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AJ-SD965
DVCPRO50 Digital Video Cassette Recorder
(625/525)

DVCPRO 50

A High-End SD VTR with Colour LCD

A Full 2 Hours of Recording onto an XL Cassette

The AJ-SD965 now records up to 2 full hours of stunning DVCPRO50 images on to the new XL cassettes.
This translates into 4 hours in DVCPRO mode. Ideal for event recording, program production, and on-air transmission. Naturally, it accepts three cassette sizes in all: XL, L, and M.

Tiltable Front Panel with LCD Monitor

The new front panel on the AJ-SD965 contains a high-resolution LCD monitor and Programmable Function (PF) buttons. The LCD monitor makes it easy to check output or input images, and to set functions using the on-screen menu. The tiltable panel lets you adjust the angle of the monitor for optimal viewing and operation.

DV/DVCAM Playback

For added versatility, the AJ-SD965 can play back DV and DVCAM tapes. Standard DV tapes can be played without an adapter, while Mini-DV tapes can be played using the AJ-CS455P adapter.*

Programmable Function Buttons

You can assign functions from the setup menu to each of the four Programmable Function (PF) buttons provided. This customizing feature gives you quick, direct access to the operational functions you use most.

*It is not possible to record onto a Mini-DV cassette with an adapter. Also, DVCPRO VTRs cannot play Mini-DV cassette tapes recorded in LP mode, nor 80- or 120-minute Mini-DV cassette tapes, even with an adapter.

AJ-YA932G
625 Analogue Video Input Board

AJ-YA931G
525 Analogue Video Input Board

AJ-YAD955G
IEEE1394 Board

AJ-MA75P
Rack Mount Adaptor
(slide rail, not included)

AJ-CS455P
Mini-DV Cassette Adaptor

AJ-5P126XG
DVCPRO50 Cassette Tape

DVCPRO50/DVCPRO Switchable

The AJ-SD965 records and plays back in both DVCPRO50 and DVCPRO formats. In playback, the AJ-SD965 automatically detects the recording format used and plays the tape back accordingly. In DVCPRO50 mode, the AJ-SD965's 4:2:2 digital component video recording and 48-kHz, 16-bit, 4-channel digital audio deliver the high image and sound quality needed in TV program production. When extended recording time is desired, you can switch the AJ-SD965 to DVCPRO mode with 2-channel digital audio.

625/525 Selectable

The 625/525 selectable function in the AJ-SD965 lets you play and use NTSC footage in program production. Use the standard-equipped SDI or optional AJ-YA931G 525 analogue input board for 525 input, and the standard-equipped SDI and analogue out for output.

High-Precision ±0 Frame Linear Editing

With a second VTR as a source machine, you can do 1-event assemble, insert, and audio-split editing using the AJ-SD965's preview, review, preroll, and trim keys. Intraframe compression in both DVCPRO50 and DVCPRO modes allows high-precision, high-quality, frame-by-frame tape editing. Metal Particle tapes with an 18-micron track width provide professional-level accuracy and durability.

Jog & Shuttle Dial

In shuttle mode, you can search in colour at ±32 times normal speed. Slow-motion playback is provided at -0.43 to +0.43, +0.5, or +0.75 times normal speed in DVCPRO50 and DVCPRO modes. Digital audio monitoring is possible in jog mode.

Standard SDI and AES/EBU In/Out

The AJ-SD965 comes standard with SDI (Serial Digital Interface), allowing input and output of digital component signals. AES/EBU digital audio in/out (4 channels) is also standard. This versatility makes it ideal for high-end post-production applications.

Analogue Input/Output

The AJ-SD965 is equipped with composite and component output signals as a standard feature. Four channels of analogue audio in and out are also part of the standard configuration. Analogue video input is available by adding an optional AJ-YA932G (625) or AJ-YA931G (525) board. This efficient design provides all the versatility needed in today's video production environment.

*The 625 and 525 boards are selectable. Both boards cannot be mounted at the same time.

IEEE 1394 Interface

The AJ-SD965 option slot allows system expansion. Connecting an AJ-YAD955G IEEE 1394 Digital Interface Board gives you degradation-free transfer of compressed data, which provides a full 4:2:2 compressed signal for use in PC and Macintosh based editing systems.*

*DV data input is not possible in 625 (PAL) mode.

Other Features and Specifications

- Versatile remote interfaces: RS-422A (9-pin), RS-232C (25-pin), Encoder (15-pin) and Parallel (25-pin).
- Weighs 17.5 kg and mounts in a 4U-size, 19" rack (with separately sold adaptor).
- Low power consumption of 130 watts maximum (with all options).
- UMID* data compatible. Enables readout of GPS data (latitude, longitude, and altitude) that was input during recording.

*UMID (Unique Material Identifiers): These AV material identifiers are defined in the SMPTE 330M international standard.

General

Power Supply:	AC100 to 240V ±10%, 50 to 60 Hz
Power Consumption:	115W 130W (full option)
Operating Temperature:	5°C to 40°C
Operating Humidity:	10% to 80% (non dew)
Weight:	17.5 k g
Dimensions (WxHxD):	424 x 175.2 x 417 mm
Recording Format:	DVCPRO50/DVCPRO switchable
Video Format:	625i/525i switchable
Audio Recording Format:	48kHz, 16 bit 4CH (DVCPRO50) 48kHz, 16 bit 2CH (DVCPRO)
Recording Track:	Digital Video/Audio: Helical track TC: Subcode area Cue: 1 longitudinal track CTL: 1 longitudinal track
Tape Speed:	625i: 67.708mm/s (DVCPRO50) 525i: 67.640mm/s (DVCPRO50)
Tape:	Metal Particle
Rec/Play Time:	Max. 126 minutes (*Based on AJ-5P126XG cassette)
FF/REW Time:	Less than 3 minutes (*Based on AJ-5P92LP cassette)
Search Speed:	±50x
Digital Slowmotion:	−0.43x to +0.43x, +0.5x, +0.75x (DVCPRO50,DVCPRO)
Editing Accuracy:	±0 frame (TC)
Tape Timer Accuracy:	±1 frame (continuous CTL)
Servo Lock Time:	Within 0.5 sec (colour framing/standby ON)

