

JVC

PROFESSIONAL

D-9 VARIABLE MOTION EDITING
RECORDER/PLAYER

BR-D95U



COMPONENT DIGITAL

Broadcast-quality performance, universal NTSC/PAL capability, and powerful pro-standard features like variable motion, pre-read and SDTI make the BR-D95U an invaluable addition to the D-9 family.

-1x to +1 variable motion with smooth anti-aliasing



With three times the normal number of playback heads and advanced digital technology to minimize jaggy edges and eliminate noise, the BR-D95U is able to deliver, smooth, picture-perfect slow motion, and still pictures.

Fit and Fill function

When a program's duration doesn't exactly fit the scheduled time slot, this function automatically adjusts the recording speed, condensing or extending the duration as required to fit the available time.

Ready for universal format and universal power supply (525/625 switchable)



With switchable 525/625 playback/recording, color framing for NTSC (4F)/PAL (8F), and a universal power supply (100 V – 240 V), the BR-D95U can record and play back both NTSC and PAL formats with no optional equipment required.

Source tapes from either format can be used for editing without conversion and respective final output can be tailored to suit the destination country at the flick of a switch.

Front panel of the BR-D95U



- | | | |
|--|---------------------------------------|----------------------|
| 1 AUDIO INPUT/AUDIO MONITOR SELECT section | 10 REMOTE button | 19 Editing buttons |
| 2 VIDEO INPUT button and indicators | 11 PB PB/EE button | 20 Operation buttons |
| 3 Cassette loading slot | 12 Menu setting buttons | 21 Search/jog dials |
| 4 POWER switch | 13 Player/recorder select buttons | |
| 5 Level meter section | 14 Headphone jack and volume | |
| 6 Counter display | 15 Audio playback level adjust knobs | |
| 7 COUNTER button | 16 Audio recording level adjust knobs | |
| 8 RESET button | 17 UNITY indicators | |
| 9 VCON button | 18 TRACKING adjust knob | |

4:2:2 component digital processing, mild 3.3:1 compression and 50 Mbps data rate for superior multi-generation picture quality



D-9's outstanding picture quality is derived from 4:2:2, 8-bit component processing that assures the highest resolution and color detail even over multiple generations. With extremely mild, perceptually lossless 3.3:1 compression and a data rate of 50 Mbps, D-9 captures even the most challenging picture in all its splendor without compression artifacts. Low compression intra-frame processing not only ensures beautiful pictures, but also makes possible frame accurate editing.

In addition, a Viterbi circuit has been added to correct the error rate, supplying a stable picture with no block noise.

Greatly enhanced operability

The transport mechanism and control system software have been improved, greatly enhancing operability and making the system able to cope with even rough handling.

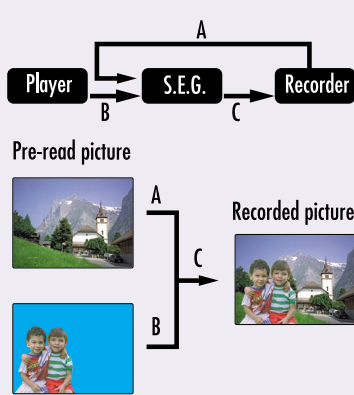
SDTI interface (optional)



Designed for connection via SDTI (serial data transport interface) for compressed data or standard SDI (serial digital interface), the BR-D95U can be connected to a wide range of devices and maintain a fully digital path. The optional SA-D95U, SDTI and SDI interface provides a pure signal when spooling to and from servers and non-linear editing systems.

Developed to meet the needs of today's broadcaster, the BR-D95U features broadcast-quality variable motion capability, a pre-read function for both video and audio and optional SDTI compressed data transfer capability. And, since the BR-D95U uses JVC's proven, high-quality D-9 format, it delivers superb picture and sound with 1/2" 50 Mbps 4:2:2 component digital recording and four independently editable PCM audio channels with built-in sampling rate converter. Internationally oriented production will benefit from the BR-D95U's universal design which can handle both NTSC and PAL formats, while RS-422 and RS-232 standard interfaces offer compatibility with most control systems, assuring easy integration in any editing suite. Ideal for any broadcast or post-production studio, and especially well suited for sports production, the high-performance BR-D95U demonstrates once again why JVC D-9 is one of today's most popular standards in broadcast video production.

