CV-500S

HDMI to Component/CVBS & Audio Scaler Converter

User Manual

Full HD 1080   WUXGA ×1920 1200   x.v.Color   7.1 CH AUDIO   RoHS Compliance   FC   CE

CAT-5e/6/7 SINGLE PATENTED

Safety and Notice

The **CV-500S** **HDMI to Component/CVBS & Audio Scaler Converter** has been tested for conformance to safety regulations and requirements, and has been certified for international use. However, like all electronic equipments, the **CV-500S** should be used with care. Please read and follow the safety instructions to protect yourself from possible injury and to minimize the risk of damage to the unit.

- Follow all instructions and warnings marked on this unit.

- Do not attempt to service this unit yourself, except where explained in this manual.

- Provide proper ventilation and air circulation and do not use near water.

- Keep objects that might damage the device and assure that the placement of this unit is on a stable surface.

- Use only the power adapter and power cords and connection cables designed for this unit.

- Do not use liquid or aerosol cleaners to clean this unit. Always unplug the power to the device before cleaning.

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INTRODUCTION

The **CV-500S HDMI to Component/CVBS & Audio Scaler Converter** offers an easy and instant approach for converting digital HDMI to analog Component video (YPbPr)/CVBS with either digital audio (S/PDIF) or analog stereo audio. With this module, YPbPr/CVBS based receivers such as TV can be readily connected to HDMI sources such as DVD players or PS3. This cost effective solution let you keep using your non-HDMI/DVI display to access HDMI or DVI source, and enjoy high definition digital video and audio.

FEATURES

- HDMI 1.3 complinat
- IR remote control
- Remote control via Mini-USB
- OSD control interface
- Input Maximum pixel rate : 165MHz
- Deinterlacer supported
- Supports nosie reduction and video enhancement features
- Video enhancement support
- Over / Under scanning adjustable
- Video H/V mirror supported
- Active video area adjustment supported
- USB firmware upgradable for expanding compatibility
- Wall-mount housing design for easy installation

PACKAGE CONTENTS

- 1x CV-500S
- 1x 5V/2A power supply unit
- 1x IR Remote control
- 1x User Manual
- 1x Installation software CD

SPECIFICATIONS

| Model Name		CV-500S
Technical		
Role of usage		HDMI to Component/CVBS Converter
HDMI compliance		HDMI 1.3
Input Video Maximum Pixel Rate		165 MHz
Output Video Maximum Pixel Rate		74.25MHz
Audio support		Stereo PCM (48KHz)
ESD protection		[1] Human body model — ±19kV [air-gap discharge] & ±12kV [contact discharge] [2] Core chipset — ±2kV
PCB stack-up		4-layer board [impedance control — differential 100Ω; single 50Ω]
Firmware update		Feasible via USB Port
Input		1x HDMI
Output		1x 3RCA [YPbPr] + 1x 3RCA [CVBS&2-CH] + 1x RCA [S/PDIF]
HDMI connector		Type A [19-pin female]
USB connector		Mini B
Mechanical		**CV-500S**
Housing		Metal enclosure
Dimensions [L x D x H]	Model	122 x 81 x 26mm [4.8" x 3.2" x 1.0"]
	Package	175 x 128 x 134mm [6.9" x 5" x 5.3"]
	Carton	662 x 366 x 290mm [2'2" x 1'2" x 1']
Weight	Model	270g [9.5oz]
	Package	520g [18.3oz]
Fixedness		Wall-mounting case with screws
Power supply		5V 2A DC
Power consumption		5 Watts [max]
Operation temperature		0~40°C [32~104°F]
Storage temperature		-20~60°C [-4~140°F]
Relative humidity		20~90% RH [no condensation]

