VSP 198CVS

User Manual

- Manual #: RGB-RD-UM-V198CVS E001

- Revision: V1.1

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

RGBlink

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.

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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
V1.1	2014-07-11	0001#	1. Update the Menu. 2. Add "USB Update".	Vira

CONTENT

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

1. Introduction

Chapter Structure

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

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 can also use the **Index** to jump to specific topics within a chapter. Each 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 34.
- For communication software control guide, refer to Chapter 5, "Communication Software Control Guide" on page 55.
- For system setup and operations, refer to Chapter 6, "System Setup and Operations" on page 86.

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 119.

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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Terms and Definitions

- **"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.
- **"HDSDI":** 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.
- **"Operator":** Refers to the person who uses the system.
- **"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,

1. Introduction
Terms and Definitions

Africa, the Middle East, and Micronesia. PAL uses 625-line, 50-filed (25 fps) composite color transmission 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 video 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.

- **"YCrCb":** Used to describe the color space for interlaced component video.
- **"YPbPr":** Used to describe the color space for progressive-scan (non-interlaced) component video.

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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 video, standard and HDTV video by HDM. 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 198CVS 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 x3G 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 equipments

Multiple Control Methods

• Local Front Panel, remote Windows based software control by RS232, USB, Ethernet.

1. Introduction

Application Question

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.
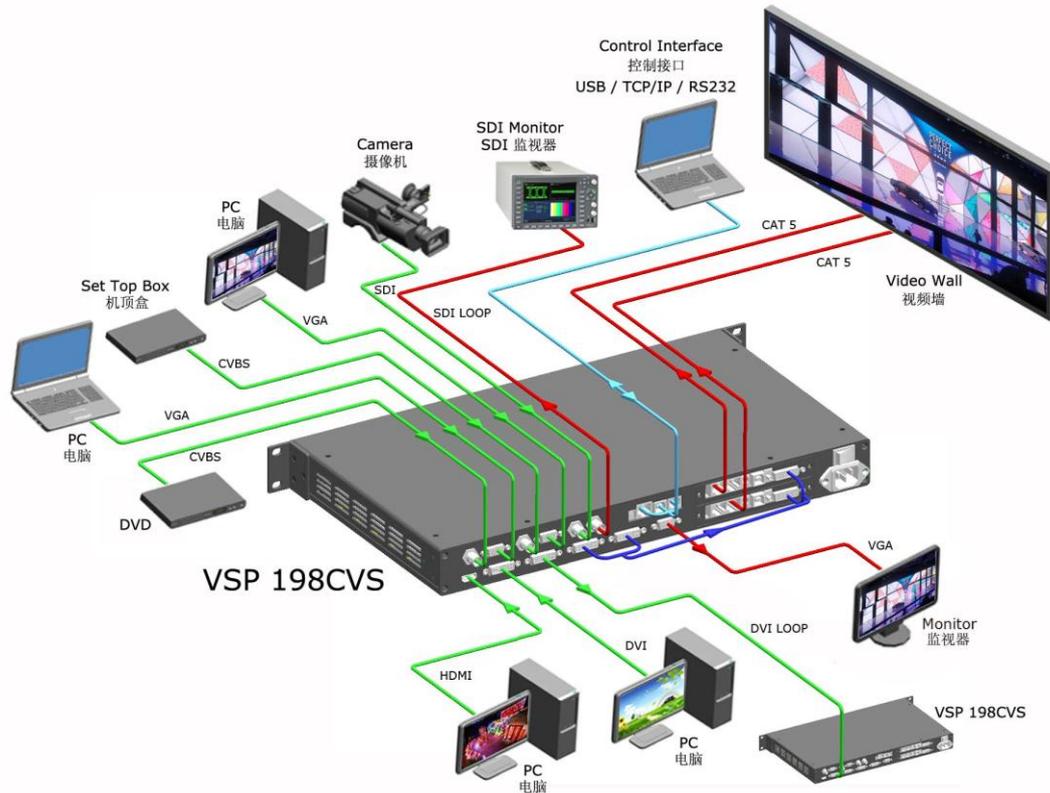
2. Hardware Orientation

In This Chapter

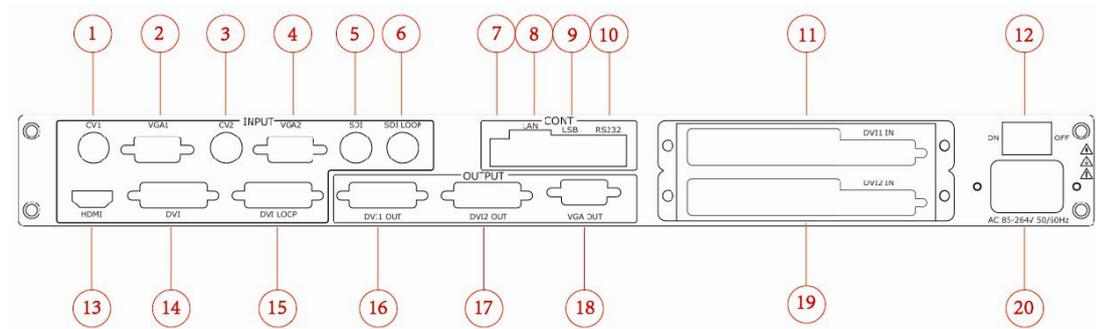This chapter provides detailed information about the VSP 198CVS hardware. The following topics are discussed:

- VSP 198CVS Back Panel

- VSP 198CVS Front Panel

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

If the two dial switches are upwards, the device is in normal work, and if

they are downwards, the device is in upgrade state. OLED module light is

off when the device is in upgrade state. Some of the button lights turn on,

and the device will not work.

8. 10/100M UDP Interface

Used to connect the windows control program or device upgrade.

9. USB Interface

2. Hardware Orientation

VSP 198CVS Back Panel

Used to connect the windows control program or device upgrade.

10. RS232 Interface

Used to connect the windows control program or device upgrade.

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 support loop

through output for cascade or preview.

5) 3G SDI input (SDI module), and support loop through output for

cascade or preview.

3：CVBS Input

CVBS input, input standard video signal from players, cameras etc.,

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 Input

SDI input, input video signal from HD camera and radio processing

equipment, connect interface 5 via 75 ohms impedance BNC port.

Note

5 and 6 input interface is S option module .

6：SDI Loop Out

SDI loop output, connect the SDI input of the next VSP 198CVS for

2. Hardware Orientation

VSP 198CVS Back Panel

cascade or the device with SDI input.

13：HDMI Input

HDMI input, input the signal from HD player, DVD, computer, and so on.

14：DVI Input

DVI input, input the video signal from computer, DVI signal generator. Can

be compatible with HDMI 1.3.

(This connection can not support hot-plugging).

15：DVI Loop Out

DVI loop out, connect to the DVI input of the next level VSP 198CVS or the

device with DVI input.

OUTPUT Interface

16.17：DVI Output

DVI output, connect to the monitor or LED screen which has DVI interface

(This DVI connector can not support hot-plugging).

18：VGA Output

VGA output, connect 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

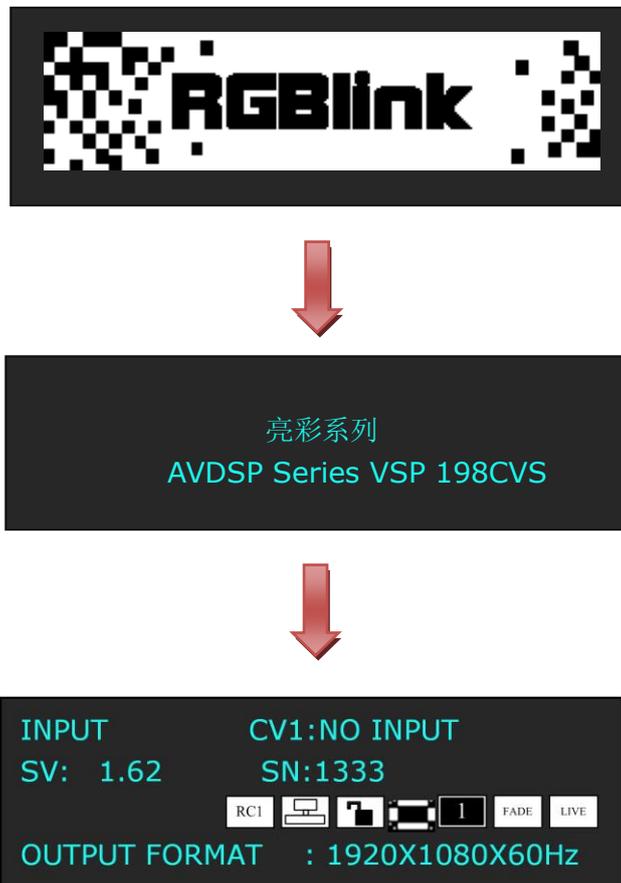AC 85-264V　50/60Hz　IEC-3 Power Interface.

2. Hardware Orientation

VSP 198CVS Front Panel

VSP 198CVS front panel as following:
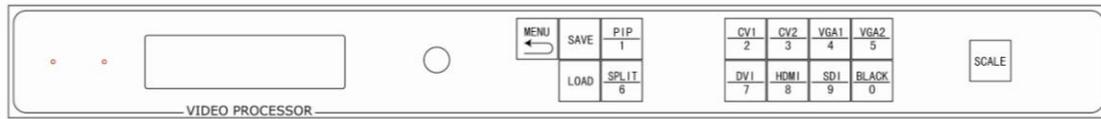
OLED Panel

Used to show button menu and menus for interactive communication;

Menu Button
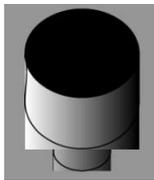
Used to adjust menu on OLED and for information interaction. Push the rotary button to confirm current options.

Signal Buttons
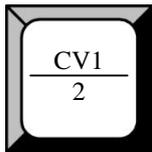
CV1 input selection button, its LED light turns on, output will be switched to this channel.
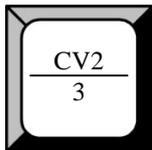
CV2 input selection button, its LED light turns on, output will be switched to this channel.

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 this channel, (compatible with YPbPr).

2. Hardware Orientation

VSP 198CVS Front Panel
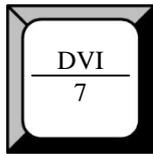
DVI input selection button, its LED light turns on, output will be switched to this channel.
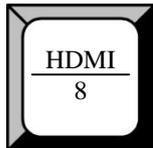
HDMI input selection button, its LED light turns on, output will be switched to this channel.
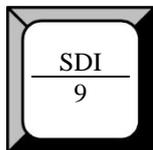
SDI input selection button, its LED light turns on, output will be switched to this channel.
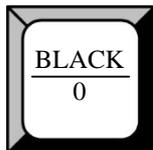
Black button, its LED light turns on, default setting of the test pattern. Test pattern can be set and selected from OLED menu, push the button again, to disable pattern.

Function
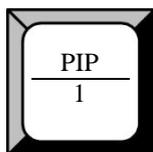
PIP function button: Single image or dual image selection button. Push the button, its LED light turns on, and PIP function is open. Push the button again, its LED light turns off , and close the PIP function, change to single image. OLED shows as follows:

—>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.

2. Hardware Orientation

VSP 198CVS Front Panel
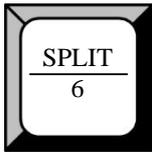
SPLIT
6

Split function button: push the button, its LED light turns on, split function is

open. OLED menu shows as follows:

```
—>SPLIT                        OFF



```

Turn knob, choose SPLIT, and choose ON, OLED menu shows 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 out put. When other input signals to
be used for seamless split, need a signal
distributor support.

Note

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

SAVE

Save button: push it to enter **SAVE** mode, turn the knob or push the number

button which light up to save.

Currently, it supports 10 saving modes from 1, 2, 3, 4, 5, 6, 7, 8, 9, 0, which

means SAVE1~10.

The OLED menu will show finish after finish saving.

For details, please refer to MENU SAVE Function and How to Save the

Parameter.

2. Hardware Orientation

VSP 198CVS Front Panel
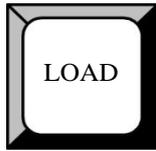
LOAD

LOAD button: push it to enter **LOAD** mode, turn the knob or push the number button which light up to load the saved parameters.

Currently, it supports 10 loading modes from 1, 2, 3, 4, 5, 6, 7, 8, 9, 0, which 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 Load the Saved Parameter.
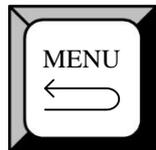
MENU

Advanced menu button: push the button to enter the menu items. 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.