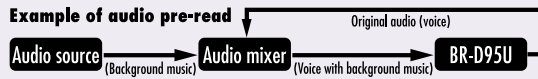
Video pre-read function with wide 32H window



Digital pre-read, a prized high-end function for most editors, adds powerful layering capabilities to virtually any edit suite. With pre-read, the recorder can play back the digital signal on the tape before recording a new signal in its place. This means you can build an A/B

roll system with only two VTRs instead of three, saving the cost of one VTR. In addition, video pre-read allows complex layering effects to be performed even when working in an analog environment. And because the video pre-read window has a tolerance range of 32H, it is compatible with a wide range of digital vision mixers and switchers, giving you even more versatility in layering and editing.

Audio pre-read function



The BR-D95U includes a pre-read function for audio, as well as for video. In other words, audio signals that

have already been recorded can be played back, processed, and recorded back onto their original position on the tape. A mode that automatically synchronizes the audio recording position with video is provided. Alternatively, the audio recording position for video can be set manually within a range of -480 to 720 samples (with 48 kHz sampling). This makes it possible to create more sophisticated productions — for example, you can add background music to the original voice recording.

Four independently editable 16-bit, 48 kHz PCM audio channels

Each of the four uncompressed digital audio channels can be edited independently, providing you with the most optimal production flexibility. 4-channel tapes can be played back on current 2-channel D-9 machines and 2-channel tapes can be played as recorded on the BR-D95U. You can even enhance your existing tape library by using the BR-D95U to add additional audio tracks to 2-channel tapes.

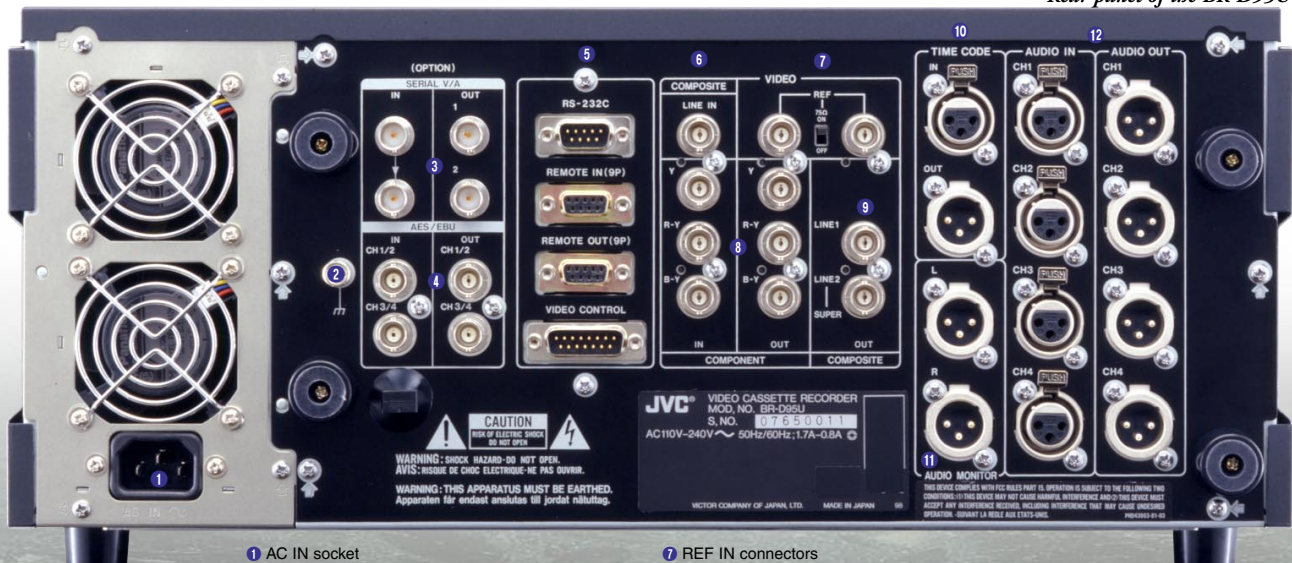
Audio sample rate converter for 32 kHz, 44.1 kHz & 48 kHz

