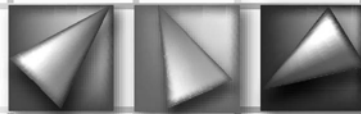

Deuce[®]

Intelligent Video Scaler

USER'S MANUAL



CSI **Communications
Specialties, Inc.**

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P/N 101923 Rev E
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**INCLUDED WITH THIS
PRODUCT YOU SHOULD HAVE:**

- 1 - *Deuce*[®] Intelligent Video Scaler
- 1 - Universal input power supply
- 1 - AC power line cord
- 1 - 12 foot composite video input cable
- 1 - 12 foot S-Video input cable
- 1 - User's Manual
- 1 - Product Registration card

**AVAILABLE OPTIONAL
ACCESSORIES:**

- BNC adapter cables for *Deuce*'s RGB output
- 15-pin VGA adapter cables for *Deuce*'s VGA output
- AC line cords for North America, Japan, or Europe
- Rack mounting kits

Deuce is a registered trademark of Communications Specialties, Inc.
Macintosh and **Mac** are registered trademarks of Apple Computer, Inc.

USER & CERTIFICATION INFORMATION

Power Supply Information

UL INFORMATION:

UL INFORMATION

This product carries the UL and CUL marks for ITE equipment
Listing #: 2L85

CE INFORMATION:

CE INFORMATION

Standards to which conformity is declared:

EMC EN 55022: 1987, CISPR 22: 1993, Class B Limit

EN 50082-1: 1992

IEC 801-2: 1991

IEC 801-3: 1984

IEC 801-4: 1988

INTRODUCTION

Communications Specialties, Inc.
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Thank you for purchasing *Deuce*, the Intelligent Video Scaler. With *Deuce*, you now have the ability to enjoy high-resolution, film-like images from any standard video source, including broadcast or cable TV, video tape, DVD and laser disc. *Deuce* converts any composite or S-video signal into one of six computer resolutions. These resolutions match the native resolution or “sweet spot” of almost any LCD, DLP or plasma projector or display, allowing the display device to perform to its maximum potential. In addition, *Deuce* uses advanced motion compensation to eliminate the artifacts typically visible when interlaced video is de-interlaced. The result is a picture of stunning quality, filled with rich detail and color.

Like all the products from Communications Specialties, *Deuce* comes with our continuing commitment to provide support. In order to assist us in this process, please be sure to mail in your product registration card. This will make it easier for us to notify you with any new product announcements or other information concerning our product line. Should you need to contact us for support, our office is open Monday through Friday, from 8:30 AM to 5:00 PM Eastern Time. We also offer a comprehensive web site for your added convenience.

Thank you for choosing *Deuce*. As always, we welcome your comments and suggestions.

INSTALLATION

- CONNECTING THE POWER:**
1. Connect the provided AC power cord to the power supply and plug the other end into an AC outlet. This is an auto-sensing universal input power supply and is compatible with worldwide standards.
 2. Connect the DC power plug from the power supply into the connector marked POWER on the rear panel of *Deuce* .
 3. Connect a video source to either the COMPOSITE or S-VIDEO input on the rear panel.

CONNECTING INPUTS AND OUTPUTS:

Connect a computer monitor, projector or display to either the BNC connectors or the VGA compatible connector on the rear panel. Both outputs may be connected at the same time to two different displays.

On the front panel, press the FUNCTION button to light the LED next to OUTPUT FORMAT. Use the SELECT button to select the desired output resolution.

Note: The resolution selected should match the native resolution of the projector or display; *not* the highest resolution that the device will support. An extensive listing of the native resolutions of various projectors and displays can be found beginning on page 13 of this manual. As new projector and display models are introduced to the marketplace, an updated version of this list will be available at our web site: www.commspecial.com.

AVAILABLE OUTPUTS:

Press the FUNCTION button to select OUTPUT RATE and use the SELECT button to set the desired output refresh rate.

Press the FUNCTION button to select INPUT SOURCE and use the SELECT button to select either the COMPOSITE or S-VIDEO video source.

Press the FUNCTION button to select INPUT FORMAT. If your video source is in a standard 4:3 aspect ratio that fills the entire screen of a normal video monitor, then select NORMAL. If your video source has an active picture area that has a 16:9 aspect ratio (such as a letterbox movie on tape or DVD), *and* your output display is also a 16:9 widescreen display, then select LETTERBOX.

