

C2-5000 Series Universal Scaler

The truly flexible video signal processor



*Up Convertor • Down Convertor • Seamless Switcher • Picture-in-Picture
SDTV-HDTV Scaler • PC-HDTV Scaler • HDTV-HDTV Scaler • PC-PC Scaler
Frame Synchronizer • Time Base Corrector • Standards Converter • Analog-
SDI Convertor • Video Transcoder • Aspect Ratio Convertor • Logo Inserter
Multi-Format Genlock • Chromakeyer • Lumakeyer and much more...*

Multiple applications from one affordable unit...

The **C2-5000 Series of Universal Scalers** is the new benchmark for video image conversion products and comes nearer to the ideal of "Anything In - Anything Out" than any other conversion product on the market. Not only is it a high performance Video Scaler, Up-Convertor, Down-Convertor and Multi-Format Seamless Switcher, but it goes far beyond that. It is also a Standards Converter, Chromakeyer, Lumakeyer, Picture-in-Picture Device, HDTV Converter, Frame Synchronizer, Time Base Corrector, Aspect Ratio Converter, Universal Image Genlock and even a Logo Inserter. Upto 10-Inputs and 5-Outputs will accommodate Composite Video, S-Video, YCbCr, YPbPr, many HDTV formats and RGBHV resolutions up to 2048x2048 - not just some predefined ones, but even custom ones. Plus, the C2-5000 Series also has 2-outputs for Preview (RGBHV and Composite Video) to facilitate live event switching. SDI in/out & genlock are included on the C2-5200 model.

As a Picture-in-Picture Device, the **C2-5000 Series of Universal Scalers** is unparalleled in its price range. Any video input can be windowed and positioned anywhere on the screen. The window can be placed over any other video input running as a background image. 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. Multiple C2-5000 units may be cascaded to provide layer upon layer and window upon window of images from virtually any source, from Composite Video through to HDTV.

The **C2-5100 Universal Scaler** is ideally suited for use with LCD Projectors, CRT Monitors, Projection TV Systems, Plasma or HDTV Displays. With its output signal format flexibility, it is assured that the Native Resolution of virtually any display can be matched.

On CV & YC inputs, adjustments are provided for Colour Saturation, Hue, Brightness and Contrast 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 definable. A Logo memory is also provided with space for up to 15 graphics, so the unit can easily be used as a standalone Logo Inserter. The C2-5000 Series employs advanced motion compensation to de-interlace fast moving images and its automatic 3:2 Pull-down efficiently restores video from 24 fps film. The unit can be controlled from the front panel, via RS-232 or by the optional Infrared Control.

C2-5200 Universal Scaler provides all the features and functions of the C2-5100 and adds an SDI input and output. Additionally, a second SDI input is provided exclusively as a genlock source. The SDI I/O is fully integrated into the architecture of the unit, so that any of the other signal formats may be converted to and from SDI and the SDI signal can be used as either the background or insert in the Picture-in-Picture windowing mode. Of course, it is also possible to seamlessly switch between any of the analog inputs and the SDI input.

