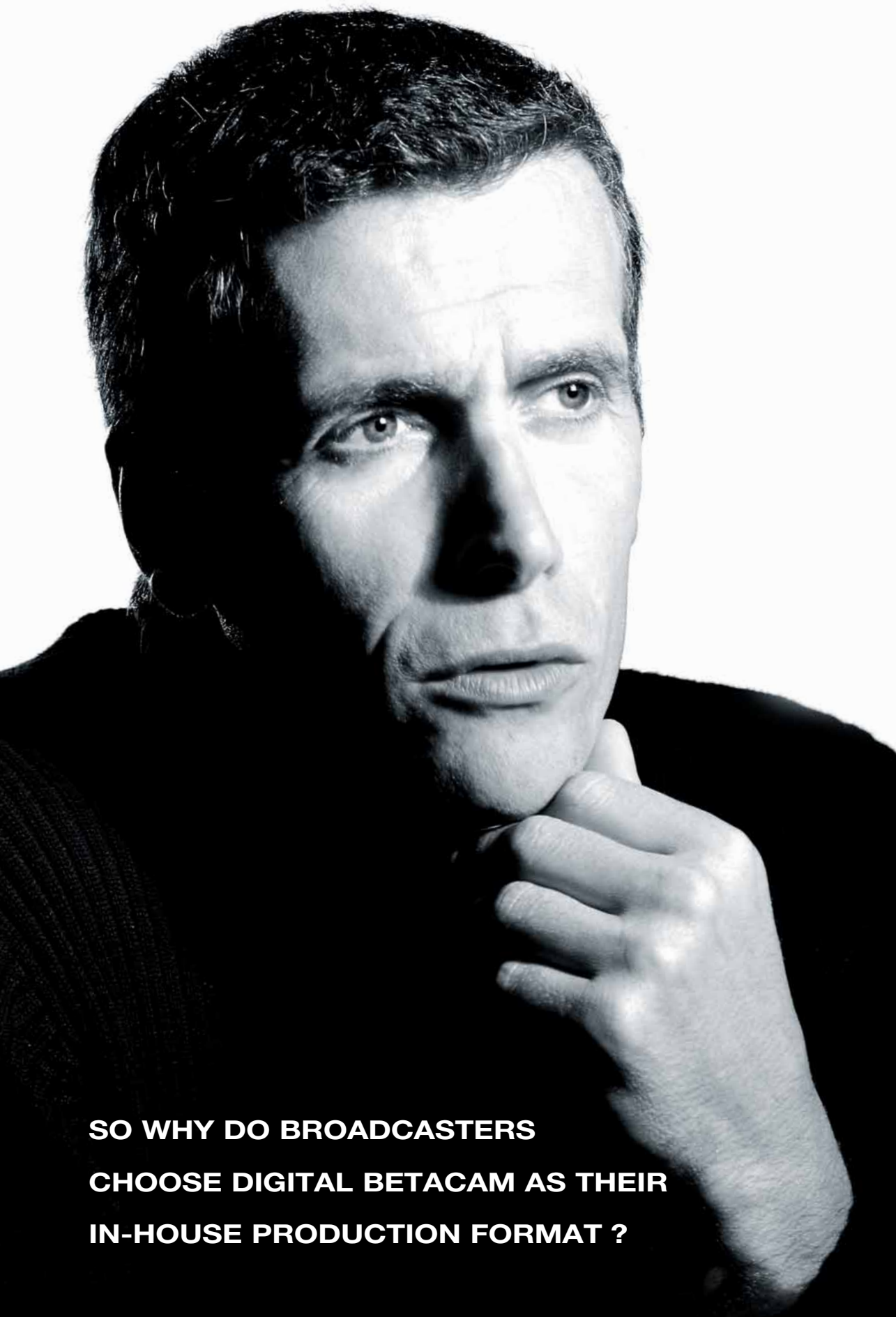


Digital BETACAM

Digital Betacam Family



**SO WHY DO BROADCASTERS
CHOOSE DIGITAL BETACAM AS THEIR
IN-HOUSE PRODUCTION FORMAT ?**

CHANGING



THE WAY



BUSINESS



COMMUNICATES

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SONY

A WORLDWIDE STANDARD FOR DIGITAL PROGRAMME PRODUCTION



Digital Betacam was the first recording format to bring the benefits of digital production to the wider programme making community. Since its introduction, Digital Betacam has become the established favourite for standard definition programme production where only the ultimate picture and sound quality will suffice. The high quality performance of Digital Betacam, combined with its simplicity of operation is just one reason why many broadcasters around the world have chosen Digital Betacam as their "in-house" production format. Add to that a comprehensive line-up of camcorders, portable and studio VTRs, and the built-in capability to replay analogue Betacam and Betacam SP cassettes, and you have a format that is ideally placed to help you fully integrate your existing operations into a fully digital environment.



