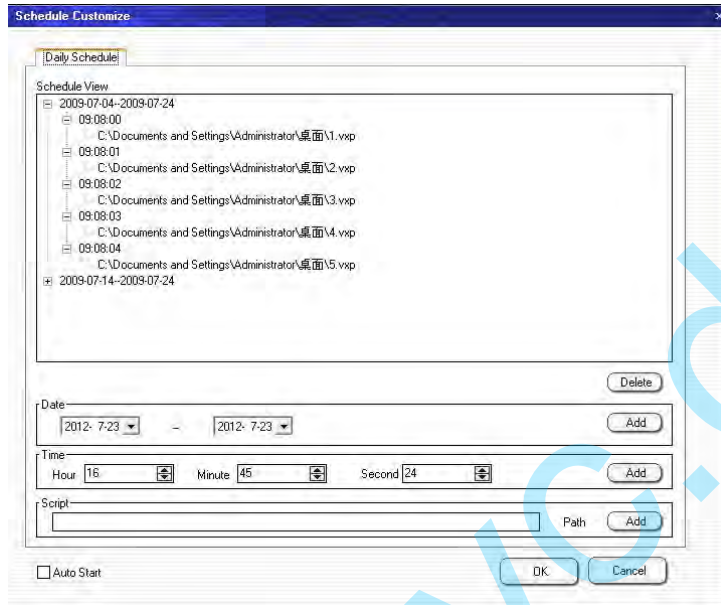| Advance is only done by engineer. Please connect us for password. |
| :-- |

5. Communication Software Guideline
Software Installation

Schedule Toolbar

：Customize schedule

：Execute schedule. Execute tasks according to schedule.

Help Toolbar

About: Display information of software；

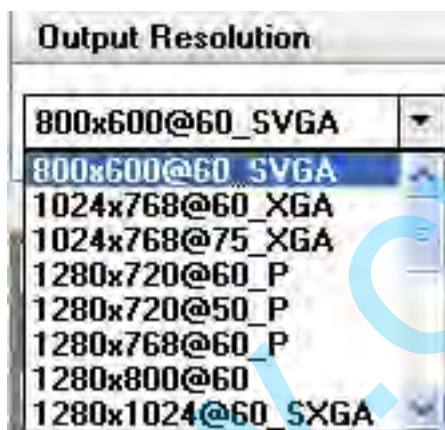# 5. Communication Software Guideline
Software Installation

Output Resolution Toolbar

User can choose different output resolution by selecting from pull down list.

VSP 198CVS has 20 output resolutions for users selection.

Note

> Same as MENU➔ OUTPUT FORMAT

Images Display Mode Toolbar

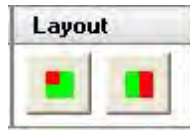Choose to work in single channel or dual channel.

Layout Toolbar

If in single channel mode, the dialog is in grey and it is in limited use.

If in dual channel mode, user can set the device to work in PIP or PBP

5. Communication Software Guideline
Software Installation

mode directly with quick preset layout button as following.

Note

> Same as   PIP � LAYOUT.

Aspect Ratio Toolbar

Users can select 4:3 or 16:9 in the pull-down options.

Note

> Same as MENU ➤ ADJUST ➤ ASPECT
>
> RATIO.

Signal Input Toolbar

The white area displays the name of input interface when the mouse is over the interface image on the left. The green pane means current selected interface.

When user selects a dual channel mode, select any channel image, click on the toolbar interface the ICONS for the channel selection input interface, i.e.: SDI, Composite1, Composite2, Composite3, S - Video, DVI, YPbPr, VGA, green toolbar says it has chosen the current interface for channel 1 input interface, the default last single channel chosen interface for channel 2 input interface, the currently selected channel will be shown on the right

5. Communication Software Guideline
Software Installation

side of the source.

Screen Parameter Toolbar

User can set size and position of the screen simply, mainly applies to LED

screens users. After setting screen parameter，the user choice PIP or PBP

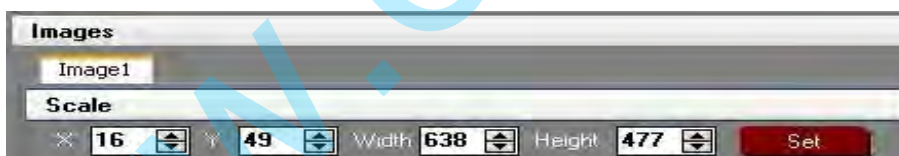operation, display image can directly shows on corresponding screen.

Note

Same as MENU ➜ SCREEN PARAMETERS

Image Toolbar

User can scale the images；Image 2 can't choose in single channel mode.

Note

Same as SCALE button and MENU ➜ PICTURE ➜ SCALE

Display Toolbar

Display toolbar Users can set Alpha value of "dynamic Video" and "static

current frame" through display toolbar. When it is in dynamic Video, the

video plays properly; when it is in static current frame, the video stop
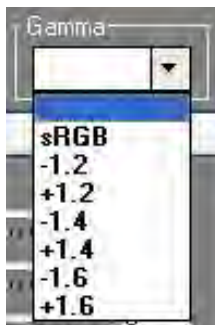
5. Communication Software Guideline
Software Installation

playing.

Note

> Same as MENU ➝ SYSTEM ➝ DISPLAY
>
> MODE ➝ FREEZE IMAGE .

Setting Gamma is generally not recommended, since LED large screen itself has Gamma function. For further information, users can contact with our customer service team.
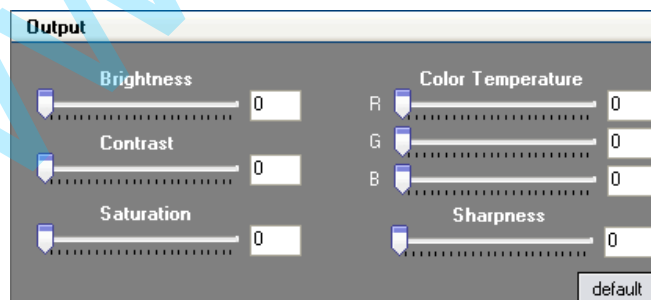

Note

> Same as MENU ➝ ADJUST ➝ GAMMA

Output Image Setup Toolbar
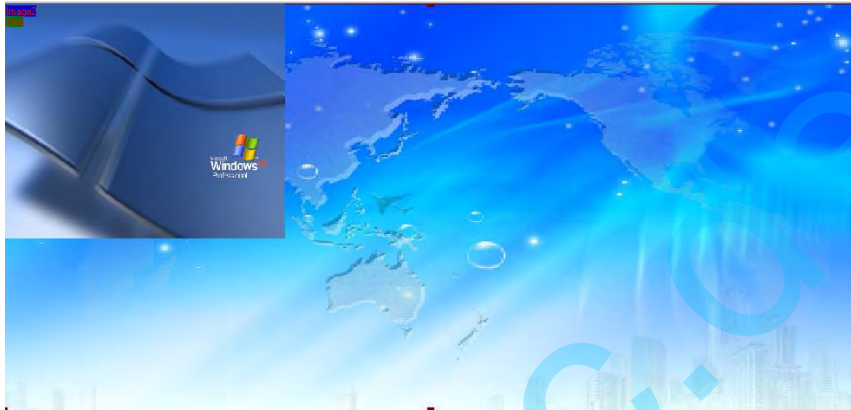
User can customize the brightness and the contrast.

Note

> Same as MENU ➝ IMAGE QUALTY

5. Communication Software Guideline

Images Display Toolbar

User can customize image or images position and size just by drag and

drop image (images) in this area. This process is sync to the parameters in

images toolbars.

User Mode Toolbar

Users can recall the saved user mode1, mode2 or mode3

Log Toolbar

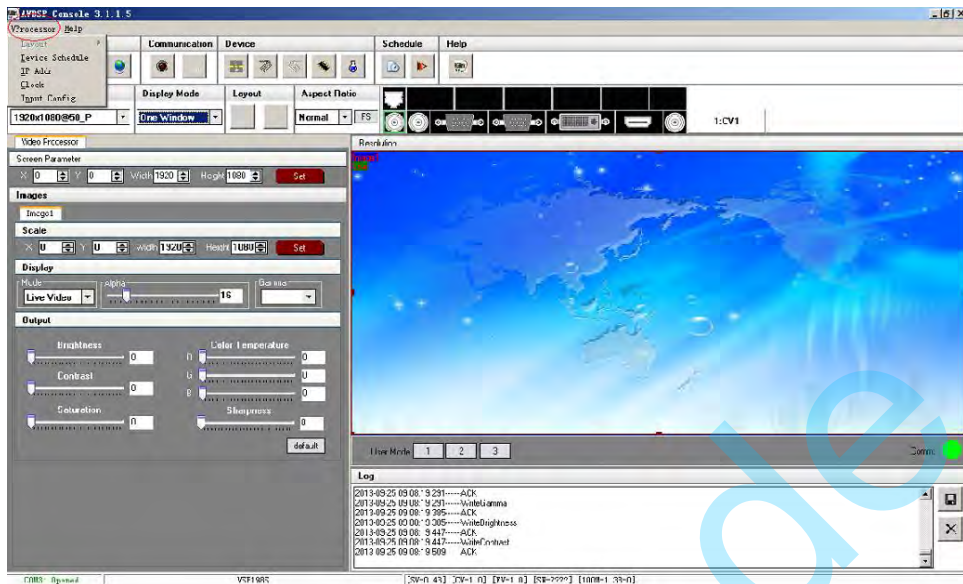User can save or delete the operate log file.

Information Toolbar

It is the VSP 198CVS software version, core board version, firmware

version and the serial number in bottom of the software interface.

