

SONY®



SRW-9000

HDCAM-SR Camcorder

HDCAM SR™

CINEALTA™

SRW-9000 HDCAM-SR Camcorder



In 2000, Sony laid the groundwork for a new era of digital image making in the motion picture industry with the introduction of its HDW-F900 – the first model in Sony’s “24P-capable” CineAlta™ lineup. Since then, the HDW-F900 – and its successor model, the HDW-F900R – have been satisfying the demand for high level picture quality and creative versatility in primetime TV production, commercial production, and movie making. Now, Sony has taken the next evolutionary step with the next generation 24P camcorder, the SRW-9000 HDCAM-SR™ camcorder. This inherits many of the excellent qualities of the HDW-F900/F900R, plus it offers incredible operational mobility – even in harsh shooting environments – thanks to its one-piece body, and outstanding picture performance from the HDCAM-SR recording format.

In standard configuration, the SRW-9000 is capable of top-quality 4:2:2 Y/Cb/Cr 10-bit recording at 1080/23.98P, 24P, 25P and 29.97P, and 1080/50i and 59.94i. In addition, the SRW-9000 can record 1080/50P and 59.94P signals, and 4:2:2 720/50P and 59.94P* signals, which can be used for DTV programming and transmission applications. For users who require further creative performance, a variety of option cards can be added, allowing you to benefit from full-bandwidth 1080 RGB 4:4:4 capturing, SR Motion™ variable frame rate capturing and recording, S-Log Gamma, and additional signal inputs and outputs.

Providing improved operational flexibility and cost benefits, the SRW-9000 is the perfect choice for anyone in the broadcasting industry seeking HDCAM-SR picture quality and a high level of creative freedom. Both now and into the future, the SRW-9000 will help ignite a passion for stunning visual productions in digital cinema, commercial programs, TV dramas, and documentaries.

*It will be realized by future software upgrade.



HDCAM-SR One-piece Camcorder - Achieving Breathtaking Picture Quality

The SRW-9000 is an HDCAM-SR one-piece camcorder that delivers full HD resolution images and employs 2/3-type IT CCD. Combining this CCD with a high-precision 14-bit A/D converter and digital signal processing, the camcorder is able to capture and reproduce stunning-quality 1080/60P and 1080/50P images with low noise and high sensitivity. Furthermore, Sony's BP-GL95, an on-board battery can be attached to provide an additional power supply. With its self-contained recording media (based on the HDCAM-SR format) and compact one-piece design, the SRW-9000 delivers powerful mobility and comfortable shooting – both indoors and outside.

Full-bandwidth RGB 4:4:4 Digital Image Capturing

With the addition of the optional HKSR-9003 RGB 4:4:4 Processing Board, the SRW-9000 offers a full-bandwidth digital 4:4:4 high-definition Red, Green, and Blue signal processing and output ability. This camcorder is also capable of the 4:4:4 High Quality (HQ) mode and the 4:4:4 Standard Quality (SQ) mode, enabling 880Mb/s 4:4:4 RGB recording and 440Mb/s 4:4:4 RGB recording respectively for highly demanding picture productions. The SRW-9000 also offers S-LOG Gamma with the same optional board, allowing users to flexibly adjust images in the post-production process.

SR Motion™ Variable Frame Rate Image Capturing

By adding the HKSR-9002 Picture Cache Board, the SRW-9000 is capable of recording images at a variable frame rate from 1 fps to 60 fps in 4:2:2 mode. And by combining the HKSR-9002 with the HKSR-9003, it can perform the same function even in 4:4:4 mode.

Wide Choices of Viewfinders

The SRW-9000 accepts three types of viewfinder, including the HDVF-20A/200, HDVF-C35W, and HDVF-C30WR. The newly introduced HDVF-C30WR is especially suited for use with the SRW-9000, offering improved focus assist functions, a color brightness level indicator, and numerous other beneficial features. Moreover, with pre-installed viewing LUTs (look-up tables) for S-Log Gamma, this viewfinder provides users with easier focus adjustment and a more intuitive photo-shooting operation.

• Multi-format Image Capturing

Progressive mode-
Standard:
4:2:2 1080/23.98P, 24P, 29.97P, 50P, 59.94P
4:2:2 720/50P and 59.94P

Optional:
RGB 4:4:4 1080/23.98P, 24P, 25P,
29.97P (HKSR-9003)
RGB 4:4:4 1080/50P, 59.94P (HKSR-9002
and 9003)
(RGB 50P and 59.94P is available for
SR motion recording)

Interlace mode-
Standard:
4:2:2 1080/50i, 59.94i
Optional:
RGB 4:4:4 1080/50i, 59.94i (HKSR-9003)

• High-precision 14-bit A/D Conversion

• Versatile Gamma Settings

Including unique S-LOG Gamma (HKSR-9003), HyperGamma, and customizable gamma curve (standard).

• Picture Cache Recording Capability

Everything captured maximum three seconds before the REC button is pressed is recorded to HDCAM-SR tape when the camcorder is in stand-by mode.