CONTENTS

PRODUCT LINE-UP

CAMCORDERS	3
DVW-790WSP	3
DVW-709WSP	3
DVW-707P	3
OPTIONAL ACCESSORIES	4

STUDIO RECORDERS	5
DVW-A500P	5
DVW-500P	5
OPTIONS	6

PORTABLE VTRs AND COMPACT PLAYERS	7
DVW-250P	7
J-3/A AND J-3/SDI	7

SPECIFICATIONS	8
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DVW-790WSP/709WSP/707P Camcorders



The DVW-790WSP, DVW-709WSP and DVW-707P camcorders are the result of working closely over the years with world-leading cinematographers and programme producers. Employing Power HAD CCDs, they allow total freedom of picture content and enable shooting in low lighting conditions. Menu-driven setup allows camera operators to customise camera settings so that they precisely suit production requirements – from ENG to Digital Cinematography.

Common features

- 3-chip 2/3-inch CCD
- Stunning colour accuracy
- Power HAD sensors reduce vertical smear
- High sensitivity and outstanding signal to noise ratio
- Stylish and ergonomic design
- 12-bit Advanced Digital Signal Processing (ADSP)
- TruEye™ processing reproduces far more natural colour than conventional analogue camcorders
- Optional SDI output board
- Optional picture cache memory board provides up to 8 seconds of loop recording
- Turbo gain up to 48 db
- Auto Trace White (ATW) system
- Dial in colour temperature
- Built-in film gamma curve
- Multi matrix feature
- Cameraman-programmable menu system
- SDI output option

DVW-790WSP

- 16:9/4:3 switchable FIT CCD
- Smear level of -140 dB
- Sensitivity of F9.0 at 2000 lux
- Two optical filter wheels
- 2.0-inch viewfinder

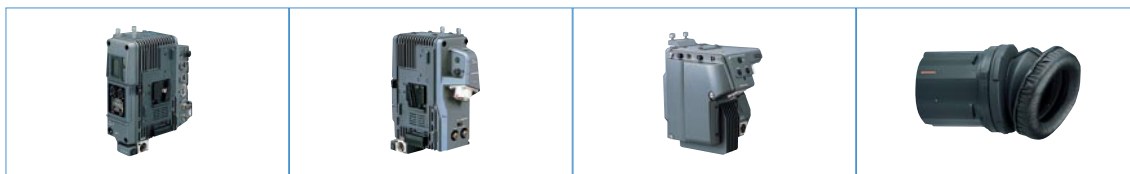
DVW-709WSP

- 16:9/4:3 switchable IT CCD
- Smear level of -120 dB
- Sensitivity of F9.0 at 2000 lux
- Two optical filter wheels
- 2.0-inch viewfinder

DVW-707P

- 4:3 IT CCD
- Smear level of -125 dB
- Sensitivity of F10.0 at 2000 lux
- One optical filter wheel
- 1.5-inch viewfinder

OPTIONAL ACCESSORIES



CA-701
Camcorder Adapter

CA-702P
Camcorder Adapter

CA-755P
Camcorder Adapter

A-8314-798-A
Viewfinder Eye-piece
(High performance, x3)



A-8262-537-A
Viewfinder Eye-piece
(High magnification)

A-8262-538-A
Viewfinder Eye-piece
(Low magnification)

A-8267-737-A
Viewfinder Eye-piece
(Standard magnification
with special compensation
for aberrations)