[SV-C3.30] [CV-01.25] [FV-B2.00] [SN-08.88]
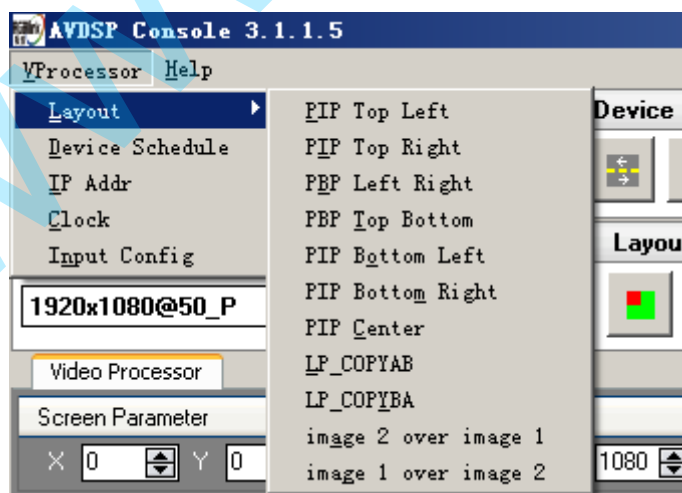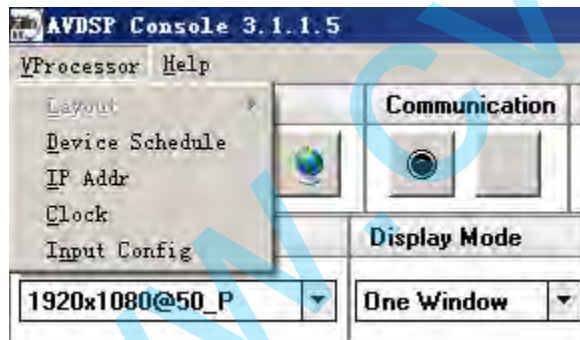
【Video Processor】Options

5. Communication Software Guideline
Software Installation

Layout:

Through the layout of the user can set a variety of double-image

mode.single image mode is off。

Device Schedule:

Users can set up VSP 198CVS to play the appointed input video

5. Communication Software Guideline

automatically in time and operation of single or dual channels, ratio place.

Users can setup up to 10 timing operation in the schedule.

Details please refer to the instructions in the manual：How to Set Up the

Playlist

IP Address：

Users can set equipment IP, subnet mask and gateway, usually used under

the condition of one computer control or remote control several computers.

It takes effect immediately after users change IP through serial port; and

when users change IP through network, it takes effect after reopen the
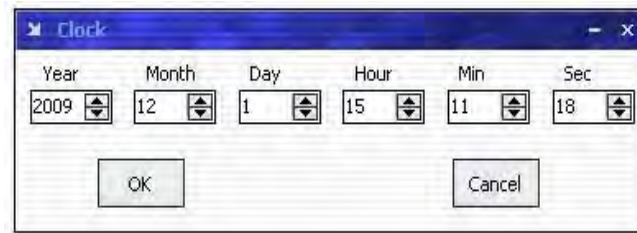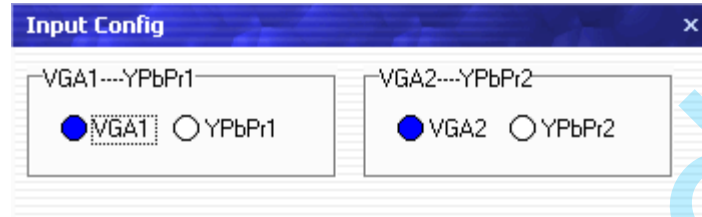
software.
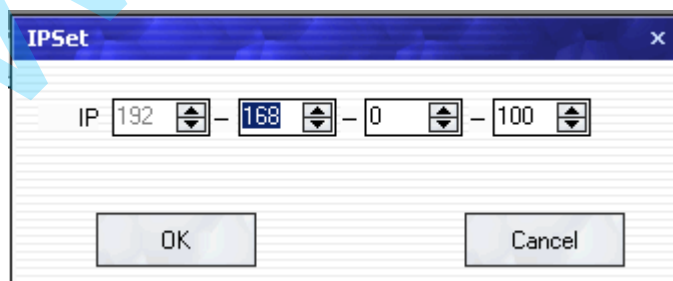
Clock：

Users can set or adjust lower computer time through" clock"

5. Communication Software Guideline
Software Installation

Input Config：

Define VGA1and VGA2 Input source types ，VGA input compatible with

YPBPR.

Note

Same as MENU → ADJUST → VGA

1/VGA2 SIGNAL TYPE

How to Connect Upper Monitor by RS232 Interface?

Firstly，install the control software in your PC;

Take out the RS 232 cable as following（RS-232, with 9-pin on one end，RJ 11 on the other side）. Connect one side of the RJ11 download line to the RS232 on the video processor VSP 198CVS, and the other side to be connected to the serial port on the PC.
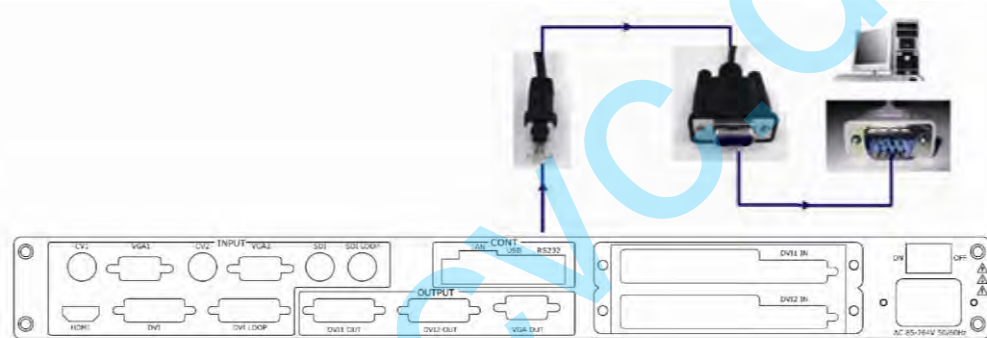
There is no any serial port on your PC; you will need another Serial to USB adapter. Connect one end of the RJ11 download line to the RS232 on the video processor. Connect the end of USB-side to the PC; Ensure the cable connection is good. Turn on the Video Processor VSP 198CVS.

Right click the【My Computer】on the home screen of control PC. Enter 【Attribute】, Find【Hardware】Option，as following.

5. Communication Software Guideline
How to Connect Upper Monitor by RS232 Interface?
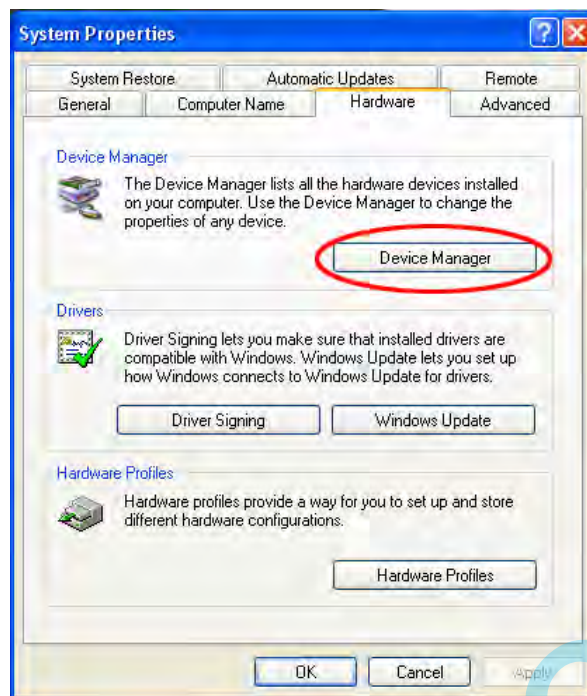
Click【Device Manager】—+" on the left，check the COM number，as

following， **COM1 is offered.**

Remember the COM you are using and then run the control software, find
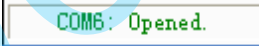
【Communication】option. In default，first time user have to click

button, as following:

5. Communication Software Guideline

How to Connect Upper Monitor by RS232 Interface?
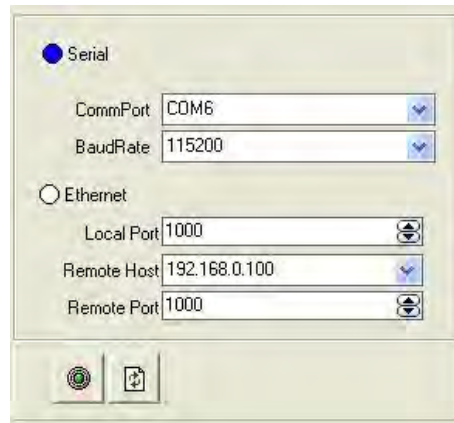
Check and tap【Serial】，Serial Port , for example, is **COM6** which is checked from device manager. Set VSP 198CVS Boud Rate to be :115200，Click【Confirm】after setting.

Click ⦿【open serial】，check if 【COM】icon is on the bottom right corner，when there is the prompt green COM6: Opened. showing on the software, it means the communication is ok , and you can use the software to control the device now.

Note

> If power off during communication, should close the port ⦿, by first, and plug in out of the USB ⦿ and do communication.

How to Connect Upper Monitor by USB Interface?