• 2-3 Pull-down/Built-in Down-conversion Output

• I/O Expandability

When using the HKSR-9001, additional dual-link HD-SDI outputs and an additional AUX input port are provided, allowing the camcorder to be connected with an external audio multiplexing device.

• Wide Range of Accessories

The SRW-9000 is compatible with a wide range of accessories for the HDW-F900, F23, SRW-1, and ARRI.



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Specifications

General	Dimensions	148 x 211 x 330 mm (5 7/8 x 8 3/8 x 13 inches) (without handle and protruding parts)	
	Mass	Approx. 6.5 kg (14 lb 5 oz)	
	Power requirements	DC 12 V +5.0 V/-1.0 V	
	Power consumption	Approx. 57 W (while recording, w/o options, power save mode)	
	Operating temperature	0 to 40 °C (+32°F to 104 °F)	
	Storage temperature	-20 to +60 °C (-4 to 140 °F)	
	Humidity	10 to 90% (relative humidity)	
	Continuous operating time	Approx. 80 min. w/BP-GL95 battery	
	Recording format	Video: HDCAM-SR 440Mbps HDCAM-SR 880Mbps 4:2:2 1080/23.98P, 24P, 29.97P, 50P, 59.94P, 50i, 59.94i 4:2:2 720/50P and 59.94P RGB 4:4:4 1080/23.98P, 24P, 25P, 29.97P, 50i, 59.94i (w/HKSR-9003) RGB 4:4:4 1080/50P, 59.94P (w/HKSR-9002 and HKSR-9003) Audio: 12ch/24bit/48kHz	
	Recording/Playback time	HDCAM-SR 440Mbps: 4:2:2, 4:4:4SQ: 40min (30P)-50min (24P) HDCAM-SR 880Mbps: 4:4:4HQ: 20min (30P)-25min (24P) 4:2:2, 4:4:4SQ: 20min (60P), 24min (50P)	
Recommended tape	BCT-6SR, BCT-33SR, BCT-40SR		
Inputs/Outputs	GENLOCK IN	BNC x 1, 1.0 Vp-p, 75Ω	
	TC IN	BNC x1, 0.5 to 18 Vp-p, 10 Ω	
	AUDIO IN	CH-1/CH-2: XLR 3-pin (female) x 2, Line/Mic/Mic +48V selectable	
	AUX IN	SMPTE 292M (embedded audio x12) (w/HKSR-9001)	
	TEST OUT	BNC x 1 (switchable) HD Y/SD composite (character On/Off)	
	HD-SDI Monitor	BNC x 2 (character On/Off) HD-SDI SMPTE 292M (w/embedded audio)	
	HD-SDI OUT (Dual Link)	BNC x 2 (w/HKSR-9001 option) HD-SDI OUT LinkA/B HD-SDI: SMPTE 292M (w/embedded audio) HD-SDI Dual Link: SMPTE 372M (w/embedded audio)	
	TC OUT	BNC x 1, 1.0 Vp-p, 75 Ω	
	EARPHONE	Mini-jack x 1 (stereo)	
	DC IN	XLR 4-pin (male) x 1, 11 to 17 V	
	DC OUT	4-pin x 1 (for wireless microphone receiver), 11 to 17 V DC (MAX 0.5 A)	
	LENS	12-pin	
	REMOTE	8-pin	
	EXT IO	Camera control (RS-232C)	
	CTRL (CAM)	For Assistant panel (AP-1)	
	MEMORY STICK	x 2 (for camera setup files, VTR maintenance)	
	Ethernet	-	
	Audio Performance	Frequency response	20 Hz to 20 kHz, +0.5 dB/-1.0 dB
		Dynamic range	More than 100 dB
Distortion		Less than 0.05% (at 1 kHz, reference level)	
Crosstalk		Less than -80 dB (at 1kHz, reference level)	
Headroom		20dB	
Camera Section		Pickup device	3-chip 2/3-inch type Progressive CCD
	Effective picture elements	1920 (H) x 1080 (V)	
	Optical system	F1.4 prism	
	Built-in optical filters	A: 3200K, B: 4300K, C: 5600K, D: 6300K, E: ND0.3 (1/2ND) 1: Clear, 2: ND0.6 (1/4ND), 3: ND1.2 (1/16ND), 4: ND1.8 (1/64ND), 5: CAP	
	Shutter speed	angle 360.0°- 4.3° Continuous Mode (ECS)	
	SR Motion™ Variable Frame Rate	(w/HKSR-9002) Selectable from 1 to 60 frame/sec as recording frame rate	
	Lens mount	Special made rugged 2/3-inch type Sony bayonet mount (B4)	
	Sensitivity (2000 lx, 89.9% reflectance)	29.97PsF: T11 ISO580	
	Gain selection	-6, -3, 0, 3, 6, 9, 12dB	
	Smear level	-135 dB (typical)	
	S/N ratio	55 dB	
	Horizontal resolution	1000 TV lines (at center of screen) 5% or higher modulation	
	Registration	Within 0.02% (all zones, without lens)	
	Viewfinder	Option	
Supplied Accessories	Operation manual (x 1), Lens mount cap (x 1), RiserPlate (x 1), V Plate, Handle, VTR control panel, VTR control panel cable (L.M)		

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