OPERATION

Deuce is designed to operate properly with any projector or display while requiring minimal set-up and adjustments. However, you may want to take advantage of Deuce's many additional features, including its video processing controls, as they are designed to provide enhanced picture quality and added convenience.

PROCESSING THE VIDEO ON THE OUTPUT DISPLAY:

Push the FUNCTION button to select PROCESS on the front panel. Use SELECT to select one of the four processing functions (Brightness, Contrast, Color Saturation or Hue). The + and – buttons on the right side of the front panel allow you to increase or decrease the amount of processing for that function (i.e. more or less color saturation).

When you have reached the limit for that function the LED for that function will flash. You may press the + and – at the same time for two seconds to reset a selected processing function to its nominal or default value.

POSITIONING THE IMAGE ON THE OUTPUT DISPLAY:

You may also move the image on the output display left, right, up or down. To do so, press the FUNCTION button to select POSITION. Use SELECT to select either HORIZONTAL or VERTICAL positioning. Press the + or – buttons to move the image.

SPECIAL KEY FUNCTIONS:

There are several functions that can be activated by pressing a combination of keys simultaneously:

Key Panel Lockout: Press the FUNCTION and – buttons at the same time for two seconds to lock out the key panel. All the LEDs will flash momentarily to indicate the key panel is locked.

Key Panel Unlock: Press the FUNCTION and + buttons at the same time for two seconds to unlock the key panel and allow normal operation. All the LEDs will flash momentarily to indicate the key panel is unlocked.

System Reset: Press the SELECT button for three seconds to reset the unit and return all settings to their factory defaults.

INTERNAL DIP SWITCH SETTINGS

Inside of *Deuce* there are several DIP switches that do not need to be accessed during normal operation and are intended for installation set-up only. This section describes how to access these switches and what they are for.

ACCESSING THE DIP SWITCHES: Slide off the top cover by doing the following:

1. Remove all power and I/O connections to the unit
2. Remove the two screws on the front panel.
3. Carefully, pull off the front bezel and keypanel (which is attached to the main circuit board by a ribbon cable) leaving the keypanel attached to the circuit board.
4. Slide the top cover towards the front of the unit exposing the circuit board with the DIP switches on it.

S1 DIP SWITCH:

A 3-position DIP switch (S1) is used to set the input video standard *Deuce* will look for on its inputs. All video standards are based on either 525 or 625 lines per frame. Most of the world uses either NTSC-M or PAL-B and the default setting should be adequate for almost all applications. However, if the format of the video you are using is not either one of these, you can adjust the DIP switch S1 as follows:

S1-1	S1-2	S1-3	525 lines detected	625lines detected
on	on	on	NTSC-M	PAL-B
<i>(the above setting is the factory default)</i>				
off	on	on	NTSC-M	PAL-B
on	off	on	NTSC-J	PAL-B
off	off	on	NTSC-M	PAL-B
on	on	off	PAL-M	PAL-B
off	on	off	NTSC-M	PAL-N/4.43
on	off	off	NTSC-M	SECAM
off	off	off	NTSC-M	PAL-N/3.58

Note: 5 position DIP switch S3 is not to be changed! If it is changed by mistake, the factory default setting is:

- S3-1 = on
- S3-2 = off
- S3-3 = off
- S3-4 = off
- S3-5 = off

S2 DIP SWITCH:

DIP Switch S2 is used to set the type of sync on the outputs. Vertical sync is always present on the BNC connector labeled V. Separate horizontal and vertical syncs are always present on the VGA compatible connector. The BNC connector labeled H/CS can output either horizontal sync or composite sync as follows:

S2-1	S2-2	Function of H/CS connector
on	either	Horizontal sync only
off	off	Composite sync with serrations
off	on	Composite sync without serrations

Regardless of what is on the H/CS connector, composite sync may be added to the GREEN video signal on BOTH the GREEN BNC and the GREEN pin of the VGA COMPATIBLE connector if composite sync (with or without serrations) is selected above and S2-3 is set as follows:

S2-1	S2-2	S2-3	Sync added to Green?
either	off	on	Yes, composite with serrations
either	on	on	Yes, composite without serrations
either	either	off	No sync added to Green

Note: The factory default for this DIP switch is:

S2-1	S2-2	S2-3
on	off	off

H sync only on H/CS connector.
No sync on green.