BSC-1 Pack
Setup Card

AC-DN1/AC-DN2B
AC Adapter



BP-IL75
Lithium-ion Battery

BC-M150
Battery Charger

BC-M50CE
Battery Charger

BKDW-701
Servo Filter Unit

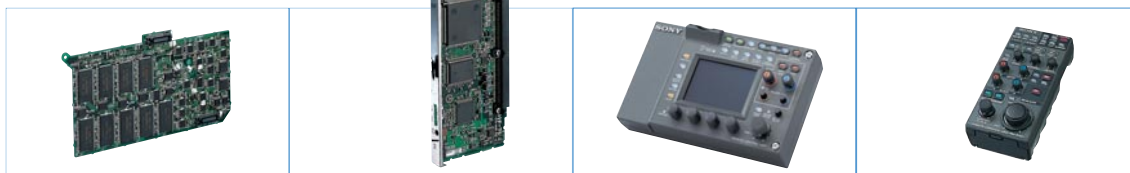


BKW-401
Viewfinder Rotation Bracket

VCT-14
Tripod Adapter

CCU-550DP
Camera Control Unit
(For CA-755P)

BVF-55CE
5-inch B/W Viewfinder
(For CA-701/702P/755P)



BKDW-703
Picture Cache Option

BKDW-702
SDI Output Option

RM-B750
Remote Control Unit

RM-B150
Remote Control Unit



WRR-862B*
Wireless Receiver

WRR-855B*
Wireless Receiver
(Shown here with a BTA-801 Camera Adapter
for rear mounting to camcorder)

WRT-8B* + ECM-88BC
Wireless Transmitter & Lavalier Mic

* See p.9 for specifications.

DVW-A500P

Digital Video Cassette Recorder with Betacam and Betacam SP playback



The DVW-A500P is a Digital Betacam editing VTR with Betacam and Betacam SP playback. It combines superb picture quality with excellent multi-generation editing capability, and has an ease of operation that will be familiar to Betacam VTR users. The DVW-A500P provides 4 channels of 20 bit digital audio, and powerful editing features such as Pre-read, Dynamic Tracking (DT) and insert/assemble editing to zero frame accuracy. Many broadcasters are using the DVW-A500P for play-out of content from Flexicart and Library Management Systems (LMS) where the requirement for rugged, reliable 24 hour-per day operation is mandatory.

Features

- 4:2:2 component digital VTR
- 625/50 operation
- 4 channels of 20 bit 48 kHz digital audio
- Superb multi-generation editing performance
- ± 0 frame accurate assemble and insert editing
- Pre-read editing capability
- Broadcast quality variable speed playback from -1 to +2 times
- Betacam/Betacam SP playback capability with variable speed from -1 to +2 times
- DMC (Dynamic Motion Control) function
- Long record and playback time: 124 minutes using an L cassette and 40 minutes using an S cassette
- Component analogue and SDI inputs as standard
- Composite analogue input (option using BKDW-506)
- Composite analogue, component analogue and SDI outputs as standard
- 4 analogue and AES/EBU audio inputs and outputs

Also available: DVW-A500

A 525/60 Digital Betacam recorder is also available with CE marking for the Europe, Africa and Middle East market. Please contact your Sony Sales Centre for details.

Tapes



BCT-D34L/D64L/D94L/D124L
Digital Video Cassettes (Large Cassette)

BCT-D6/D12/D22/D32/D40
Digital Video Cassettes (Small Cassette)



BCT-D12L/BCT-5CLN
Cleaning Cassette

DVW-500P

Digital Video Cassette Recorder



The DVW-500P offers the same features as the DVW-A500P but without Betacam and Betacam SP playback.

Features

- 4:2:2 component digital VTR
- 625/50 operation
- 4 channels of 20 bit 48 kHz digital audio
- Superb multi-generation editing performance
- ± 0 frame accurate assemble and insert editing
- Pre-read editing capability
- Broadcast quality variable speed playback from -1 to +2 times
- DMC (Dynamic Motion Control) function
- Long record and playback time: 124 minutes using an L cassette and 40 minutes using an S cassette
- Component analogue and SDI inputs as standard
- Composite analogue input (option using BKDW-506)
- Composite analogue, component analogue and SDI outputs as standard
- 4 analogue and AES/EBU audio inputs and outputs

OPTIONS FOR STUDIO RECORDERS



BKDW-514

Control Panel

Supplied as standard with the DVW-500P, but it is available as an additional accessory for even greater flexibility.