Front Panel
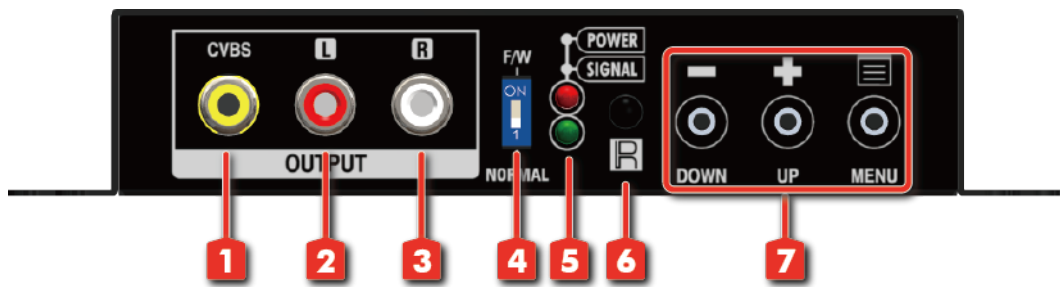
1. **CVBS OUT:** connect to a CVBS display with a CVBS male-male cable here
2. **STEREO AUDIO OUT – R**
3. **STEREO AUDIO OUT – L**
4. **DIP SWITCH:** For firmware update

   ON [⬆]: firmware update mode

   OFF [⬇]: normal mode
5. **LED INDICATOR:**

   [green]: signal indicator LED

   [red]: power indicator LED.
6. **IR SENSOR:** IR sensor for receiving the IR commands from IR remote
7. **PUSH BUTTON**

