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# HD-CONVERTER

## USER MANUAL

### MODEL GBS-8220

### CGA/EGA/YUV TO VGA CONVERTER

VERSION 3.0

2008-11

#### NOTE

The high definition converter GBS-8220 it's professional of game convert. Support all games (Amusement、Playstation、Xbox、wii.....)convert to CRT monitor 、LCD monitor 、PDP monitor..... Auto scan CGA/EGA/YUV signal, Two VGA outputs , output high resolution signal.

#### FEATURES

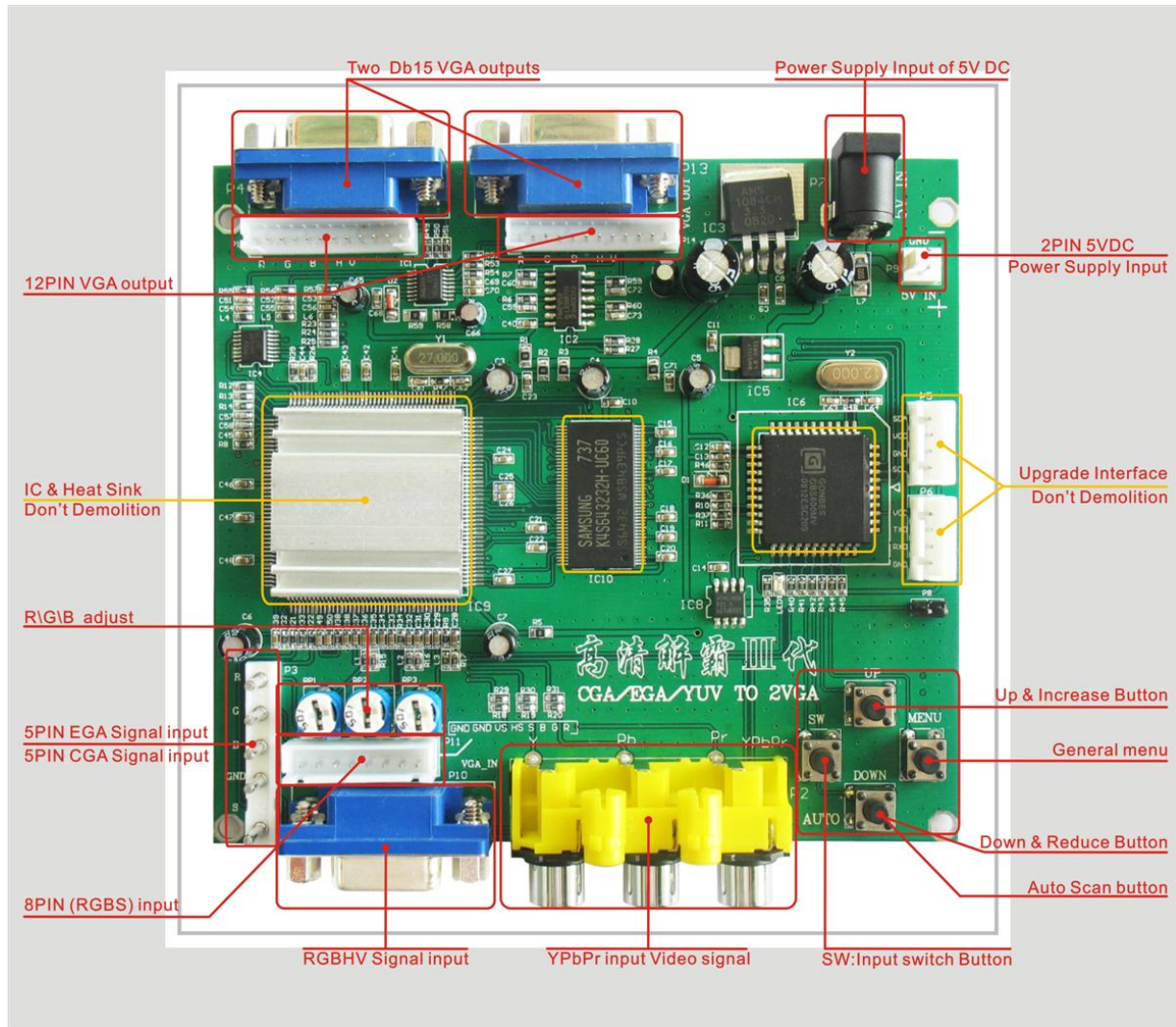
- Supports CGA/EGA/YUV signal input.
- Supports VGA output 640\*480,800\*600,1024\*768,1360\*768
- CGA/EGA signal auto scan(15K,24K,31K)
- YUV signal auto scan(480i,576i,720i,1080i,480p,576p,720p,1080p)
- Chinese and English OSD.
- Supports position control & zoom control.
- True digital 24-bit A/D converter for true 16.7-million color conversion.
- Supports all VGA monitor (CRT、 LCD、 PDP、 PROJECT.....)

