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HDW-M2000P/20

HDCAM recorder with CineAlta 24P record feature and multi-format playback

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A high definition VTR for prestige and mainstream programme production

Sony recognises that your needs as a programme maker will vary depending upon the type of programme being made. This has driven the development of a multi-format high definition product offering, including HDV for entry-level high definition operation, HDCAM for mainstream and prestige productions, CineAlta for 24P applications, and HDCAM SR for productions where only the ultimate quality will suffice.

HDCAM has long been associated with the production of the most prestigious movies, commercials and television programmes. The recent expansion of the HDCAM product line up has transformed the economics of HD for mainstream television production, with new models such as the HDW-730S camcorder making HD acquistion accessible to those working on standard definition budgets. And the HDCAM family continues to evolve.

A recent enhancement to the HDW-M2000P HDCAM VTR has added CineAlta 24P recording for the first time. This enhanced model, the HDW-M2000P/20, operates at the frame rates used for prestige and mainstream content creation and distribution. It offers HDCAM recording and playback at 1080/50i, 1080/59.94i, 1080/25P, 1080/29.97P, 1080/23.98P and 1080/24P.

The HDW-M2000P/20 is ideal as part of an end-to-end HDCAM production chain. It also makes business sense even when post production and programme distribution remains at 625/50 standard definition. An in-built HD to SD downconverter provides a standard definition output from your high quality HDCAM original recordings. Compatible replay of Betacam, Betacam SP, Betacam SX, MPEG IMX and Digital Betacam tapes also helps smooth your transition to the world of high definition.

This product comes with PrimeSupport – fast, hassle-free repairs and a helpline offering expert technical advice. Which gives you the peace of mind that Sony is looking after your equipment, and your business.

Features

HDCAM recording and playback
HDCAM uses intra-frame DCT compression using a compression ratio of about 7:1. There are four channels of 48kHz digital audio at 20-bit resolution.

Selectable frame rates
The HDW-M2000P/20 can record and replay at 1080/50i, 1080/59.94i, 1080/25P, 1080/29.97P, 1080/23.98P and 1080/24P.

Compatible replay of standard definition cassettes
Betacam, Betacam SP, Betacam SX, MPEG IMX and Digital Betacam cassettes can be replayed. The HDW-M2000P/20 is optimised for analogue 625/50 Betacam and Betacam SP playback, but can replay 525/60 Betacam and Betacam SP tapes and provide a monitoring quality output. Full playback quality is achived-when replaying Betacam SX, MPEG IMX and Digital Betacam 525/60 tapes.

Built-in up and down converters
The HDW-M2000P/20 has a built in HD to SD down-converter and a built-in SD to HD upconverter. Down-conversion allows tapes shot in HDCAM to be output in standard definition for subsequent post production or distribution. The downconverted image can be squeezed or cropped within the VTR for display on a 4:3 monitor.

No compromise in editing performance
Assemble, insert and pre-read editing is provided. When used in pre-read mode, the HDW-M2000P/20 can be used to insert titles into video material using a single VTR.

Broadcast quality slow motion
The HDW-M2000P/20 has DT (Dynamic Tracking) heads as standard. Broadcast quality pictures can be replayed in the range –1 to x2 speed from HDCAM tapes, and from –1 to x3 speed when replaying Betacam, Betacam SP, Betacam SX, MPEG IMX and Digital Betacam cassettes.

High quality picture search and jog

Selecting edit points is easy with the HDW-M2000P/20. Pictures and sound can be searched at up to x50 normal speed.

Compact chassis

The HDW-M2000P/20 uses a 4U chassis design, in common with MPEG IMX VTRs and the new DVW-M2000P series Digital Betacam VTRs.

Surround sound

Both Dolby-E and AC-3 are handled as standard

Benefits

Superb High Definition pictures

HDCAM VTRs are in use around the world for the most prestigious programme productions. The HDW-M2000P/20 produces great quality pictures and is the ideal companion to the HDW-750P and HDW-730S HDCAM camcorders.