   [LEFT]: Down Button

   [MID]: Up Botton

   [RIGHT]: Menu/Enter Button

Rear Panel
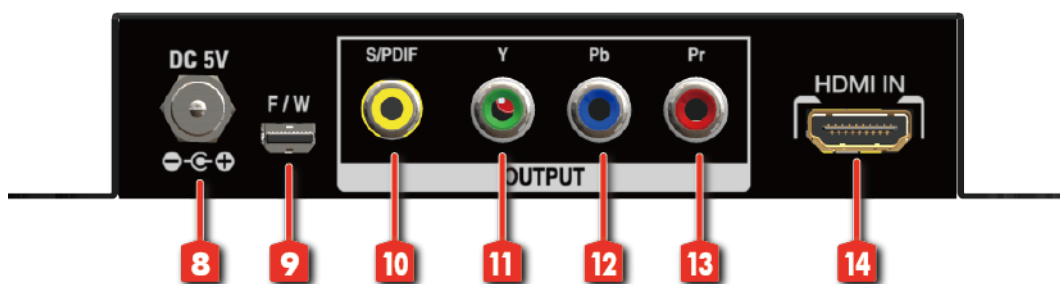
8. **+5V DC:** Interlocking power jack for 5V DC power supply unit
9. **Mini USB:** F/W update & control port
10. **S/PDIF AUDIO OUT:** connect to digital S/PDIF audio speaker
11. **COMPONENT – Y OUTPUT**
12. **COMPONENT – Pb OUTPUT**
13. **COMPONENT – Pr OUTPUT**
14. **HDMI IN:** Connect to a HDMI source
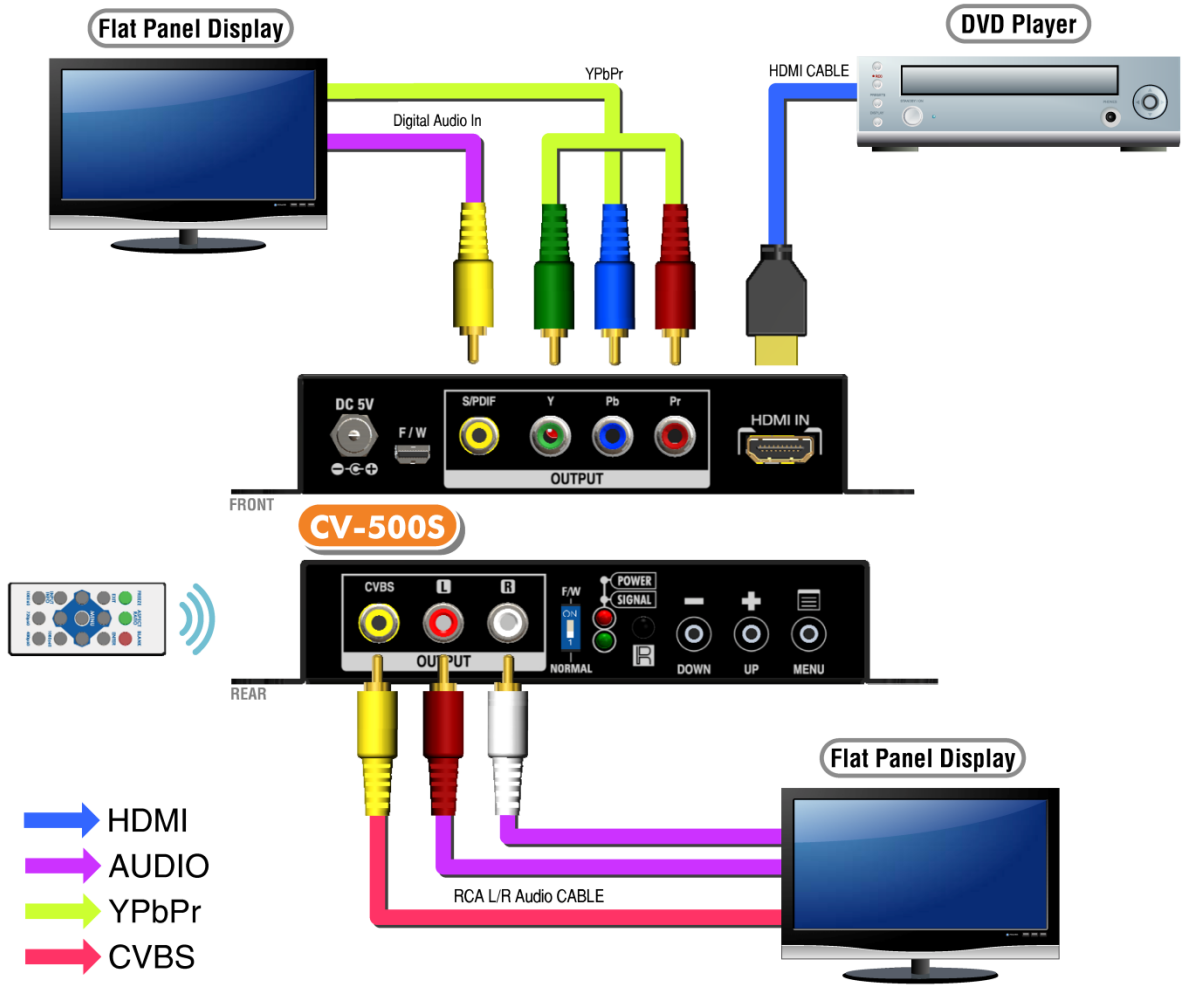
OSD MENU

1.Output Setup	Out Res.	
	Output Mode	**YCbCr422**
	Default Pattern	Disable, White, Cross, Hatch, Color, Gray, Windows, H-Ramp, W-HRamp, W-VRamp, Diagonal
	EDID Audio Ch#	2ch, 7.1ch
2.Image	Contrast	0~255 of Contrast Level
	Brightness	0~255 of Brightness Level
	Saturation	0~255 of Saturation Level
	Hue	0~255 of Hue Level
	B/W Extension	Off, On
	Color Tone	Off, Skin, Green
	Edge Enhance	Typ, Mid, Max, Off
	Sharpness	0~127 of Sharpness Level
3.Adjustment	Under/Over Scan	-50%~50% of Scan Level
	Aspect Ratio	16:9, 4:3
	H-Mirror	Off, On
	V-Mirror	Off, On
	H-Shift	-100~100 of H-Shift Level
	V-Shift	-50~50 of V-Shift Level
4. System	Input Res. Info	
	Firmware Version	
	Factory Reset	

