Avid Liquid 7.1
Peripheral Certification

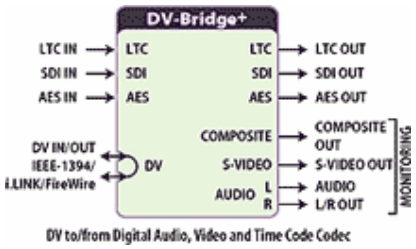
Miranda DV-Bridge+ Signal Converter
Configuration Guidelines
Version 3.0

Miranda DV-Bridge+ for Avid Liquid 7.1

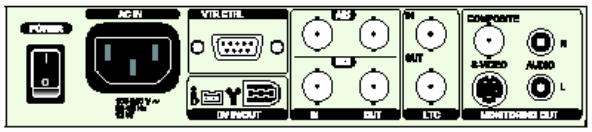
TESTED CONFIGURATION:

Signal Converter:	Miranda DV-Bridge+
Tested VCR:	SONY DSR-85P, Panasonic AJ-D 455
Workstation:	Compaq Evo W8000
IEEE 1394:	Pinnacle 1394 card
IEEE Driver:	OHCI compliant 5.1.2535.0 (Microsoft)
VGA Card:	ATI Radeon 9800XT
OS:	**Microsoft Windows XP** Professional Version 2002 + Service Pack 1 + DirectX 9.0c
Pinnacle Software:	Avid Liquid 7.1 Release Build 3493

IMAGES:



DV to/from Digital Audio, Video and Time Code Codec



DV-Bridge+ rear view

FEATURES AND SPECIFICATIONS:

http://www.miranda.com/product.php?i=47&l=1

DV/DVCPRO INPUT/OUTPUT
SIGNAL (2): DV/DVCPRO25 on IEEE-1394
CONNECTOR: IEEE-1394 4 pin and 6 pin

UNCOMPRESSED DIGITAL INPUT
VIDEO
SIGNAL: SMPTE 259M-C (270 Mbps)
CABLE LENGTH: 250 m (850') (Belden 8281)
RETURN LOSS: > 15 dB up to 270 MHz
CONNECTOR: BNC

AUDIO
SIGNAL: AES-3id (SMPTE 276M)
LEVEL: 1.0 Vp-p
IMPEDANCE: 75 Ù unbalanced
SAMPLING RATE: 32, 44.1, 48 kHz
CONNECTOR: BNC

DVITC
SIGNAL: SMPTE 12M & 266M

LTC
SIGNAL: SMPTE 12M
LEVEL: 0.1 to 5 Vp-p
CONNECTOR: BNC

UNCOMPRESSED DIGITAL OUTPUT
VIDEO SIGNAL: SMPTE 259M-C (270 Mbps)
RETURN LOSS: > 15 dB up to 270 MHz
CONNECTOR: BNC
AUDIO SIGNAL: AES-3id (SMPTE 276M)
LEVEL: 1.0 Vp-p
IMPEDANCE: 75 Ù unbalanced
SAMPLING RATE: 32, 44.1, 48 kHz
CONNECTOR: BNC
DVITC SIGNAL: SMPTE 12M & 266M
LTC SIGNAL: SMPTE 12M
LEVEL: 1 Vp-p
IMPEDANCE: < 30 Ù unbalanced
CONNECTOR: BNC

VTR CONTROL
SIGNAL TYPE: RS-422 (SMPTE 207)/ Sony protocol (transport commands only) PLAY, STOP, FASTFORWARD, REWIND, RECORD
CONNECTOR: DE-9S

MONITORING ANALOG OUTPUT
COMPOSITE VIDEO
SIGNAL: NTSC (525/60) SMPTE 170M
PAL (625/50) ITU-R BT.470-6
RETURN LOSS: > 20 dB up to 5 MHz
CONNECTOR: BNC
S-VIDEO SIGNAL: S-Video (Y-C)
LEVEL: 1.0 Vp-p
RETURN LOSS: > 20 dB up to 5 MHz
CONNECTOR: 4 pin mini-DIN
AUDIO SIGNAL: Stereo unbalanced line out
LEVEL: 1.2 V rms - 3.5 Vp-p
CONNECTOR: Twin RCA

PROCESSING PERFORMANCE
COMPRESSION: DV format at 25 Mbps
as per DV Blue Book and
DVCPRO 25
DV 4:1:1 in NTSC
4:2:0 in PAL
DVCPRO 4:1:1 in PAL
DELAY: Mode DV–>SDI : 1.5 frames
Mode SDI–>DV : 1.5 frames
Mode SDI–>SDI : 2 µs

ELECTRICAL
POWER SUPPLY
INPUT RANGE: 100-240 V / 50-60 Hz
POWER: 13 W

FURTHER INSTRUCTIONS:
Avid Liquid with AV Converter and RS 422 devices

The instructions below describe how to use RS 422 controlled devices and AV converters with Avid Liquid. Please use only LE v5.51 or higher for batch digitizing with AV converters.

Connections:

- RS-232C-RS-422 (Pinnacle supplied cable): Connect PC's COM2 to RS422 of VCR
- IEEE1394 cable: PC's IEEE1394 port to converter's IEEE1394 port
- VCR, converter and black burst (if applicable): see example below.

Settings in Avid Liquid:

- Go to *Start / Control Panel / Site / Player Settings / Settings* tab, right mouse click and add "Sony Betacam driver".
- Adjust settings as described in Read Me file paragraph E/4:

Avid Liquid RS 422 remote control: IEEE input and output selection

In order to use RS 422 remote controlled devices with Avid Liquid, a special setting in the functional description of the device driver is necessary.