Install the driver

Connect the USB cable to the PC and the video processor. Turn on the VSP 198CVS, for the first time to use USB, the PC will remind finding the new hardware and ask to install the driver for this new driver:

Install from the list or specified location, press "NEXT":
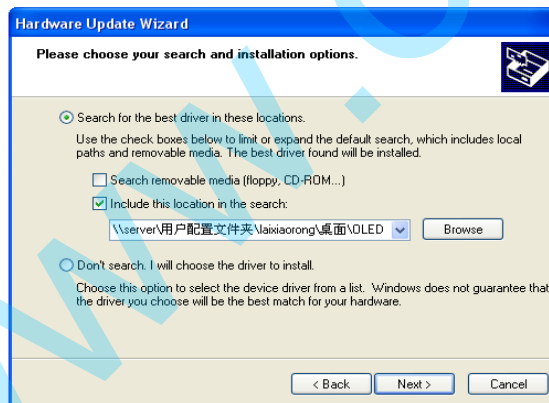
Press "browser" to find the driver, and press "NEXT":

5. Communication Software Control Guide

How to Connect Upper Monitor by USB Interface?
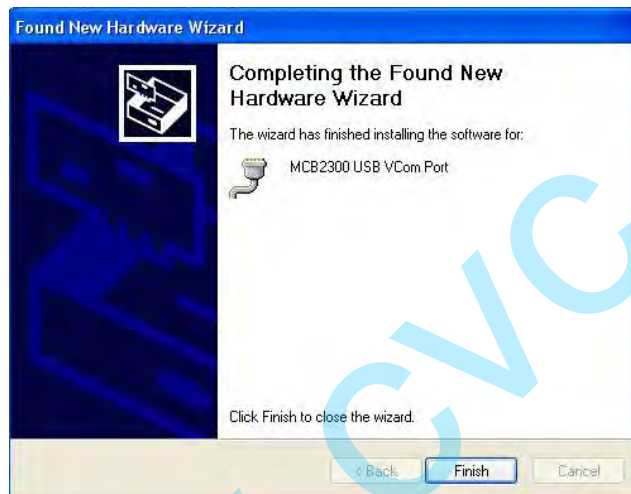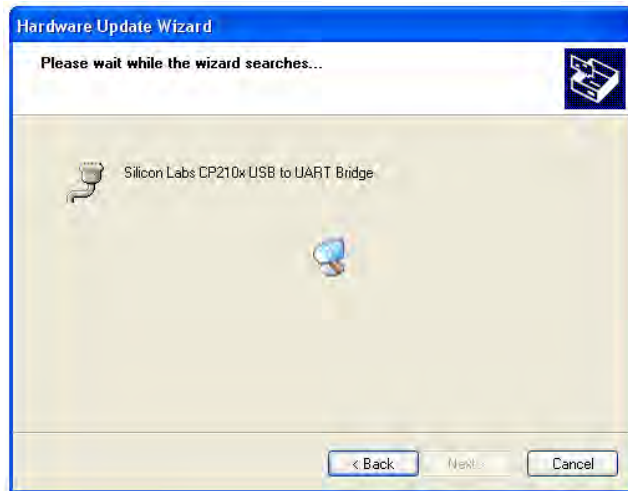
When the installation finish, can go to check the installed COM port inside

the device management, as following image shows:
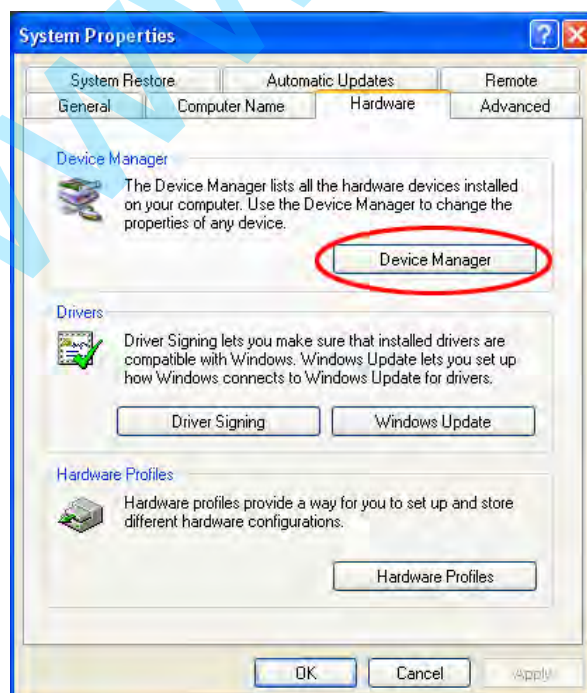
5. Communication Software Control Guide

How to Connect Upper Monitor by USB Interface?
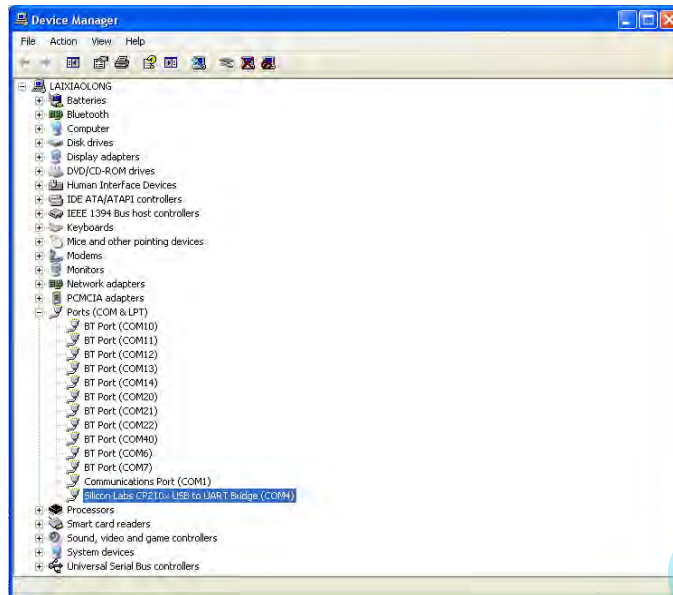
Install the console software, and run after install, shows the interface of the console as following:

Select the COM as installed just now, and set the VSP 198CVS Boud Rate to be: 115200.
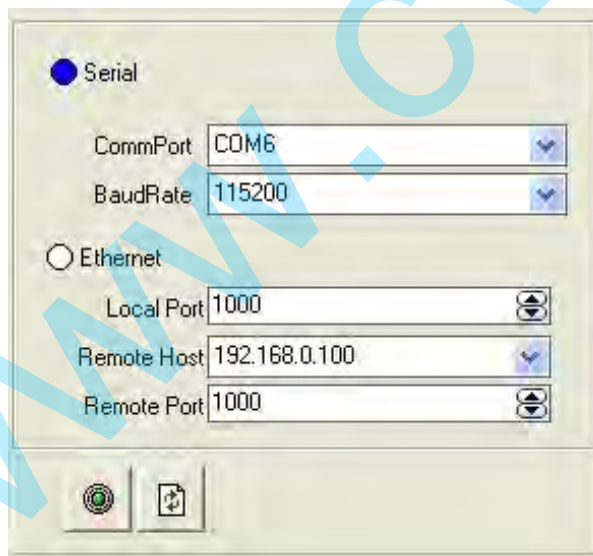
Press to start communication，when there is green point in the right down corner showing on the software, it means the communication is ok, and you can use the software to control the device now, the software operation is the same as VSP 198CVS.

How to Connect PC through LAN Interface?

First, install the windows control software to the control computer;

Connect VSP 628S and computer with cable, the connection diagram is as follow:

Power on VSP 628S and start the network function, specific steps as below:

The first step：push MENU button, login MENU — SYSTEM — ETHERNET，check the IP address of the equipment ,the equipment factory default IP address： 192.168.0.100；

The second step：check computer IP address：

Click start, then press button Run ,
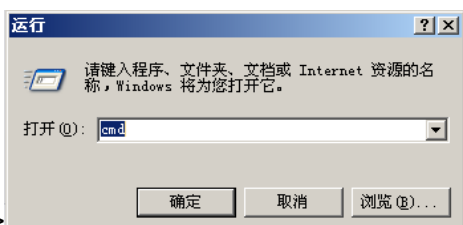
Enter <cmd>,then click< ok> ,

Enter <ipconfig>
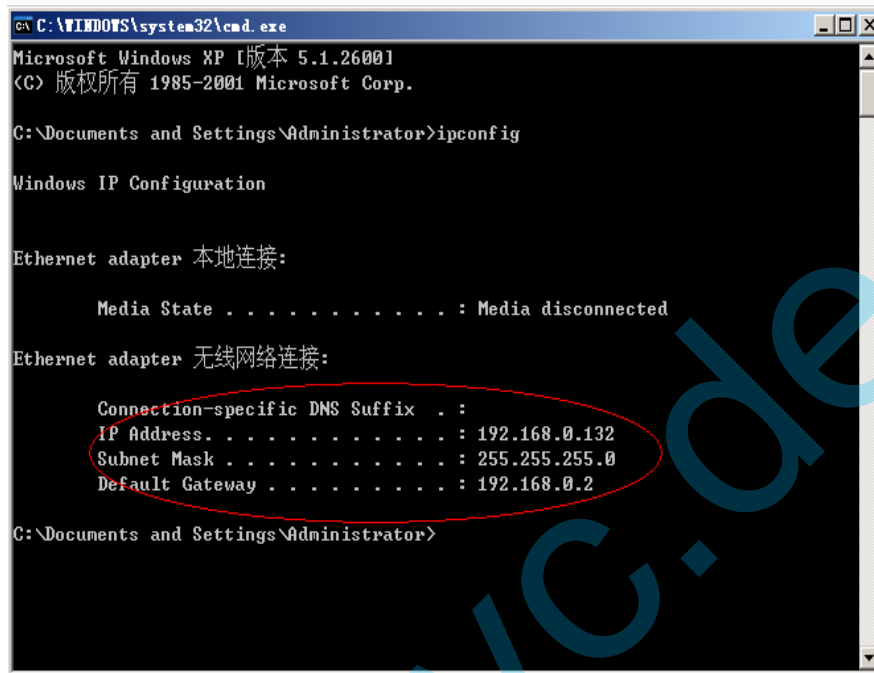
5. Communication Software Control Guide

How to Connect PC through LAN Interface?