Method A: Push-in Button

Method B: IR Remote Control

Button	Function
FREEZE	Freeze video
ASPECT RATIO	Aspect ratio change
BLANK	Blank video
EXIT	Exit OSD
ENTER	Enter key
UP	Up key
LEFT	Left key
RIGHT	Right key
DOWN	Down key
MENU	Menu on
INPUT INFO	Source resolution information
1080p60	Select 1080p60 output resolution
1080i60	Select 1080i60 output resolution
720p60	Select 720p60 output resolution
480p60	Select 480p60 output resolution
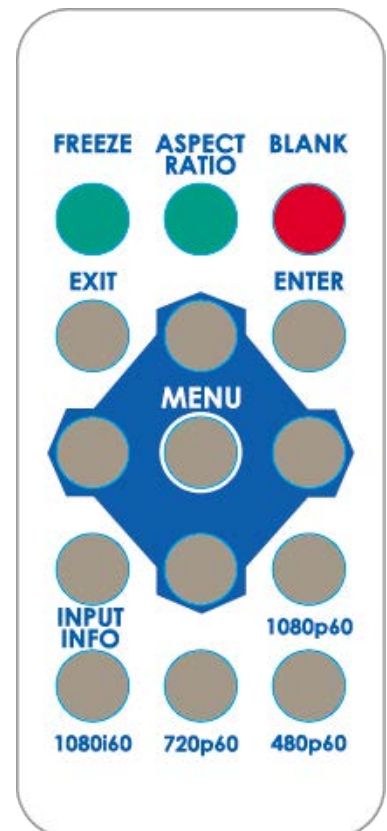
Method C: IR Remote Control through Mini-USB port
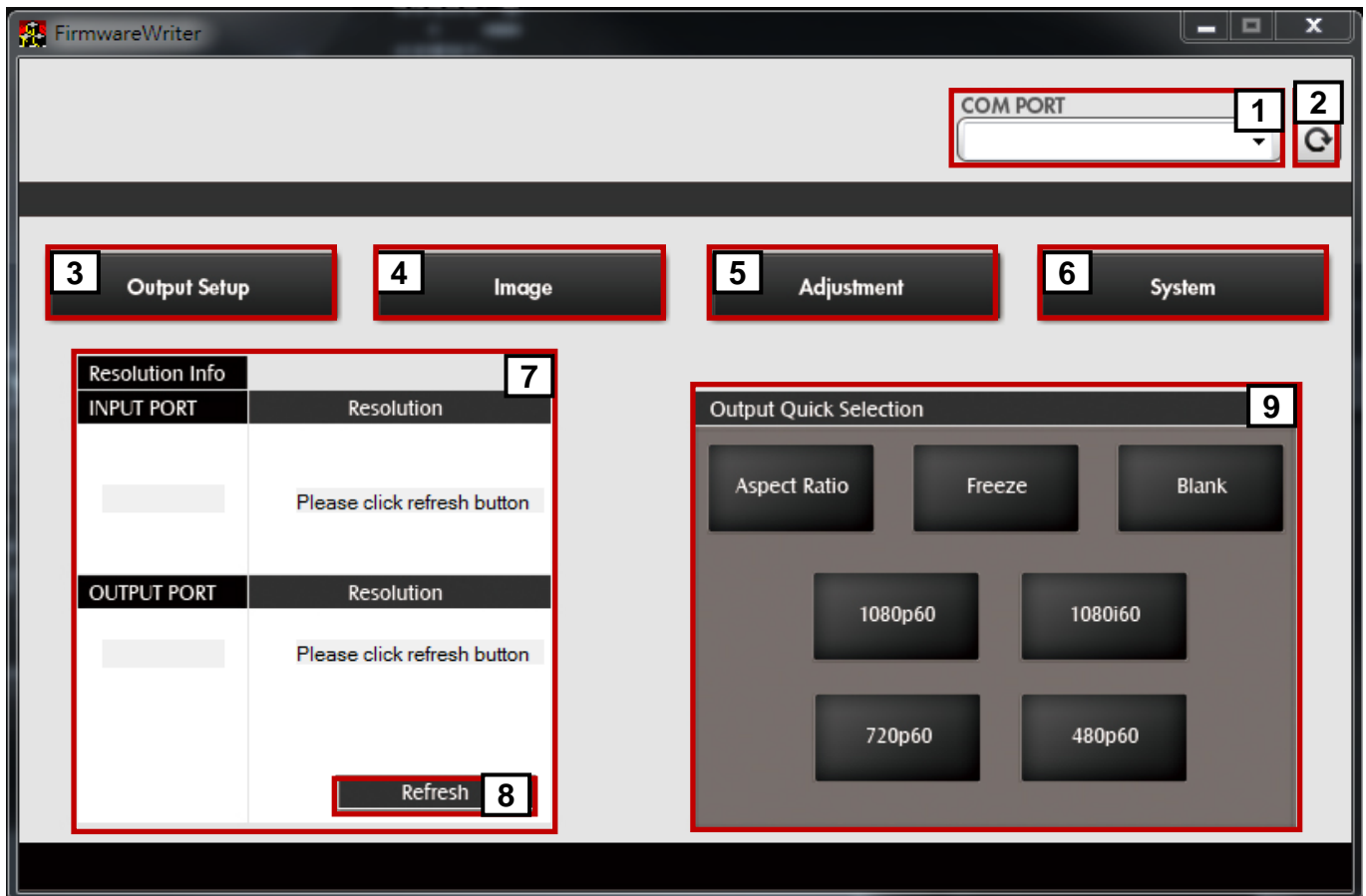
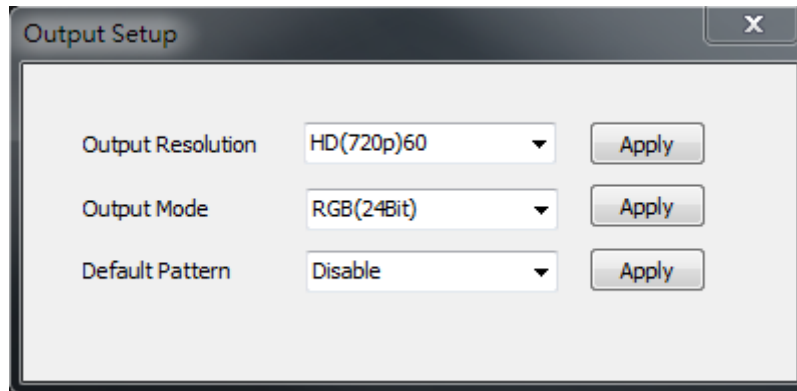| 1	COM Port Selection
2	COM Port Detection Button
3	Output Setup Button
4	Image Button
5	Adjustment Button
6	System Button
7	Input / Output Resolution Info
8	Refresh Input / Output Resolution Info Button
9	Output Quick Selection Button

