

C2-5100 Universal Video Scaler is a multi-function image conversion and scaling product which comes close to the ideal of “Anything In – Anything Out”. Not only is it a high performance Video Scaler, Up-Converter, Down-Converter and Multi-Format Seamless Switcher, but it goes far beyond that. It’s also a Worldwide Standards Converter, Chromakeyer, Lumakeyer, PIP Device, HDTV Converter, Frame Synchronizer, Time Base Corrector, Aspect Ratio Converter and a Universal Image Genlock. The nine Inputs and four Outputs will accommodate Composite Video, YC, YUV, YPbPr, all HDTV formats and any RGBHV resolution up to 2048x2048, not just some predefined ones. Plus, the C2-5100 has two Outputs for Preview (RGBHV and Composite Video) to facilitate live event switching.



C2-5100



C2-5200

As a PIP Device, the C2-5100 Universal Video Scaler is unparalleled in its price range. Any video input can be squeezed and placed into a window of any size and positioned anywhere on the screen. The window can be placed over any other video input as the background. The image in the window can then be seamlessly switched to another video input. The image can also be zoomed while it is in the window.



Windows Control Panel

The C2-5100’s output signal format flexibility assures that the Native Resolution of virtually any Digital Display can be matched. Because of the integral resolution calculator, even new resolutions can be added to the menu via the Windows Control Panel. Adjustments are provided for Brightness, Contrast, Color Saturation and Hue (where applicable) and each video input has its own non-volatile memory to retain these settings, even when the power to the unit has been turned off. Integral Test Signals are user defined. A Logo memory is provided, so the unit can easily be used as a Logo Inserter. The C2-5100 employs advanced motion compensation to smooth out fast moving images and its automatic 3:2 Pull-down detection efficiently de-interlaces video from 24 fps film. The unit can be controlled from the front panel, via RS-232, IR or by the optional IP interface. The Windows Control Panel provides complete control of the unit and adds Macros to facilitate long, complex sequence of commands. Multiple units may be controlled from one Control Panel.



CC-300 CORIOconsole

C2-5200 Universal Video Scaler provides all the features and functions of the C2-5100 and adds an SD/SDI input and output. This brings the unit’s total to ten Inputs and five Outputs. Additionally, a second SD/SDI input is provided exclusively as a genlock source. The SD/SDI Inputs and Outputs are fully integrated into the architecture of the unit so that any of the other signal formats may be converted to and from SD/SDI. The SD/SDI signal can be used as either the background or insert in the PIP windowing mode. It is also possible to seamlessly switch between any of the analog inputs and the SD/SDI input.

Multiple Products in One

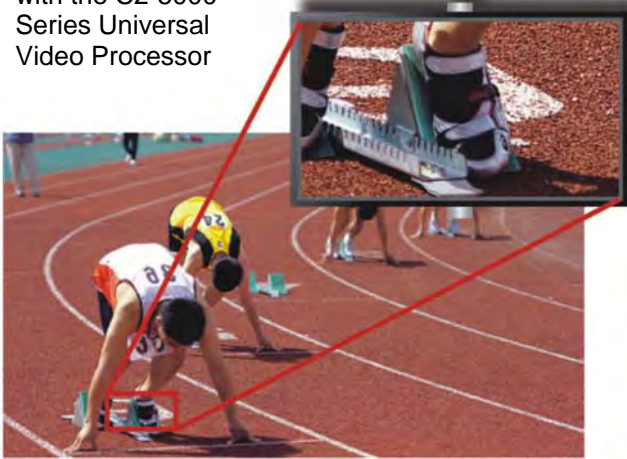
- Seamless Switcher
- Video Scaler
- Aspect Ratio Converter
- PC ◀-▶ HDTV
- PC ◀-▶ PC
- SDTV ◀-▶ HDTV
- HDTV ◀-▶ HDTV
- Analog ◀-▶ SD/SDI
- Frame Sync / TBC
- PIP Device
- Down Converter
- Standards Converter
- Multi-Format Genlock
- Logo Inserter
- Video Transcoder
- Chromakeyer
- Lumakeyer

Control of the C2-5100 and C2-5200 can be from the front panel buttons and integrated LCD or remotely by RS-232 or by IP (C2-5110 and C2-5210). The Windows Control Panel affords complete control of the unit and adds Macros to facilitate long, complex command sequences. In addition, the optional CC-300 CORIOconsole provides a hardware control solution similar to a traditional Video Switcher.

A2-2000 Stereo Audio Switcher is an option offered to add Audio Follow Video or Audio Breakaway capability to the units. Both Balanced and Unbalanced inputs and outputs are provided.