BKDW-515

Control Panel

The BKDW-515 is an advanced control panel for the DVW-A500P and DVW-500P Digital Betacam VTRs. It employs a menu-based Electro-luminescent display for VTR operation and set up. A Multi CUE menu is provided for applications such as live and sports programming, where rapid CUE up to selected material is a critical requirement. An IC memory card system is also used for storage of CUE points and VTR menus. This can be used for rapid configuration of a number of VTRs prior to an editing session.

- Electro-luminescent (EL) display for menu-based VTR operation
- Multi CUE menu for storage and rapid cue up to 100 edit points
- IC Memory Card for storage of VTR set-up menus, and CUE points
- Numeric keypad for entry of CUE point and TC data
- Programmable PF keys for quick access to frequently used operational menus



BKDW-511

Control Panel Case for the DVW-A500P and DVW-500P.

The BKDW-511 is for use with the BKDW-514 Control Panel only. It is not for use with the BKDW-515 Control Panel.



BKDW-510

Control Panel Extension Kit for the DVW-A500P and DVW-500P.



BKDW-509

Parallel (50 pin) Interface Kit for the DVW-A500P and DVW-500P.

BKDW-506

Analogue Composite Decoder Board for DVW-A500P and DVW-500P.

BKDW-507

Audio Programme Play Board for DVW-A500P and DVW-500P.

RMM-110

Rack Mount Kit

DVW-250P

Portable Digital Video Cassette Recorder



The DVW-250P is a portable Digital Betacam recorder designed specifically for outside production. The DVW-250P records Digital Betacam video and 4 channels of 20 bit digital audio onto both S and L cassettes, for up to 124 minutes of continuous recording. Full colour video and audio REC confidence playback is provided to enable material to be monitored during recording. The DVW-250P combines rugged, reliable operation with lightweight construction and can be operated using battery power for operation in the remotest of locations.

Features

- 4:2:2 component digital portable recorder
- 625/50 operation
- 4 channels of 20 bit 48 kHz digital audio
- Accepts both S and L cassettes
- Compact and lightweight at approx. 7.7kg, including battery and S cassette
- 26 W power consumption in REC mode, with CONF1 off
- Automatic switching between external and internal batteries
- Full colour video and audio confidence playback
- LCD panel for audio and video level metering, channel condition and menu settings
- Accurate back space editing
- 9 pin remote control from an optional BVR-3 remote controller
- Colour freeze frame capability
- SDI input and output
- 26 pin camera interface for both analogue and digital signals
- Analogue composite input and output
- Analogue audio inputs and outputs

Accessories

- BVR-3 Remote control unit
- CCZ-A Series 26-pin cables

J-3/A and J-3/SDI

Compact Players



The J-3/A and J-3/SDI are the smallest ever players of Betacam family cassettes. The design concept of the J-Series was for affordable, compact office viewers to be used by producers, journalists and production staff. The J-3/A and J-3/SDI can replay Betacam, Betacam SP, Betacam SX, MPEG IMX and Digital Betacam S-cassettes and L-cassettes. At the same time, they also have all the features required for viewing and logging, and – although not designed for editing applications, or on-air use – are ideal for source feeding to servers or non-linear editing systems. The J-3/A provides composite and component analogue video outputs, while the J-3/SDI provides a composite analogue and SDI output. The J-3/A and J-3/SDI have a jog/shuttle dial, 525/625 versatility, simple remote control capability via RS-422A and audio meters – all packed into their compact size.

Features

- Extremely compact: 307 x 100 x 397 mm (12 1/8 x 4 x 15 3/4 inches) in size and just 7 kg in weight
- J-3/A has composite analogue and component analogue video outputs
- J-3/SDI has composite analogue and SDI video outputs
- Playback of Betacam, Betacam SP, Betacam SX, MPEG IMX and Digital Betacam cassettes
- Playback of S-cassettes and L-cassettes
- Jog/Shuttle dial with x20 maximum search speed for Digital Betacam cassettes
- 525/625 switchable for international operation
- Monitor output of 2 audio channels (selectable on front panel)
- Audio meters for display of the selected 2 channels of audio
- Equipped with industry-standard RS-422A control interface for remote feeding into servers and non-linear edit systems
- 4 channels of digital output via SDI output on J-3/SDI
- Good Shot Mark handling when used with Betacam SX and MPEG IMX cassettes

