

**Kramer Electronics, Ltd.**



# **USER MANUAL**

**Model:**

**SP-3001**

*Component Video Processor*

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## 1 Introduction

Dedication by Kramer Electronics since 1981, to the development and manufacture of high quality video/audio equipment, makes the Kramer line an integral part of the finest production and presentation facilities in the world. In recent years, Kramer has redesigned and upgraded most of the line, making the best even better! The Kramer line of professional video/audio electronics is one of the most versatile and complete available, and is a true leader in terms of quality, workmanship, price/performance ratio and innovation. In addition to our high quality **SP-3001 Component Video Processor**, we also offer excellent distribution amplifiers, remote controllers, switchers and matrices, interfaces and computer-related products. Congratulations on purchasing your Kramer **SP-3001 Component Video Processor**. This product is ideal for:

- Component video control and correction in broadcast and production studios
- Component video signal distribution
- Image enhancement for medical, industrial and military applications

The package includes the following items:

- **SP-3001 Component Video Processor**
- Power cord
- This user manual and the Kramer concise product catalog/CD

## 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

### 3 Overview

Your unique **SP-3001 Component Video Processor** is a studio quality processor for Y, R-Y, B-Y component video signals. The **SP-3001 Component Video Processor**:

- Includes full control over black level and gain on each channel, as well as contrast, definition and splitter control<sup>1</sup> on the Y channel
- Has one looping input for a component video signal
- Serves as a distribution amplifier with 3 sets of component video outputs
- Includes a screen SPLITTER that provides simultaneous "before and after" image comparison on one monitor
- Includes DC coupled inputs and outputs for outstanding video quality

The **SP-3001 Component Video Processor** lets you control:

- Black level
- Contrast<sup>2</sup> and Definition<sup>3</sup>
- Video Gain

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 that may adversely influence signal quality and positioning your **SP-3001 Component Video Processor** away from moisture excessive sunlight and dust

### 4 Your Component Video Processor

Figure 1 and Tables 1 and 2 define the front and rear panels of the **SP-3001 Component Video Processor**, respectively:

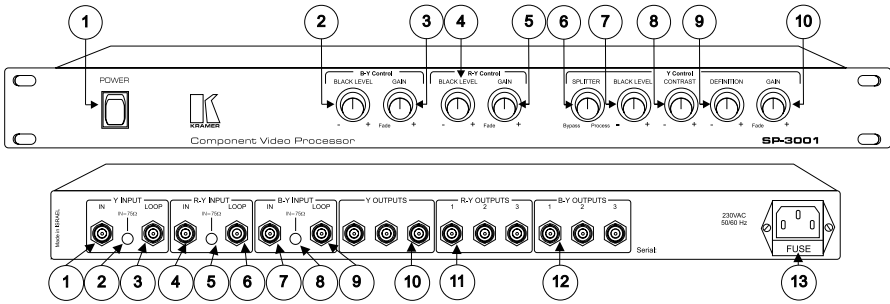
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1 Rotating counterclockwise to the Bypass position disengages the Splitter activity, displaying only the original image. Rotating clockwise from the Bypass position will display an edited image on the left side of the screen with a hairline dividing the edited image (left) and the original image (right). Rotating further clockwise from the Bypass position increases the portion of the edited image. Rotating clockwise to the Process position displays only the edited image

2 Ideal for video and data projectors

3 For enhancing images and eliminating fine detail loss

## Your Component Video Processor



*Figure 1: SP-3001 Component Video Processor*

*Table 1: Front Panel SP-3001 Component Video Processor Features*

#	Feature	Function		
1	Power Switch	Illuminated switch supplying power to the unit		
2	Component Video Controls	B-Y Control BLACK LEVEL Knob	Adjusts the black level <sup>1</sup>	
3		B-Y Control GAIN Knob	Adjusts the video gain <sup>2</sup>	
4		R-Y Control BLACK LEVEL Knob	Adjusts the black level <sup>1</sup>	
5		R-Y Control GAIN Knob	Adjusts the video gain <sup>2</sup>	
6		Y Control	SPLITTER Knob	Displays the edited image with the original image, jointly in a split screen
7			BLACK LEVEL Knob	Adjusts the black level <sup>1</sup>
8			CONTRAST Knob	Adjusts the contrast
9			DEFINITION Knob	Adjusts the definition <sup>3</sup>
10			GAIN Knob	Adjusts the video gain <sup>2</sup>

*Table 2: Rear Panel SP-3001 Component Video Processor Features*

#	Feature	Function		
1	Component Video INPUT	Y	IN BNC Connector	Connects to the video source
2		Y	IN = 75Ω Button	Push in to terminate with 75Ω, release for looping
3		Y	LOOP Connector	For looping to increase output availability
4		R-Y	IN BNC Connector	Connects to the video source
5			IN = 75Ω Button	Push in to terminate with 75Ω, release for looping
6			LOOP Connector	For looping to increase output availability
7		B-Y	IN BNC Connector	Connects to the video source
8			IN = 75Ω Button	Push in to terminate with 75Ω, release for looping
9			LOOP Connector	For looping to increase output availability
10	Component Video OUTPUTS	Y output BNC connectors	Connect to the video acceptors (from 1 to 3)	
11		R-Y output BNC connectors	Connect to the video acceptors (from 1 to 3)	
12		B-Y output BNC connectors	Connect to the video acceptors (from 1 to 3)	
13	Power Connector with Fuse	230 VAC, 50/60 Hz, (115 VAC, U.S.A.) 7.6 VA max power inlet		

1 Luminance level and the fade to white effect

2 Rotating clockwise (to +) adds brightness. Rotating counterclockwise (to Fade) fades the picture in and out. Adjust both the BLACK LEVEL and the GAIN controls to achieve fade-to-gray or white effect

3 Sharpens images and removes snow

## 5 Technical Specifications

Table 3 includes the technical specifications:

*Table 3: Technical Specifications of the SP-3001 Component Video Processor*

Inputs:	3 channels for component video, 1Vpp / 75Ω (Y), 0.7 Vpp / 75Ω for each R-Y and B-Y, looping with Termination switches, on BNC connectors
Outputs:	3 for each Y, R-Y, B-Y, 1Vpp / 75Ω for Y, 0.7 Vpp / 75Ω for each R-Y and B-Y, on BNC connectors
Diff. Gain:	0.04%
Diff. Phase:	0.04 Deg.
K-Factor:	<0.05%
Signal Coupling:	Direct (DC)
S/N Ratio:	75 dB
Bandwidth:	62 MHz -3dB
Control:	Y channel: gain, contrast, definition, black level R-Y and B-Y channels: gain and black level Screen splitter for all channels (process to bypass)
Dimensions:	19 inch (W), 7 inch (D), 1 U (H) rack mountable
Power Source:	230 VAC, 50 / 60 Hz, (115VAC, U.S.A.) 7.6 VA
Weight:	2.9 kg. (6.4 lbs.) approx.
Accessories:	Power cord

### 5.1 Connecting Your Component Video Processor

To connect the **SP-3001 Component Video Processor**, do the following<sup>1</sup>:

1. Connect the video sources and acceptors.
2. Set all the front panel control knobs to their mid position.
3. Connect the power cord to the electricity supply.

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<sup>1</sup> Switch OFF the power on each device before connecting it to your SP-3001. After connecting your SP-3001, switch on its power and then switch on the power on each device

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## 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 three 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](http://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.



**The list of Kramer distributors appears on our web site:  
[www.kramerelectronics.com](http://www.kramerelectronics.com)**

**We welcome your questions, comments and feedback.**

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