

## Scan Converters (Down Converters)

Models Pro S Series and Pro SG Series

Pro S Series Scan Converters are high performance, high resolution, computer-to-video converters. The range consists of the three versions, with the primary difference being the housing. The CS-500A is a compact desktop version, the CS-520A is a rackmount version and the CS-550A is a dual rackmount version. All three Pro S models work equally well with High Performance Workstations, PC and Macintosh computers. These products are based on our exclusive CORIO™ digital conversion technology and represent our fourth generation of scan converters. The Pro S models employ advanced Digital Filtering circuitry to insure maximum picture quality and an advanced Digital 6-Line Flicker Reduction system for maximum clarity.

Pro S units handle any input computer resolution up to 1600x1200 and this is achieved without horizontal line dropping, which means no loss of information during the conversion process. They accept any vertical refresh rate and horizontal scan rates up to 100KHz. In order to deal with a wide variety of Computer Workstations, all Pro S models accept computer signals with Sync-on-Green, Mixed (Composite) Sync and H&V Sync. Video outputs are switchable between NTSC and PAL and are simultaneously provided in Composite, S-Video, and RGBS (or YUV) formats, plus a computer loop-thru. Our exclusive AutoSet feature takes the hassle out of setup by automatically sizing and positioning the computer image to fit exactly on the video screen. All settings, including Underscan and Overscan, are stored in nonvolatile memory and are retained even when power is switched off. A front panel Liquid Crystal Display makes setup easy. All the functions can be controlled via the front panel Push Buttons, an Infrared Control Remote Unit or via an RS-232 connection. Remote Mouse emulation is a standard function of the Infrared Control Unit when used in conjunction with RS-232



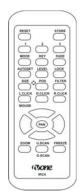
Pro SG Series Scan Converters have all the freatues of the Pro S range plus the ability to genlock to an external Composite Video signal. This Studio Genlock feature facilitates the seamless integration of computer video into broadcast or post production systems. Adjustments are provided for SCH, Subcarrier and Horizontal Sync Phasing, so that its video outputs are perfectly timed to the reference video. The Pro SG Series consists of the three versions, with the primary difference being the housing. The CS-600A is a compact desktop version, the CS-620A is a rackmount version and the CS-650A is a dual rackmount version.





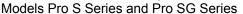
#### **Key Features of the Pro S and SG Series**

- Auto Detect Automatically configures for incoming resolutions up to 1600x1200.
- AutoSet™ Automatically sizes the incoming signal to exactly fit the video screen.
- **Configuration Memory** Automatic recognition of previously used computer types.
- Studio Genlock Pro SG models use a Composite Video Reference, with full timing.
- Scalable Overscan/Underscan User determined image size in Overscan & Underscan.
- Front Panel LCD Provides ease of Menu Navigation, setup and adjustment.
- RS-232 Interface Facilitates control of all scan converter functions by external devices.
- Infrared Remote Control Use the full-function IR Remote to control all functions.
- Remote Mouse Emulation -Use the IR Remote Unit as a Mouse to control the source PC.
- Image Zoom The 2X Zoom and Pan is superior because it is done before conversion.
- Flicker Elimination Digital flicker reduction eliminates flicker without resolution loss.
- Flexible Housings Choose from Desktop, Single Rackmount or Dual Rackmount cases.
- Multi-standard Outputs Menu selectable NTSC or PAL video output standard.