SPECIFICATIONS | CAMCORDERS

	DVW-707P	DVW-709WSP		DVW-790WSP	
		16:9 MODE	4:3 MODE	16:9 MODE	4:3 MODE
GENERAL					
Mass	Approx. 5 kg (11 lb. 1 oz)	Approx. 5 kg (11 lb. 1 oz)	Approx. 5 kg (11 lb. 1 oz)	Approx. 5 kg (11 lb. 1 oz)	Approx. 5 kg (11 lb. 1 oz)
Operating weight	Approx. 7 kg (15 lb. 7 oz)	Approx. 7 kg (15 lb. 7 oz)	Approx. 7 kg (15 lb. 7 oz)	Approx. 7 kg (15 lb. 7 oz)	Approx. 7 kg (15 lb. 7 oz)
Power requirements	DC 12 V +5.0 V / -1.0 V	DC 12 V +5.0 V / -1.0 V	DC 12 V +5.0 V / -1.0 V	DC 12 V +5.0 V / -1.0 V	DC 12 V +5.0 V / -1.0 V
Power consumption	29 W	31.5 W	31.5 W	32 W	32 W
Operating temperature	0 °C to +40 °C (+32 °F to +104 °F)	0 °C to +40 °C (+32 °F to +104 °F)	0 °C to +40 °C (+32 °F to +104 °F)	0 °C to +40 °C (+32 °F to +104 °F)	0 °C to +40 °C (+32 °F to +104 °F)
Storage temperature	-20 °C to +60 °C (-4 °F to + 140 °F)	-20 °C to +60 °C (-4 °F to + 140 °F)	-20 °C to +60 °C (-4 °F to + 140 °F)	-20 °C to +60 °C (-4 °F to + 140 °F)	-20 °C to +60 °C (-4 °F to + 140 °F)
Humidity	25 % to 85 % (relative humidity)	25 % to 85 % (relative humidity)	25 % to 85 % (relative humidity)	25 % to 85 % (relative humidity)	25 % to 85 % (relative humidity)
Continuous operating time	Approx.135 min. (With BP-IL75)	Approx.125 min. (With BP-IL75)	Approx.125 min. (With BP-IL75)	Approx.120 min. (With BP-IL75)	Approx.120 min. (With BP-IL75)

SIGNAL INPUTS

Genlock video	BNC type (x1), 1.0 Vp-p, 75 Ω	BNC type (x1), 1.0 Vp-p, 75 Ω	BNC type (x1), 1.0 Vp-p, 75 Ω	BNC type (x1), 1.0 Vp-p, 75 Ω
Time code input	BNC type (x1), 0.5 to 18 Vp-p, 10 kΩ	BNC type (x1), 0.5 to 18 Vp-p, 10 kΩ	BNC type (x1), 0.5 to 18 Vp-p, 10 kΩ	BNC type (x1), 0.5 to 18 Vp-p, 10 kΩ
Audio (CH-1/2)	XLR-3-31 type (x2), -60 dBm / +4 dBm selectable, high impedance, balanced	XLR-3-31 type (x2), -60 dBm / +4 dBm selectable, high impedance, balanced	XLR-3-31 type (x2), -60 dBm / +4 dBm selectable, high impedance, balanced	XLR-3-31 type (x2), -60 dBm / +4 dBm selectable, high impedance, balanced
Mic input	XLR-3-31 type (x2), -60 dBm / +4 dBm selectable, high impedance, balanced	XLR-3-31 type (x2), -60 dBm / +4 dBm selectable, high impedance, balanced	XLR-3-31 type (x2), -60 dBm / +4 dBm selectable, high impedance, balanced	XLR-3-31 type (x2), -60 dBm / +4 dBm selectable, high impedance, balanced

