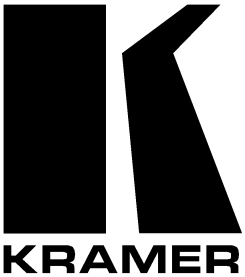
Kramer Electronics, Ltd.



USER MANUAL

Models:

VP-715, ***Video To SXGA / HD Scaler***

VP-716, ***Video To SXGA / DVI / HD Scaler***

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This addendum adds the following information to the user manual:

Caution – No operator-serviceable parts inside unit.

Warning – Use only the Kramer Electronics input power wall adapter that is provided with this unit[1].

Warning – Disconnect power and unplug unit from wall before installing or removing device or servicing unit.

1 For example: model number AD2512C, part number 2535-000251

1 Introduction

Welcome to Kramer Electronics (since 1981): a world of unique, creative and affordable solutions to the infinite range of problems that confront the video, audio and presentation professional on a daily basis. In recent years, we have redesigned and upgraded most of our line, making the best even better! Our 350-plus different models now appear in 8 Groups[1], which are clearly defined by function.

Congratulations on purchasing your Kramer **VP-715** *Video To SXGA / HD Scaler*, and/or **VP-716** *Video To SXGA / DVI / HD Scaler*, which are ideal for the following typical applications:

- Presentation and conference room systems, board rooms and auditoriums
- Production studios, rental and staging, and multimedia applications

The package includes the following items:

- **VP-715** *Video To SXGA / HD Scaler*, and/or **VP-716** *Video To SXGA / DVI / HD Scaler*
- Power adapter
- This user manual[2]

2 Getting Started

We recommend that you:

- Unpack the equipment carefully and save the original box and packaging materials for possible future shipment
- Review the contents of this user manual
- Use Kramer high performance high resolution cables[3]

3 Overview

This section describes the following:

- **VP-715** *Video To SXGA / HD Scaler* and the **VP-716** *Video To SXGA / DVI / HD Scaler* (see section 3.1)
- How to achieve the best performance (see section 3.2)

1 GROUP 1: Distribution Amplifiers; GROUP 2: Video and Audio Switchers, Matrix Switchers and Controllers; GROUP 3: Video, Audio, VGA/XGA Processors; GROUP 4: Interfaces and Sync Processors; GROUP 5: Twisted Pair Interfaces; GROUP 6: Accessories and Rack Adapters; GROUP 7: Scan Converters and Scalers; and GROUP 8: Cables and Connectors

2 Download up-to-date Kramer user manuals from the Internet at: http://www.kramerelectronics.com

3 The complete list of Kramer cables is on our Web site at http://www.kramerelectronics.com

3.1 VP-715/6 Scaler

The Kramer **VP-715** and **VP-716** are high quality converters for up-scaling composite video, s-Video (YC) and component video to VGA and HD, with both analog and digital outputs (the **VP-716** only[1]).

In particular, the **VP-715** and **VP-716**:

- Can scale to VGA (640x480), SVGA (800x600), XGA (1024x768), WXGA (1366x768), and SXGA (1280x1024) resolutions, with a wide range of refresh rates
- Can also scale to HD resolutions (480p, 576p, 720p and 1080i)[2] at refresh rates of 50Hz and 60Hz (user-selectable)
- Has ProcAmp[3] control for video adjustment
- Lets you select (in all resolutions) whether to work in RGB or in YUV colorspace
- Produces the scaled output on an HD-15 connector (VGA), on 3 RCA connectors (HD), and on a DVI-D connector (the **VP-716** only)
- Has a user-friendly, menu-driven, OSD (on-screen display) interface for control, as well as dedicated buttons for input and resolution selection
- Is fed from an external 12V DC source[4]
- Is housed in a half 19" 1U rack-mountable enclosure

3.2 Achieving the Best Performance

Achieving the best performance means:

- Connecting only good quality connection cables, thus avoiding interference, deterioration in signal quality due to poor matching, and elevated noise levels (often associated with low quality cables)
- Avoiding interference from neighboring electrical appliances
- Positioning your **VP-715 / VP-716** away from moisture, excessive sunlight and dust

4 Your VP-715 / VP-716 Scaler

Figure 1 and Figure 2 illustrate the **VP-715** and **VP-716**, respectively. Table 1 defines the **VP-715** and **VP-716**.