Sample Capabilities

Zooms of up to 1000% are possible with the C2-5000 Series Universal Video Processor



Key Features of the C2-5100 and C2-5200

- Multiple Conversion and Scaling products in One
- Up to Ten Multi-format Inputs and Five Outputs
- Two Preview Outputs – RGBHV and CV
- Input/Outputs: CV, YC (S-Video), YPbPr, RGBHV, RGsB, RGSB, YUV
- Computer Resolutions to 2048x2048
- HDTV Resolutions to 1080p
- Genlock any Video Input to Any Other
- SD/SDI Input/Output and Genlock (C2-5200 Only)
- AutoSet - Automatic picture sizing
- Seamless Switching with Cuts or Fades
- Unrestricted PIP – Any Input Over Any Other
- RS-232 Interface for External Control
- CORIO®2 Technology Conversion Engine
- Auto Detect Worldwide Television Standards
- Zoom up to 1000% with Full Positioning
- Image Shrink to 10% with Full Positioning
- Video Image Adjustment with Multiple Memory
- Front Panel Knob, Buttons and LCD for Control
- Optional IR Remote or IP Interface
- Universal Internal Power Supply



Multi-format Chromakeys are fully supported in the C2-5000 series Universal Video Processor

The C2-5000 Series Universal Video Processor allows you to insert an active PIP image over an active background without regard to signal type.



Specifications

10 Video Inputs

Composite Video	3x via BNC Connector
YC (S-Video)	3x via 4-PIN Mini-DIN Connector
SD/SDI (C2-5200 Only)	1x via BNC Connector
RGBHV, YPbPr, YUV	3x (1x via 5-BNC, 2x via HD-15F) (Note 1)

Genlock Input

Reference Signal	Any of the Video Inputs
SDI (C2-5200 Only)	1x via BNC

5 Video Outputs

Composite Video	1x via BNC Connector
YC (S-Video)	1x via 4-PIN Mini-DIN Connector
SD/SDI (C2-5200 Only)	1x via BNC Connector
RGBHV, YPbPr, YUV	2x (1x via 5-BNC, 2x via HD-15F)

2 Preview Outputs

Composite Video	1x via BNC Connector
RGBHV, YPbPr, YUV	1x via HD-15 Female Connector

Input/Output Range

Computer Resolutions	Up to 2048x2048
Max Vert Refresh Rate	250Hz
Max Horiz Frequency	150KHz
HDTV Resolutions	All Known Resolutions & Formats
Interlace Support	Progressive and Interlaced
Television Standards	PAL-B, G, I, D, H, PAL-M, PAL-N, NTSC 3.58, NTSC 4.43, SECAM, SMPTE 259M

SD/SDI (C2-5200 Only)

Input RGB Sync

Type	Auto-detect RGBHV, RGSB, RGsB
Level / Impedance	TTL, 10K Ω
Polarity	Positive or Negative
Maximum Level	5Vp-p

Output RGB Sync

Type	RGBHV, RGSB
Level / Impedance	5Vp-p, 220 Ω
Polarity	Positive or Negative

Output YPbPr Sync

Type	Bi-level
------	----------

Control Methods

Local Front Panel	10x Programmable Buttons +LED, Rotary Selector, LCD Readout
RS-232 Interface	DB-9 Male Connector
IP Interface	Optional via RJ45 Connector
Infrared Control Option	IRC-5 Remote Control Unit
Audio Switcher Control	Via D-15 Options Connector from the Main Unit

Mechanical

Desktop Case (HWD)	44x432x201mm (1.75"x17"x7.9")
With Rack Ears (HWD)	44x483x201mm (1.75"x19"x7.9")
C2-5100 Weight (Net)	3.48 kg (7.66 lbs)
C2-5200 Weight (Net)	3.58 kg (7.88 lbs)
A2-2000 Weight (Net)	2.54 kg (5.59 lbs)

Environmental

Operating Temperature	0° to +50° C (+32° to +122° F)
Operating Humidity	10% to 85%, Non-condensing
Storage Temperature	-10° to +70° C (+14° to +158° F)
Storage Humidity	10% to 85%, Non-condensing

Regulatory Approvals

Video Scaler Unit	FCC, CE, RoHS
Power Supplies	UL, CUL, CE, PSE, GS, RoHS

General

Image Size & Position	AutoSet or Manual
Image Zoom Range	Continuous to 1000%
Image Shrink Range	Continuous to 10%
Image Mirroring	Horizontal and/or Vertical
Image Freeze	Full Frame
Video Memory	4x4MBytes Picture Memory Buffers (16MBytes total)
Resolution Memory	Approximately 1,000 Definable
Firmware Memory	Flash, Upgradeable via RS-232
Flicker Filter	4-Level Vertical
PIP	Any 2 Video Inputs
Number PIP Windows	Multiple Units may be Cascaded
Video I/O Impedance	75 Ω
Video Decoder	9-bit Digital
Comb Filter Decoding	Adaptive
De-Interlacing (PAL-NTSC)	Pixel-level Motion Adaptive
Film Mode (NTSC)	3:2 Pull Down Detection
Video Encoder	10-bit Digital
Digital Sampling	24-bit, 8-bits per R, G and B
Colors	16.7 Million
Video Scaling Engine	Proprietary CORIO®2
Internal Format	4:2:2 YUV
Internal Test Patterns	User Defined
LCD Panel	24x2 Character
Logo Inserter	Flash Programmable
Proc Amp Adjustments	Brightness, Contrast, Saturation, & Hue for CV & SV Inputs, plus Video Level for RGB Inputs
Settings for each Video Input	
Proc Amp Memory	
Power Requirement	
Internal Power Supply	100-240VAC, 47-63Hz, 50W
Warranty	
Limited Warranty	2 Years Parts and Labor
Accessories Included	
1x AC Power Cord	US, UK or Euro
1x Operations Manual	C2-5000 Series
1x Rackmount Kit	2 Ears and 4 Screws
1x Control Software	Downloadable from website
Optional Accessories	
A2-2000	Audio Switcher (Note 2)
IRC-5	IR Remote Control Unit
Add 10 to Model No.	Network Interface (Factory Installed)
CC-300 CORIOconsole	Hardware Control Panel
Product Item Number	
C2-5100	Universal Scaler
C2-5110	Universal Scaler with IP Interface
C2-5200	Universal Scaler with SD/SDI I/O
C2-5210	Universal Scaler with SD/SDI & IP
Note	
(1) RGBHV Inputs/Outputs may also be RGSB or RGsB.	