IRC-4







#### **Specifications**

Computer Video Input	
Signal Type	RGBHV, RGBS, RGsB
Termination	Auto-terminating into $75\Omega$
Connector	1x HD-15 Female
R-G-B Level Range	0.5-2.0 Vp-p
Scan Rate Detection	Automatic
Maximum Resolution	1600x1200
Max Vert Refresh Rate	
@ 640x480	210Hz
@ 800x600	170Hz
@ 1024x768	130Hz
@ 1280x1024	100Hz
@ 1600x1200	85Hz
Max Horiz Scan Rate	100KHz
Computer Compatibility	Workstations, PC, Macintosh
	S-600A, CS-620A, CS-650A Only)
Signal Type	Composite Video
Connectors	2x BNC - Input and Loop-thru
Subcarrier Phase Adjust	Full 360° Range
Horizontal Phase Adjust	+/- 500 nanoseconds
Video Outputs	
Television Standards	NTSC, PAL-B/G Selectable
Impedance	75Ω
Composite Video	1x via BNC Connector
S-Video (Y/C)	1x via 4-PIN Mini-DIN Connector
RGBS or RGBHV	1x via 5x BNC Connectors
YUV (Note 1)	1x via 3x BNC Connectors
Computer Loop-thru	1x via HD-15 Female Connector
General	Automotionia AutoCot on Manual
Size and Position	Automatic via AutoSet or Manual
Unerscan/Overscan	User-Definable Presets One Video Frame
Image Freeze	Non-Volatile
Settings Memory Zoom/Pan Range	
Flicker Filtering	2X Zoom & 100% Pan Coverage Selectable 2, 4 or 6 Line
Horizontal Filtering	Full Digital
Conversion Technology	Proprietary – CORIO™
Color Resolution	24-bit (16.8 Million Colors)
Control Methods	24-bit (10.8 Million Colors)
Local Front Panel	via Push Buttons and LCD
RS-232 Interface	via DB-9 Male Connector
Infrared	IR Remote Control Unit
Mechanical	Transic Control Cint
CS-500A, 600A (HWD)	1.75"x9"x6.75" (44x230x147mm)
Weight (Net)	3.0 lbs (1.4 kg)
770.911 (1401)	

Warranty Limited Warranty 2 Years Parts and Labor **Environmental** Operating Temperature +32° to +120° F (0° to +48° C) Operating Humidity 10% to 85%, Non-condensing Storage Temperature -40° to +150° F (-40° to +65° C) Storage Humidity 10% to 85%, Non-condensing **Power Requirement** CS-520A, 620A 100-240VAC, 50-60Hz, 10W CS-500A, 600A 12VDC, 600mA, Center Pin + (x2) 12VDC, 600mA, Center Pin + CS-550A, 650A **Regulatory Approvals** Scan Converter Units FCC, CE **Power Supplies** UL, CE, CSA **Accessories Included** 1x C-Video Cable 6' BNC to BNC 1x S-Video Cable 6' 4-Pin S-V to 4-Pin S-V 1x VGA Cable 6' HD-15 Male to Male 1x AC Power Cord 6' USA Type 3-Pin 1x IR Remote Control IRC4 Pro S/SG Series 1x Operations Manual 4x Rackmount Screws N/A with CS-500A, 600A Desktop 1x Terminator 75 $\Omega$  BNC Termination Plug 100-240VAC to 12VDC @ 1A AC Power Adapter 1x with CS-500A, 600A 2x with CS-550A, 650A Internal Power Supply used (Note 3 CS-520A, 620A) Product Item Numbers - Pro S Series CS-500A Desktop Version Single Rackmount Version CS-520A CS-550A **Dual Rackmount Version Product Item Numbers - Pro SG Series** CS-600A **Desktop Version** CS-620A Single Rackmount Version CS-650A **Dual Rackmount Version Optional Workstation Input Cables** CA-WS3 2x HD15M-to-3BNC for RGsB 2x HD15M-to-4BNC for RGBS CA-WS4 CA-WS5 2x HD15M-to-5BNC for RGBHV CA-WS13W3 2x HD15M-to-WS13W3 **Optional Output Cables (Note 2)** 10' 3BNC-to-3BNC for YUV CA-YUV3 CA-RGB4 10' 4BNC-to-4BNC for RGBS CA-RGB5 10' 5BNC-to-5BNC for RGBHV **Notes** (1) YUV Out connectors are shared with RGBS, so when in YUV Out Mode, no CV, SV and RGBS Out are available.

CS-520A





(2) Cable assemblies of alternate lengths are available.

(3) CS-520A & CS-620A use Internal Universal Supplies.



CS-520A, 620A (H-W-D) 1.75"x19"x6.75" (44x482x147mm)

CS-550A, 650A (H-W-D) 1.75"x19x"6.75" (44x482x147mm)

Weight (Net) 3.0 lbs (1.4 kg)

Weight (Net) 4.4 lbs (2 kg)







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### **Panel Drawings**

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POWER: 100v-240v 50-460Hz	
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CS-550A Dual Scan Converter Reze ONOFF ONOFF ON OVERSCAN FREEZE ONOFF ON OVERSCAN FREEZE	
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OVERSCAN FREEZE IR ONOFF  CS-520A Scan Converter	
POWER: 100v-240y 50-66Hz    Ry	