1 The VP-715 has an analog output only

2 High definition television (HDTV) resolutions

3 Processing amplification enables adjustment of different video signal parameters

4 Making it suitable for field operation

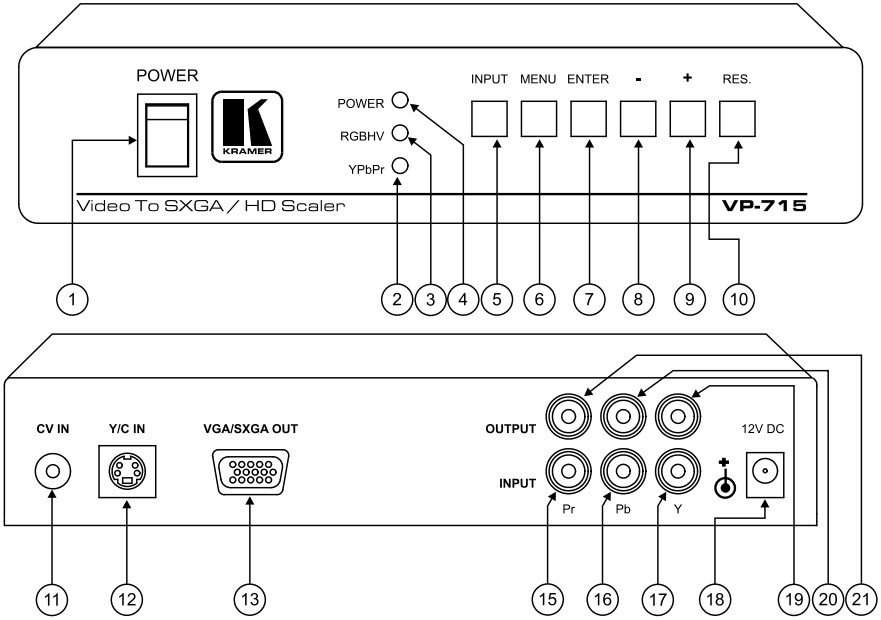

Figure 1: VP-715 Video To SXGA / HD Scaler

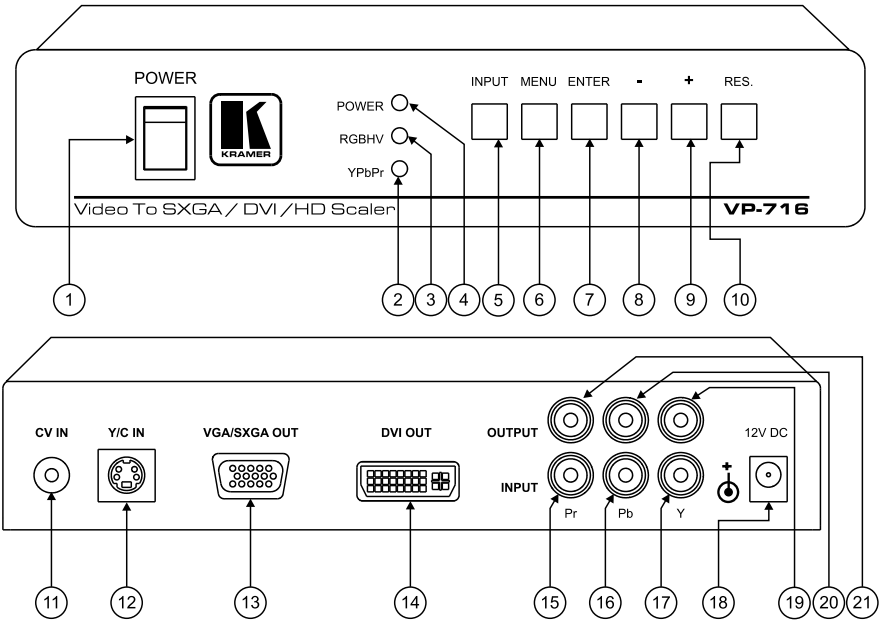

Figure 2: VP-716 Video To SXGA / DVI / HD Scaler

Table 1: VP-715 / VP-716 Scaler Features

#	Feature		Function
1	*POWER* Switch		Illuminated switch for turning the unit ON or OFF
2	*YPbRr* Orange LED		Lights when outputting an YPbRr signal[1]
3	*RGBHV* Red LED		Lights when outputting an RGBHV signal[2]
4	*POWER* Green LED		Lights when receiving power
5	*INPUT* Button		Press to select the source signal (Composite, s-Video, YcbCr, or RGsB)
6	*MENU* Button		Displays the OSD Menu screen[3] (see Table 2)
7	*ENTER* Button		Moves to the next level in the OSD screen
8	- Button		Decreases the range by one step in the OSD screen or navigates up one step in the OSD screen
9	+ Button		Increases the range by one step in the OSD screen or navigates down one step in the OSD screen
10	RES. Button		Selects the output resolution[4]
11	*CV IN* RCA Connector		Connects to the composite video source
12	*Y/C IN* 4p Connector		Connects to the s-Video source
13	*VGA/SXGA OUT* HD15F Connector		Connects to the *VGA/SXGA* (analog interface) acceptor[5]
14	*DVI OUT* Connector (**VP-716** only)		Connects to the DVI-D (digital video interface) graphics acceptor
15	Component *INPUT*	Pr RCA Red Connector	Connects to the component video source
16		Pb RCA Blue Connector	
17		Y RCA Green Connector	
18	12V DC		+12V DC connector for powering the unit
19	Component *OUTPUT*	Y RCA Green Connector	Connects to the component video acceptor
20		Pb RCA Blue Connector	
21		Pr RCA Red Connector	

1 Output is on the YPbPr RCA connectors (items 19, 20, and 21 in Figure 1, Figure 2 and Table 1)