For details please refer to: Special Effect Switching.
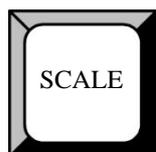
SCALE

Scale function button: for 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 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.
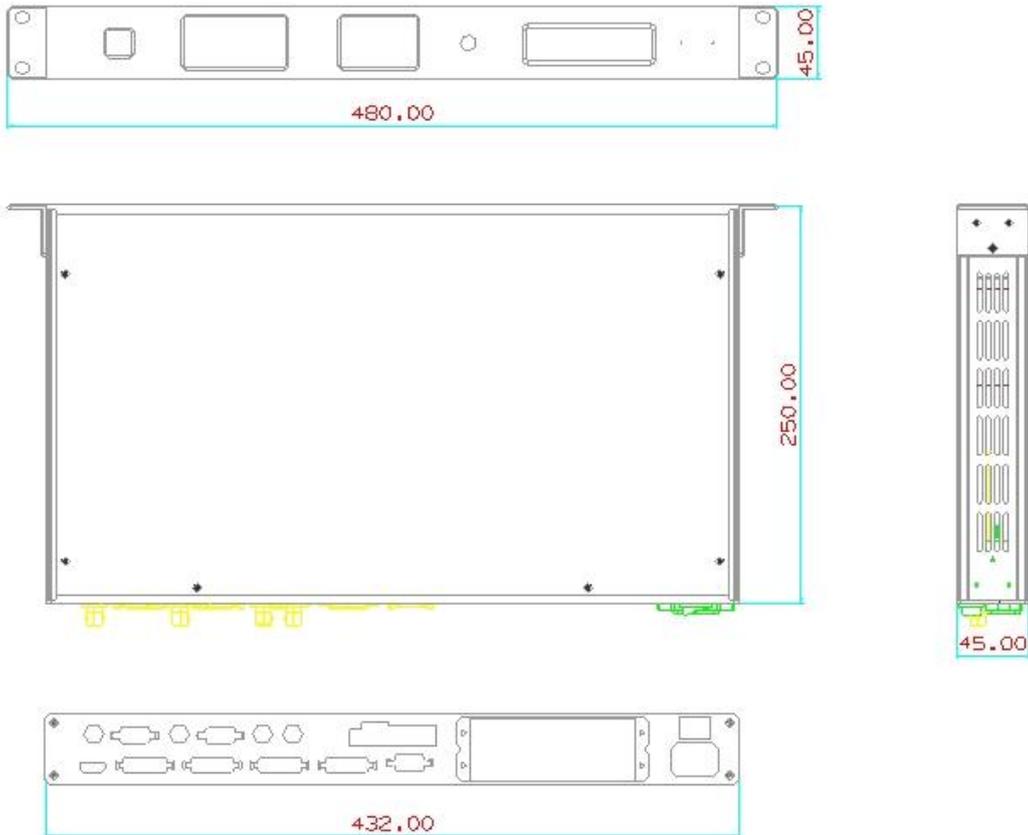
Safety Precautions

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 OVERLAY
  - ➢ SYSTEM
  - ➢ LANGUAGE
  - ➢ LOCK FRONT PANEL
  - ➢ FACTORY RESET
- **QUICK MENU**
  - ➢ SPECIAL EFFECTS SWITCHING
  - ➢ SAVE FUNCTION
  - ➢ LOAD FUNCTION
  - ➢ PIP FUNCTION
  - ➢ SPLIT FUNCTION
  - ➢ SCALE FUNCTION

4. Menu Orientation

MENU

Push the **MENU** to menu items, menu as shown: Turn knob buttons to select menu items. > before the menu means it's in selected state. Push 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	VGA2 SIGNAL TYPE
1280x720x50	MODE	H LEFT	COLOR RED	VGA
1280x720x60	SCREEN SIZE	H RIGHT	COLOR GREEN	YPbPr
1280x768x60	FULL SIZE	H LEFT/RIGHT	COLOR BLUE	VGA1 ADJUST
1280x800x60	RESET	CENTER	RESET	H POS
1280x1024x60		RESET		V POS
1360x768x60		SCALE		CLOCK
1366x768x60		H SIZE		PHASE
1400x1050x60		V SIZE		AUTO ADJUST
1440x800x60		H POS		SDI/VGA2 ADJUST
1440x900x60		V POS		H POS
1600x1200x60		RESET		V POS
1680x1050x60				ANTI-ALIAS
1920x1080x50				RESET
1920x1080x60				HDMI ADJUST
1920x1120x60				ANTI-ALIAS
1920x1200x60				RESET
2048x1152x60				ADC ADJUST
2560x812x60				ADC AUTO ADJUST
2560x816x60				ADC RESET ALL
CUSTOMIZED				GAMMA
				ASPECT RATIO
				4:3
				16:9
				DEFAULT
				OUTPUT ADJUST
				DVI1
				DVI MODE
				BIT DEPTH
				DATA RANGE
				DE ADJUST
				RESET
				DVI2
				DVI MODE
				BIT DEPTH
				DATA RANGE
				DE ADJUST
				RESET

4. Menu Orientation

MENU

TEXT OVERLAY
- TEXT OVERLAY
  - ON
  - OFF
- PRESET
  - USER MODE
  - WhOnBk1
  - WhOnBk2
  - BkOnWh1
  - BkOnWh2
  - GrnOnBk1
  - GrnOnBk2
  - GrnOnWh1
  - GrnOnWh2
  - RedOnBk1
  - RedOnBk2
  - RedOnWh1
  - RedOnWh2
- BLEND MODE
- BLEND LEVEL
- ABOVE/BELOW
- KEY IN/OUT
- RED
- GREEN
- BLUE

SYSTEM
- ETHERNET
  - NETWORK ON/OFF
  - IP ADDRESS
- DISPLAY MODE
  - MODE
- DELAY CALL
- TECH SUPPORT
  - SALES:4008-592-114
  - CUSTOMER SERVICE:4008-592-315
  - EMAIL: rgblinkcs@gmail.com
  - WEBSITE: www.rgblink.com
  - TEL:+86 (592)5771197
- INPUT DETAIL
  - INPUT SOURCE
  - INPUT FORMAT
- OUTPUT DETAIL
  - DVI1
  - DVI2
- SYSTEM INFO
  - COM. VERSION
  - FIRMWARE VERSION
  - SN
  - IP
- DATE&TIME
  - DATE
  - TIME
  - CHANGE DATE
  - CHANGE TIME
- WORK TIME
  - CURRENT TIME
  - LAST TIME
  - TOTAL TIME
  - BOOT TIMES
- OLED LUMINANCE
- HOT BACKUP
  - HOT BACKUP
  - BACKUP_1   CV1
  - BACKUP_2   OFF
  - BACKUP_3   OFF
  - BACKUP_4   OFF
  - BACKUP_5   OFF
- USB UPDATE

LANGUAGE/语言
- ENGLISH
- 中文

LOCK FRONT PANEL
- YES
- NO

FACTORY RESET
- FACTORY RESET
- RESET IP RESET

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 22 common standard output resolutions, shown as follows:

800×600×60, 1024×768×60, 1024×768×75, 1280×720×50, 1280×720×60, 1280×768×60, 1280×800×60, 1280×1024×60, 1360×768×60,

4. Menu Orientation

1366×768×60, 1400×1050×60, 1440×800×60, 1440×900×60,

1600×1200×60, 1680×1050×60, 1920×1080×50, 1920×1080×60,

1920×1120×60, 1920×1200×60, 2048×1152×60, 2560×812×60,

2560×816×60.

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 customized

output resolution.

SCREEN PARAMETERS

Push the [MENU] button to go into the menu items, 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: Can choose SCREEN SIZE or FULL SIZE.

RESET: If image quality distorts by improper operation, it can be recover by

factory reset.

For details, please refer to the instructions in the manual: How to Realize

the Screen Size and Full Size Switching.

PICTURE

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

select <PICTURE>, show menus as follows:

```
—>ZOOM                          >>
   SCALE                        >>
```

4. Menu Orientation
MENU

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 quality distorts by improper operation, it can be recover by factory reset**.**

For details, please refer to the instructions in the manual: How to Set up the 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 by improper operation, it can be recover by factory reset.

NOTE

The SCALE button can also fulfill this setting.

For details, please refer to the instructions in the manual: How to Set up the Size and Position of the Single Image.

4. Menu Orientation
MENU

IMAGE QUALITY

It can adjust the image quality settings including as follows:

BRIGHTNESS: It can change the image brightness via BRIGHTNESS setting.

CONTRAST: It can change the image contrast via CONTRAST setting.

SATURATION: It can change the image saturation via SATURATION setting.

SHARPNESS: It can change the image sharpness via SHARPNESS setting.

COLOR RED: It can change the image color red via this setting.

COLOR GREEN: It can change the image color green via this setting.

COLOR BLUE: It can change the image color blue via this setting.

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

Note

> Users can set according to their actual situation, this function mainly suitable for these 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 operated to recover by factory reset.

ADJUST

Adjust menu including: Input signal sources adjust, Image quality settings, Output signal adjust. Menu including as follows:

Input signal sources adjust :

VGA1 SIGNAL TYPE:

Program VGA1 button is VGA signal or YPbPr signal.

4. Menu Orientation

MENU

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/VGA2 ADJUST:

When SDI/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.

ANTI-ALIAS: If there is sawtooth when input SDI signal, user can do

anti-alias processing by modify STEP_1 to STEP_7, and different STEP

with different effects. System default STEP_1.

RESET: If image quality distorts by improper operation, it can be recover by

factory reset.

4. Menu Orientation

MENU

HDMI ADJUST:

ANTI-ALIAS: If there is sawtooth when input SDI signal, user can do anti-alias processing by modify STEP_1 to STEP_7, and different STEP with different effects. System default STEP_1.

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

Image quality settings.

ADC ADJUST:

Mainly for brightness auto adjusting.

GAMMA: Gamma setting, press it to adjust the image gamma value.

Gamma values include: LINEAR, sRGB, -1.2, -1.4, -1.6, 1.2, 1.4, 1.6.

ASPECT RATIO: Aspect ratio setting, user can choose 4:3, 16:9 and DEFAULT.

OUTPUT ADJUST: Output adjust menus, 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.

BIT DEPTH: Can set the image bit depth.

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

4. Menu Orientation

function to shift the black out of the screen.

RESET: If image quality distorts by improper operation, it can be recover by

factory reset.

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

same with DVI1.

Note

Only comments to professional operator.

TEXT OVERLAY

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

TEXT OVERLAY: Can select "ON" or "OFF", OFF is system default.

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, the regulating range is among 0 to 16.

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: Delete the background, and keep the text title.

KEY OUT: Delete the text title, and keep the background.

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.

For details, please refer to the instructions in the manual: How to Realize the Text Overlay Setting.

SYSTEM

It can adjust the system function settings including as follows:

4. Menu Orientation
MENU

ETHERNET: Network setting, including:

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

IP ADDRESS: 192.168.000.100.

DISPLAY MODE:

MODE: Image mode selection, user can choose different output modes according to their requirement, such as: black, video image, freeze image, flat color and test pattern.

TEST PATTERN: Test pattern setting, rotate the knob, there are 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.

For details, please refer to the instructions in the manual: How to Realize the Test Pattern Output and Settings.

DELAY CALL: Delay the output time setting. 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, it need to delay the input time among 1S to 255S.

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

INPUT DETAIL: Show the input signal and input format.

OUTPUT DETAIL: Show the output signal information.

SYSTEM INFO: System information.

COM. VERSION: Information of COM version.

FIRMWARE VERSION: Information of firmware version.

SN: Serial number of VSP 198CVS.

IP: IP address.

DATE&TIME: Show or change the date or time.

4. Menu Orientation
MENU

DATE: Show the date.

TIME: Show the time.

CHANGE DATE.

CHANGE TIME.

WORK TIME: Including as follows:

CURRENT TIME: Show the working time from boot to present.

LAST TIME: Show the last working time.

TOTAL TIME: Show the total working time.

BOOT TIMES: Boot times.

OLED LUMINANCE：Adjust the OLED panel luminance, the adjusting range is among 0 to 15.

HOT BACKUP: User can enable or disable the hot backup function. Choose "ON" to set the backup signal for BACKUP_1 to BACKUP_5. It will switch to the backup signal if interrupt signal.

USB UPDATE: User can update the device by USB.

LANGUAGE

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

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 show: "please push MENU and SEL buttons together to release lock model!" User can push the two buttons together to unlock the equipment.

FACTORY RESET

Enter FACTORY RESET to reset the IP, choose YES and push the knob to

4. Menu Orientation
MENU

confirm, then VSP 198CVS is reset to its factory settings. After 5 seconds, it

completes factory settings and is ready for more operations.

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.

SPECIAL EFFECTS SWITCHING

Push **MENU** button two times, and enter the effect switch function menu,

effect menu shown as follows:

```
EFFECT MENU

DEINTERLACE      IMAGE ENHANCE       MODE                    FADE TIME      ALPHA
ON               ON                  DISSOLVE                0-1S           0-16
OFF              OFF                 CUT
                                     WIPE SQUARE IN
                                     WIPE SQUARE OUT
                                     WIPE TOP LEFT IN
                                     WIPE TOP LEFT OUT
                                     WIPE TOP RIGHT IN
                                     WIPE TOP RIGHT OUT
                                     WIPE BOTTOM LEFT IN
                                     WIPE BOTTOM LEFT OUT
                                     WIPE BOTTOM RIGHT IN
                                     WIPE BOTTOM RIGHT OUT
                                     WIPE LEFT IN
                                     WIPE LEFT OUT
                                     WIPE RIGHT IN
                                     WIPE RIGHT OUT
                                     WIPE TOP IN
                                     WIPE TOP OUT
                                     WIPE BOTTOM IN
                                     WIPE BOTTOM OUT
```

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

ON: Force deinterlace, no effect switching.

OFF: No deinterlace, with effect switching.

IMAGE ENHANCE: Image enhancement function, used for image edge

sharpening, color reduction and image scaling.

MODE: Special effects switching mode.

DISSOLVE: Fade in fade out effects switching.

CUT: Fast switching.