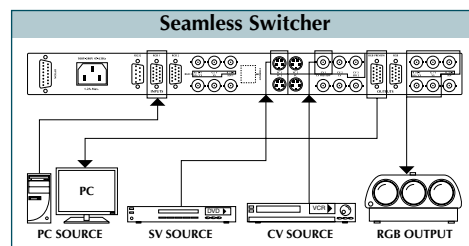
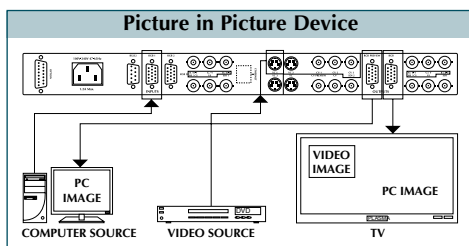
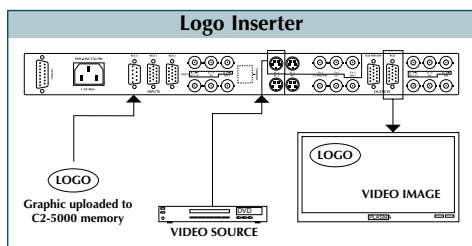
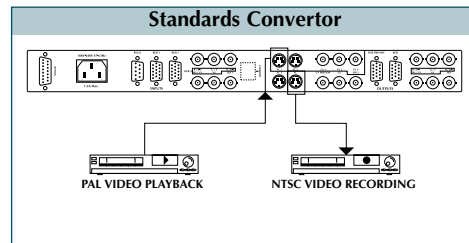
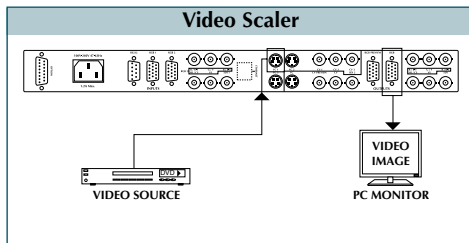
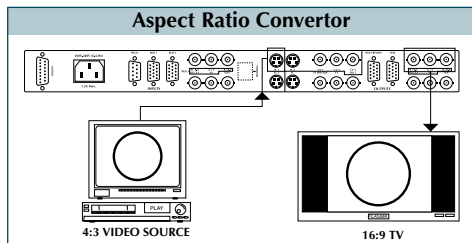
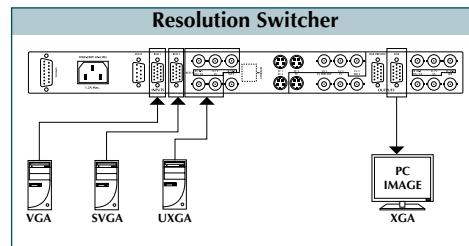
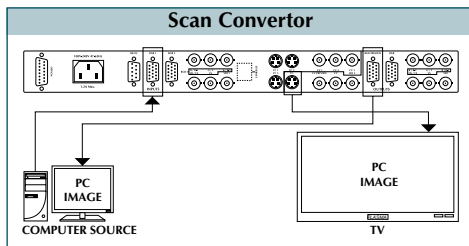
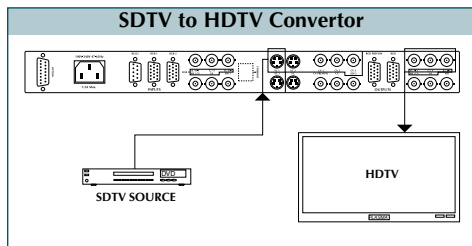
A2-2000 Stereo Audio Switcher is an option offered to add Audio Follow Video or Audio Breakaway capability to the units. Both Balanced and Unbalanced inputs and outputs are provided.

Key Features of the C2-5000 Series

- Multiple Conversion & Scaling products in one
- Up to 10 Multi-format Inputs and 5 Outputs
- 2 Preview Outputs - RGBHV and Composite
- I/O: CV, YC, YUV, YPbPr, RGBHV, RGSB, RGSB
- RGBHV to 2048x2048 & HDTV Resolutions
- Genlock any Video Input to any other
- SDI I/O and Genlock (C2-5200 Only)
- Television Standards Conversion
- PIP to Window any Video Input into any other
- CORIO² Technology Conversion Engine
- Zoom up to 1000% with 100% Pan coverage
- Image Shrink to 10% with 100% Pan coverage
- Video Output Image Adjustment
- Individual adjustments for each video input channel
- 15 Testcard/Logo Memories
- Front Panel Knob, Buttons & LCD for control
- RS-232 Interface for external control
- Optional Infrared Remote Control for all functions
- Universal Internal Power Supply

Applications

The C2-5000 Series can be put to work in a vast range of demanding applications where video signal incompatibility is simply not an option.