SIGNAL OUTPUTS

Video output	BNC type (x1), 1.0 Vp-p, 75 Ω	BNC type (x1), 1.0 Vp-p, 75 Ω	BNC type (x1), 1.0 Vp-p, 75 Ω	BNC type (x1), 1.0 Vp-p, 75 Ω
Video test output	BNC type (x1), 1.0 Vp-p, 75 Ω	BNC type (x1), 1.0 Vp-p, 75 Ω	BNC type (x1), 1.0 Vp-p, 75 Ω	BNC type (x1), 1.0 Vp-p, 75 Ω
Time code output	BNC type (x1), 1.0 Vp-p, 75 Ω	BNC type (x1), 1.0 Vp-p, 75 Ω	BNC type (x1), 1.0 Vp-p, 75 Ω	BNC type (x1), 1.0 Vp-p, 75 Ω
Earphone	Minijack	Minijack	Minijack	Minijack
Audio output (CH-1/2)	XLR-5-pin male (stereo)	XLR-5-pin male (stereo)	XLR-5-pin male (stereo)	XLR-5-pin male (stereo)

OTHERS

Lens	12-pin	12-pin	12-pin	12-pin
Remote	8-pin	8-pin	8-pin	8-pin
Light	2-pin, DC 12 V, max. 50 W	2-pin, DC 12 V, max. 50 W	2-pin, DC 12 V, max. 50 W	2-pin, DC 12 V, max. 50 W
DC input	XLR-4-pin (for the optional AC-550CE)	XLR-4-pin (for the optional AC-550CE)	XLR-4-pin (for the optional AC-550CE)	XLR-4-pin (for the optional AC-550CE)
DC output	4-pin (for wireless microphone receiver), DC 12 V	4-pin (for wireless microphone receiver), DC 12 V	4-pin (for wireless microphone receiver), DC 12 V	4-pin (for wireless microphone receiver), DC 12 V
Camcorder adapter	40-pin	40-pin	40-pin	40-pin

VTR SECTION**GENERAL**

Recording format	Digital Betacam	Digital Betacam	Digital Betacam	Digital Betacam
Tape speed	96.7 mm/s	96.7 mm/s	96.7 mm/s	96.7 mm/s
Playback/Recording time	Max. 40 min. with BCT-D40 cassette	Max. 40 min. with BCT-D40 cassette	Max. 40 min. with BCT-D40 cassette	Max. 40 min. with BCT-D40 cassette
Fast forward time	Less than 6 min. with BCT-D40 cassette	Less than 6 min. with BCT-D40 cassette	Less than 6 min. with BCT-D40 cassette	Less than 6 min. with BCT-D40 cassette
Rewind time	Less than 5 min. with BCT-D40 cassette	Less than 5 min. with BCT-D40 cassette	Less than 5 min. with BCT-D40 cassette	Less than 5 min. with BCT-D40 cassette
Recommended tape	Sony Digital Betacam S cassette, BCT-D6/D12/D22/D32/D40 Series	Sony Digital Betacam S cassette, BCT-D6/D12/D22/D32/D40 Series	Sony Digital Betacam S cassette, BCT-D6/D12/D22/D32/D40 Series	Sony Digital Betacam S cassette, BCT-D6/D12/D22/D32/D40 Series
Sampling frequency	Y: 13.5 MHz, R-Y/B-Y: 6.75 MHz	Y: 13.5 MHz, R-Y/B-Y: 6.75 MHz	Y: 13.5 MHz, R-Y/B-Y: 6.75 MHz	Y: 13.5 MHz, R-Y/B-Y: 6.75 MHz
Quantization	10 bits / sample	10 bits / sample	10 bits / sample	10 bits / sample
Error correction	Reed-Solomon code	Reed-Solomon code	Reed-Solomon code	Reed-Solomon code
Error concealment	Adaptive three dimensional	Adaptive three dimensional	Adaptive three dimensional	Adaptive three dimensional

DIGITAL VIDEO PERFORMANCE

Band width	Y: 5.75 MHz ±0.5 dB, R-Y/B-Y: 2.75 MHz ±0.5 dB	Y: 5.75 MHz ±0.5 dB, R-Y/B-Y: 2.75 MHz ±0.5 dB	Y: 5.75 MHz ±0.5 dB, R-Y/B-Y: 2.75 MHz ±0.5 dB	Y: 5.75 MHz ±0.5 dB, R-Y/B-Y: 2.75 MHz ±0.5 dB
S/N ratio	More than 62 dB	More than 62 dB	More than 62 dB	More than 62 dB
K-factor (2T pulse)	Less than 1 %	Less than 1 %	Less than 1 %	Less than 1 %
Linearity	Less than 2 %	Less than 2 %	Less than 2 %	Less than 2 %
Y/R-Y/B-Y delay	Less than 15 ns	Less than 15 ns	Less than 15 ns	Less than 15 ns