4. Menu Orientation
QUICK MENU

WIPE SOUARE IN:

WIPE SOUARE OUT:

WIPE TOP LIEFT IN:

WIPE TOP LIEFT OUT:

WIPE TOP RIGHT IN:

WIPE TOP RIGHT OUT:

WIPE BOTTOM LEFT IN:

WIPE BOTTOM LEFT OUT:

WIPE BOTTOM RIGHT IN:

WIPE BOTTOM LEFT OUT:

WIPE LEFT IN:

WIPE LEFT OUT:

WIPE RIGHT IN:

WIPE RIGHT OUT:

4. Menu Orientation
QUICK MENU

WIPE TOP IN:

WIPE TOP OUT:

WIPE BOTTOM IN:

WIPE BOTTOM OUT:

Note: Means the image emerging.

Means the image disappearing.
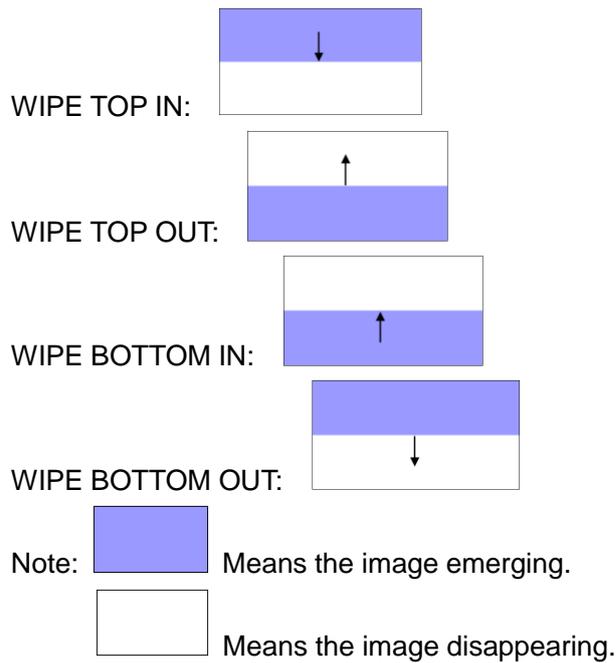
Arrows represents the direction of the image move, that is, the image that

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

push the knob to confirm. The switching time ranges from 0 to1S.

ALPHA: It can set the image transparency, the regulating range is among

0 to 16.

SAVE FUNCTION

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

menu. OLED module show as follows:

```
    SAVE TO
—>SAVE 1
        Button is on can be saved
      Button flashes will be overwrite
```
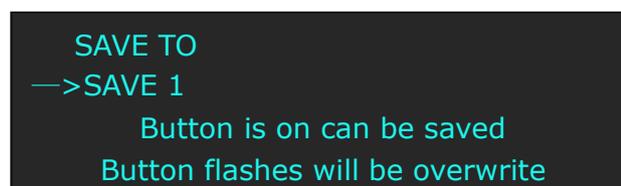
According to the OLED module information to save operation.

For details please refer to the instructions in the manual: How to Save the

Parameter.

4. Menu Orientation
QUICK MENU

LOAD FUNCTION

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

menu. OLED module show as follows:

> RECALL SAVE
> —>SAVE 1
> Button on is ready for recall
> Button flashes means just recall
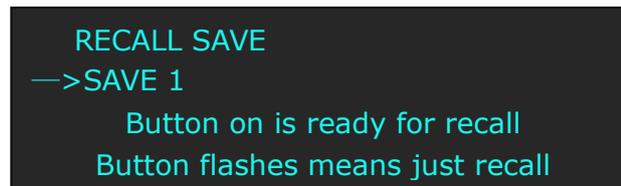
According to the OLED module information to LOAD operation.

For details please refer to the instructions in the manual: How to Load the

Saved Parameter.

PIP FUNCTION

Push **PIP** button, the button led light turn on, and enter the PIP function

menu. OLED module show as follows:

 PIP: Choose ON to set PIP mode.

 LAYOUT: There 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.

4. Menu Orientation
QUICK MENU

Note

Function reuse key [SPLIT 6] ,selecting image A or image B
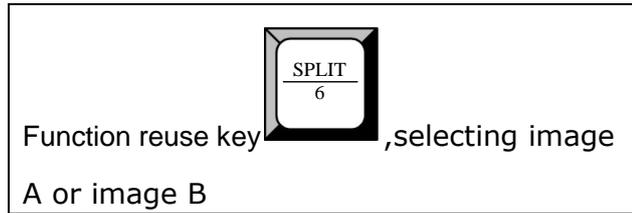
SWAP IMAGE: It can set PIP to swap exchange, when choose ON, it can switch IMAGE A and IMAGE B.

ALPHA: Use can set the image transparency, the regulating range is among 0 to 16.

For details, please refer to the instructions in the manual: How to Set up the PIP.

SPLIT FUNCTION

Push **SPLIT** button, the button led light turn on, and enter the SPLIT function menu. Push the knob to open the split function, OLED module show 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: Horizontal total.

V TOTAL: Vertical total.

H POS: Horizontal phase setting.

V POS: Vertical phase setting.

H SIZE: Width setting.

4. Menu Orientation

V SIZE: Height setting.

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

For details please refer to the instructions in the manual: How to Set up the SPLIT.

SCALE FUNCTION

Push the **SCALE** button, the button led light turn on, and enter the SCALE function menu. Push the knob to open split function, OLED module show as follows:
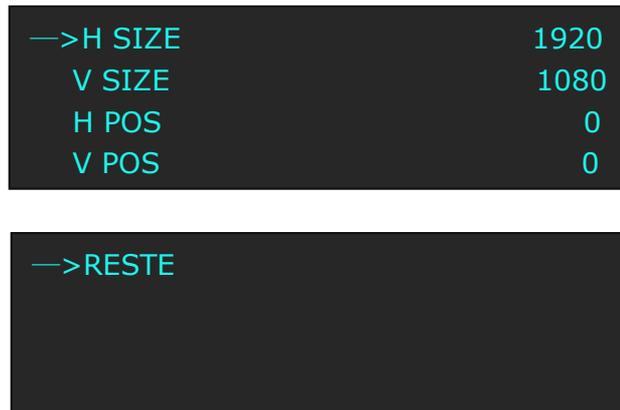
```
—>H SIZE                        1920
   V SIZE                       1080
   H POS                           0
   V POS                           0
```

```
—>RESTE
```

H SIZE: Width setting.

V SIZE: Height setting.

H POS: Horizontal phase setting.

V POS: Vertical phase setting.

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

For details, please refer to the instructions in the manual: How to Set up the Size and Position of the Single Image.

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 Windows Control Program by RS232 Interface
- How to Connect Windows Control Program by USB Interface
- How to Connect Windows Control Program LAN Interface

Software Installation

VSP 198CVS 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 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:
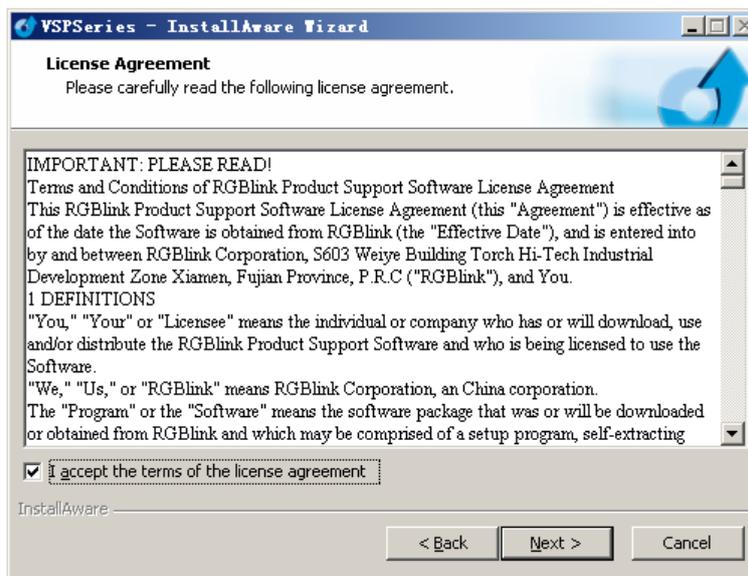
5. Communication Software Guideline

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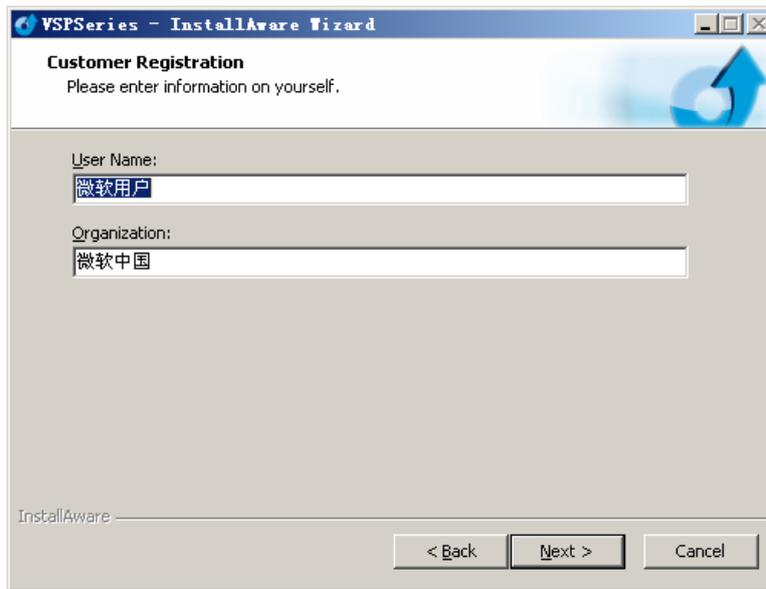
User can select "Change" to choose the VSP 198CVS install software:
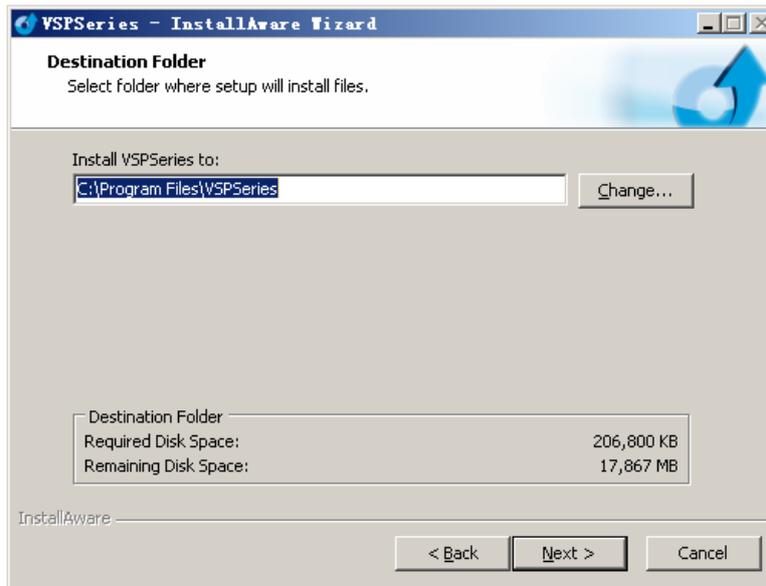
5. Communication Software Guideline
Software Installation
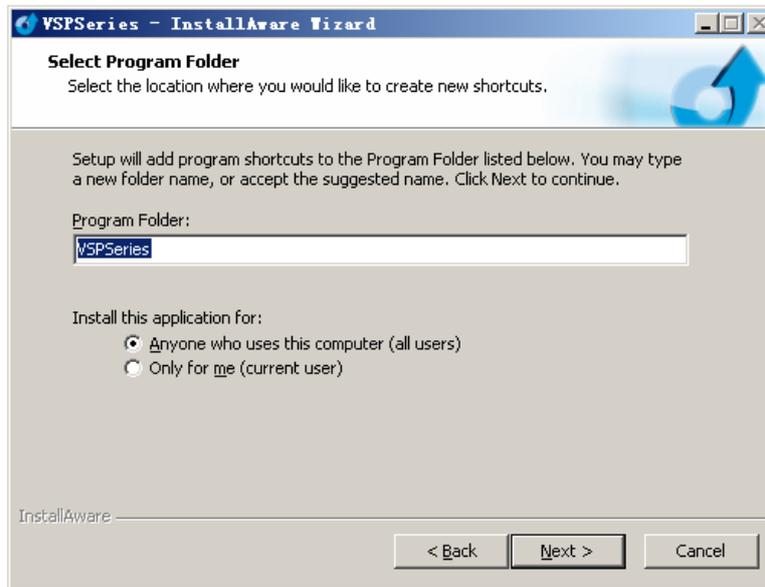
Click "Next" to go on:

Click "Next" to go on:

5. Communication Software Guideline
Software Installation

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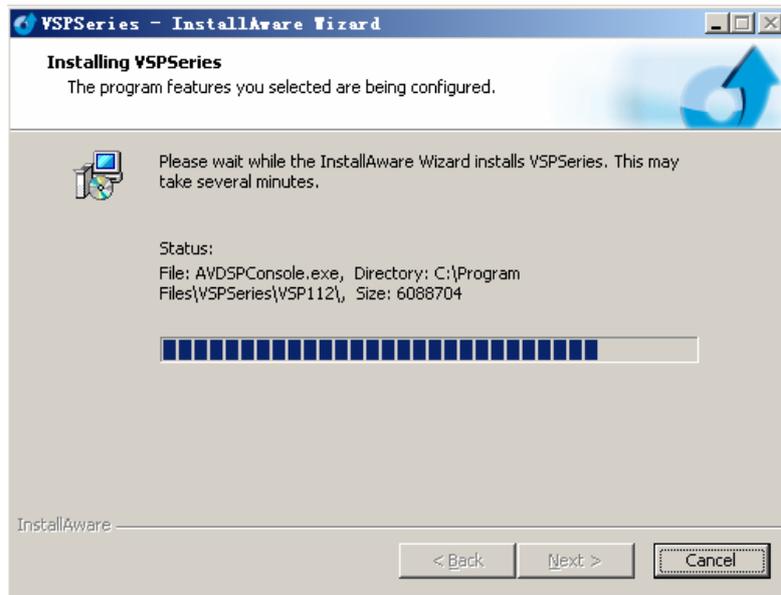
Click "Finish" and ready to run VSP 198CVS console:
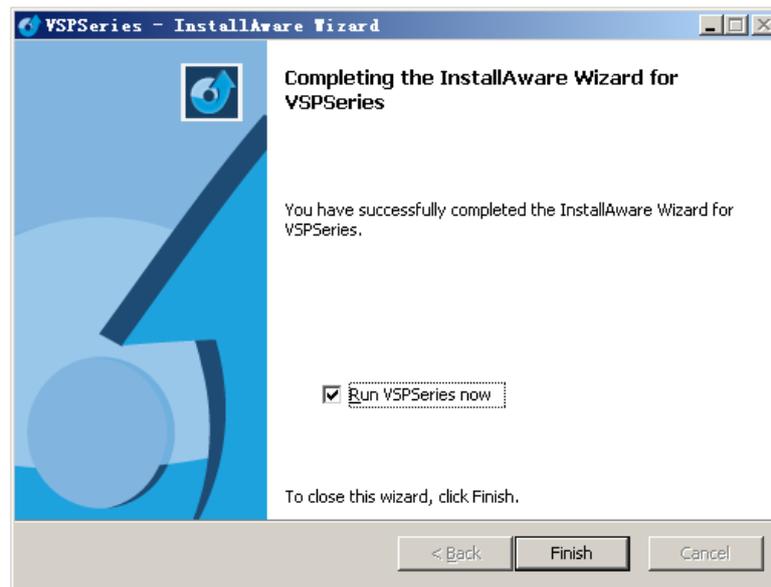
Software Operation

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 to run the software.