Then press <Enter> button, the IP address (the red circle) will display on

the computer: 192.168.0.132 ;

The third step: Equipment IP address :192.168.0.100；

Computer IP address :192.168.0.132；

The fourth step: the two IP address are in the same band, i.e.192.168.0.XXX,

the fourth section numbers (XXX) will not repeat previos.

If so, the communication connection can be built by line CAT5.

Note

If computer IP address and equipment IP address are not in same band, For example, the computer IP address is 218.032.010.201; We need to revise the computer IP address to 192.168.0.xxx.

Open network connections, right click on properties, Select Internet protocol (TCP/IP),then Click properties,
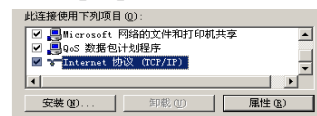
5. Communication Software Control Guide

How to Connect PC through LAN Interface?

,   ,   Now we can revise the equipment IP address to the same band with that of computer 192.168.0.XXX；
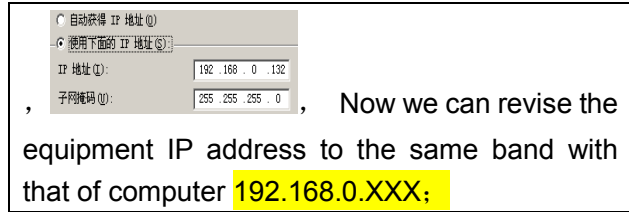
The fifth step: Open windows control software, click ico,：

Interface display as below:

Select 【Enternet】:

Input equipment IP address, click 【OK】。

Click to open the serial port, if the 【Comm】button (in the lower-right corner of the control software interface) is green, and log outputs information smoothly, then you would control the device through PC software.

6. System Setup and Operations

In This Chapter

This chapter provides comprehensive instructions for system setup and operations. The following topics are discussed:

- Interface and Input Single Option
- User guideline
- How to Realize Single Image Switching
- How to Set up the PIP
- How to Set up the SPLIT
- How to Set up the Size and Position of the Single Image
- How to do customized output resolution
- How to Scale the Screen Size and Full Size Switching
- How to Set up image zoom
- How to Realize the Text Overlay setting.
- How to Realize the test pattern output   and settings
- How to Set Up the Playlist
- How to add LAN remote control settings
- How to Set up the SAVE
- How to Set up the LOAD

Interface and Input Signal Option

VSP 198CVS Back Panel :
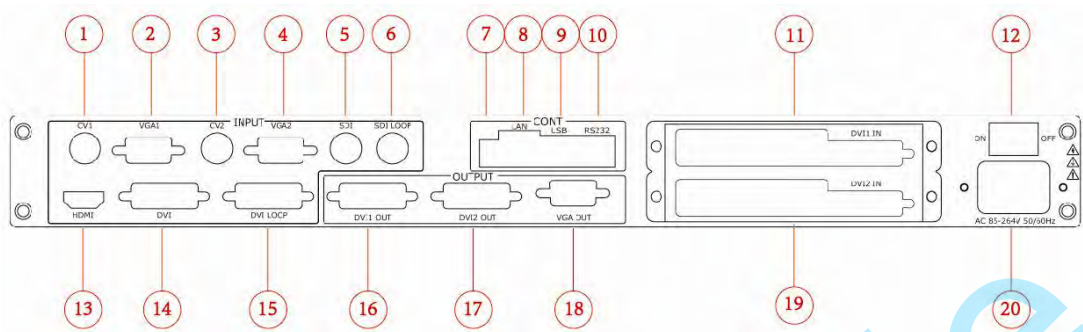
NO	INTERFACE	NO	INTERFACE
1.3	CVBS input Interface	11.19	sending card interface
2.4	VGA input Interface	12	Power switch
5	SDI input Interface	13	HDMI input Interface
6	SDI loop output Interface	14	DVI input Interface
7	Dial the code switch	15	DVI loop output Interface
8	10/100M control Interface	16.17	DVI output Interface
9	USB control Interface	18	VGA output Interface
10	RJ11(RS232) control Interface	20	Power input interface

16，17. DVI have default the main image output , use for connecting the sending card of LED screen, VSP 198CVS support resolution format as following:

800x600x60Hz, 1024x768x60Hz, 1024x768x75Hz, 1280x720x60Hz, 1280x720x50Hz, 1280x768x60Hz, 1280x800x60Hz, 1280x1024x60Hz, 1360x768x60Hz, 1366x768x60Hz, 1400x1050x60Hz, 1440x900x60Hz, 1600x1200x60Hz,1680x1050x60Hz,1920x1080x60Hz,1920x1080x50Hz, 1920x1200x60Hz, 2048x1152x60Hz, 2560x812x60Hz, 2560x816x60Hz.

Note

Same as MENU ➞OUTPUT   FORMAT

6. System Setup and Operations
Interface and Input Single Option

18. VGA output interface default for preview, mainly through the display preview will output signal, the output signal for VGA video signal, The resolution of the output support for:

800x600x60Hz,1024x768x60Hz,1024x768x75Hz,1280x720x60Hz, 1280x720x50Hz, 1280x768x60Hz, 1280x800x60Hz, 1280x1024x60Hz, 1360x768x60Hz, 1366x768x60Hz, 1400x1050x60Hz, 1440x900x60Hz, 1600x1200x60Hz,1680x1050x60Hz,1920x1080x60Hz,1920x1080x50Hz, 1920x1200x60Hz, 2048x1152x60Hz, 2560x812x60Hz, 2560x816x60Hz. In addition to CONT part and send card and power interface outside, other interface for video signal input interface,

CVBS（**BNC Port**）Can receive standard video signal from players, cameras etc. Input supported resolution 480i and 576i via BNC. Supported standards include: PAL, NTSC and SECAM.

VGA（**DB15 Port**）Can support HD player, computer, video signal. Through the DB9 interface input signal.

DVI（**DVI-I Port**）Computer graphics interface may receive the DVI output interface can also through the DVI turn HDMI cable to connect the computer graphics HDMI output or DVD HDMI output;

HDMI（**HDMI-A Port**）Computer graphics interface may receive the HDMI output interface can also through the HDMI cable to connect the computer graphics HDMI output or DVD HDMI output;

3G SDI（**BNC Port**）Can receive video signal from HD player, and HD camera, connect interface 20 via 75 ohms BNC port. Connect LED screens via network cable.

6. System Setup and Operations
User guideline

User guideline

Inputs cable ,outputs cable , control cable ,power cable were connected to interface finish turn on the power switch,user guideline :

The fist step set up OLED display language ,

The second step set up output format,

The third step set up LED screen height size,

The fourth step set up LED screen width size,

The fifth step set up LED screen horizontal size,

The sixth step set up LED screen Vertical size,

The seventh step set up input source,

The eighth step up save .

```
PLEASE SET LANGUAGE/语言：
> ENGLISH          中文

        Push the rotary to set
```

MENU ↑   ENTER ↓

```
PLEASE SET OUTPUT FORMAT:          PLEASE SET OUTPUT FORMAT:
    > 1920x1080x60      Button          * 1920x1080x50

    Push the rotary to set             Push the rotary to set
```

MENU ↑   ENTER ←

```
PLEASE SET SCREEN WIDTH:           PLEASE SET OUTPUT FORMAT:
    > 1920            1910             * 1910
    Push the red button to            Push the red button to
    enter numbers                     enter numbers
```

MENU ↑   ENTER ←

```
PLEASE SET SCREEN WIDTH:           PLEASE SET OUTPUT FORMAT:
    > 1080            1900             * 1000
    Push the red button to            Push the red button to
    enter numbers                     enter numbers
```

MENU ↑   ENTER ←

```
PLEASE SET SCREEN X POS:           PLEASE SET OUTPUT FORMAT:
    > 0               5                * 5
    Push the red button to            Push the red button to
    enter numbers                     enter numbers
```

MENU ↑   ENTER ←

```
PLEASE SET SCREEN Y POS:           PLEASE SET OUTPUT FORMAT:
    > 0               70               * 70
    Push the red button to            Push the red button to
    enter numbers                     enter numbers
```

MENU ↑   ENTER ←

```
PLEASE SET INPUT SOURCE:           PLEASE SET OUTPUT FORMAT:
                      VGA1             * VGA1
    Push the red button to            Push the red button to
    set input source                  set input source
```

MENU ↑   ENTER ↓

```
PLEASE SAVE THE SETTINGS:

    Push button flashs to save
```

MENU ↑   SAVE ↓

```
PLEASE SAVE TO USER MODE 1:

    User mode 1 is default recall
    after power on,now it flashs
```

How to Realize Single Image Switching

Boot the system default CV1 to the current input source (key light and scintillation), if need seamless switching other source such as DVI, direct light touch DVI key, OLED screen display as follows

```
INPUT DVI：
->1920 * 1080 * 60 Hz
```

Choose DVI buttons, button lamp CV1 destroy, and DVI key light and shining, can realize single image of input signal source switching (input signal source by original CV1 switching to DVI).The same method can be switched CV2, VGA1, VGA2, DVI,HDMI, SDI.

