

A/V Bridge

- A/V Bridge XL
- **A/V Bridge 2000**

Pro 10 Family

- Aspect Pro 10
- HD Pro 10
- Quattro Pro 10
- Sync Pro 10

2000 Family

- Aspect 2000
- Quattro 2000
- Sync 2000

1200 Family

- Quattro 1200



Format Conversion
Standards Conversion
Aspect Ratio
Color Correction
Legalizing
Noise Reduction
Audio Processing
Timecode Processing
Multichannel



Standards Conversion with Motion Vector*

Standard converts between all SD and HD* formats with automatic detection of input signal and selectable conversion aperture.

Broadcast-quality 4 field/4 line conversion algorithm guarantees professional quality.

Motion Vector standards conversion provides a world leading quality in standards conversion. Configurable scene detection is also provided with this option.

Aspect Ratio Conversion

Converts aspect ratios with freely definable factors, zoom and pan/scan settings. Predefined Presets are available for converting from/to 4:3, 16:9 and 14:9.

Aspect Ratio Signaling/WSS is fully supported.

Window sizes and aspect ratios can be displayed in the Remote Control.

Color Correction and Legalizer*

The unit features RGB color correction and legalization. Blacklevel, whitelevel and gamma can be controlled independently.

Frame Synchronization & Timebase Correction

A full frame TBC and frame synchronization facility allows even low quality inputs to be interfaced and timed to your facility.

System timing is adjustable and flexible. Genlock/reference inputs allow for optimum system integration.

Video Noise Reduction

Powerful recursive video noise reduction and median filtering eliminate random video noise in luminance and chrominance components with a minimum of artefacts. Our long experience in video noise reduction technology ensures that the best results can be derived from impaired input signals.

Detail Enhancement

Horizontal and vertical enhancement (aperture correction) allows crisp, clear pictures - even from degraded sources.

Gain, Amplitude and Color Control

Full controls of video gain, black level, hue (NTSC) are available at the touch of a button so that all signals can be corrected before they enter your system.

Timecode*

- accepts VITC in all caption lines with auto detection of lines or manual line selection
- receives timecode via DV interface
- accepts D-VITC via SDI
- accepts ATC via SDI
- supports VITC, LTC*, D-VITC, ATC and DV timecode at output
- support for EBU and SMPTE standard at LTC input and output
- timecode generator and regeneration

Miscellaneous

- digital, analogue and IEEE 1394-ports
- genlock
- test pattern generator
- transparent processing of VBI

Audio

Video signals almost invariably have an associated audio feed. Any video-processing unit that frame synchronizes or standards converts will have a processing delay which has implications for lip sync.

This unit allows external audio or audio embedded in the serial digital signals to be delayed, re-inserted or extracted as analogue, AES/EBU or SPDIF digital, providing amazing system flexibility when audio may need to be monitored, changed or even removed altogether. The flexibility of the audio processing makes this unit suitable for a tremendous array of applications in studio facilities or broadcast environments.

- delay adjustable from 4 ms to 1000 ms for each channel individually
- automatic delay correction
- level adjustable from $-\infty$ to +6 dB for each channel individually
- embedding and de-embedding of analogue/AES/SPDIF audio signals*
- DV embedder and de-embedder*
- support for all 4 SDI audio-groups (16 channels)
- support for sampling rates of 32/44.1/48 kHz
- fully configurable cross point switcher
- DV resampling between 32 kHz and 48 kHz*

Presets

In addition to the presets provided for several groups of functions, full panel presets are also available. These allow the store and recall of complete panel setups.

Presets can also be saved and recalled to/from a PC via remote control software.

Remote Control

All functions and features are available via a serial remote connector.