VSP 198CVS communication software interface as shown:
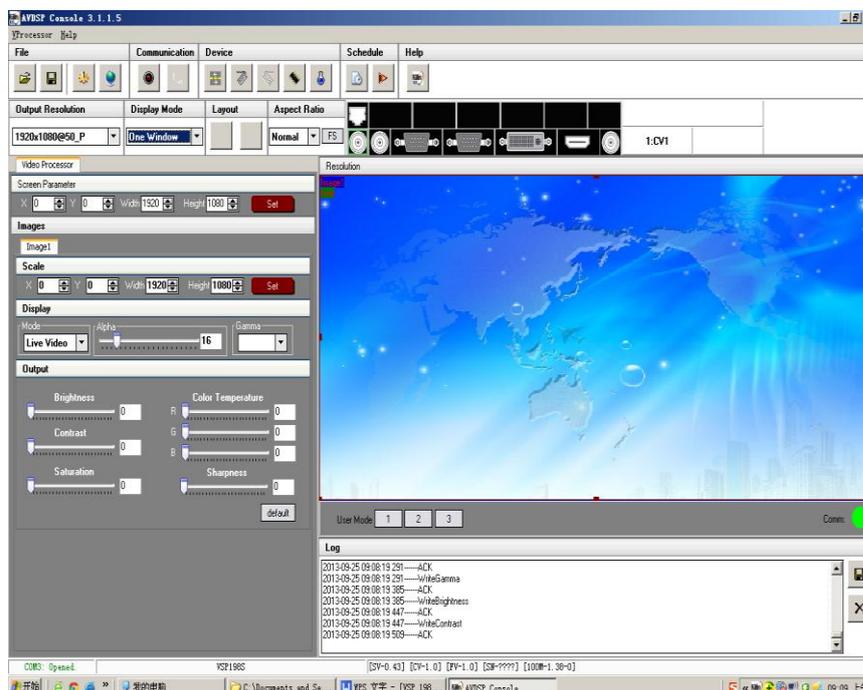
Connection

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, as follows, left click [Device manager]:

5. Communication Software Guideline
Software Operation
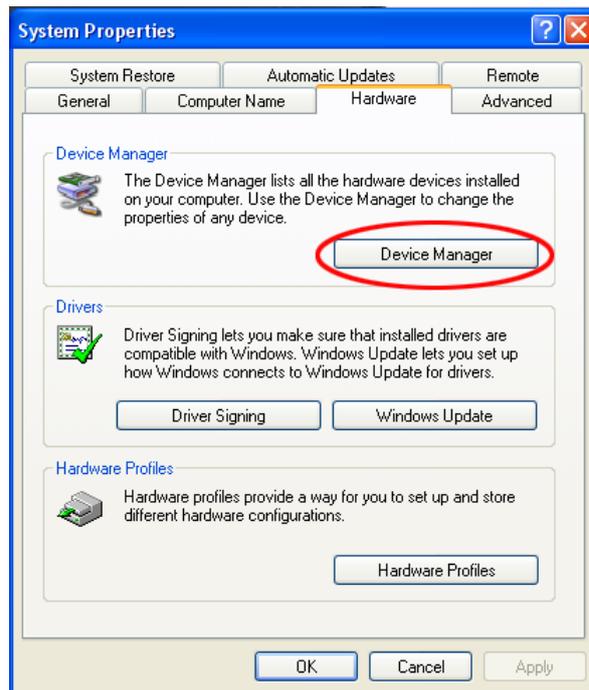
Find [COM and LPT] port in [device manager], click the plus sign on the left,

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.

After serial setting, click icon, the icon becomes when

5. Communication Software Guideline
Software Operation

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.
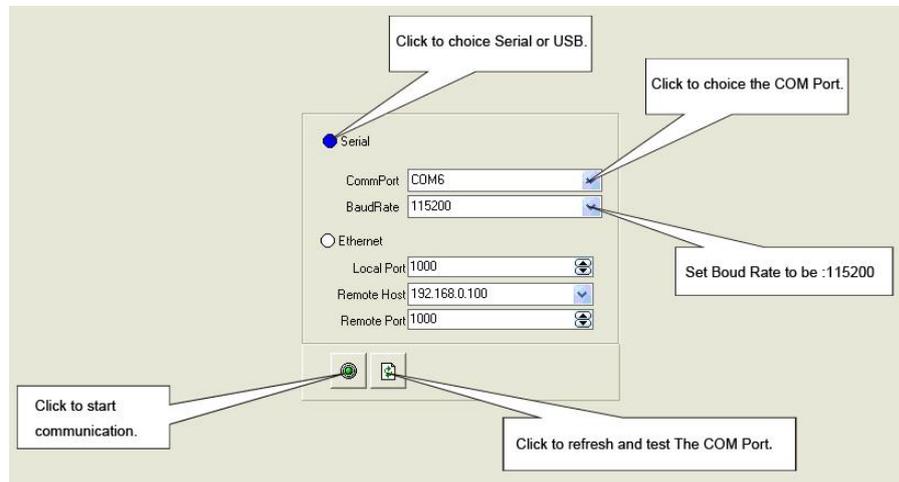
For more detailed information, please refer to: "**How to Connect Windows
Control Program by RS232 Interface**". User can also connect the
computer and VSP 198CVS with USB cable. For details, please refer to
"**How to Connect Windows Control Program by USB Interface**" .
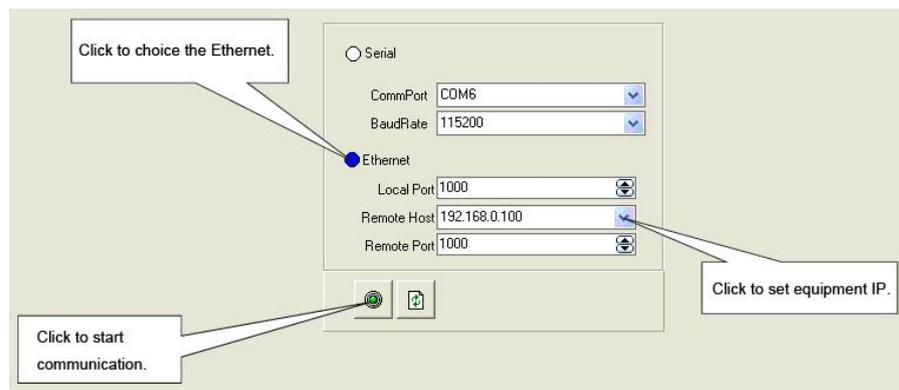
Ethernet , user can fill any number less than 1023 in local port, the remote
port must be 192.168.0.100 and the remote port must be 1000. After
setting above, click the icon [icon] to connect with the net work. If
successful connect, the icon becomes [icon] , status on the left button
showing [UDP1000 Opened] .

5. Communication Software Guideline
Software Operation

Use

File Toolbar

: Open script. User can open saved script and alter its parameters.
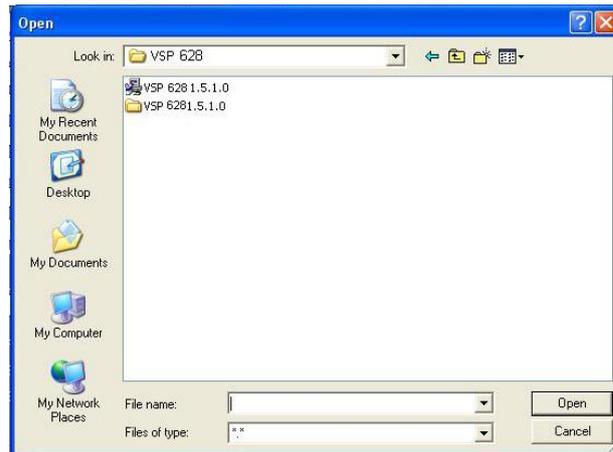
: Save script. Save current user parameters as script to the prescribed path.
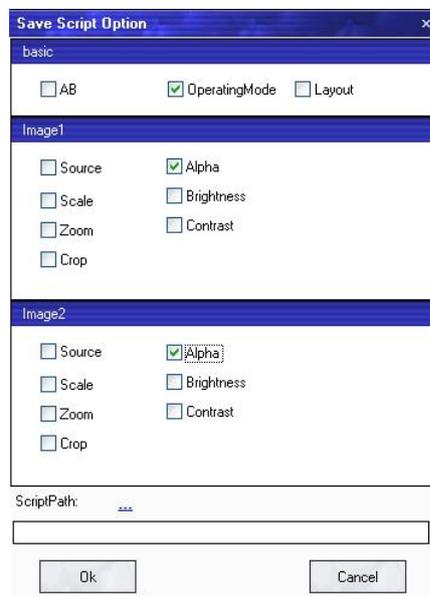
: Import template. There are six templates for user. Users can setup one of templates as the common one.

5. Communication Software Guideline
Software Operation

Template1 (Ctrl+1)
Template2 (Ctrl+2)
Template3 (Ctrl+3)
Template4 (Ctrl+4)
Template5 (Ctrl+5)
Template6 (Ctrl+6)
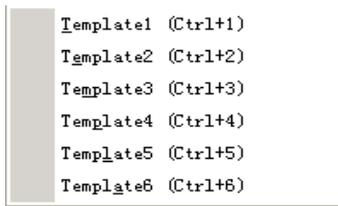
: Export template. Export current config as template.

Template1 (Ctrl+1)
Template2 (Ctrl+2)
Template3 (Ctrl+3)
Template4 (Ctrl+4)
Template5 (Ctrl+5)
Template6 (Ctrl+6)
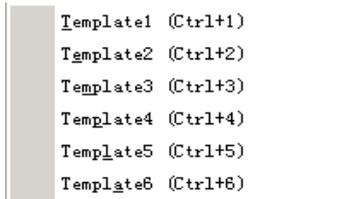
: Option: User can choose open device when start and using script

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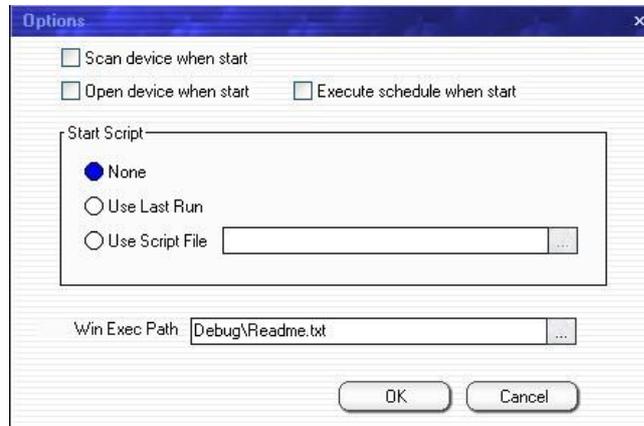
If user choose execute schedule when start, the next dialogue will display

when software run.

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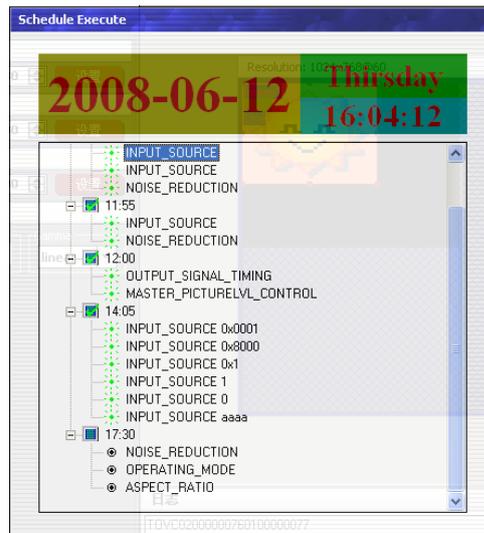
: Language. The software supports Chinese, English and German

version.