Note

> Seamless switch: means signal switch will not appear any flash point, black, shaking or delay

How to Set up the PIP

Press the **PIP** button ,button led light turn on ,enter the pip function

menu.OLED screen as follows:

```
->PIP                    ON
  LAYOUT             PIP L+T
  SELECT              IMAE A
  SWAP WINDOW          OFF
```

LAYOUT: Can choose PIP layout, the corresponding results are as follows:

PIP L+T   PBP L+R   PBP T+B

SWAP IMAGE: It can set PIP to swap exchange, when choose ON, it can

realize the main and sub-picture exchange.
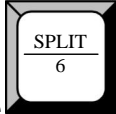
ALPHA: Can set the image display transparency, regulating range between

0 - 16.

SELECT: Can choose to set the size or position of IMAGE A or IMAGE B

individually.

Note

Function reuse kye [SPLIT 6] ,selecting image

A or image B

How to Set up the SPLIT

SPLIT is used when multiple VSP 198CVS are used in cascade mode. For DVI input as mapping source, user can use DVI loop though to cascade two pieces VSP 198CVS together and do the mapping for each of them, each VSP 198CVS will support port of the display which connected by the sending card or control system separately. For SDI input as mapping source, user can use SDI loop though to cascade two pieces VSP 198CVS. For other inputs, need to have the signal distributor before VSP 198CVS firstly, and make sure each VSP 198CVS can receive the same timing signal after the distributor.

Push the SPLIT button, the button led light will turn on ,enter the SPLIT function menu. Push and Turn the knob will enable split function ,menu as follows:

```
—>SPLIT                    ON
   H TOTAL                1920
   H TOTAL                1080
   H POS                     0
```

```
   V POS                     0
   H SIZE                 1920
   V SIZE                 1080
   RESET
```

H TOTAL: LED screen Horizontal total size.

V TOTAL: LED screen Vertical total size.

H POS: this device display image Horizontal size

V POS: this device display image Vertical size.

H SIZE: this device display image Width setting.

V SIZE: this device display image Height setting.

RESET:Restore the factory Settings

Complete set every device, to save.

6. System Setup and Operation
How to Set up the PIP

Following is the example to cascade multiple VSP 198CVS for mapping.
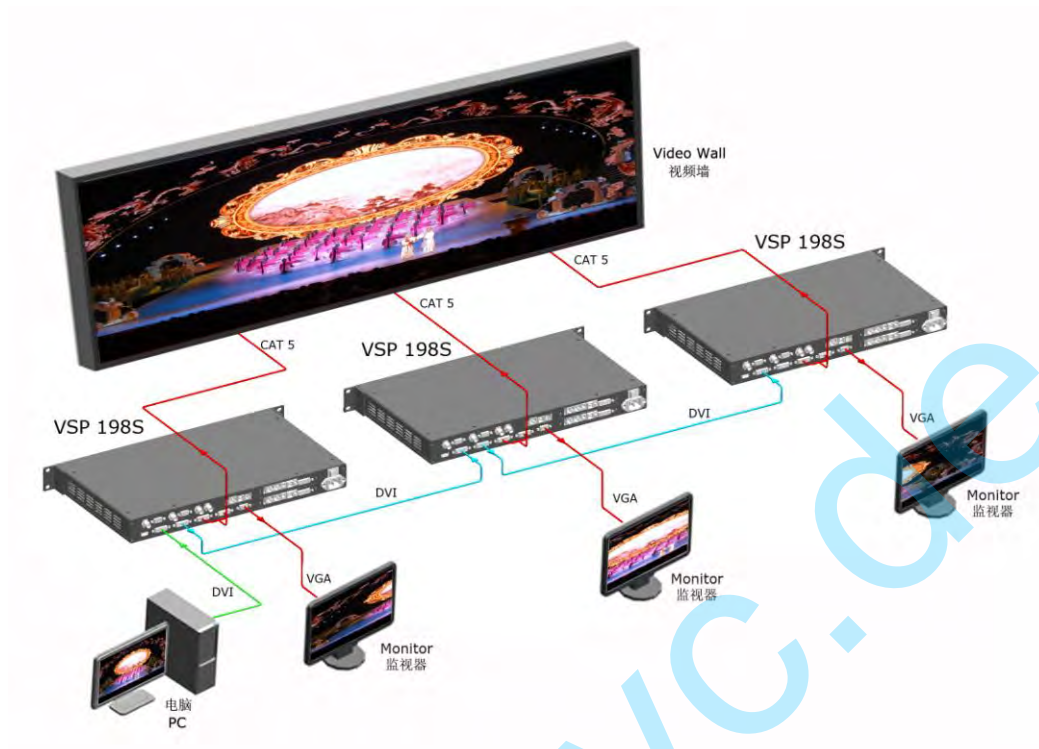
6. System Setup and Operation

How to Set up the Size and Position of the Single Image

Press the SCALE button ,enter the SVALE function menu.touch the knob

and turn the knob,open split function ,OLED screen as follows:

H SIZE	1920
V SIZE	1080
H POS	0
V POS	0

H SIZE: Width setting;

V SIZE: Height setting;

H Pos: Horizontal phase setting;

V Pos: Vertical phase setting;

How to do customized output resolution

Push [MENU] button to open the main menu，turn Knob and go to <OUTPUT FORMAT >，push Knob and confirm to go into the <OUTPUT FORMAT > menu, as following：

STANDARD—standard resolution；

CUSTOMIZED—user defined resolution setting；

Push Knob and go into <CUSTOMIZED > menu：

自定义分辨率
*

turn knob on each bit position, and change the value of the bit by the digital buttons on the front panel. For example, input 1536 as following；

自定义分辨率
1536*

After the digital push Knob will add * , means before * is the horizontal size. Same operation for vertical size, for example input 1536 as following；

自定义分辨率
1536*1536*

After the digital push Knob will add * , means before * is the vertical size. Same operation by push digital buttons to set the refresh rate. For example to input refresh rate 60.；

自定义分辨率
1536*1536*60Hz
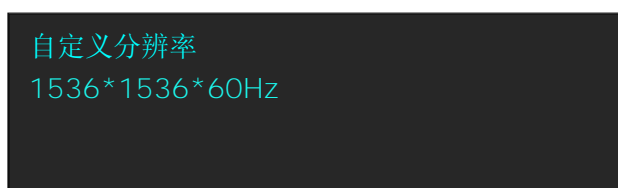
6. Syetem Setup and Operation

How to do customized output resolution

After input all the values, push Knob to enable VSP 198CVS to output this resolution. VSP 198CVS will take 5-10Sseconds to enable this output resolution；

Note

All the resolution inside the value 2048 x 1152 x 60 = 141557760 can support.
For example,
1)1536x1536x60=141557760 is OK;
2)2560x1536x60=235929600 is too big, can not support;
3)2560x1152x50 supports.

How to Scale the Screen Size and Full Size Switching

VSP 198CVS supports the screen parameters to meet the requirement where user want to switch between scale screen size and full display size (like monitor). This is only enable for a single display window. Following is an example of a screen size is 1408 x 832.

Operator can define the VSP 198CVS output resolution from standard output resolution list or customized the output resolution which is higher than 1408 x 832. For this application 1440x900 is an example：
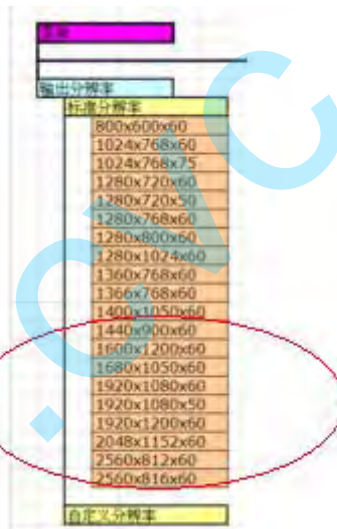
Push [MENU] button to go into the main menu, and turn Knob goes to <SCREEN PARAMETERS，push Knob and goes into the <SCREEN PARAMETERS > menu as following：

H SIZE—horizontal pixels, turn Knob and use the digital button to input the value 1408；

V SIZE-- horizontal pixels, turn Knob and use the digital button to input the value 832；

H POS—horizontal position, default value is 0, set the value as the way HSIZE and VSIZE；

V POS--vertical position, default value is 0, set the value as the way HSIZE and VSIZE；

6. System Setup and Operation
How to Realize the Screen Size and Full Size Switching

MODE—display mode option, enable SCREEN SIZE;

SCREEN SIZE

FS

FULL SIZE

6. System Setup and Operation

How to Set up image zoom

The image can be zoom in horizontal or vertical separately, to meet the special effects required.

Push [MENU] button to go into the main menu, and turn Knob goes to ZOOM menu and push Knob to confirm to go inside ZOOM menu as following：

V UP—Zoom in vertical and the image will be zoom in to the top direction from its bottom part；

V DOWN-- Zoom in vertical and the image will be zoom in to the down direction from its top part；

V UP/DOWN—Zoom in vertical but in both top and down direction from its middle part；

H LEFT-- Zoom in horizontal and the image will be zoom in to the left direction from its right part；

H RIGHT--Zoom in horizontal and the image will be zoom in to the right direction from its left part；

H LIFT/RIGHT--Zoom in horizontal but in both left and right direction from its middle part；

CENTER—Zoom in 4 corner direction from center.