Specifications

10 Video Inputs

Composite Video	3x BNC Connector
S-Video (Y/C)	3x 4-PIN Mini DIN Connector
SDI (C2-5200 Only)	1x BNC Connector
RGBHV, YPbPr, YCrCb	3x (1x 5-BNC, 2x HD-15F)

Genlock Input

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

5 Video Outputs

Composite Video	1x BNC Connector
S-Video (Y/C)	1x 4-PIN Mini-DIN Connector
SDI (C2-5200 Only)	1x BNC Connector
RGBHV, YPbPr, YCbCr	2x (1x 5-BNC, 1x HD-15F)

2 Preview Outputs

Composite Video	1x BNC Connector
RGBHV, YPbPr, YCbCr	1x HD-15F Connector

Input/Output Range

Computer Resolutions	From 640x480 to 2048x2048
Max Vert Refresh Rate	250Hz
Max Horiz Frequency	130KHz
HDTV Resolutions	480p, 576p, 720p, 1080i
Interface Support	Progressive and Interlaced
Television Standards	PAL-B, G, I, D, H, PAL-M, PAL-N, NTSC 3.58, NTSC 4.43
SDI (C2-5200 Only)	SMPTTE 259M

Input RGB Sync

Type	RGBHV, RGBS, RGsB, YUV
Level	TTL
Polarity	Positive or Negative

Output RGB Sync

Type	RGBHV, RGBS, RGsB, YUV
Level	TTL
Polarity	Positive or Negative

Video I/O Impedance 75 Ω

Audio Switching (Optional A2-2000)

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 1x Terminal Block for Balanced & Unbalanced

Control Methods

Local Front Panel	10x Programmable Buttons + LED, Rotary Selector, LCD Readout
RS-232 Interface	DB-9 Male Connector
Infrared Control Option	RC-05 Remote Control Unit
Audio Switcher Control	Via D-15 Option Connector from the Main Unit

Mechanical

Desktop Case HxWxD	44mm x 430mm x 230mm
inc Rack Ears HxWxD	44mm x 482mm x 230mm
Weight (Net)	3.65 kg

Environmental

Operating Temperature	10° to 45° C
Operating Humidity	10% to 85%, Non-condensing
Storage Temperature	-10° to +70° C, Non-condensing

General

Image Size & Position	Manually Adjustable
Image Zoom Range	100% to 1000%
Image Shrink Range	100% to 10%
Image Mirroring	Horizontal and/or Vertical
Image Freeze	Full Frame
Video Memory	4x4 MByte Picture Memory Buffers (16 MByte total)
Resolution Memory	Approximately 1,000
Firmware Memory	Flash, Upgradeable via RS-232
Flicker Filter	4-Level Vertical
Picture-in-Picture	Any 2 Video Inputs
Number PIP Windows	Multiple Units may be Cascaded
Video Decoder	9-bit Digital (PAL / NTSC / SECAM)
Comb Filter Decoding	Adaptive

De-Interlacing

Film Mode	3:2 Pull Down
Video Encoder	10-bit Digital (PAL / NTSC)
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 Definable
LCD Panel	Backlit 24x2 Character
Logo Inserter	Flash Programmable
Proc. Adjustments	Brightness, Contrast, Saturation, & Hue for CV & YC Inputs, plus Video Level for RGB Inputs
Proc. Memory	Settings for each Video Input

Power Requirement

Internal Power Supply	100-240V AC, 50-60Hz
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Warranty

Limited Warranty	2 Years Parts and Labour
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Regulatory Approvals

Video Scaler Unit	FCC, CE
Power Supply	UL, CE, CSA

Accessories Included

1x C-Video Cable	2m BNC to BNC
1x S-Video Cable	2m 4-Pin S-V to 4-Pin S-V
1x VGA Cable	2m HD-15 Male to Male
1x AC Power Cord	2m cable fitted with plug
1x Operators Manual	
1x Rackmount Kit	2 Ears and 4 Caged Nuts
1x Desktop Kit	4 Rubber Feet

Optional Accessories

A2-2000 Audio Switcher	
RC-05 IR Remote Control Unit	

Product Item Number

C2-5100 Universal Scaler	
C2-5200 Universal Scaler (same base features as 5100 model but with added SDI Input, Output & Genlock)	

Due to our policy of constant improvement, we reserve the right to alter specifications without notice. E&OE. All Copyrights and Trademarks are acknowledged.

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