1. COM Port Selection
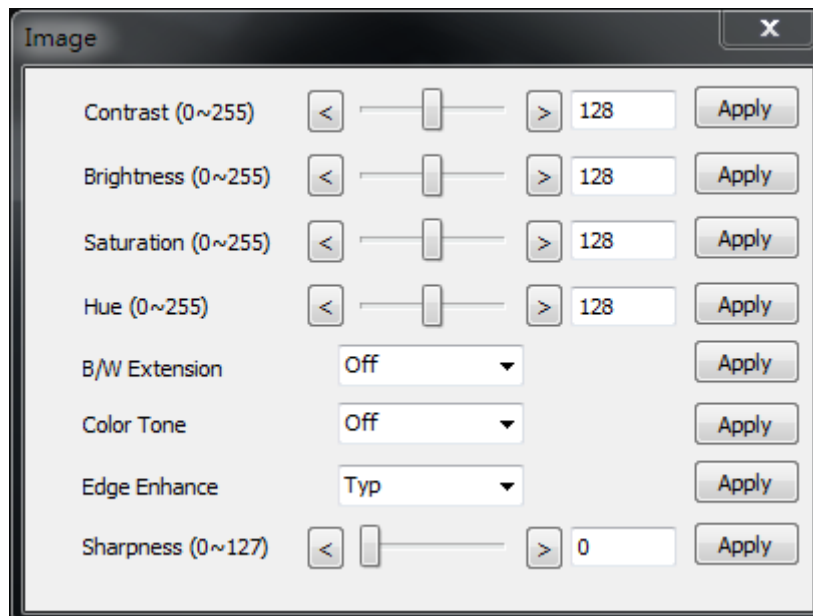
Please select the application COM PORT

2. COM Port Detection Button
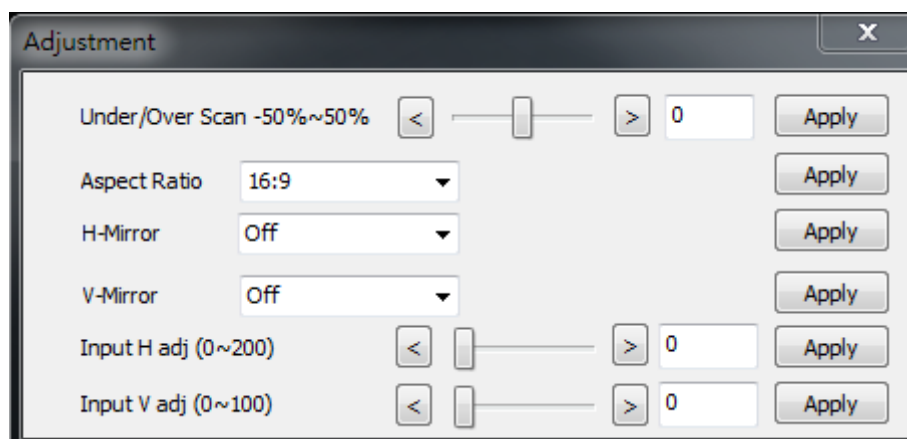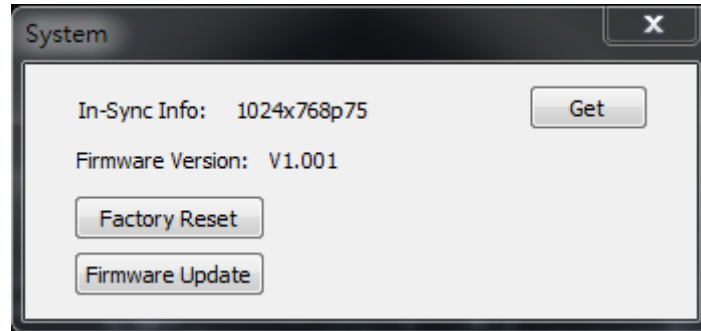Click this button to detect the COM PORT

3. Output Setup Button

Output Setup

Output Resolution	HD(720p)60 ▼	Apply
Output Mode	RGB(24Bit) ▼	Apply
Default Pattern	Disable ▼	Apply

4. Image Button

Image

Contrast (0~255)	< ───□──── >	128	Apply
Brightness (0~255)	< ───□──── >	128	Apply
Saturation (0~255)	< ───□──── >	128	Apply
Hue (0~255)	< ───□──── >	128	Apply
B/W Extension	Off ▼		Apply
Color Tone	Off ▼		Apply
Edge Enhance	Typ ▼		Apply
Sharpness (0~127)	< □──────── >	0	Apply