How to Realize the Text Overlay Setting
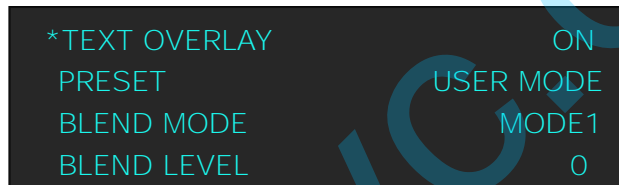
1. Press MENU button, rotate the knob,choose【TEXT OVERLAY】 and

enter【TEXT OVERLAY】, press the knob to confirm;

```
  ADJUST                        >>
->TEXT OVERLAY                  >>
  SYSTEM                        >>
  LANGUAGE/语言                 ENG
```

2. Rotate the knob, choose TEXT OVERLAY mode, choose ON, TEXT
   OVERLAY function open;

```
*TEXT OVERLAY                   ON
 PRESET                    USER MODE
 BLEND MODE                   MODE1
 BLEND LEVEL                      0
```

3. Press MENU, return to 【TEXT OVERLAY】, rotate the knob, OLED

   screen displays menu options, select 13 modes in PRESET, or select

   BLEND, which includes two modes:

   Mode 1: Graphic content locate at the top and is non-transparent,

   background transparency is controlled by double-image transparency;

   Mode 2: Graphic content is controlled by double-image transparency,

   the background is completely transparent;

   Rotate the knob and choose the mode;

4. Press MENU, return to【TEXT OVERLAY】, rotate the knob, choose

   ABOVE/BELOW to select the layer position for IMAGE B;

5. Press MENU, return to【TEXT OVERLAY】, rotate the knob, choose

   BLEND LEVEL, and set the image display transparency, regulating

   range between 0 - 16;

6. Press MENU, return to【TEXT OVERLAY】, rotate the knob, choose the

   color value:

   RED: The value range of color RED that to be set, regulating range

6. System Setup and Operation

How to Realize the Text Overlay Setting

between 0~255;

GREEN: The value range of color GREEN that to be set, regulating

range between 0~255;

BLUE: The value range of color BLUE that to be set, regulating range

between 0~255;

7. At the same time, you can view the effect through the screen, to get a

better setting.

Note: All the above settings are available only for IMAGE B.

How to Realize Test Pattern Output and Settings

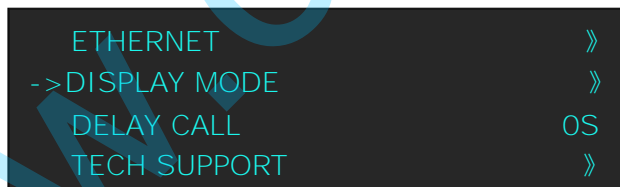Test Patten is used to calibrate the screen or system, especially when there is not standard input measure instrument.

VSP 198CVS equipped with 66 kinds of common test patterns. They are very useful for the LED display testing.

Push [MENU] button and go into the main menu, turn Knob and go to <SYSTEM> menu as following,

```
    ADJUST                        》
    TEXT OVERLAY                  》
->SYSTEM                          》
    LANGUAGE/ 语言/              ENG
```

Push Knob and go into the <SYSTEM> menu. Turn Knob and go to <DISPLAY MODE> menu as following;

```
    ETHERNET                      》
->DISPLAY MODE                    》
    DELAY CALL                    0S
    TECH SUPPORT                  》
```

Push Knob and go into the <DISPLAY MODE > menu. Turn Knob and go to <FLAT COLOR > or <TEST PATTERN > option;

<FLAT COLOR >：push Knob and go into the menu，RED color range is from 0-255；GREEN is from 0-255；and BLUE is from 0-255；

```
    MODE                  PURE IMAGE
->PURE COLAR                      》
```
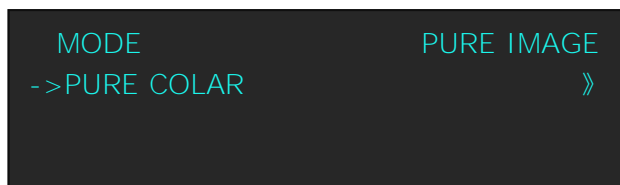
6. System Setup and Operation
How to Realize Test Pattern Output and Settings

```
->RED                              255
  GREEN                            255
  BLUE                             255
```

<TEST PATTERN >：push Knob and go into the menu，there are 66 kinds of test pattern option ready. If set the Test Pattern enable as auto switching mode, VSP 198CVS will output all the Test Pattern one by one, and the interval between each is 1-10S；

```
  MODE                      TEST PATTERN
->TEST PATTERN                        》
```

```
->TEST PATTERN                        1
  AUTO SWITCH                       OFF
```
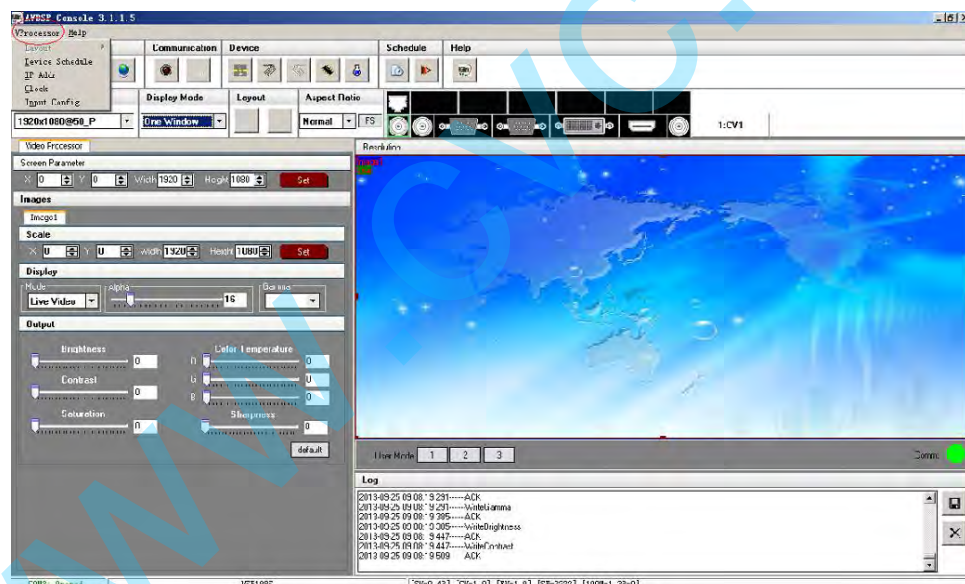
How to Set up the Playlist

Users can set up VSP 198CVS in "Device Schedule" in PC software to play the appointed input video automatically in appointed time and operation of single or dual channels, also can set up the ratio and position.

Users can setup up to 10 timing operation in the schedule.

1. First, make sure the VSP 198CVS has been connected to the PC software.

2. Double click the VSP 198CVS software, software interface is shown as follows:

3. Click the 【VP Processor】option on the top left, then show the drop-down menu as follows:

4. Choose "Device Schedule" option in the drop-down menu:

6. System Setup and Operation

How to Set Up the Playlist

Timer Index: Timer index, currently , users can setup up to 10 timing

operation in the schedule.

Date Settings: The date timing play appoint.

Time: The time timing play appoint.

Operating Mode: User can choose single or dual channels.

Scale: User can set the image ratio and position for Image 1 and Image 2

(Dual channels).

Automatic play signal source selection.

5. Click set icon [Set] to save after setting.

6. If need to get certain timing content, input the timer index, and click the

get icon [Get] to see the specific content. For example: choose

timer index 2, show the interface as follows:

6. System Setup and Operation

How to Set Up the Playlist
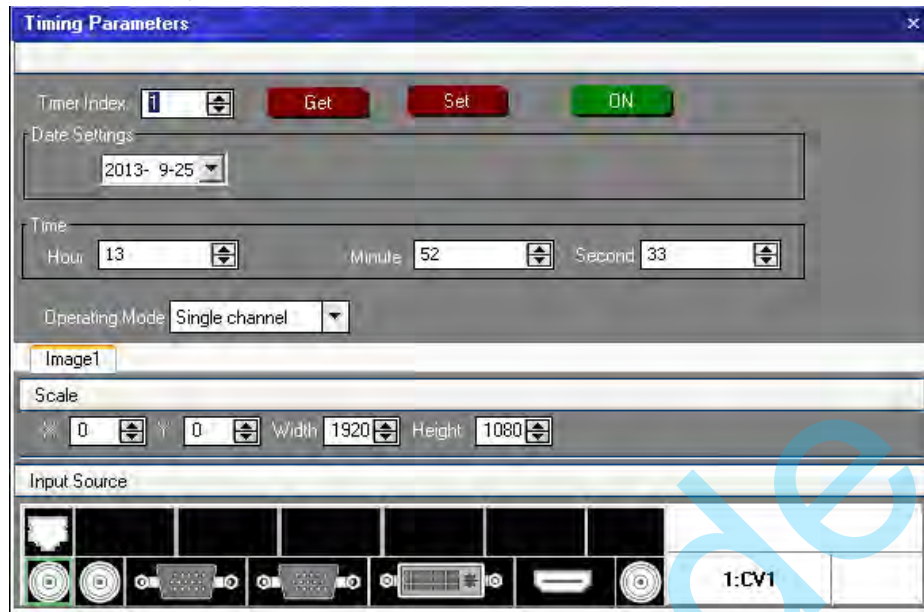
7. The software default "Device Schedule" function close, user should

click on icon **ON** to realize automatically play.

How to Use Black

Black descriptions:

Black signal realizes one-key-touch to a black screen.

Mixing-100 Black provides effect processing on Program output, Black use fade in fade out effect. Operation is as below:

1. Just press BLACK button, then Program output turns to BLACK with fade in fade out effect.

As shown below:

How to realize LAN remote control settings

Firstly, To realize LAN remote control need to build up a LAN platform including: ①One computer (Laptop or computer, used to do remote control which installed windows control software in the computer, please refer to software installing part for installation software). ②One router (Better to have wireless function which may realize WEB control cross different platform; without wireless function is available but only realize cable remote control. No limitation for router's model and brand, such as VPN router model: Netcore 255 or 266; Volans VE 760W or 982W). ③One VSP 628S processor (as long as the router's network ports can connect to, user can place multi pieces of VSP 628S).