Communication Toolbar

: Open COM.

: Close COM

: Set COM.

Device Toolbar

: Synchronization.

: Save to flash.

5. Communication Software Guideline
Software Operation
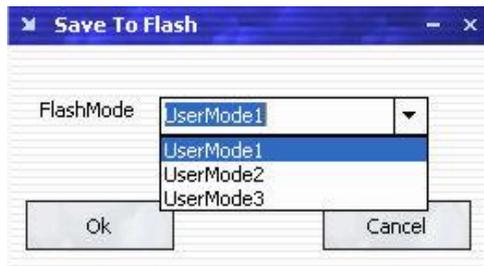
: Load form Flash.
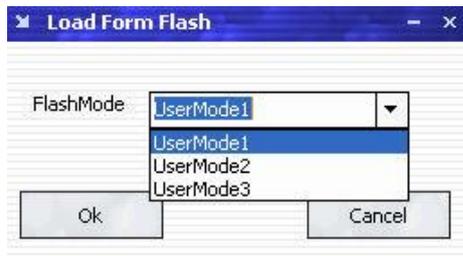
: Factory setup.

: Advance.

Note

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

Schedule Toolbar

: Customize schedule.

5. Communication Software Guideline
Software Operation
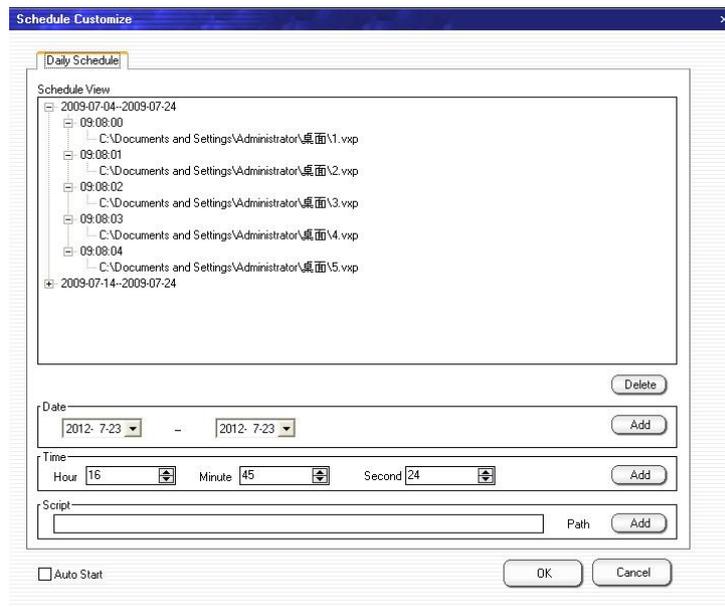
 : Execute schedule. Execute tasks according to schedule.

Help Toolbar

 About: Display information of software；

5. Communication Software Guideline
Software Operation

Output Resolution Toolbar

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

VSP 198CVS has 22 output resolutions for users selection.
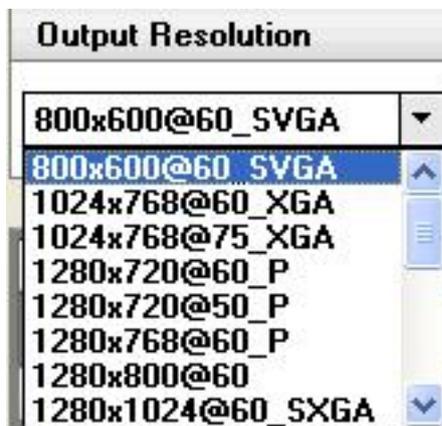
Note

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 Operation

mode directly with quick preset layout button as following.
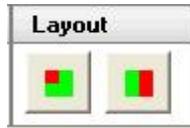
Aspect Ratio Toolbar

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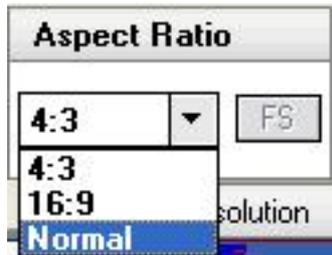
Note

> 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 side of the source.

5. Communication Software Guideline
Software Operation

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.
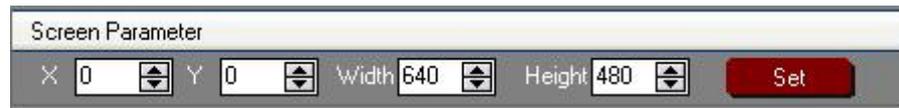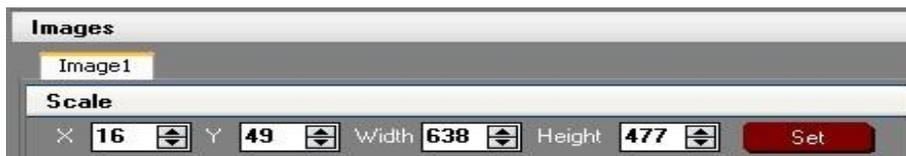
Note

Same as MENU ➔ SCREEN PARAMETERS
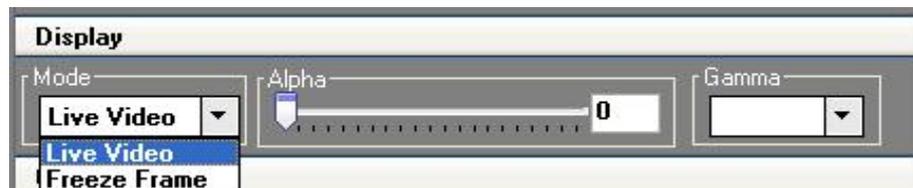
Image Toolbar

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 playing.

5. Communication Software Guideline
Software Operation

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.
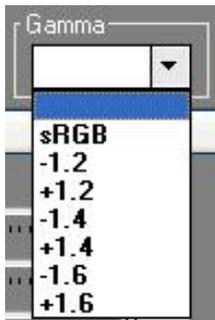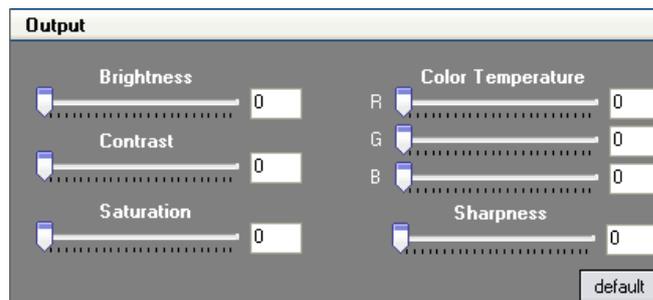

Note

> 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
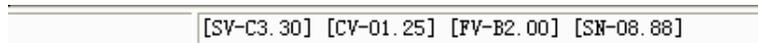
Users can recall the saved user mode1, mode2 or mode3

Log Toolbar

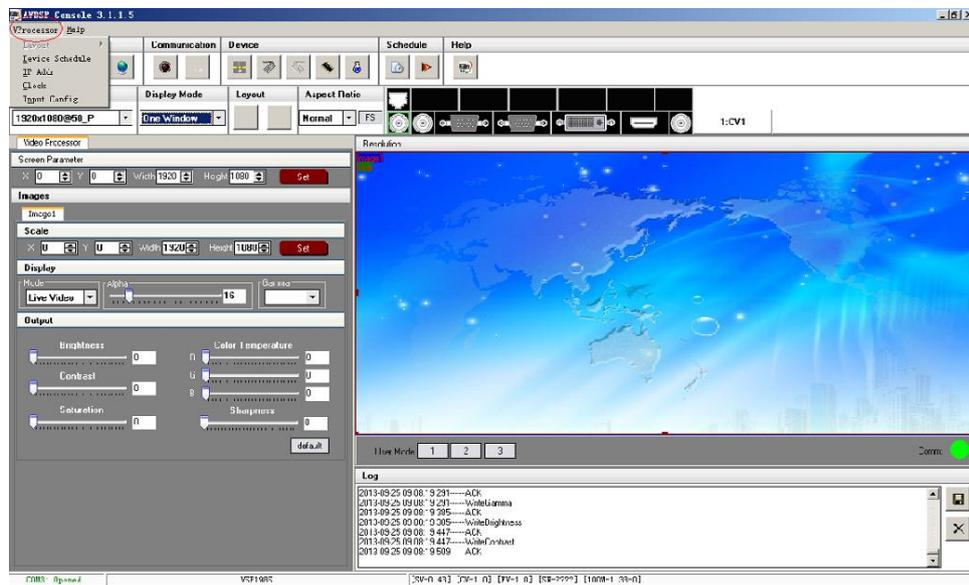User can save or delete the operate log file.

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]
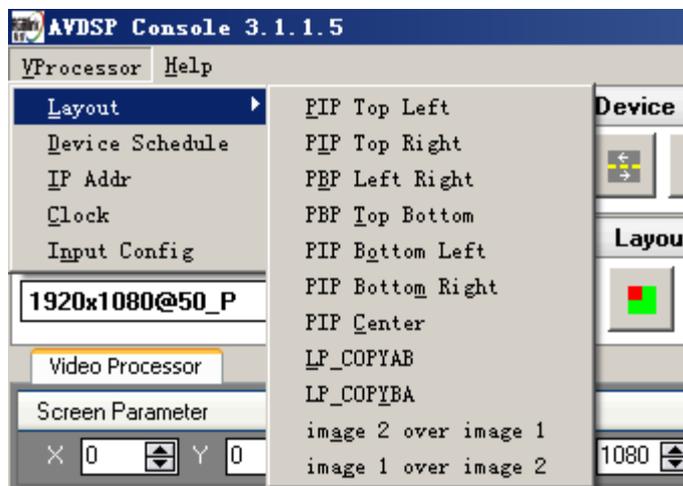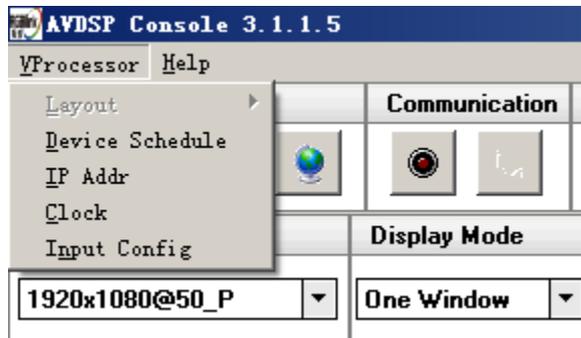
5. Communication Software Guideline
Software Operation

[Video Processor] Options

Layout:

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

single image mode is off.

5. Communication Software Guideline

Software Operation

Device Schedule:

Users can set up VSP 198CVS to play the appointed input video automatically in time and operation of single or dual channels, ratio place.

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

For details, please refer to the instructions in the manual: How to Set up the Playlist.
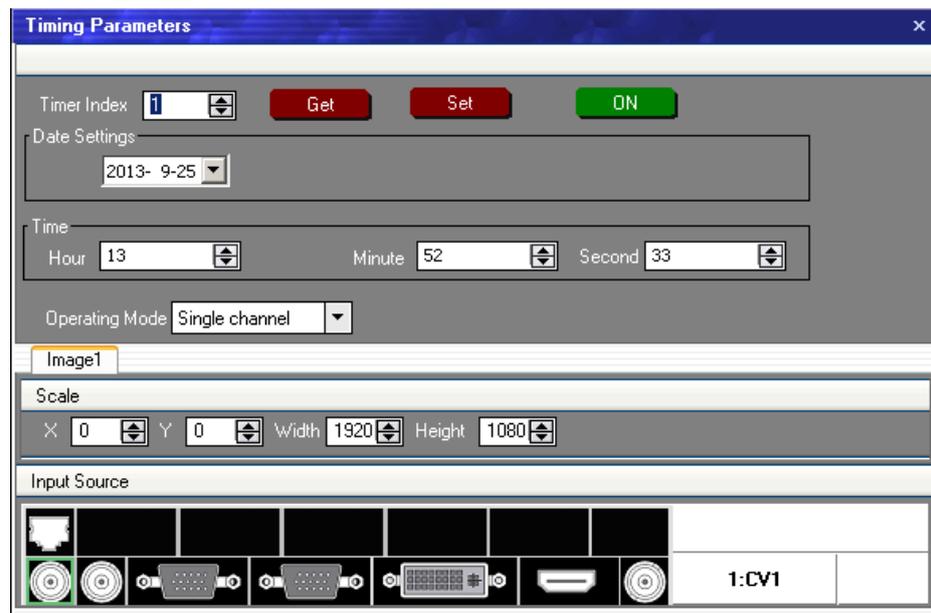
IP Address：

Users can set equipment IP, 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.
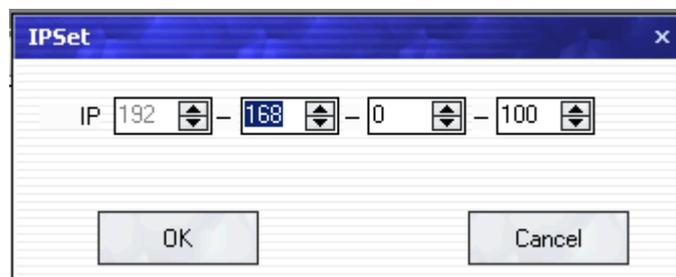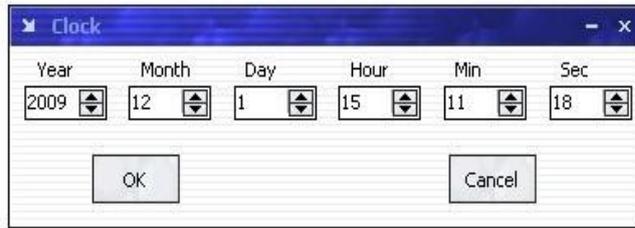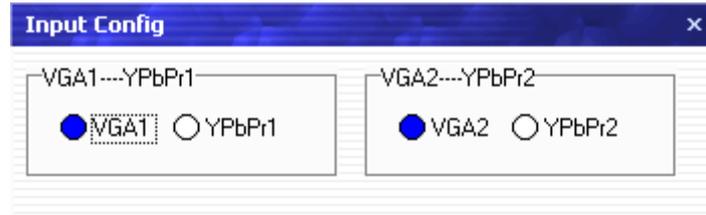

Clock：

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

5. Communication Software Guideline

Software Operation

Input Config：

Define VGA1and VGA2 Input source types ，VGA input compatible with

YPbPr.