A built-in sampling rate converter lets you input digital audio signals with various sampling frequencies. These include professional-standard 48 kHz signals, as well as 44.1 kHz and 32 kHz.

Other features

- Audible PCM sound in slow motion for precise editing
- Adjustable audio record/playback levels
- Audio/video fade function
- 2-hour recording & playback time with DS-124 cassette
- Tiltable front panel editing control for recorder and player (swap edit function)
- Assemble/insert editing
- Audio split editing
- Search/jog dial
- Variable motion editing
- Motion memory function
- TC/SUB TC reader/generator
- Editing screen display
- VCON function
- Quick auto tracking
- Multi-function counter display
- On-screen display
- Fixed time entry (Cue Up function)
- Viterbi circuit
- RS-422/RS-232C control
- Analog interface
- 16:9 aspect ratio
- Parallel run function
- 10-bit to 8-bit conversion
- Remote TBC adjustment
- 9-pin remote input/output connectors
- Time code input/output connectors
- Test signal generator (color bar, black, multi-burst, 1 kHz audio)
- Rugged die-cast chassis and sapphire flanges for long life
- Upper rotating head design for long head life
- Super head cleaner for long life
- Boards laid out for easy access
- Front panel service connector
- Dubbing loop function

Rear panel of the BR-D95U

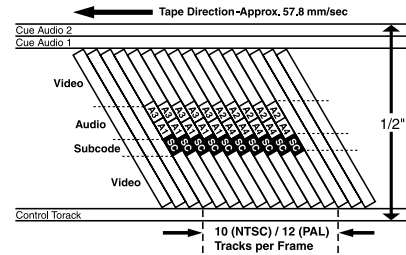


- 1 AC IN socket
- 2 SIGNAL GND terminal
- 3 SERIAL V/A IN/OUT connectors
- 4 AES/EBU IN/OUT connectors
- 5 Control connectors
- 6 COMPOSITE IN connector
- 7 REF IN connectors
- 8 Y-R-Y-B-Y IN/OUT component signal inputs/outputs
- 9 COMPOSITE OUT connectors
- 10 TIME CODE IN/OUT connectors
- 11 AUDIO MONITOR connectors
- 12 AUDIO IN/OUT connectors

D-9 basic format

Tape	1/2" metal particle
Recording time	Max. 124 minutes (using DS-124 tape)
Video	
Sampling	4:2:2 8-bit component
	Y: 13.5 MHz
	R-Y/B-Y: 6.75 MHz
Compression	3.3: 1 DCT-based, intra-frame coding
Data rate	50 Mbps
Audio	4-channel PCM, 48 MHz, 16-bit
	Each channel individually editable
Rotation speed	4500 rpm
Tracks	2 audio cue, 1 control, 10 (NTSC)/12 (PAL) video/audio per frame
Head drum	62 mm (same as S-VHS)

Tape pattern



With a track-width of 20 μ m, 1 frame consists of 10 (NTSC)/12 (PAL) tracks with the video area on either side of the audio area. The longitudinal tracks include two cue audio tracks and a control track for tracking.