2 Output is on the VGA / SXGA HD15 connector (item 13 in Figure 1, Figure 2 and Table 1)

3 Or returns to the previous level in the OSD screen

4 Can scale to VGA (640x480), SVGA (800x600), XGA (1024x768), WXGA (1366x768), and SXGA (1280x1024) resolutions, with a wide range of refresh rates. Can also scale to HD resolutions (480p, 576p, 720p and 1080i) at refresh rates of 50Hz and 60Hz (user-selectable)

5 Connects to the video acceptor (for example, Plasma display, projector or monitor) that displays the scaled output (with the OSD superimposed over it)

5 Connecting the VP-715 / VP-716

This section describes how to connect[1] the **VP-715** *Video To SXGA / HD Scaler*, and the **VP-716** *Video To SXGA / DVI / HD Scaler*.

To connect the Scaler unit, connect the following to the rear panel, as the examples in Figure 3 (**VP-715**) and Figure 4 (**VP-716**) illustrate:

1. Connect the composite video source (for example, a composite video player) to the RCA connector CV IN.
2. Connect the s-Video source (for example, an s-Video player) to the 4p connector Y/C IN.
3. Connect the component video[2] source (for example, an HDTV Satellite Receiver) to the 3 RCA INPUT connectors, Y, P_b, and P_r.
4. Connect the VGA/SXGA OUT HD15F connector to the VGA/SXGA analog acceptor (for example, an analog display).
5. Connect the DVI OUT connector to the DVI-D acceptor (for example, a digital display): **VP-716** only.
6. Connect the 3 RCA OUTPUT connectors, Y, P_b, and P_r, to the component video acceptor (for example, a plasma display).
7. Connect the 12V DC power adapter (wall transformer) to the 12V DC socket (not illustrated in Figure 3 / Figure 4) and connect the transformer to the mains electricity.

1 Switch OFF the power on each device before connecting it to your VP-715/VP-716. After connecting your VP-715/VP-716, switch on its power and then switch on the power on each device