OUTPUT TIMING SPECIFICATIONS

The timing specifications for the six output resolutions follow VESA specifications or Macintosh specifications where applicable. The 852 x 480 specification is based on the Fujitsu 42" plasma display specification.

Resolution	Refresh	H (kHz)	V (Hz)
640 x 480	60	31.48	59.96
640 x 480	75	37.51	75.03
852 x 480	60	31.73	59.98
852 x 480	75	38.07	71.97
800 x 600	60	37.89	60.33
800 x 600	75	46.89	75.02
832 x 624	60	39.29	60.07
832 x 624	75	49.19	75.10
1024 x 768	60	48.38	60.19
1024 x 768	75	60.04	75.05
1280 x 1024	60	64.00	60.04

Note: *Deuce* does not support 1280 x 1024 at 75 Hz refresh.

TROUBLESHOOTING

IF THIS IS YOUR PROBLEM:

THEN CHECK TO SEE:

**Nothing Works or
No Video Output:**

- Are any of the LEDs lit? Is the power supply connected and plugged into the AC wall outlet?
- The video source is connected to the unit. Is it putting out a video signal as viewed on a video monitor?

**No Video On Outputs:
(Just A Blue Screen)**

- The VCR or video source is in the proper mode to output video as required.
- You have selected the proper input on the unit (COMPOSITE or S-VIDEO) for the desired source
- The source of the video is in fact ON

**There Is Video On The Output Display
But It Appears Out Of Sync:**

- If you are using 5 BNC connections to the unit, try reversing the H and V sync connectors.
- Make sure the display is capable of supporting the resolution you selected on the front of the unit. Try a lower resolution.

ACCESSORIES

The following accessories are available for *Deuce*. They may be ordered from your dealer or from Communications Specialties, Inc. If you need an accessory that isn't listed below or have a specific application for which you need assistance, please give us a call.

Item #	Description
1240	Single rackmount kit. This kit allows one <i>Deuce</i> to be rackmounted.
1241	Double rackmount kit. This kit allows two <i>Deuce</i> to be rackmounted.
1150	RGBS cable for BNC connection. This is a 12-foot cable that connects the RGB output of <i>Deuce</i> to video equipment with BNC connectors.
1119-025	25 ft. VGA 15-pin M/F output extension cable
1119-050	50 ft. VGA 15-pin M/F output extension cable
1119-100	100 ft. VGA 15-pin M/F output extension cable

Custom cable lengths are available. Call for information.

REAR CONNECTOR PIN-OUTS

POWER:	Center	+5 Vdc In
	Outer	Ground
VGA COMPATIBLE OUTPUT: (HD-15 CONNECTOR)	1	Red
	2	Green
	3	Blue
	4	n/c
	5	Ground
	6	Red Ground
	7	Green Ground
	8	Blue Ground
	9	n/c
	10	Ground
	11	n/c
	12	n/c
	13	H-Sync Out
	14	V-Sync Out
	15	n/c
S-VIDEO INPUT:	1	Ground
	2	Ground
	3	Luminance
	4	Chrominance

WARRANTY

Communications Specialties, Inc. (CSI) warrants that for a period of three (3) years after purchase by the Buyer, *Deuce* will be free from defects in material and workmanship under normal use and service. A Return Material Authorization (RMA) number must be obtained from CSI before any equipment is returned by the Buyer. All material must be shipped to CSI at the expense and risk of the Buyer.

CSI's obligation under this warranty will be limited, at its option, to either the repair or replacement of defective units, including free materials and labor. In no event shall CSI be responsible for any incidental or consequential damages or loss of profits or goodwill.

CSI shall not be obligated to replace or repair equipment that has been damaged by fire, war, acts of God, or similar causes, or equipment that has been serviced by unauthorized personnel, altered, improperly installed or abused.

RMA numbers and repairs can be obtained from:

**Communications Specialties, Inc.
55 Cabot Court
Hauppauge, NY 11788 USA
TEL: (631) 273-0404
FAX: (631) 273-1638**

or, for customers in the Asia Pacific Region:

**Communications Specialties Pte Ltd
TEL: +65 6391 8790
FAX: +65 6396 0138
(See page 5 of this manual for complete address)**

RMA numbers can also be obtained from our web site:

<http://www.commspecial.com>

Please have your serial number (located underneath *Deuce*) available when contacting us.