Specifications

GENERAL

Format: D-9
Tape: 1/2-inch metal particle
Power supply: AC 110 V - 240 V, 1.7 A - 0.8 A
Weight: 21.6 kg (47.6 lbs.)
Temperature
 Operating: 5°C to 40°C (41°F to 104°F)
 Storage: -20°C to 60°C (-4°F to 140°F)
Humidity: 30% to 80%
Tape speed: 57.737 mm/s (NTSC)
 57.795 mm/s (PAL)
Recording time: Max. 124 minutes (using DS-124 tape)
Picture search: \pm 32 times with visible color picture (forward & reverse)
FF/REW time: Approx. 3 minutes (with DS-104 tape)
Variable motion: -1 to +1 times with full picture quality (requires remote control)
Remote control: RS-422A
Remote diagnosis: Via RS-232C (list capabilities)
Rotation speed: 4500 rpm
Tracks: 2 audio cue, 1 control, 10 (NTSC)/12 (PAL) video/audio per frame
Track pitch: 20 μ m
Head drum: 62 mm (same as S-VHS)

VIDEO

Adjustable range of video control
System phase: More than \pm 3 μ s
Subcarrier phase: More than 360°
Video phase: More than \pm 1 μ s
Video level: More than \pm 3 dB
Chroma level: More than \pm 3 dB
Chroma phase: More than \pm 30°
Setup level: Less than 0 mV to more than 100 mV
Input level
Line: 1.0 Vp-p, 75 ohms, unbalanced
Component: Y:1 Vp-p/R-Y & B-Y:0.7 Vp-p, 75 ohms, unbalanced
External reference signal: 0.286 Vp-p (sync & burst), 75 ohms, unbalanced

AUDIO

Bandwidth: 20 to 20 kHz \pm 1/-1.5 dB
Dynamic range: More than 85 dB (at 1 kHz)
Distortion ratio: Less than 0.1% (at 1 kHz)
Crosstalk: Less than -75 dB (at 1 kHz)
Headroom: 20 dB/18 dB
Emphasis: Automatically switched in PB (OFF in REC)
Number of tracks: PCM x 4
Input level
Line: -20/-6/0/+4 dBs, high impedance, balanced
Output level
Line: -6/0/+4 dBs, high impedance, balanced
Monitor: -6/0/+4 dBs, low impedance, balanced
Phones: ∞ to -20 dBs, 8 ohms

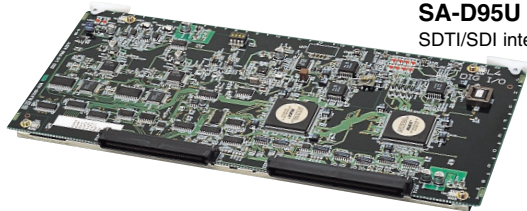
TIME CODE

Input level
Line: 0 \pm 6 dBs, high impedance, balanced
Output level
Line: 0 \pm 3 dBs, low impedance, balanced

OPTIONS

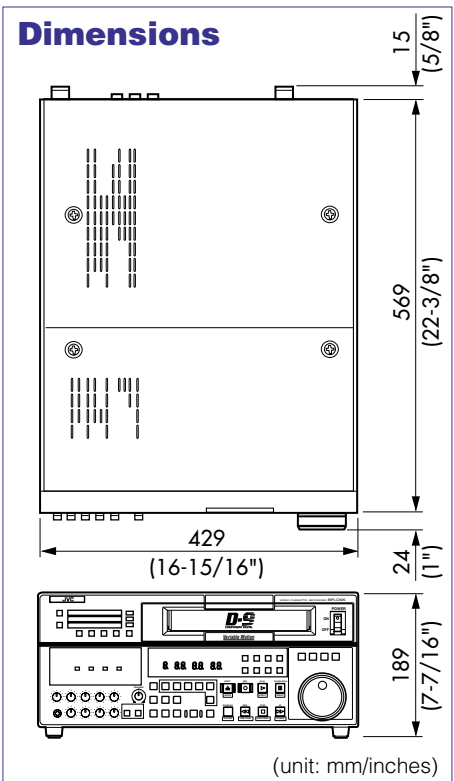
Digital input/output interface board (SA-D95U)
Rack mount kit (SA-K67U)

Option



SA-D95U
SDTI/SDI interface

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