2 Sometimes called YUV, or Y, B-Y, R-Y, or Y, Pb, Pr, or Y, Cb, Cr

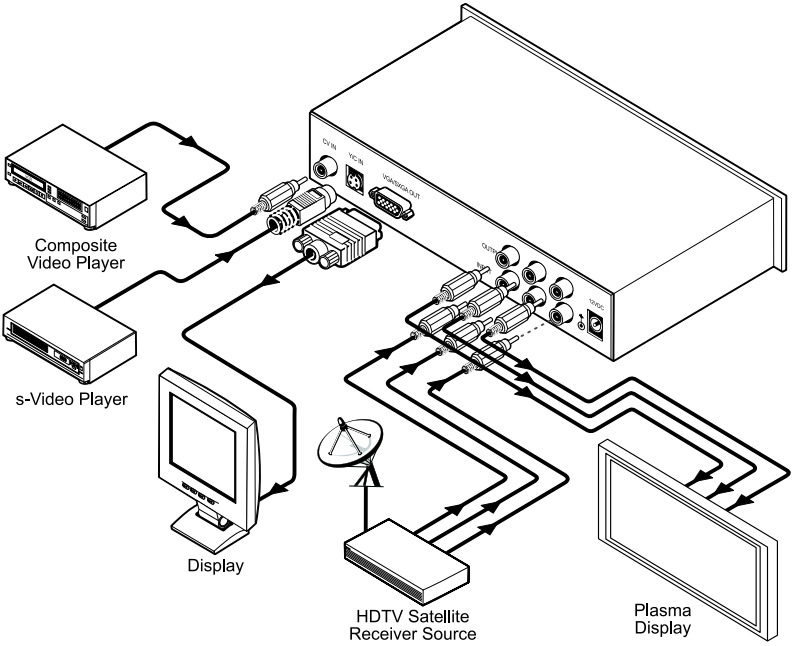

Figure 3: Connecting the VP-715 Video To SXGA / HD Scaler

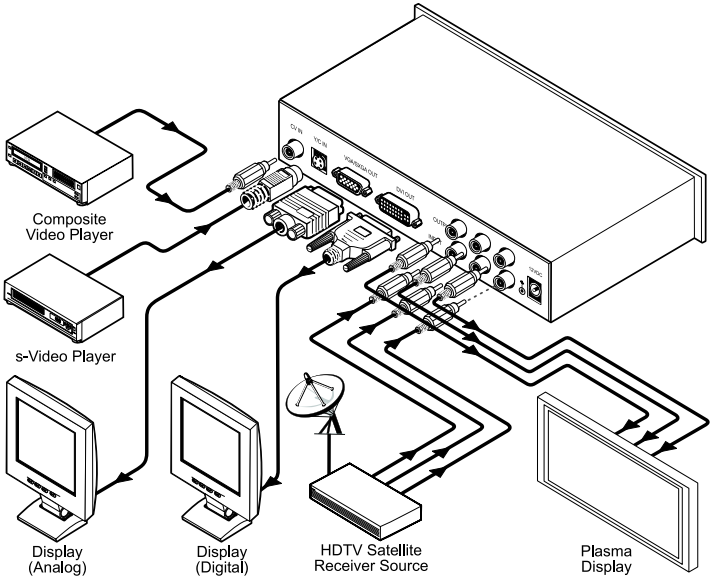

Figure 4: Connecting the VP-716 Video To SXGA / DVI / HD Scaler

6 Operating the VP-715 / VP-716

Using the **VP-715 / VP-716** you can select any one of the 3 inputs and scale that input to the output(s) at the set resolution. Table 2 defines the OSD Menu functions:

Table 2: OSD Menu Definitions

Feature	Function	Range	Default
Picture Adjust[1]	Brightness	0 to 255	130 for composite and s-Video, or 182 for YCbCr and RGsB
	Contrast	0 to 63	48 for composite and s-Video, or 27 for YCbCr and RGsB
	Color	0 to 53	36
	Tint	0 to 40	20
	H. peaking filter	Low, medium, or broad	Broad
	Sharpness	0 to 7	4
	V. peaking gain	0 to 15	7
	Reset		
	Exit		
Display Setup[2]	Timing	For example, XGA@60Hz	
	CSC	RGBHV or YPbPr	
	Exit		
Advanced Setup	Film mode	Auto or OFF	Auto
	OSD Display	ON or OFF	OFF
	No signal	Black or Blue	Blue
	Exit		
System Information	Lets you verify the INPUT mode (for example, PAL) and the Display timing (for example, VGA@75Hz)		
Exit	Exits the OSD menu		

1 Lets you manually alter the way the image appears on the display

2 Alternatively, in a HD resolution, the Display Setup may indicate the following: Timing (576P@HDTV)

7 Technical Specifications

Table 3 includes the technical specifications:

Table 3: Technical Specifications[1] *of the VP-715 / VP-716*

INPUTS:	1 component video - (Y, Pb, and Pr) on RCA connectors, 1 CV 1Vpp/75Ω on an RCA connector, 1 Y/C 1Vpp (Y); 0.3Vpp (C)/75Ω on a 4p connector
OUTPUTS:	1 DVI-D on a DVI-I connector (VP-716 only), 1 component video - (Y, Pb, and Pr) on RCA connectors, 1 VGA (VGA through SXGA / HD) on an HD15F connector
OUTPUT RESOLUTIONS:	VGA (640 x 480), SVGA (800 x 600), XGA (1024 x 768), WXGA (1366 x 768), SXGA (1280 x 1024), 480p, 576p, 720p and 1080i
CONTROLS:	Front panel buttons for MENU driven OSD control, input selection and output resolution. LEDs to indicate output resolution and colorspace
ADDITIONAL CONTROLS:	ProcAmp controls (brightness, contrast, color, tint, sharpness, H peaking and V peaking); output refresh rate selection (50Hz and 60Hz for *all* resolutions; and up to 85Hz for VGA, SVGA and XGA); output color space selection (RGBHV / YPbPr); film mode enable
POWER SOURCE:	12 VDC, 450mA (typical)
DIMENSIONS:	22cm x 18cm x 4.5cm (8.6" x 7" x 1.8") W, D, H.
WEIGHT:	1.2 kg. (2.65 lbs.) approx.
ACCESSORIES:	Power supply
OPTIONS:	RK-80N 19” rack kit

1 Specifications are subject to change without notice

LIMITED WARRANTY

Kramer Electronics (hereafter *Kramer*) warrants this product free from defects in material and workmanship under the following terms.