Video

Sampling Frequency:	Y: 13.5MHz, PB/PR: 6.75MHz (DVCPRO50)
Quantization:	8 bits
Compression Method:	DV-Based Compression (SMPTE 314M)
Compression Ratio:	3.3:1 (DVCPRO50), 5:1 (DVCPRO)
Error Correction:	Reed-solomon product code
Bit Rate:	50 Mbps (DVCPRO50) 25 Mbps (DVCPRO)

[Digital In/Analogue Component Out] (standard)

625i Bandwidth:	Y: 25Hz to 5.75MHz (±1.0dB) PB/PR: 25Hz to 2.75MHz (±1.0dB)
525i Bandwidth:	Y: 30Hz to 5.75MHz (±0.5dB) PB/PR: 30Hz to 2.75MHz (±0.5dB)
S/N Ratio:	60dB or more (Y)
K Factor:	1% or less (Y 2T)
Y/PB, PR Delay:	10 nsec or less

Video Input

Analogue Component: (option)	BNC x 3 (Y/PB/PR), Y: 1.0Vp-p, 75Ω PB/PR: 0.7Vp-p, 75Ω (100% Colour bar)
Analogue Composite : (option)	BNC x 2 (loop-through), 75Ω On/Off, Video:1.0Vp-p(75Ω)
Reference:	Analogue Composite BNC x 2 (loop-through) 75Ω On/Off
SDI:	BNC x 2 (active through), SMPTE259M-C/ITU-R BT.656-4
SDTI(option):	BNC x 1

Video Output

Analogue Component:	BNC x 3 (Y/PB/PR), Y: 1.0Vp-p, 75Ω PB/PR: 0.7Vp-p, 75Ω (100% Colour bar)
Analogue Composite:	BNC x 3 Video1/Video2: Video/WFM switchable Video 3: Superimpose on/off
SDI:	BNC x 3, SMPTE259M-C/ITU-R BT.656-4 SDI1, SDI2, SDI3 (superimpose on/off)
SDTI(option):	BNC x 2

Audio

Sampling Frequency:	48kHz (sync. with video)
Quantization:	16 bits
Frequency Response:	20Hz to 20kHz, ±1.0dB (reference level)
Dynamic Range:	More than 90dB (1kHz, emphasis off, "A" weighted)
Distortion:	within 0.05% (1kHz, emphasis off, reference level)
Cross Talk:	Less than −80dB (1kHz, between any 2ch)
Wow & Flutter:	Below measurable limit
Headroom:	18 dB
De-Emphasis:	T1=50μsec, T2=15μsec ON/OFF (Automatically switching)
Cue Track:	300Hz to 6kHz, ±3dB (DVCPRO50)

Audio Input

Analogue(CH1/2/3/4):	XLR x 4, +4/0/−20 dBu switchable, 600Ω/high-impedance switchable
Digital(CH1/2, CH3/4):	BNC x 2, AES/EBU
SDI:	BNC x 2, (active through) SMPTE272M-A/ITU-R BT.656-4

Audio Output

Analogue (CH1/2/3/4):	XLR x 4, Low-impedance, +4/0/−20 dBu switchable
Digital (CH1/2, CH3/4):	BNC x 2, AES/EBU 1.0±0.2Vp-p, 75Ω
SDI:	BNC x 3, 75Ω SMPTE272M-A/ITU-R BT.656-4
Monitor:	XLR x 2, Low-impedance, +4/0/−20 dBu switchable
Phones:	M3, variable level control, 8Ω

Others

DVCPRO/DV IN/OUT: (option)	6 pin x 1, Digital Video Interface IEEE1394-1995 IEC61883-PART1/PART2
TC IN:	XLR x 1, 0.5 to 8.0 Vp-p, 10KΩ
TC OUT:	XLR x 1 low-impedance, 2.0 ±0.5 Vp-p
RS-422A IN:	D-sub 9 pin
RS-422A OUT:	D-sub 9 pin
RS-232C:	D-sub 25 pin
Parallel IN/OUT:	D-sub 25 pin
Encoder Remote:	D-sub 15 pin

Video Specifications
with the AJ-YA931G Optional Analogue Input Board

[Analogue Component In/Component Out]

Bandwidth:	Y:	30Hz to 5.5MHz (±1.0dB) 5.75MHz −2.0dB
	PB/PR:	30Hz to 2.5MHz (±1.0dB) 2.75MHz (−2.0dB)
S/N Ratio:		55 dB or more
K Factor :		1% or less (Y 2T)
Y/C Delay:		20 nsec or less

[Analogue Composite In/Composite Out]

Bandwidth:	Y:	30Hz to 4.5MHz (±1.0dB) 5.5MHz (−3.0dB)
Y/C Delay:		20 nsec or less

LCD Monitor

Monitor:	3.5"

*LCD monitors are manufactured to an extremely high level of precision, but in parts of the screen there may be some pixels that do not display and some that remain on continuously. Please note that this is not a malfunction and that these pixels will not be recorded onto the tape.

Weight and dimensions shown are approximate.
Specifications are subject to change without notice.
These products may be subject to export regulations.

*DVCAM is a registered trademark of Sony Corp,.

[Countries and Regions]

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