

**CGA to EGA to VGA
Converter (Multi) ID#425**



Operation Manual

Introduction

The CGA to EGA to VGA Converter (Multi) is a device designed to convert any RGB monitor in a multi frequency monitor, by elaborating the input signal and making it visible on a monitor working at a different horizontal scanning frequency.

Features

An all purpose converter, can convert any signal from CGA, EGA, or VGA into any other signal; CGA, EGA, or VGA. The converter features an easy to use OSD menu . LED lights will tell you which output is currently in use.

The Converter has two 15 pin D-Sub connectors for one input and one 15 pin D-Sub connector for output, as well as 2 6 pin RGB connectors; one for input and one for output. The RGB connectors have pins for both horizontal and vertical sync.

Power Input +12 VDC @ 0.3A

Dimensions: 210 x 175 x 33mm

Weight: 0.750kg

Connection Combinations

<i>Input signal</i>	→	<i>Output Signal</i>
RGB Analog @ 15.750Hkz	→	RGB Analog @ 25Hkz
RGB Analog @ 15.750Hkz	→	RGB Analog @ 31.5Hkz(VGA)
RGB Analog @ 25Hkz	→	RGB Analog @ 15.750Hkz
RGB Analog @ 25Hkz	→	RGB Analog @ 31.5Hkz(VGA)
RGB Analog @ 31.5Hkz(VGA)	→	RGB Analog @ 15.750Hkz
RGB Analog @ 31.5Hkz(VGA)	→	RGB Analog @ 25Hkz

Operating Functions and Controls

The CGA to EGA to VGA Converter (Multi) has a set of controls available through the On Screen Display (OSD) menu.

The “**SEL. MENU**” button allows you to select and adjust the set of controls, some of them are factory set and should not be changed.

Pushing the “**SEL. MENU**” button will make the OSD menu appear on the screen showing the name of the active control and its actual value. If the OSD window background is red ; pushing the “+” and “-” will scroll the list of controls in the window. If the background is green, the value of the listed control may be increased by pressing the “+” and “-” buttons.

You can toggle between the red and green backgrounds by pushing the “**SEL. MENU**” button.

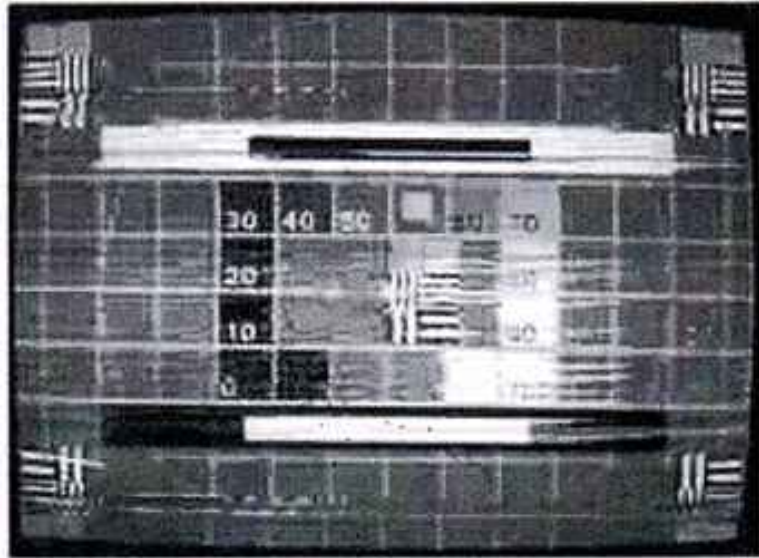
The following controls appear on the OSD:-

1. Read only Vertical (not adjustable)
2. Read only Horizontal (not adjustable)
3. SYNC Adj (user adjustable)
4. Horizontal Shift (factory preset)
5. Vertical Shift (factory preset)
6. Horizontal Width (factory preset)
7. Vertical Width (user adjustable)
8. Clock Skew (factory preset)
9. Contrast (user adjustable)
10. Interlace Adj (user adjustable)

NOTE: Controls where factory preset is written are set for the best result and should not be modified unless by specific authorization from the factory.