HOW LONG IS THE WARRANTY

Labor and parts are warranted for seven years from the date of the first customer purchase.

WHO IS PROTECTED?

Only the first purchase customer may enforce this warranty.

WHAT IS COVERED AND WHAT IS NOT COVERED

Except as below, this warranty covers all defects in material or workmanship in this product. The following are not covered by the warranty:

1. Any product which is not distributed by Kramer, or which is not purchased from an authorized Kramer dealer. If you are uncertain as to whether a dealer is authorized, please contact Kramer at one of the agents listed in the web site www.kramerelectronics.com.
2. Any product, on which the serial number has been defaced, modified or removed.
3. Damage, deterioration or malfunction resulting from:
   - i) Accident, misuse, abuse, neglect, fire, water, lightning or other acts of nature
   - ii) Product modification, or failure to follow instructions supplied with the product
   - iii) Repair or attempted repair by anyone not authorized by Kramer
   - iv) Any shipment of the product (claims must be presented to the carrier)
   - v) Removal or installation of the product
   - vi) Any other cause, which does not relate to a product defect
   - vii) Cartons, equipment enclosures, cables or accessories used in conjunction with the product

WHAT WE WILL PAY FOR AND WHAT WE WILL NOT PAY FOR

We will pay labor and material expenses for covered items. We will not pay for the following:

1. Removal or installations charges.
2. Costs of initial technical adjustments (set-up), including adjustment of user controls or programming. These costs are the responsibility of the Kramer dealer from whom the product was purchased.
3. Shipping charges.

HOW YOU CAN GET WARRANTY SERVICE

1. To obtain service on you product, you must take or ship it prepaid to any authorized Kramer service center.
2. Whenever warranty service is required, the original dated invoice (or a copy) must be presented as proof of warranty coverage, and should be included in any shipment of the product. Please also include in any mailing a contact name, company, address, and a description of the problem(s).
3. For the name of the nearest Kramer authorized service center, consult your authorized dealer.

LIMITATION OF IMPLIED WARRANTIES

All implied warranties, including warranties of merchantability and fitness for a particular purpose, are limited in duration to the length of this warranty.

EXCLUSION OF DAMAGES

The liability of Kramer for any effective products is limited to the repair or replacement of the product at our option. Kramer shall not be liable for:

1. Damage to other property caused by defects in this product, damages based upon inconvenience, loss of use of the product, loss of time, commercial loss; or:
2. Any other damages, whether incidental, consequential or otherwise. Some countries may not allow limitations on how long an implied warranty lasts and/or do not allow the exclusion or limitation of incidental or consequential damages, so the above limitations and exclusions may not apply to you.

This warranty gives you specific legal rights, and you may also have other rights, which vary from place to place.
NOTE: All products returned to Kramer for service must have prior approval. This may be obtained from your dealer.
This equipment has been tested to determine compliance with the requirements of:

EN-50081:	"Electromagnetic compatibility (EMC); generic emission standard. Part 1: Residential, commercial and light industry"
EN-50082:	"Electromagnetic compatibility (EMC) generic immunity standard. Part 1: Residential, commercial and light industry environment".
CFR-47:	FCC Rules and Regulations: Part 15: "Radio frequency devices Subpart B – Unintentional radiators"

CAUTION!

- Servicing the machines can only be done by an authorized Kramer technician. Any user who makes changes or modifications to the unit without the expressed approval of the manufacturer will void user authority to operate the equipment.
- Use the supplied DC power supply to feed power to the machine.
- Please use recommended interconnection cables to connect the machine to other components.

For the latest information on our products and a list of Kramer distributors, visit our Web site: www.kramerelectronics.com, where updates to this user manual may be found.
We welcome your questions, comments and feedback.

Safety Warning:
Disconnect the unit from the power supply before opening/servicing.

Kramer Electronics, Ltd.
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P/N: 2900-000039 REV 2