Note

Same as MENU➝ ADJUST ➝ VGA

1/VGA2 SIGNAL TYPE
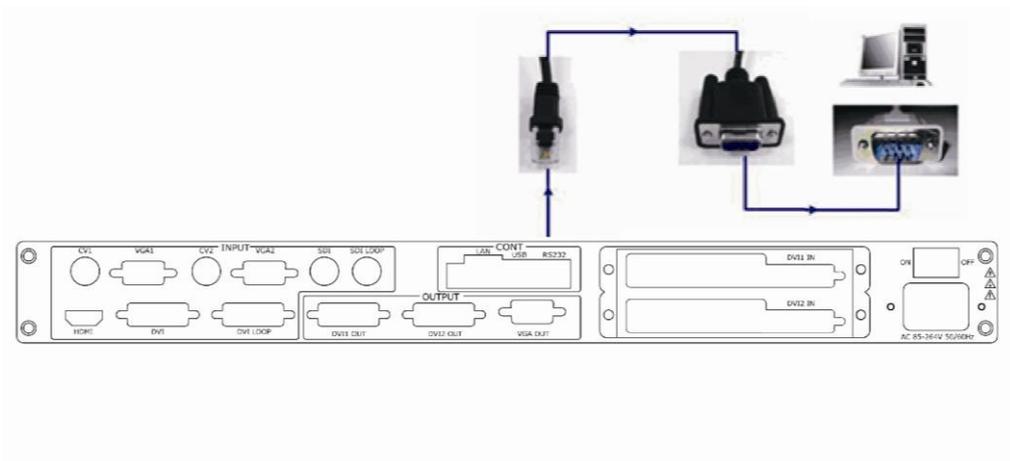
How to Connect Window Control Program by RS232 Interface

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 Windows Control Program by RS232 Interface
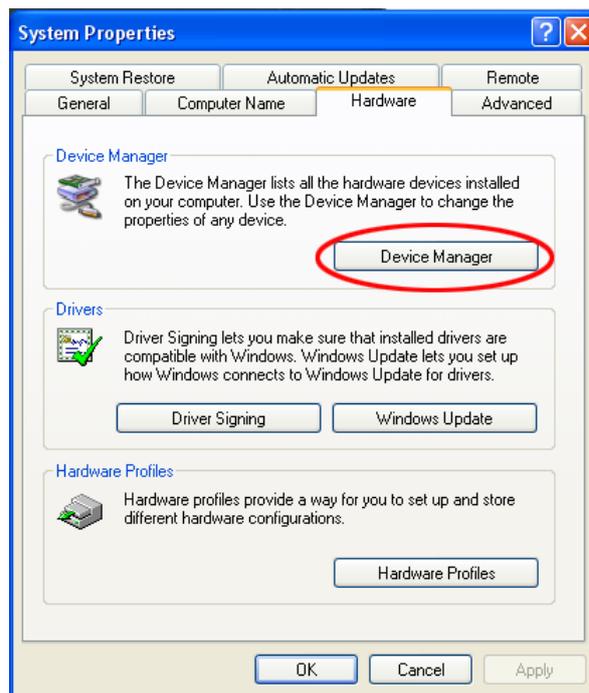
Click [Device Manager] "+" on the left, check the COM number, as following,

COM1 is offered.

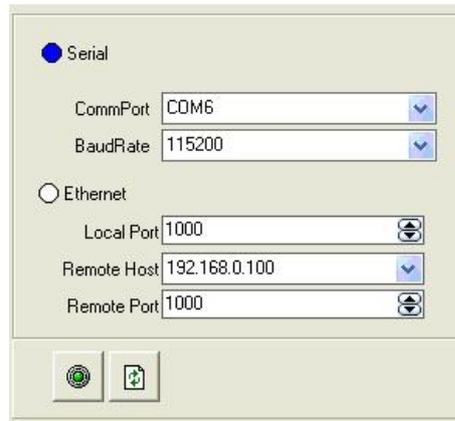Remember the COM you are using and then run the control software, find

[Communication] option. In default, first time user have to click

button, as following:

5. Communication Software Guideline

How to Connect Windows Control Program 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 showing on
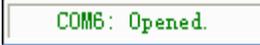
the software, it means the communication is ok , and you can use the
software to control the device now.

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 Windows Control Program 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":
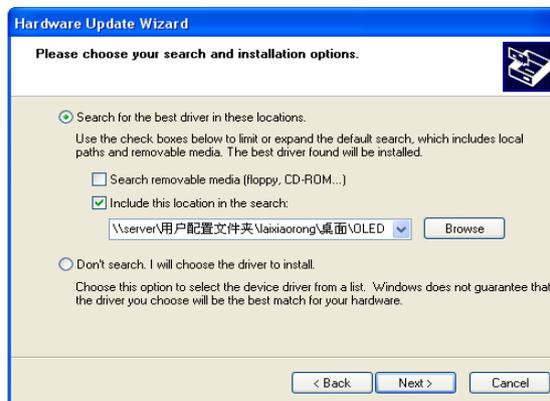
Press "browser" to find the driver, and press "NEXT":

5. Communication Software Control Guide
How to Connect Window Control Program 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 Window Control Program by USB Interface
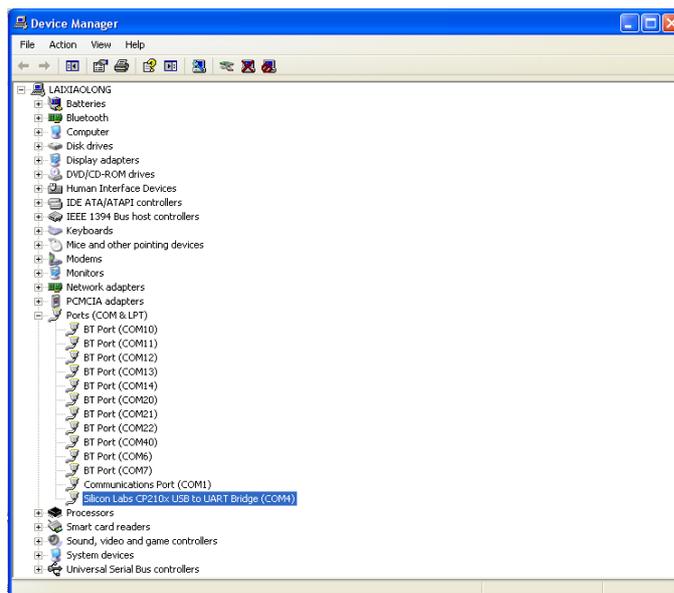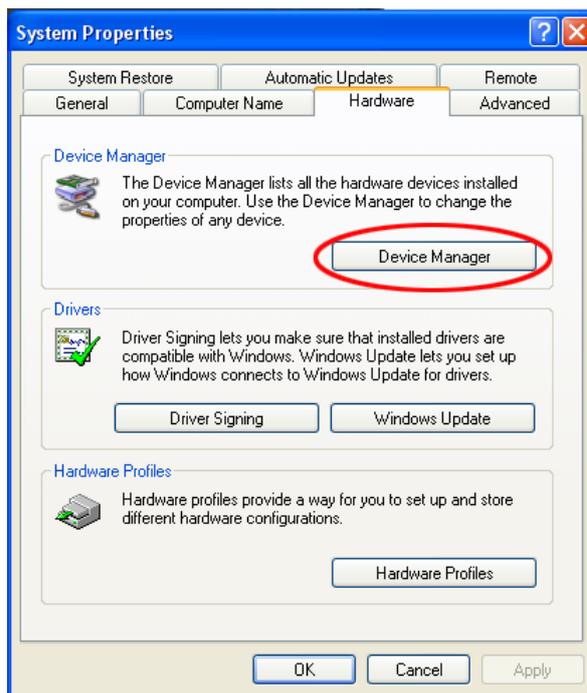
Install the console software, and run after install, shows the interface of the console as following:

Select the COM as installed just now, and set the VSP 198CVS Boud Rate to be: 115200.

5. Communication Software Control Guide
How to Connect Window Control Program by USB Interface
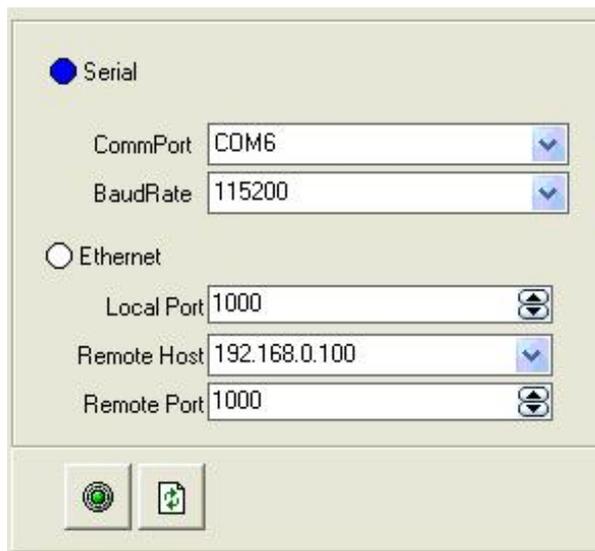
Press to start communication, when there is green point in the right

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 Windows Control Program by LAN Interface

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

Connect VSP 198CVS and computer with cable, the connection diagram is as follow:

Power on VSP 198CVS 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 Windows Control Program by 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 previous.

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

5. Communication Software Control Guide
How to Connect Windows Control Program by LAN Interface

Click properties,

, 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 Signal 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 Realize the Screen Size and Full Size Switching
- How to Set up Image Zoom
- How to Realize the Text Overlay Setting
- How to Realize Test Pattern Output and Settings
- How to Set up the Playlist
- How to Use Black Out
- How to Realize LAN Remote Control Settings
- How to Save the Parameter
- How to Load the Saved Parameter

Interface and Input Signal Option

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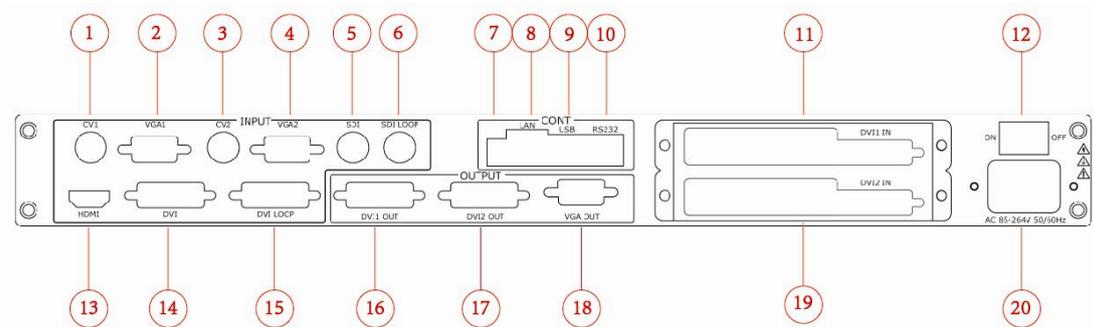
NO	INTERFACE	NO	INTERFACE
1.3	CVBS input Interface	11.19	Sending card interface
2.4	VGA input Interface	12	Power switch
5	SDI input Interface	13	HDMI input Interface
6	SDI loop output Interface	14	DVI input Interface
7	Dial the code switch	15	DVI loop output Interface
8	10/100M control Interface	16.17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

16. 17. DVI output, 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.

6. System Setup and Operations
Interface and Input Signal Option

Note

> Same as MENU ➞ OUTPUT FORMAT

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 DB15 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 radio

processing equipment, connect interface 5 via 75 ohms BNC port.