DIGITAL AUDIO PERFORMANCE

Sampling frequency	48 kHz (synchronised with video)	48 kHz (synchronised with video)	48 kHz (synchronised with video)	48 kHz (synchronised with video)
Quantization	20 bits / sample	20 bits / sample	20 bits / sample	20 bits / sample
A/D and D/A quantization	16 bits / sample	16 bits / sample	16 bits / sample	16 bits / sample
Frequency response	20 Hz to 20 kHz, +0.5 dB/-0.8 dB	20 Hz to 20 kHz, +0.5 dB/-0.8 dB	20 Hz to 20 kHz, +0.5 dB/-0.8 dB	20 Hz to 20 kHz, +0.5 dB/-0.8 dB
Dynamic range	More than 85 dB (emphasis ON)	More than 85 dB (emphasis ON)	More than 85 dB (emphasis ON)	More than 85 dB (emphasis ON)
Distortion (at 1 kHz, emphasis ON, reference level)	Less than 0.08 %	Less than 0.08 %	Less than 0.08 %	Less than 0.08 %
Cross talk (at 1 kHz, reference level)	Less than -70 dB	Less than -70 dB	Less than -70 dB	Less than -70 dB
Wow & flutter	Below measurable limit	Below measurable limit	Below measurable limit	Below measurable limit
Head room	20 dB (ex-factory setting)	20 dB (ex-factory setting)	20 dB (ex-factory setting)	20 dB (ex-factory setting)
Emphasis (ON/OFF selectable)	T1 = 50 μs, T2 = 15 μs	T1 = 50 μs, T2 = 15 μs	T1 = 50 μs, T2 = 15 μs	T1 = 50 μs, T2 = 15 μs

ANALOGUE AUDIO PERFORMANCE (CUE TRACK)

Frequency response	100 Hz to 12 kHz, ±3 dB	100 Hz to 12 kHz, ±3 dB	100 Hz to 12 kHz, ±3 dB	100 Hz to 12 kHz, ±3 dB
S/N ratio	More than 50 dB, at 3 % distortion level	More than 50 dB, at 3 % distortion level	More than 50 dB, at 3 % distortion level	More than 50 dB, at 3 % distortion level
Distortion	Less than 1.5 % (T.H.D at 1 kHz, reference level)	Less than 1.5 % (T.H.D at 1 kHz, reference level)	Less than 1.5 % (T.H.D at 1 kHz, reference level)	Less than 1.5 % (T.H.D at 1 kHz, reference level)
Wow & flutter	Less than 0.2 %	Less than 0.2 %	Less than 0.2 %	Less than 0.2 %