5. Adjustment Button

Adjustment

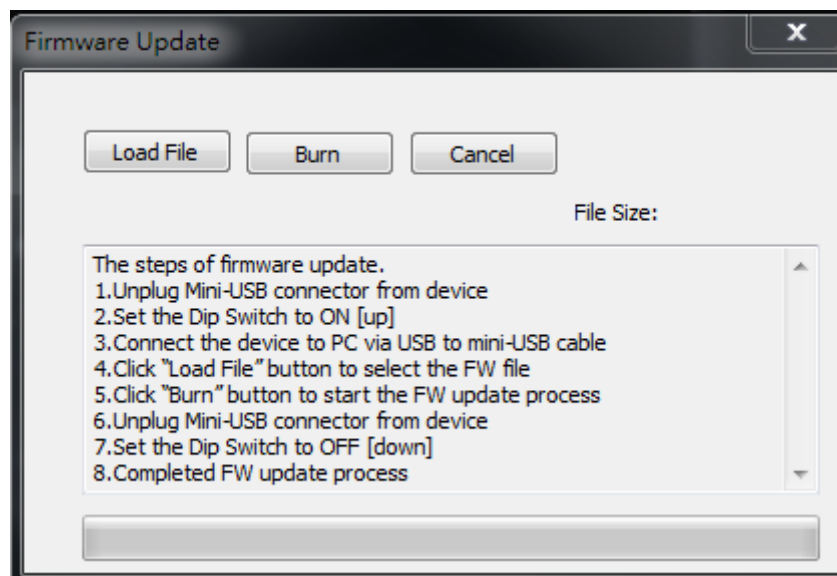|			
Under/Over Scan -50%~50%	< ───□──── >	0	Apply
Aspect Ratio	16:9 ▼		Apply
H-Mirror	Off ▼		Apply
V-Mirror	Off ▼		Apply
Input H adj (0~200)	< □──────── >	0	Apply
Input V adj (0~100)	< □──────── >	0	Apply

6. System Button

1) In-Sync Info:
   To view the current input resolution

2) Factory Reset Button

3) Firmware Update Button

The steps of firmware update:
a) Unplug Mini-USB connector from device
b) Set the Dip Switch to **ON [⬆]**
c) Connect the device to PC via USB to mini-USB cable
d) Click the FW Update button on software
e) Click "Load File" button to select the FW file
f) Click "Burn" button to start the FW update process
g) Unplug Mini-USB connector from device
h) Set the Dip Switch to **OFF [⬇]**
i) Completed FW update process

7. I/O Port and Resolution Info

To display the information about the I/O Port and the applied Resolution

8. Refresh Button

To refresh the status of the converter

9. Output Quick Selection Button

Common functions for quick setting

LIMITED WARRANTY

The SELLER warrants the **CV-500S** **HDMI to Component/CVBS & Audio Scaler Converter** to be free from defects in the material and workmanship for 1 year from the date of purchase from the SELLER or an authorized dealer. Should this product fail to be in good working order within 1 year warranty period, The SELLER, at its option, repair or replace the unit, provided that the unit has not been subjected to accident, disaster, abuse or any unauthorized modifications including static discharge and power surges.

Unit that fails under conditions other than those covered will be repaired at the current price of parts and labor in effect at the time of repair. Such repairs are warranted for 90 days from the day of reshipment to the BUYER. If the unit is delivered by mail, customers agree to insure the unit or assume the risk of loss or damage in transit. Under no circumstances will a unit be accepted without a return authorization number.

The warranty is in lieu of all other warranties expressed or implied, including without limitations, any other implied warranty or fitness or merchantability for any particular purpose, all of which are expressly disclaimed.

Proof of sale may be required in order to claim warranty. Customers outside Taiwan are responsible for shipping charges to and from the SELLER. Cables are limited to a 30 day warranty and cable must be free from any markings, scratches, and neatly coiled.

The content of this manual has been carefully checked and is believed to be accurate. However, The SELLER assumes no responsibility for any inaccuracies that may be contained in this manual. The SELLER will NOT be liable for direct, indirect, incidental, special, or consequential damages resulting from any defect or omission in this manual, even if advised of the possibility of such damages. **Also, the technical information contained herein regarding the CV-500S features and specifications is subject to change without further notice**.