#### PACKAGE CONTENTS

Included with the CGA/EGA/YUV to VGA HD-Converter PCB (GBS-8220) will be:

- The main GBS-8220 PCB
- 2-Pin +5VDC Power Cable
- 8-Pin (6 wire) RGB Cable
- This GBS-8220 Guide/Manual (4 pages)

## CONNECT and KEY MAP



## SPECIFICATIONS

Power	DC5V 2A +/- 0.5v		P7 or P9	
Input signal	CGA/EGA	14.5-16.5K	Auto scan	P3 or P11 or P10
		23.5-25.5K 30.5-32.5K		
	RGBHV	30.5-32.5K	Auto scan	P10 or P11
	VGA	30.5-32.5K	Auto scan	P10 or P11
	Ypbpr	480p,576p,720p,1080p	Auto scan	P2
	Ycber	480i,576i,720i,1080i	Auto scan	P2
Output signal	VGA	640*480,800*600 1024*768,1360*768	P4 and P13	
User control	Input Switch, Image Zoom, Image Position, Output Resolution ,R\G\B gain adjust.		Menu Key R\G\B VR	
Dimensions	115*105*20mm			

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## BASIC SETUP/INSTALL

**STEP 1:** Connect the VGA output monitor to P3 (VGA OUT) of the GBS-8220 Converter PCB. If connecting a second VGA monitor, connect the second monitor to P4 of the GBS-8220 converter PCB.

**STEP 2:** Connect the incoming CGA, EGA, VGA, or component video source to the GBS-8220 converter PCB. Most new JAMMA harnesses include the special 5-pin white RGB connector. Below is a picture of this common RGB video connector found on newer JAMMA harnesses. If you have this type RGB connector then simply plug this connector directly into P3 of the GBS-8220 converter PCB.



<-- 5-Pin RGB Video Connector Sample

If you do not have the simple RGB connector shown above, the GBS-8220 converter PCB includes a RGB cable which can be used to adapter your CGA or EGA video source to the GBS-8220 input. Since the output of the game or device you want to converter can vary you will need to figure out what the RGB output pinout is. Once the video wires from the game/device you intend to converter are known, connect/splice to the included 8-pin (6 wires) RGB cable.

- Red Video to Red Wire/P11 (R)
- Green Video to Green Wire/P11 (G)
- Blue Video to Blue Wire/P11 (B)
- H. Sync to Gray Wire/P11 (S)
- V. Sync to Yellow Wire/P11 (VS)
- Ground Ref to Black Wire/P11 (GND)

Connect the 8-pin (6 wires) RGB cable to P11 on the GBS-8220 converter PCB.

**STEP 3:** Connect the GBS-8220 PCB to your +5VDC Power Source by connecting the RED wire of the power cable to the +5VDC source and the BLACK wire to the DC GROUND source. Then connect the 2-pin connector of the power cable to the P9 on the GBS-8220 converter PCB.

*The power requirement for the GBS-8220 is +5VDC +/- .5VDC @ 2A. If the power supply cannot put out 2AMP then it may cause problems with the on-board converter CPU. Usually this converter PCB would be connected directly to an arcade game power supply which puts out +5VDC up to 15A current.*

When powering up the GBS-8220 converter PCB, after about 5 seconds try pressing the 'AUTO' button on the converter PCB. This should self-adjust and lock-in the picture on your VGA output monitor.

If no good then remove the P11 wire harness from the converter P11 connector. Then move the GRAY WIRE over one position on the connector (so it is next to the YELLOW Wire). Then connect back into the converter and power up then try the AUTO button again.

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## MENU CONTROL

- “MENU” open OSD menu, and enter.
- “UP” up and increase.
- “DOWN/AUTO” down and reduce.
  - Press this key auto scan CGA/EGA signal
  - Press this key over 5 second and release reset system
  - \*\* (this operation is invalid when you open OSD menu)
- “SW” switch input signal Ypbpr/RGBS/RGBHV.
  - \*\* (this operation is invalid when you open OSD menu)
- “Clamp sp” & “Clamp” please don’t adjust this button , excepting the monitor have black item, or picture discoloration.
- More functions control please look to OSD to operation.

## FAQ

### No signal on you monitor

- please check input and output cable, make sure all cable it’s connected. And make sure power it’s on.
- Display on you monitor it’s “No signal” please press “SW” to switch input signal.

### Input not supports

- when you monitor display “input not supports” maybe you need change to low resolution .
- Please press “DOWN/AUTO” over 5 second and release. system reset to 800\*600 output.

### Image not full on you screen

- please enter menu adjust image position and zoom.

### Image shake or freeze

- please press “DOWN/AUTO”, system auto scan input signal and restore image.

### Have black item on screen, or all screen it’s too black, or picture discoloration.

- please adjust “Clamp sp” and “Clamp st”, please keep “Clamp st” less than “Clamp sp”.
- advice “Clamp st” SET “03” , “Clamp sp” SET “04”.

### Image color not right

- please adjust R\G\B VR.