Step one: LAN physical connection. Connect VSP 628S and router with network cable, then connect computer and router with network cable also, use the LAN port of router, WAN port is used for connecting to outer net. Sketch map as below:
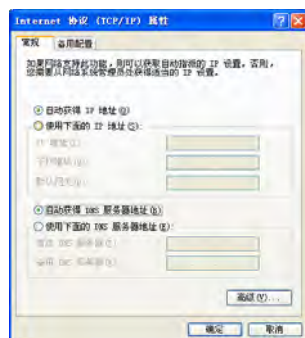

Step two: IP address setting (processor's default IP address is 192.168.0.100)

Firstly change computer's local connection to automatically getting the IP", showed as below:

6. SYSTEM SETUP AND OPERATION

How to realize LAN remote control settings

Secondly refer to router's instruction (user manual,specification), and find out router's default network segment.

If router's default network segment is 192.168.0.1, then it is same to processor IP address segment, open up windows control software and user can directly control on VSP 628S.

If router's default network segment is 192.168.1.1, then user need to change router's default gateway or change processor's IP, both methods are available, but we suggest to change processor's IP.

Method one: Change processor's IP.

Press MENU on front panel and go into items as below image shows. Change processor's IP to be 192.168.1.100, confirm and restart the processor, then user can directly control on VSP 628S via windows control software.
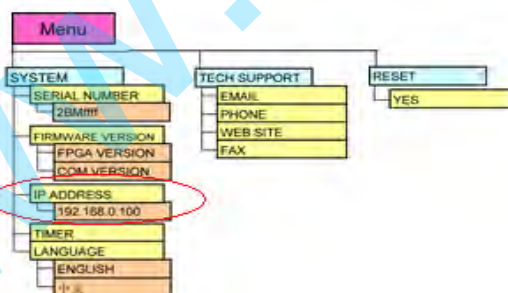
Method two: Change router's gateway.

Type in 192.168.1.1 on the browser and go into router setting;
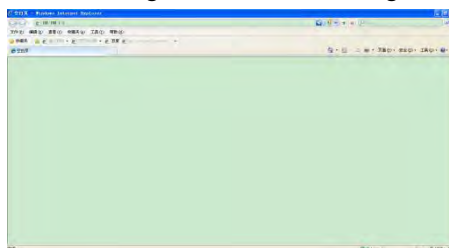
Type in default account and code (please refer to the router user manual for the information);

6. SYSTEM SETUP AND OPERATION
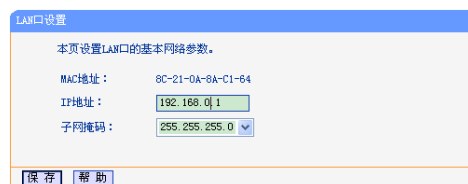
How to realize LAN remote control settings

用户名(U): admin
密码(P): ***********
☑ 记住我的密码(R)
确定   取消

Go to router setting part and find out "LAN port setting", change the default value "192.168.1.1" to be "192.168.0.1";

LAN口设置
本页设置LAN口的基本网络参数。
MAC地址: 8C-21-0A-8A-C1-64
IP地址: 192.168.0.1
子网掩码: 255.255.255.0
保存 帮助

Save the setting and restart the router, then user can directly control on VSP 628S via windows control software.

How to Set up the SAVE

Save user mode to the customer for different scene directly call; leave out the edit operation inconvenience, VSP 198CVS provides ten save preferences.

1. Press [SAVE] button, the key lights, the SAVE function open.

```
SAVE TO
—>SAVE 1
        Button is on can be saved
   Button flashs will be overwrite
```
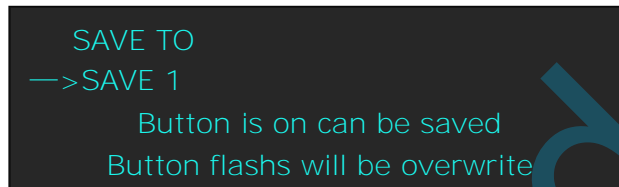
2. Rotate the knob, and choose the position that will save, press the knob to confirm.

3. The figure: 1, 2, 3, 4, 5, 6, 7, 8, 9, 0 down of the buttons means SAVE1~10, you can also press arbitrary button to save. For example, save to SAVE2, press the button2, the OLED panel will show as follows after finish saving.

```
SAVE TO
—>SAVE 2   FINISHED!
        Button is on can be saved
   Button flashs will be overwrite
```
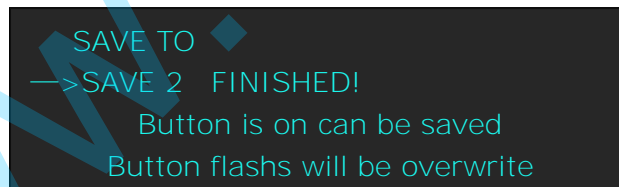
4. Again Press [SAVE] button, the key light off, the SAVE function close.

How to Set up the LOAD

Save user mode to the customer for different scene directly call; leave out the edit operation inconvenience, VSP 198CVS provides ten save preferences;

1. Press [LOAD] button, the key lights, the LOAD function open.

```
   RECALL SAVE
—>SAVE 1
        Button on is ready for recall
        Button flashs means just recall
```
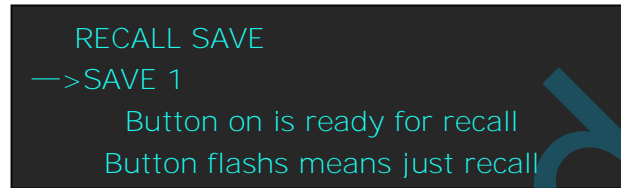
2. Rotate the knob, and choose the position that will load, press the knob to confirm.

3. Again Press [LOAD] button, the key light off, the LOAD function close.

7. Common Questions and Solution

In This Chapter

This chapter provides the common questions and solution for the video processor. The following topics are provided:

- No Output in Large Screen
- Large Screen Output Flash Point
- Large Screen only Display Part of the Image
- No Display in the Second Half Part of Large Screen
- Left of the Screen Appears Two Black Sides
- All Key Lights Light Simultaneously

No Output in Large Screen

Confirm if there are any input singles

Press【MENU】Button to find "INPUT" and knob into the "INPUT RES INFO" to see whether the input signal is normal, suggested the "INVALID INPUT" signal does not come in, check the front-end signal lines, and please note to do dual display or extended in computer ; you can enter other format signals to view in the same operating.

Confirm if signal output

Find a belt VGA input (best for DVI) display, connect to the corresponding output port of processor, check whether the signal is correct on the monitor. If not display properly, please check whether there is input signal, or if input wire interface is taken tight, output wire interface is picked up tightly. If display normally, check if sending card is normally working or need to replace sending card test.

Large Screen Output Flash Point

Confirm if monitor output is normal

Find a belt VGA input (best for DVI) display, connect to the corresponding output port of processor, check whether the signal is correct on the monitor. If display normally shows and no flash point, please check whether DVI outlets put tight or replace to DVI line of sending card. If display flash point, please judge if input signal, wire, and interface is normal.

Large Screen only Display Part of the Image

Signal need to scale

Press 【SCALE】button in the processor and knob to adjust the actual screen size of the screen, combined with button【POSITION】, including the "Width", "Height" and "Starting position", remember to touch the knob to confirm.

No Display in the Second Half Part of Large Screen

Resolution is inadequate

Please make sure the points of the screen width and heigh, choose the resolution to be bigger than screen width by button 【MENU】 under OUTPUT RES, and touch knob to confirm.

Sending card can't take lower part

TS 802 can control the max horizontal resolution 2048, and vertical resolution 640. Each CAT5 output is 320 pixels.

Left of the Screen Appears Two Black Sides

Adjust DE deviation

This phenomenon needs to adjust the DVI output and DE migration of the processor, through the 【MENU】 to find "OUTPUT" and find the corresponding output name, such as "DVI1 OUT ADJUST", and find "DVI1 DE" again, make an adjustment for corresponding horizontal and vertical DE, please remember to save to the corresponding channel after setting up, save to SAVE1 by default.

All Key Lights Light Simultaneously

Check if dial switches are normal

Shut the power, check if two red dial switches near CV are upward. Reboot if they face down, and reboot. The function of the red dial switched is mainly upgrade.