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.
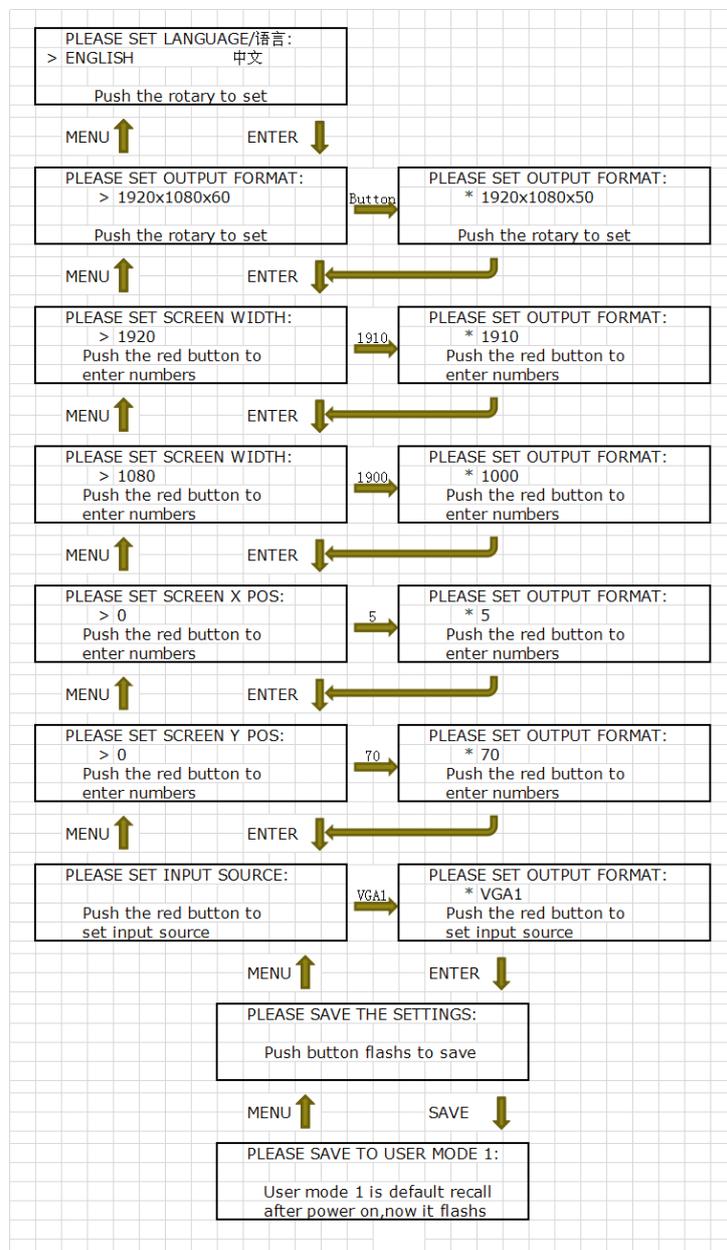
6. System Setup and Operations

How to Realize Single Image Switching

Boot the system default CV1 to the current input source, if need seamless switching other source such as DVI, push DVI button, OLED module show as follows:

```
SOURCE SELECT:
->DVI
```
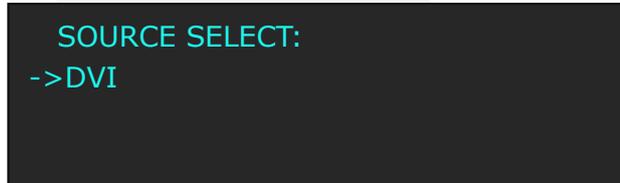
CV1 button light turns off after pushing DVI button. DVI button light will be on if the DVI signal is effective and stable. And if the DVI signal is invalid or no input, DVI button light will flash.

The same method can switch the signals among CV2, VGA1, VGA2, DVI, HDMI, SDI.

Note

Only cut is supported among the switch of CV1, CV2, VGA2, HDMI and SDI.

6. System Setup and Operation

How to Set up the PIP

Push the **PIP** button，button led light turn on, and enter the PIP function

menu. OLED module show as follows:

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

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

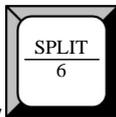PIP L+T   PBP L+R   PBP T+B

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

realize the IMAGE A and IMAGE B exchange.

ALPHA: Can set the image transparency, the regulating range is among 0

to 16.

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

individually.

Note

Use function reuse key [SPLIT 6] to select

IMAGE A or IMAGE B.

6. System Setup and Operation

How to Set up the SPLIT

SPLIT is used when multiple VSP 198CVS are used in cascade mode.

When do cascade, connect the signals to the signal distributor first, and then

connect from the outputs of the signal distributor to each input of VSP

198CVS.

The operations are as follows:

Push the **SPLIT** button, the button LED light will turn on, and enter the split

function menus. Turn the knob, and choose "SPLIT", choose "ON" to enable

the split function, menus are 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: If image quality distorts by improper operation, it can be recover by

factory reset.

Save the parameters after setting.

Following is the example of cascade multiple VSP 198CVS for mapping.

6. System Setup and Operation
How to Set up the SPLIT
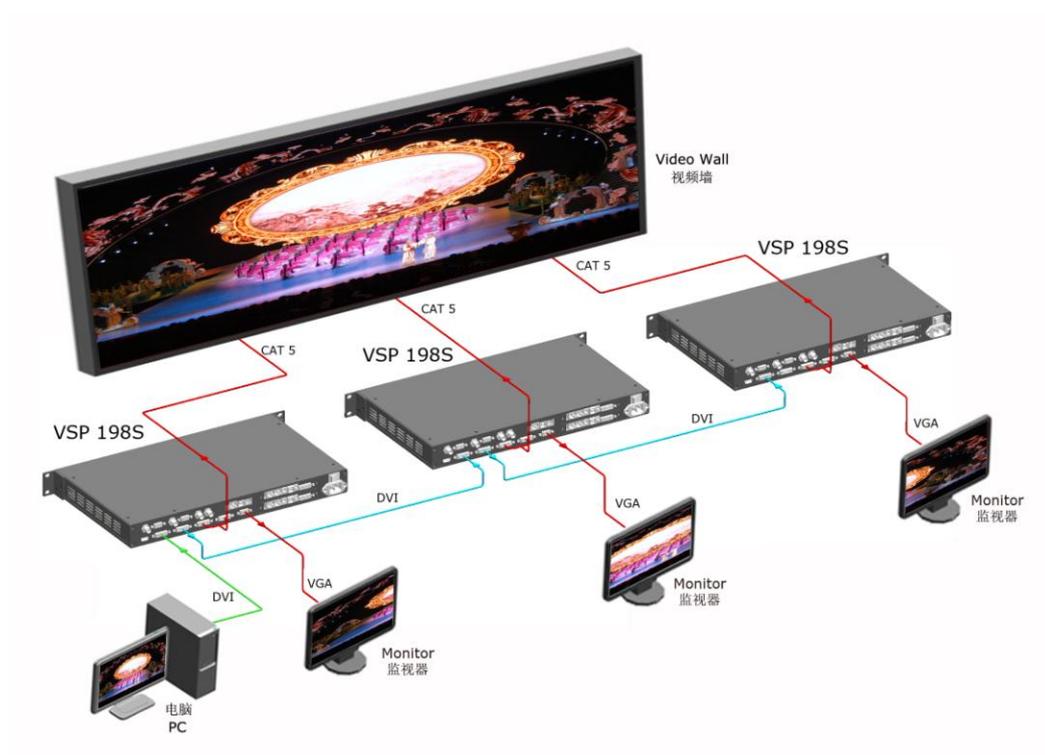
How to Set up the Size and Position of the Single Image

Push the **SCALE** button, and enter the scale function menus, the OLED module show as follows:

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

```
—>RESET
```

The lights of number button 0~9 turn on, user can adjust the following items by knob or number buttons.

H SIZE: Width setting.

V SIZE: Height setting.

H POS: Horizontal phase setting.

V POS: Vertical phase setting.

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

How to Do Customized Output Resolution

Push the **MENU** button to enter the menu items, turn knob and choose [OUTPUT FORMAT], push knob to confirm and go into the output format menus, OLED module show as following:

STANDARD--Standard resolution.

CUSTOMIZED--Used defined resolution setting.

Push knob and go into <CUSTOMIZED> menu:
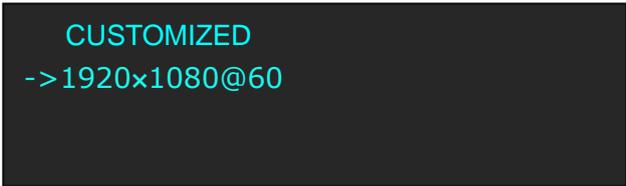
```
    CUSTOMIZED
->1920×1080@60
```

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

```
 CUSTOMIZED
*1536×
```
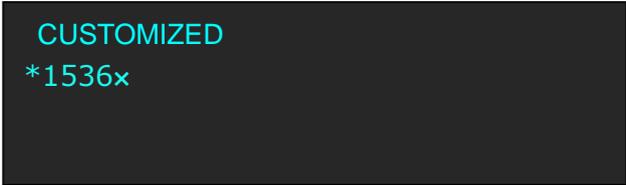
After the digital, push Knob will add *, means before the * is the horizontal size. Same operation for vertical size, for example input1536 as following:

```
    CUSTOMIZED
*1536×1536@
```
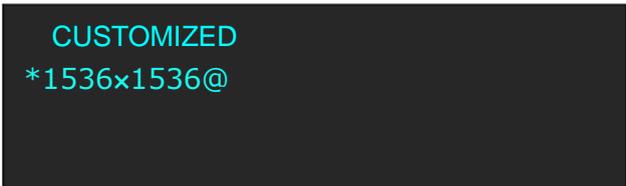
After the digital, push the Knob will add @, means before the @ is the vertical size, and after the @ is the refresh rate. Only digital 50 or digital 60 supports for the refresh rate. Use the digital buttons to finish the settings, . For example to input refresh rate 60.

6. System Setup and Operation

How to Do Customized Output Resolution
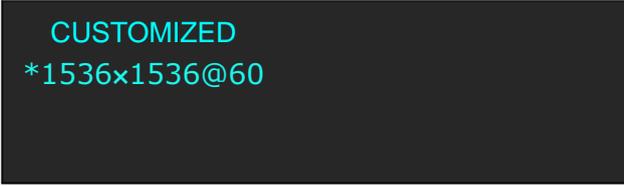
```
  CUSTOMIZED
*1536x1536@60
```

After input all the values, push knob to enable VSP 198CVS to output this resolution. VSP 198CVS will take 5~10 seconds 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 is OK.

How to Realize 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 is1408 x 832.

Operator can defined the VSP 198CVS output resolution from standard output resolution list or customized the output resolution which is higher than1408 x 832. For this application 1440x900 is an example:

Push the **MENU** button to go into the main menu, and turn knob goes to <SCREEM PARAMETERS>, push knob and goes into the <SCREEN PARAMETERS> menus as following:

H SIZE--Horizontal pixels, turn knob or use the digital button to input the value1408.

V SIZE--Vertical pixels, turn knob or use the digital button to input the value 832.

H POS--Horizontal position, default value is 0, set the value as the way of H SIZE and V SIZE.

V POS--Vertical position, default value is 0, set the value as the way of H SIZE and V SIZE.

MODE-- Mode option, choose SCREEN SIZE.

SCREEN SIZE   FS   FULL SIZE

How to Set up Image Zoom

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

Push the **MENU** button to go into the menu items, turn the knob and choose [PICTURE], push the knob to confirm. Turn the knob, and choose "ZOOM", show the menus as following:

V UP--Zoom in vertical and the image will be zoom in to the top direction from its bottom.

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

V UP/DOWN--Zoom in vertical but in both top and down direction from its middle.

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

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

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

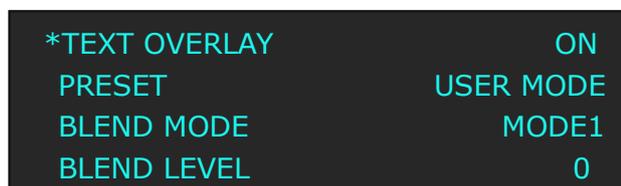**CENTER--**Zoom in 4 corner direction from center.

How to Realize the Text Overlay Setting

1. Push the **MENU** button, turn the knob, choose [TEXT OVERLAY] and

    enter [TEXT OVERLAY] menu items, push the knob to confirm.

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

2. Turn the knob, choose "TEXT OVERLAY" option, choose ON, and

    enable the TEXT OVERLAY function.

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

3. Push the **MENU** button, return to [TEXT OVERLAY], turn the knob,

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

    select BLEND MODE, 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. Push the **MENU** button, return to [TEXT OVERLAY], turn the knob,

    choose ABOVE/BELOW to select the layer position for IMAGE B.

5. Push the **MENU** button, return to [TEXT OVERLAY], turn the knob,

    choose BLEND LEVEL, and set the image display transparency,

    the regulating range is among 0 to 16.

6. Push the **MENU** button, return to [TEXT OVERLAY], turn the knob,

    choose the color value:

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

6. System Setup and Operation

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

There are 66 kinds of test patterns for VSP 198CVS. Push the **MENU** button and go into the menu items, turn the knob and go to <SYSTEM> menu as following:

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

Push the knob and go into the <SYSTEM> menus. 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 the 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 to 255,   GREEN is from 0 to 255, and BLUE is from 0 to 255.

```
  MODE                 PURE IMAGE
->PURE COLAR                    》



->RED                        255
  GREEN                      255
  BLUE                       255

```

6. System Setup and Operation

How to Realize Test Pattern Output and Settings

TEST PATTERN: Push knob and go into the menu items, there are 66 kinds of test patterns. If choose AUTO SWITCH, VSP 198CVS will output all the test patterns one by one, and the interval between is 1 to10S.