- Go to Avid Liquid *Start / Control Panel / Site / Player Settings / Settings* tab, select or create the player/recorder you want to control, open its options and select *Functional Description*. Under *Video Inputs* as well as *Video Outputs* double-click the entry *IEEE* and change the value to "Yes". Do the same for audio.

For **digitizing** with a converter or video device that does not offer a time code input/output, you have to adjust the following settings:

- Go to Avid Liquid Start / Control Panel / User / Logging / Batch Digitize / General and check / activate: "Ignore time code embedded in source stream".
- Go to Avid Liquid Start / Control Panel / User / Logging / Batch Digitize / Timecode Break Behavior (RS-422): switch on "Continue digitize and set TC Break Marker"

For **batch digitizing** with a converter which does not offer a time code input/output, you have to adjust the following settings:

- In Project Manager select some clips and perform batch digitize.
- In Logging Tool open the properties and go to General tab, where you have to select "Ignore time code embedded in source stream" once again.
- In Logging Tool open the properties and go to Timecode Break Behavior (RS-422) tab: switch on "Continue digitize and set TC Break Marker"

Please note: Although you may have already activated "Ignore time code embedded in source stream" and "Continue digitize and set TC Break Marker" in the Control Panel, you have to select these options for batch digitizing once again.

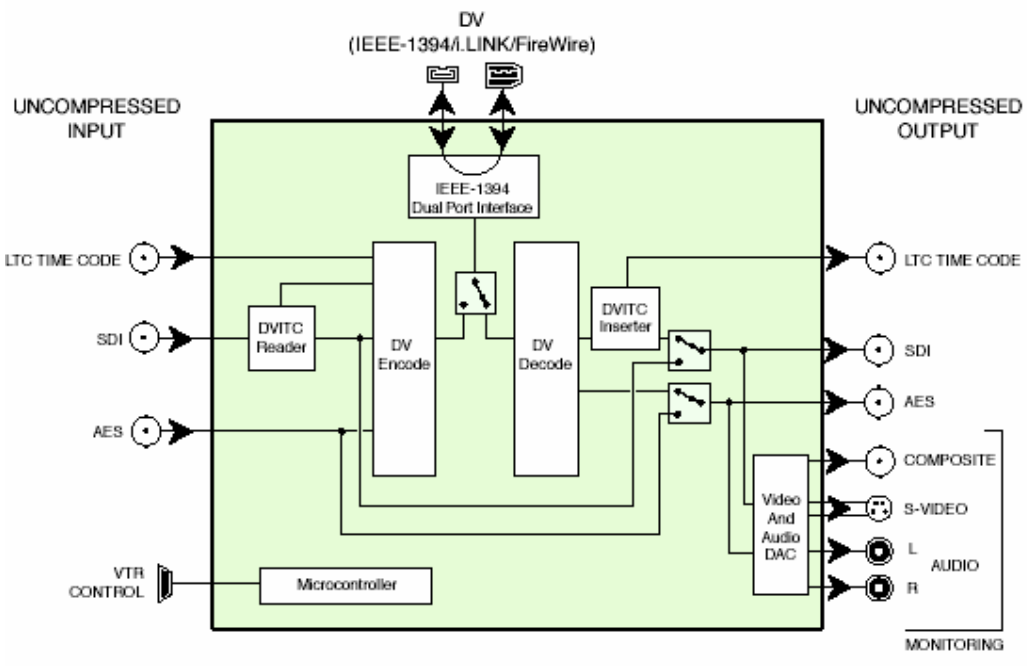
VTR Settings if no external reference / burst is available:

- When using a RS-422 controlled device it is required to switch **OFF** the **Reference Alarm** in the VCR menu. If activated, a "Player Error 9: Reference is missing or bad" is appearing whenever at capturing with mark in/out set.
- Go to Avid Liquid *Start / Control Panel / User / Logging / Batch Digitize / Timecode Break Behavior (RS-422)*: switch on "Continue digitize and set TC Break Marker"

Cabling matrix Miranda DV-Bridge+ and VTR (example):

	INPUT	**Miranda DV-Bridge+**			**Sony DSR-85P or Panasonic AJ-D 455**			Video Monitor	Audio Monitor	
OUTPUT		LTC In	AES EBU In CH 1/2	SDI In	AES EBU In CH1/2	SDI In	TC In	CVBS IN	Ch1 In	CH2 In
Miranda DV-Bridge+	LTC Out						X			
	AES EBU Out CH1/2				X					
	SDI Out					X				
	Monitor Out CVBS							X		
	Monitor Out CH1/3								X	
	Monitor Out CH2/4									X
Sony DSR-85P or Panasonic AJ-D 455	AES EBU Out CH1/2		X							
	SDI Out			X						
	TC Out	X								

DV-Bridge+ Functional Block Diagram:



DV-Bridge+ Functional Block Diagram

BASIC SETTINGS DV-Bridge+

DIP switch settings for DV:

*(Settings in **bold** were used for testing)*

- DEFAULT: **PAL** or NTSC
- COMPRESSION: **DV** or DVCPRO
- TIMECODE: AUTO or **MAN**
- TIMECODE: **LTC**
- RS422: **CONTROLLING** or TRIBUTARY

DIP switch settings for DVCPRO:

*(Settings in **bold** were used for testing)*

- DEFAULT: **PAL** or NTSC
- COMPRESSION: DV or **DVCPRO**
- TIMECODE: AUTO or **MAN**
- TIMECODE: **LTC**
- RS422: **CONTROLLING** or TRIBUTAR

KNOWN ISSUES

- Captured clip is 1 frame too late.
- If you encounter any audio problems i.e.
    - Audio comes and goes during recording to tape.
    - No audio at VTR headphone.
    - Player Error2 command timeout.

  Close Avid Liquid and switch Miranda box OFF and ON. Restart Avid Liquid.