A. Specification

CVBS Input	
Number of Inputs	1
Connector	Standard BNC Socket
Supported Standards	PAL/NTSC
Signal Level	1Vpp±3db (0.7V Video+0.3v Sync) 75 ohm
Multiplex	480i,576i
VGA Input	
Number of Inputs	1
Connector	Standard DB15 Socket
Supported Standard	VGA-UXGA
Signal Level	R、G、B、Hsync、Vsync:0 to1Vpp±3dB (0.7V Video+0.3v Sync) 75 ohm black level：300mV Sync-tip：0V
Supported Resolution	VGA-UXGA (800*600@60, 1024*768@60, 1280*1024@60, 1440*900@60,1600*1200@60)
DVI Input	
Number of Inputs	1
Connector	Standard DVI-I socket
Supported Resolution	SMPTE：625/25/50 PAL, 525/29.97/59.94 NTSC, 1080P50,1080P59.94/60,1080i50,1080i59.94/60, 720p50,720p59.94/60 VESA：800×600×60Hz,1024×768×60Hz,1280×768×60Hz, 1280×1024×60Hz,1600×1200×60Hz,1920×1080×60Hz
Signal Level	TMDS pwl,single pixel input,165MHz bandwidth
Format Standard	HDMI 1.3
DVI Loop Output	
Number of Inputs	1
Connector	Standard DVI-I socket
Supported Resolution	SMPTE：625/25/50 PAL, 525/29.97/59.94 NTSC, 1080P50,1080P59.94/60,1080i50,1080i59.94/60, 720p50,720p59.94/60 VESA：800×600×60Hz,1024×768×60Hz,1280×768×60Hz, 1280×1024×60Hz,1600×1200×60Hz,1920×1080×60Hz
Signal Level	TMDS pwl,single pixel input,165MHz bandwidth
Format Standard	HDMI 1.3

HDMI Input	
Number of Inputs	1
Connector	Standard HDMI-A socket
Supported Resolution	SMPTE：625/25/50 PAL, 525/29.97/59.94 NTSC, 1080P50,1080P59.94/60,1080i50,1080i59.94/60, 720p50,720p59.94/60 VESA：800×600×60Hz,1024×768×60Hz,1280×768×60Hz, 1280×1024×60Hz,1600×1200×60Hz,1920×1080×60Hz
Signal Level	TMDS pwl,single pixel input,165MHz bandwidth
Format Standard	HDMI 1.3
CVBS Input(CV module)	
Number of Inputs	1
Connector	Standard BNC Socket
Supported Standards	PAL/NTSC
Signal Level	1Vpp±3db (0.7V Video+0.3v Sync) 75 ohm
Multiplex	480i,576i
VGA Input(CV module)	
Number of Inputs	1
Connector	Standard DB9 Socket
Supported Standard	VGA-UXGA
Signal Level	R、G、B、Hsync、Vsync:0 to1Vpp±3dB (0.7V Video+0.3v Sync) 75 ohm black level：300mV Sync-tip：0V
Supported Resolution	VGA-UXGA (800*600@60, 1024*768@60, 1280*1024@60, 1440*900@60,1600*1200@60)
SDI Input(3G module)	
Number of Inputs	2
Connector	Standard BNC Socket
Transmission speed	19.4Mbps~3Gbps
Supported Standard	ITU-R BT.656,ITU-R BT.601,SMPTE 259M, SMPTE 292, SMPTE 297
Balance	Belden 1694A 100m self-adaptive 3G,200m self-adaptive 1.485G,350m self-adaptive 270Mbps
Signal Level	TMDS pwl , 165MHz bandwidth
SDI Loop-through (3G module)	
Number of Loop-through	1
Connector	Standard BNC Socket
Signal Level	800mV±10%
Supported Resolution	SMPTE：625/25 PAL, 525/29.97 NTSC,625/50p PAL,525/59.94p NTSC, 720p50,720p59.94/60,1080i50,1080i59.94/60,1080p50,1080p59. 94/60,

Driver	Belden 1694A 150mself-adaptive 3G, 200m selt-adptive 1.485G,350m selt-adaptive SD 270Mbps
VGA Output	
Number of Outputs	1
Connector	Standard DB15 Socket
Supported Resolution	VESA ： 800×600×60Hz,1024×768×60Hz,1024×768×75Hz ,1280×768×60Hz, 1280×1024×60Hz,1440×900×60Hz,1400×1200×60Hz,1600×1200×60Hz,1920×1080×60Hz,1920×1200×60Hz,2048×1152×60Hz
Signal Level	R、G、B、Hsync、Vsync:0 to1Vpp±3dB （0.7V Video+0.3v Sync）75 ohm black level：300mV Sync-tip：0V
DVI Output	
Number of Outputs	2
Connector	Standard DVI-I Socket
Signal Level	TMDS pw, 165MHz bandwidth
Supported Resolution	VESA: 800×600×60Hz,1024×768×60Hz,1024×768×75Hz ,1280×768×60Hz, 1280×1024×60Hz,1440×900×60Hz,1400×1200×60Hz,1600×1200×60Hz,1920×1080×60Hz,1920×1200×60Hz,2048×1152×60Hz
Function	
Input channel configuration	Support each input channel signal programming configuration
PIP	Support PIP、PBP for any two inputs
Transition effects	Fade in and fade out switching between any two inputs
Extras	
Communication	RS232 USB TCP/IP
Power Supply	85-264V IEC-3
Working Environment	0°C~45°C
Stored Environment	10% to 90%
Product Warranty	3-year parts and labor warranty

B. Contact Information

Warranty:

All video products are designed and tested to the highest quality standard and backed by a full 3-year parts and labor warranty. Warranties are effective upon delivery date to customer and are non-transferable. RGBlink warranties are only valid to the original purchase/owner. Warranty related repairs include parts and labor, but do not include faults resulting from user negligence, special modification, lighting strikes, abuse(drop/crush), and/or other unusual damages.

The customer shall pay shipping charges when unit is returned for repair.

Headquarter: S603~604 Weiye Building Torch Hi-Tech Industrial Development Zone Xiamen, Fujian Province, P.R.C
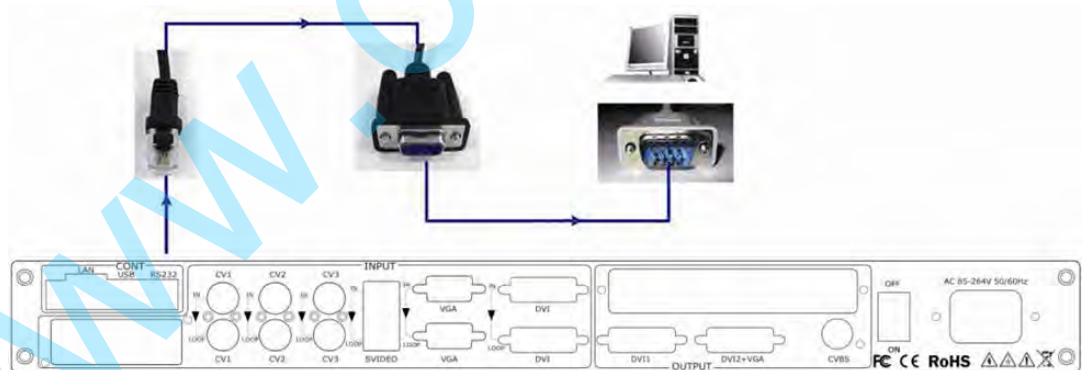
C. Upgrading Software

Download the IP software

Turn off the power, take the two coding switch to "ON" state as below:

Connect one side of the RJ11 download line to the RS232 on the video

processor, and the other side being connected to the serial port on the PC，

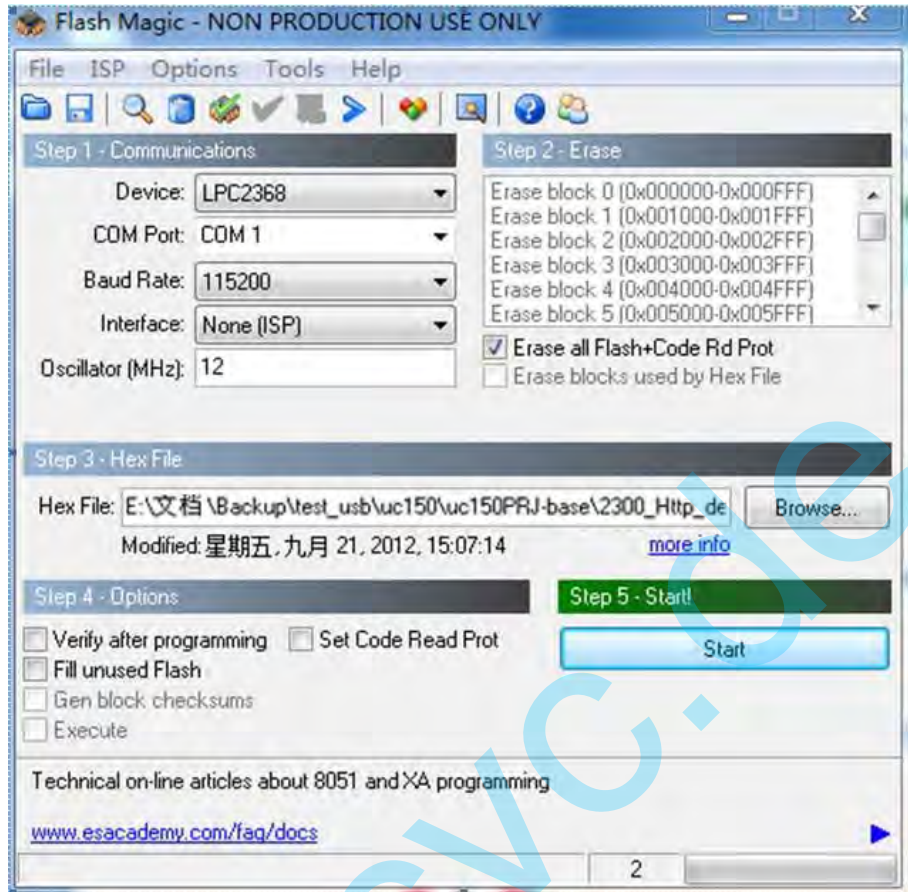switch on the power and wait for 2 minutes.

Double click **Flash Magic** to run flash magic, setting as below:

Firstly, users can choose the right serial port, set the Baud rate to 9600,

choose LPC2368, and to load the aim document (hex file) for IP board

upgrading;

Secondly, tick the item below to confirm.

☑ Erase all Flash+Code Rd Prot

Finally, click the "start" button.

After download, exit the program, turn off the power, tack the two coding switch back, as below restart the equipment power, check if the equipment work normally.

Note

Flash Magic download website:
http://www.flashmagictool.com/download.html&d=FlashMagic.exe