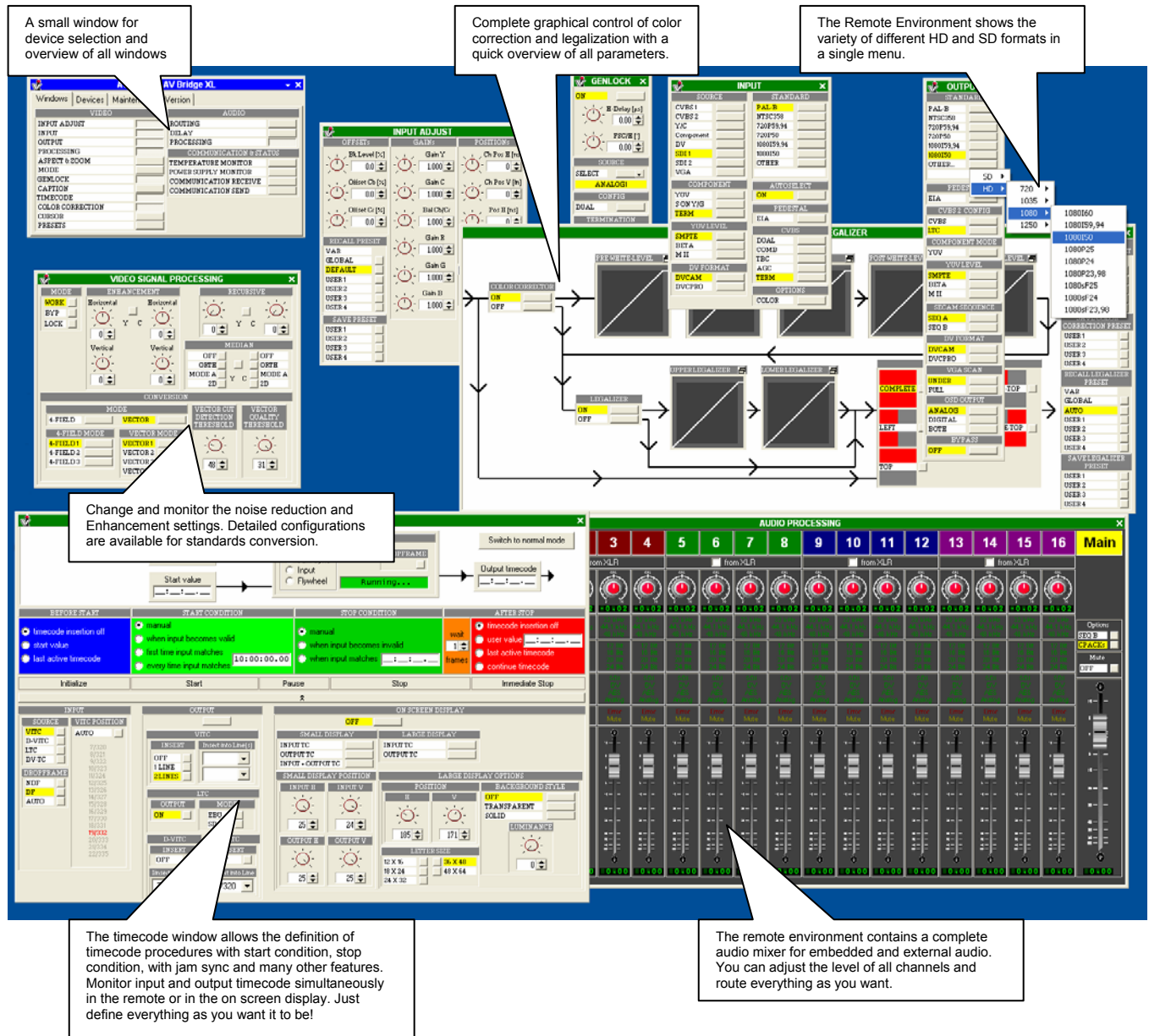
This may be used for computer control, automation system or remote control panel.

Quality

Video International is proud to manufacture high quality equipment for the demanding broadcast and studio facilities markets since more than twenty-five years. Quality is paramount in our design and manufacturing facilities.

MS Windows® based Remote Environment

A remote control application for MS Windows® based PC's is shipped with every unit. You can control and monitor every function of the AV Bridge 2000D from your PC, even functions which are not accessible via the systems keypad. With a single PC you are able to control as many units as you can connect to. Monitor the complete state of the system in several windows, one for each group of functions. Adjust the systems settings with graphical control components. You do not have to guess about the results of your adjustment - you are able to see it while modifying it!



Callout 1: A small window for device selection and overview of all windows

Callout 2: Complete graphical control of color correction and legalization with a quick overview of all parameters.

Callout 3: The Remote Environment shows the variety of different HD and SD formats in a single menu.

Callout 4: Change and monitor the noise reduction and Enhancement settings. Detailed configurations are available for standards conversion.

Callout 5: The timecode window allows the definition of timecode procedures with start condition, stop condition, with jam sync and many other features. Monitor input and output timecode simultaneously in the remote or in the on screen display. Just define everything as you want it to be!

Callout 6: The remote environment contains a complete audio mixer for embedded and external audio. You can adjust the level of all channels and route everything as you want.