Audio Switching (Optional A2-2000 - Note 2)

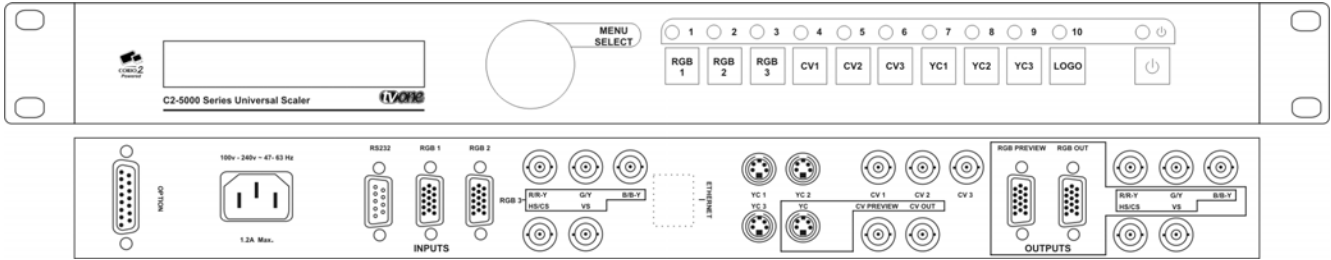
Stereo Inputs	10x Balanced and Unbalanced
Program Output	1x Balanced and Unbalanced
Preview Output	1x Balanced and Unbalanced
Connectors per I/O	2x RCA for Unbalanced

Note

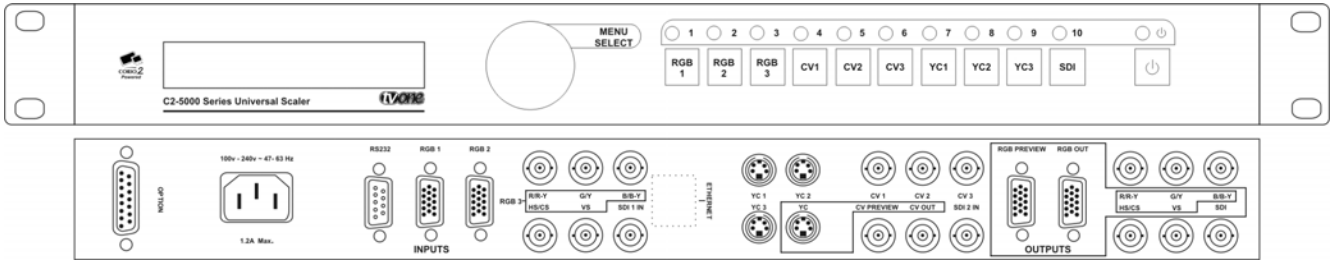
(2) A2-2000 is controlled from the C2-7100 and provides Audio Follow Video or Audio Breakaway. A Separate Spec Sheet available for this option.

Panel Drawings

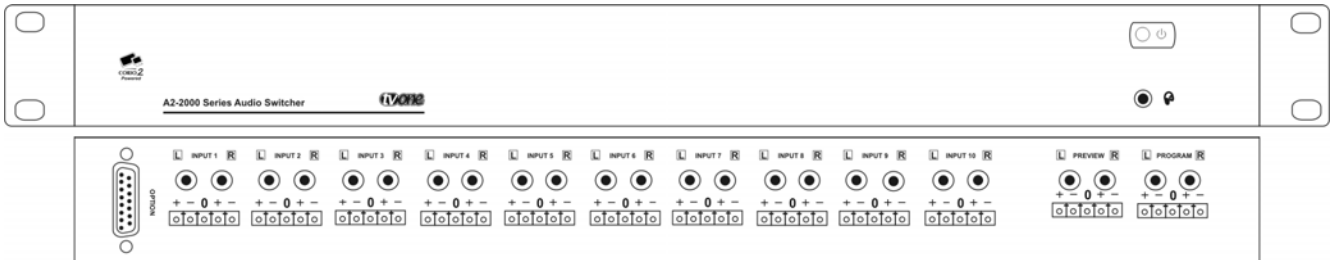
C2-5100



C2-5200



A2-2000



CC-300