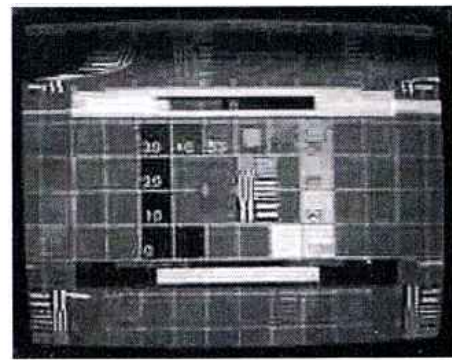
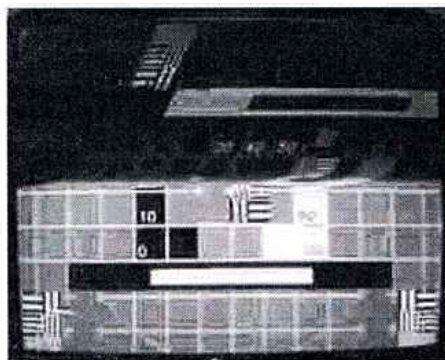
Use of User Adjustable Controls

SYNC ADJ – may be necessary to modify the set value if the displayed picture appears as the following:-



To modify the value, select SYNC ADJ on the OSD window, then turning the background to green, move the value a few steps up or down using the “+” or “-” buttons until the picture is properly set. At this point wait for OSD window turn off automatically so that the new value will be saved.

VERT WIDTH – Used to set the vertical width of the picture. This may be necessary when the set value of the picture on the screen looks like the following:-



To modify the value, select the VERT WIDTH on the OSD, then turn the background green and move the value a few steps up or down using the “+” or “-” buttons

Installation

Procedure

Make sure all equipment is turned off,

Connect one of the two input connectors, marked **RGB IN** and **VGA IN** to the input signal source.

Connect one of the two output connectors, marked **RGB OUT** and **VGA OUT** to the monitor that will be used.

By using the two wiring harnesses supplied, connect the CGA to EGA to VGA Converter (Multi) to a +12V DC power source.

Note: **Yellow** wire must be connected to the power supply(positive), **BLACK** wire must be ground(negative).

Turn on the Equipment.

The first step is to identify the output monitor. When you turn the unit on, one of the three red LEDs is on. If the frequency written at this LED side is corresponding to the output monitor frequency, no action is needed and the system is ready to work. If the frequency is not corresponding, go to the next step.

Push “**SEL. MONITOR OUT**” button for a few second and the next led will start blinking; read the frequency corresponding to this LED. If this is not the desired frequency, push the button again and the next LED should start Blinking. Now the Frequency should be correct.

Wait till the LED stops blinking and then the system will be ready to use.

The picture on the monitor should be stable.

If necessary, use the monitors controls to fine tune the picture.

Specifications

The following tables are listed for each control and factory setting. Each table refers to a different type of monitor connected to the CGA to EGA to VGA Converter (Multi) output and for each table different configurations of input signals.

Output monitor: RGB @ 15kHz

	VGA	DOS	25kHz	15kHz N I(*)	15kHz 50Hz I(*)	15kHz 60Hz I(*)
SYNC ADJ	D	D	D	D	D	D
HOR SHIFT	D	28	2F	6	1B	B
VERT SHIFT	FF	DA	10C	FB	131	105
HOR WIDTH	320	384	420	320	3B0	38E
VERT WIDTH	18E	1BE	27E	37B	3EB	3B7
CLOCK SKEW	10	11	13	E	12	18
CONTRAST	34	34	34	34	34	34
INTERLACE ADJ	7F	7F	7F	7F	7F	7F

Output monitor: RGB @ 25kHz

	VGA	DOS	25kHz	15kHz N I(*)	15kHz 50Hz I(*)	15kHz 60Hz I(*)
SYNC ADJ	10	10	10	10	10	10
HOR SHIFT	25	24	2C	4	B	6
VERT SHIFT	196	154	19C	185	1E4	18D
HOR WIDTH	320	384	420	320	3B0	38E
VERT WIDTH	274	2CA	290	4D7	626	574
CLOCK SKEW	D	3	17	11	D	11
CONTRAST	34	34	34	34	34	34
INTERLACE ADJ	7F	7F	7F	7F	7F	7F

Output monitor: VGA

	VGA	DOS	25kHz	15kHz N I(*)	15kHz 50Hz I(*)	15kHz 60Hz I(*)
SYNC ADJ	E	E	E	E	E	E
HOR SHIFT	4	A	5	4	4	16
VERT SHIFT	5	3	6	200	5	6
HOR WIDTH	320	324	420	320	3B0	38E
VERT WIDTH	40E	37D	57D	65E	75E	77A
CLOCK SKEW	4	14	5	11	0	ID
CONTRAST	34	34	34	34	34	34
INTERLACE ADJ	7F	7F	7F	7F	7F	7F

(*) "N I" "not interlaced", "I" means "interlaced".