Unlimited opportunities for international productions

With 1080/50i, 1080/59.94i, 1080/25P, 1080/29.97P, 1080/23.98P and 1080/24P switchability, the HDW-M2000P/20 brings new opportunities for international production and distribution. You can use the HDW-M2000P/20 to produce a travel programme for a European audience one day, and a music programme for transmission in the USA or Japan the next.

Business benefits today and tomorrow

When used in an end-to-end high definition production chain, the HDW-M2000P/20 maintains the exceptional quality of HDCAM from shooting to playout. The HDW-M2000P/20 also makes business sense when post production and distribution is completed in standard definition. A built-in downconverter within the VTR creates standard definition pictures from HDCAM tapes. These SD pictures can then be re-played into your existing standard definition edit suite for subsequent post production. And users today are recognising that pictures shot in HD and post produced in SD provide a better on-screen look than those originated in standard definition.

Peace of mind for High Definition post production

Over 27,000 HDCAM VTRs and camcorders have been sold worldwide, and the number of post houses and broadcast facilities equipped with HDCAM grows every day. HDCAM VTRs have a great track record for rugged and reliable operation around the world.

Ease-of use for minimum re-training

The latest in a long line of digital VTRs from Sony, the HDW-M2000P/20 retains the ergonomic design and familiar operation of formats such as Digital Betacam. With the HDW-M2000P/20, you avoid expensive operational re-training and can generate great pictures from day one.

Technical Specifications

Generic Specifications	
Power Requirements:	AC 100 V to 240 V, 50/60 Hz
Power Consumption:	220 W
Operating Temperature:	+5C to +40C (+41F to +104F)
Storage Temperature:	-20C to +60C (-4F to +140F)
Humidity:	25% to 90% (relative humidity)
Mass:	Approx. 23 kg
Dimensions:	427 mm x 174 mm x 544 mm
Recording Format	HDCAM (1080/50i, 59.94i, 25P, 29.97P, 23.98P, 24P)
Replay Formats	HDCAM (1080/50i, 59.94i, 25P, 29.97P, 23.98P, 24P) Digital Betacam MPEG IMX Betacam SX Betacam SP Betacam

HDCAM Recording Duration	Up to 155 minutes (48Hz) with L-cassette Up to 149 minutes (50Hz) with L-cassette Up to 124 minutes (59.94Hz) with L-cassette Up to 50 minutes (48Hz) with S-cassette Up to 48 minutes (50Hz) with S-cassette Up to 40 minutes (59.94 Hz) with S-cassette

Video Input Signals	
Analogue reference	1 x BNC with loop through
HD-SDI	1 x BNC (SMPTE 292M) 1.485Gbps
SDTI (with optional HKDW-102 installed) 	1 x BNC (SMPTE 305M) 270Mbps

Video Output Signals	
Analogue composite	3 x BNC (one with character display)

Analogue component:	3 x BNC (Y, R-Y, B-Y)
SDI	3 x BNC (one with character display)
HD-SDI	3 x BNC (one with character display)
SDTI (with optional HKDW-102 installed)	2 x BNC

Audio Input Signals

Analogue audio	5 x XLR 3-pin (CH 1 to 4 and CUE)
Digital audio (AES/EBU)	2 x BNC (CH1/2 and CH3/4)
Time Code	1 x XLR 3-pin

Audio Output Signals

Analogue audio	5 x XLR 3-pin (CH 1 to 4 and CUE)

Digital audio (AES/EBU)	4 x BNC (CH1/2, CH3/4, CH5/6 and CH7/8)
Time Code	1 x XLR 3-pin
Monitor output	2 x XLR 3-pin

Remote Control

RS-422A IN	D-sub 9-pin
RS-422A OUT	D-sub 9-pin
RS-232C	D-sub 9-pin
Video Control	D-sub 15-pin, D-sub 9 pin
Control Panel	Round type 10-pin
Parallel Remote	D-sub 50-pin

Supplied Accessories

Operational and installa-tion manual	

Accessories

Remote Controls and Panels

BKMW-102

Control panel case for remote VTR control panel

BKMW-103

Control panel extension kit

Option Boards and Modules

HKDW-101

Remote Control Panel

HKDW-102

SDTI Interface Board

RMM-131

RACK MOUNT KIT FOR UVW,DSR AND MSW VTR