System Requirements

A PC running MS Windows XP® or MS Windows 2000® with at least 500 MHz and 256 MByte of RAM. The software needs 6 MB of disk space and a screen resolution of at least 1024 x 768 pixels with 64 k of colors. The communication with the unit is done via a standard RS232-port, alternatively an Ethernet adaptor is available.



Input Formats and Supported Video Standards

Genlock	Analog Black Burst/CVBS/SDI
SDI	ITU 601/656, SMPTE 259/292 Serial Digital Component (270 Mbps/1.4 Gbps) 525I59.94, 625I50 with Option /HD additionally: 720P60, 720P59.94, 720P50, 720P30, 720P29.97, 720P25 1035I60, 1035I59.94 1080I60, 1080I59.94, 1080I50 1080P30, 1080P29.97, 1080P25, 1080P24, 1080P23.98 1080sF30, 1080sF29.97, 1080sF25, 1080sF24, 1080sF23.98
IEEE1394	DV/DVCAM/DVCPRO 525/625

Input Video Connectors

Genlock	2 x BNC dual/looping input analogue 1 x BNC SDI/Trilevel input
SDI	2 x BNC
IEEE 1394	Firewire connector (IEEE 1394) 6 Pin

Output Formats and Supported Video Standards

SDI	ITU 601/656, SMPTE 259/292 Serial Digital Component (270 Mbps/1.4 Gbps) 525I59.94, 625I50 with Option /HD additionally: 720P60, 720P59.94, 720P50, 720P25 1035I60, 1035I59.94 1080I60, 1080I59.94, 1080I50 1080P25, 1080P24, 1080P23.98 1080sF25, 1080sF24, 1080sF23.98
IEEE1394	DV/DVCAM/DVCPRO 525/625

Output Video Connectors

SDI	2 x BNC
IEEE 1394	Firewire connector (IEEE 1394) 6 Pin

Audio Interface (Option)

Analog In and Out	2 x XLR (balanced) (/A Option) 4 x Mini-XLR (balanced)/(/AEB Option) 4 x RCA (unbalanced) (/AER Option)
Digital In	2 x XLR (/A) or 2 x BNC (/AEB and /AER)
Digital Out	2 x XLR (/A) or 2 x BNC (/AEB and /AER)

Audio Processing

Digital Audio AES or SPDIF 32kHz / 44.1kHz / 48kHz up to 24 Bit
Audio Delay Time 4-1023ms
Audio Gain -∞ ... +18dB
ADC/DAC Resolution 20 Bit
Internal Processing 32 Bit
Number of Embedded Channels: 16

Timecode (/TC Option)

Timecode formats supported: VITC, LTC, DV-TC, D-VITC, ATC
LTC Input BNC
LTC Output BNC
LTC Format EBU or SMPTE at input and output
60Hz DropFrame and non-DropFrame

Video Processing

Quantizing Scheme CCIR 601 12 Bit (4:2:2)
Digital Enhancement Horizontal and Vertical
Noise Reduction Recursive Y and C up to 20dB
Full Frame TBC
4 Field / 4 Line Standards Conversion with spatio temporal
motion adaptive interpolation
motion vector compensated standards conversion (option /MV)
Frequency Response
Luminance (Y) 5.5 MHz
Chrominance (C) 0.5-1.5 MHz
Differential Phase <1°
Differential Gain <1%
Signal to Noise Ratio >68dB CCIR Flat field

Remote Control

RS232C Remote Control 9 D-Sub
Windows Control Software included

Power Requirements

AC Voltage 90-260V
Line Frequency 50/60 Hz
Power Consumption <100VA

Physical

Dimensions 44x444x500mm (HxWxD)
Weight 8kg approx
Chassis 1RU 19" Rack mounting
Cooling Forced air – cross flow (side to side)

Options

/A Audio embedder/de-embedder, 4 ch AES (balanced, XLR), 2 ch analog (balanced, XLR)
/AEB Audio embedder/de-embedder, 4 ch AES (unbalanced, BNC), 4 ch analog (balanced, miniXLR)
/AER Audio embedder/de-embedder, 4 ch AES (unbalanced, BNC), 4 ch analog (unbalanced, RCA)
/MV Provides motion compensated standards conversion
/SDI Provides support of SDI connections
/HD Provides Up-/Down- and Crossconversion
/DV Provides support of IEEE1394 connections
/CCR Provides RGB color correction and legalizer
/TC Provides timecode processing

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