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

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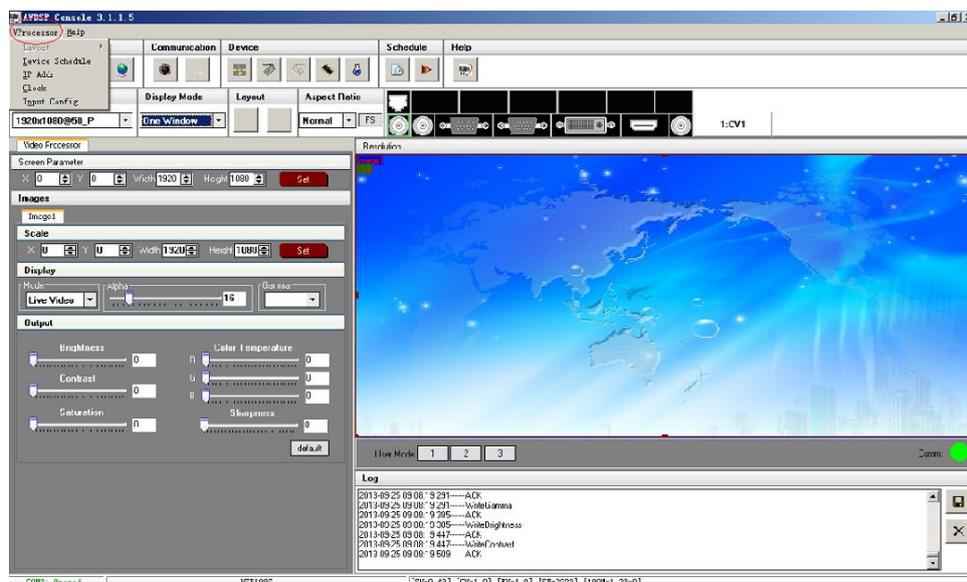
How to Set up the Playlist

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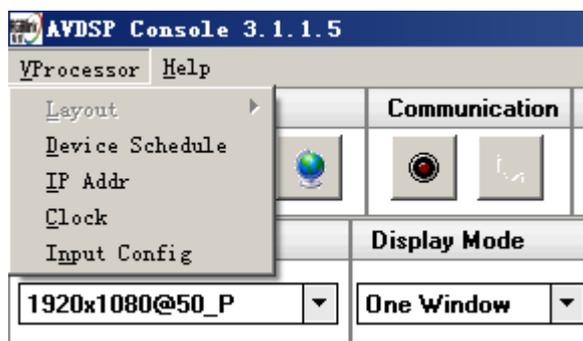
Users can setup up to 10 timing operation in the schedule.

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

software.

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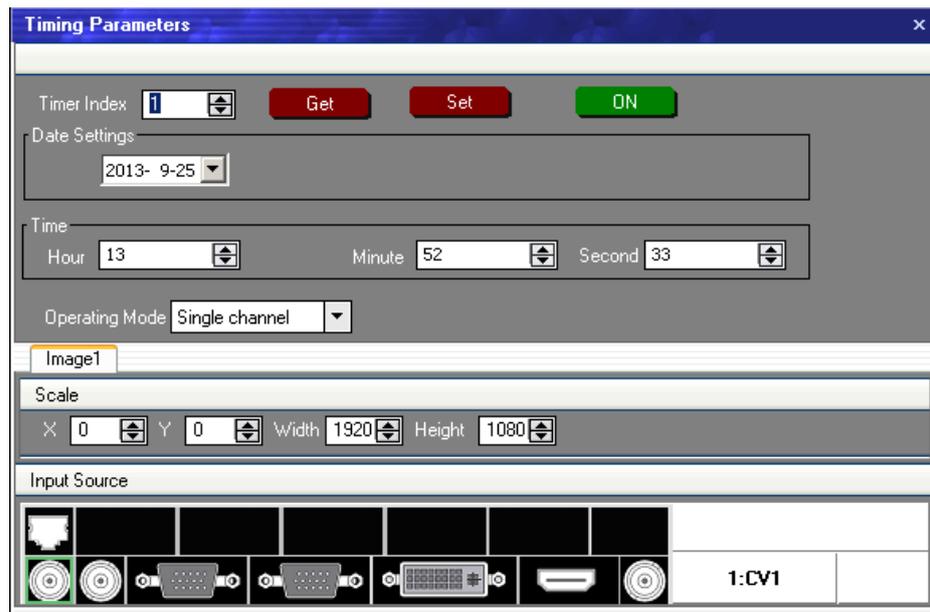
shown as follows:

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 Out

Black out 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:

Push 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 198CVS processor (as long as the router's network ports can connect to, user can place multi pieces of VSP 198CVS).

Step one: LAN physical connection. Connect VSP 198CVS and router with network cable, then connect computer and router with network cable also, use the LAN port of router, LAN port is used for connecting to outer net. Sketch map as below:
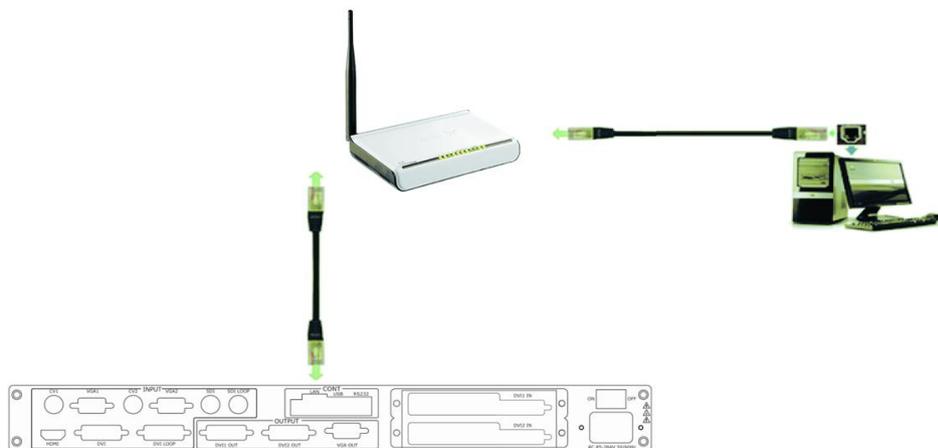
Step two: IP address setting (processor's default IP address is 192.168.0.100)

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 198CVS.

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.

Push the **MENU** button, 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 198CVS via windows control software.

Method two: Change router's gateway.

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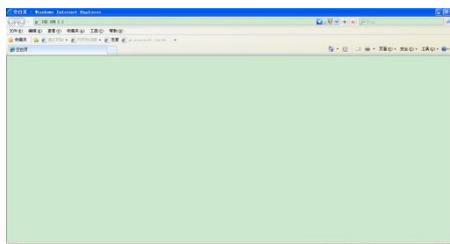
Type in default account and code (please refer to the router user manual for the information).

6. System Setup And Operation

How to Realize LAN Remote Control Settings

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".

Save the setting and restart the router, then user can directly control on VSP 198CVS via windows control software.

How to Save the Parameter

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

1. Push the **MENU** button, the button light is on, and enable the SAVE function.
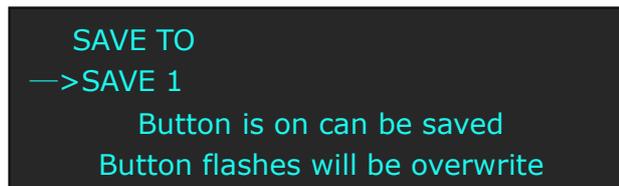
```
SAVE TO
—>SAVE 1
         Button is on can be saved
     Button flashes will be overwrite
```

2. Turn the knob, and choose the position that will save, push the knob to confirm.

3. The figure: 1, 2, 3, 4, 5, 6, 7, 8, 9, 0 down of the buttons means SAVE1~10, user can push any button on to save. For example, save to SAVE 2, push button 2, the OLED panel will show as follows after saving.

```
SAVE TO
—>SAVE 2   FINISHED!
         Button is on can be saved
     Button flashes will be overwrite
```

4. Again push the **MENU** button, the button light is off, and disable the SAVE function.

6. System Setup and Operation

How to Load the Saved Parameter

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

1. Push the **LOAD** button, the button light is on, and enable the LOAD function.

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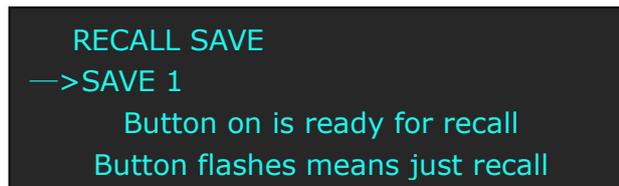
2. Turn the knob, and choose the position that will load, push the knob to confirm.

3. Again push the **LOAD** button, the button light if off, and disable the LOAD function.

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

Push the **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

Push the **SCALE** button in the processor and knob to adjust the actual screen size of the screen, including the "H SIZE", "V SIZE", "H POS" and "V POS", push 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 height, choose the resolution to be bigger than screen width by button **MENU** under OUTPUT RES, and touch knob to confirm.

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, push the **MENU** button, and choose "ADJUST" 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, save to the corresponding channel after setting up, save to SAVE1 default.

All Key Lights Light Simultaneously

Check if dial switches are normal

Shut the power, check if the two red dial switches are upward. Reboot if they downward, and reboot. The red dial switches are for 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 (800×60×60, 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, 720p50,720p59.94/60,1080i50,1080i59.94/60,1080p50,10 80p59.94/60,
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 years parts and labor warranty

B. Contact Information

Warranty:

All video products are designed and tested to the highest quality standard and backed by full 3 years 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

- **Tel:** +86-592-5771197
- **Fax:** +86-592-5771202
- **Customer Hotline:** 4008-592-315
- **Websites:**
  - ~ http://www.rgblink.com
  - ~ http://www.rgblink.cn

- **E-mail:** support@rgblink.com

C. Software Upgrade

RGBlink

1. BOOT Upgrade

Connect the device and computer via the serial port, and upgrade with FLASH MAGIC software, the form of the file is ".hex"..

(1) Connect the device and computer with the RJ11 cable.

RJ11

(2) Take the two coding switch to "ON" position as below:

(3) Plug in the power cord, and make sure the device is in normal operation.

(4) Open the programming software, and enter "Flash Magic" interface.

(5) Choose the corresponding serial port, set the baud rate to 115200, choose LPC2368 and load the object files (hex file) of BOOT update program.
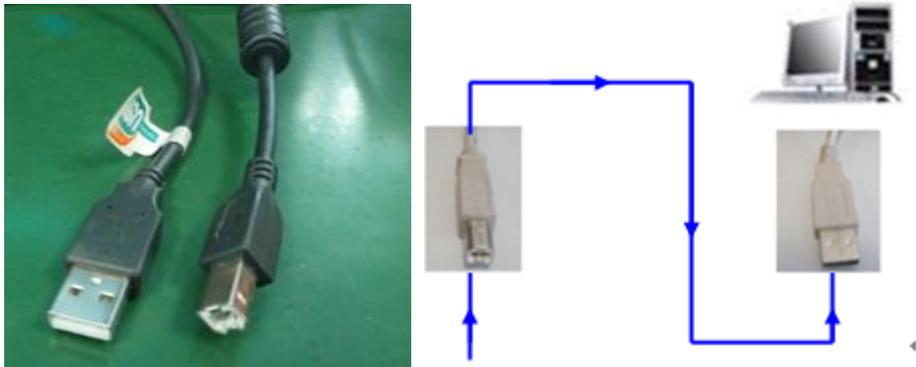
(6) Click START button.

(7) Exit the program, turn off the power, take the two coding switch back, as below restart the equipment power, check if the equipment work normally.

2. Communication Firmware Upgrade

Upgrade by copy the file, the form of the file is: .MCU, and upgrade steps are as follows:

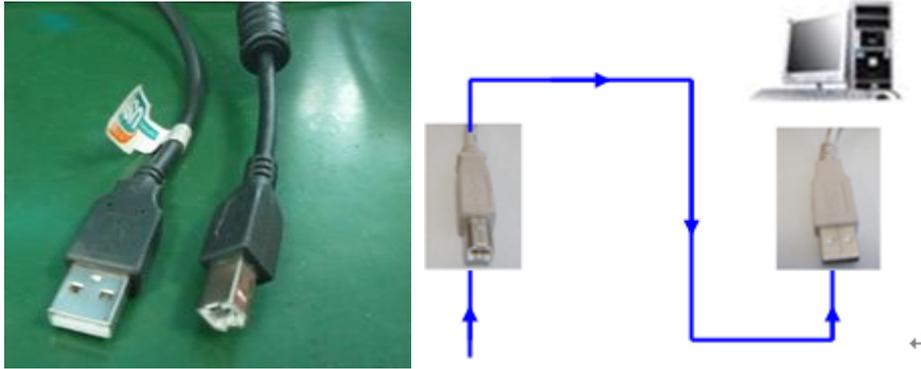(1) Connect the USB interface of VSP198CVS to the computer with a USB cable.

(2) Plug in the power cord, and make sure the device is in normal operation.

(3) Push MENU button, and enter [USB UPDATE] option, operation steps are:

MENU→SYSTEM→USB UPDATA→SEL.

(4) Open the USB drive that plug into the computer, and delete the "firmware. bin" file in the USB drive, then copy the MCU file of VSP198CVS to the USB drive, program loading is complete after the file has been copied.

(5) Restart the device, and enter the menu to check if the version is right, factory reset is completed.

Operation steps are: MENU→SYSTEM→SYSTEM INFO→COM.VERSION.

3. CORE Panel Upgrade

Upgrade by copy the file, the name of the file is: VIDEO.fvb, and upgrade steps are as follows:

(1) Connect the USB interface of VSP 198CVS to the computer with a USB cable.

(2) Plug in the power cord, and make sure the device is in normal operation.

(3) Push MENU button, and enter [USB UPDATE] option, operation steps are:

MENU→SYSTEM→USB UPDATA→SEL.

(4) Open the USB drive that plug into the computer, and delete the "firmware. bin" file in the USB drive, then copy the MCU file "VIDEO.fvb" of VSP198CVS to the USB, program loading is complete after the file has been copied.

(5) Restart the device, and enter the menu to check if the version is right, factory reset is completed. Operation steps are: MENU→SYSTEM→SYSTEM INFO→FIREWARE VER.