SPECIFICATIONS | CAMCORDERS

	DVW-707P	DVW-709WSP		DVW-790WSP	
		16:9 MODE	4:3 MODE	16:9 MODE	4:3 MODE
CAMERA SECTION					
CAMERA					
Pickup device	3-chip 2/3-inch Power HAD IT CCD	3-chip 2/3-inch 16:9/4:3 Widescreen Power HAD IT CCD		3-chip 2/3-inch 16:9/4:3 Widescreen Power HAD FIT CCD	
Picture elements	795 (H) x 596 (V)	1038 (H) x 594 (V)		1038 (H) x 594 (V)	
Optical system	F 1.4 prism system	F 1.4 prism system		F 1.4 prism system	
Built-in filters	1: Clear, 2: 5600 K +1/8 ND, 3: 5600K, 4: 5600 K+1/64 ND	1: Clear, 2: 1/4 ND, 3: 1/16 ND, 4: 1/64 ND, A: Cross, B: 3200 K, C: 4300 K, D: 6300 K			
Shutter speed	1/60, 1/125, 1/250, 1/500, 1/1000, 1/2000 (s)	1/60, 1/125, 1/250, 1/500, 1/1000, 1/2000 (s)		1/60, 1/125, 1/250, 1/500, 1/1000, 1/2000 (s)	
Lens mount	Special bayonet mount	Special bayonet mount		Special bayonet mount	
Sensitivity (2000 lx, 89.9 % reflectance)	F10.0 (Typical) Equivalent to ISO 600 or more	F9.0 (Typical) Equivalent to ISO 500 or more			
Minimum illumination	Approx. 0.15 lx(F1.4 lens, +48 dB Turbo Gain)	Approx. 0.2 lx (F1.4 lens, +48 dB Turbo Gain)			
Smear level	-125 dB	-120 dB		-140 dB	
S/N ratio	63 dB (typical)	63 dB (typical)		63 dB (typical)	
Vertical resolution	(Without EVS) 400 TV lines, (With EVS) 450 TV lines			(Without Super EVS) 400 TV lines, (With Super EVS) 450 TV lines	
Registration	0.05 % (All zones, without lens)	0.05 % (All zones, without lens)		0.05 % (All zones, without lens)	
Geometric distortion	Below measurable level (Without lens)	Below measurable level (Without lens)		Below measurable level (Without lens)	
Warm-up time	2 sec.	2 sec.		2 sec.	
Modulation depth at 5 MHz	More than 55 %	More than 65 %	More than 55 %	More than 65 %	More than 55 %
VIEWFINDER					
CRT	1.5-inch monochrome	2.0-inch monochrome		2.0-inch monochrome	
Controls	BRIGHT control, CONTRAST control, PEAKING control, TALLY, ZEBRA, DISPLAY switches				
Horizontal resolution	600 TV lines	450 TV lines (16:9)		450 TV lines (16:9)	
Microphone	Ultra-directional (Detachable)	Ultra-directional (Detachable)		Ultra-directional (Detachable)	
SUPPLIED ACCESSORIES					
	Maintenance Manual (x1), Operation Manual (x1), Lens cap (x1),Shoulder belt (x1),Microphone (x1), XLR cap (x4)				

RECOMMENDED WIRELESS SYSTEMS



	WRR-862B Receiver	WRR-855B Receiver	WRT-8B Transmitter*	ECM-88BC Lavalier Mic
UHF operating frequency	Dependent on version / region	Dependent on version / region	Dependent on version / region	no
Frequency response	40 Hz – 18 kHz	100 Hz – 15 kHz	40Hz – 20 kHz	40Hz – 20 kHz
Signal to noise	>60 dB A-weighted	>60 dB A-weighted	60 dB or more	
RF Power output	N/A		10/50 mW Switchable	
Current consumption	230 mA	200 mA	6 hours @ 50 mW	
Battery life	5 hours		13 hours @ 10 mW	
Max SPL	N/A			120 dB
Weight	400 g	280 g	140 g incl batteries	1.5 g Capsule
Dimensions W x H x D (mm)	89 x 120 x 29.5	88 x 118 x 31	63 x 83 x 17	3.5 x 3.5 x 12.5 Capsule
Mounting/adaptor brackets required	A8278-057A	CA-WR855, BTA-801 or A8278-057A		
Cable Length	N/A			2.5 m

* Or use WRT-847B Handheld Transmitter with either CU-F780, CU-G780, CU-E700, CU-E672 or CU-F117 Capsule

SPECIFICATIONS | STUDIO RECORDERS

DVW-A500P

DVW-500P

GENERAL

Power requirements	AC 90 V to 265 V, 48 Hz to 64 Hz	
Power consumption	175 W	
Operating temperature	+5 to +40 °C (41°F to 104 °F)	
Storage temperature	-20 to +60 °C (-4 to 140°F)	
Humidity	25 to 80 % (relative humidity)	
Mass	35 kg (77 lb)	33 kg (73 lb)
Dimensions (W x H x D)	427 x 237 x 520 mm (16 7/8 x 9 3/8 x 20 1/2 inches)	
Recording format	Digital Betacam	
Tape speed	Digital Betacam: 96.7 mm/s	
	Betacam playback: 101.5 mm/s	—
Digital Record/playback time	Max. 124 minutes with BCT-D124L cassette Max. 40 minutes with BCT-D40 cassette	
Analogue Record/playback time	Max. 110 minutes with BCT-90MLA cassette	—
Fast forward/rewind time	Approx. 3 minutes with BCT-D124L cassette	
Search speed range (shuttle mode)	Still to approx. \pm 50 times normal playback speed	
Dynamic Tracking range (variable mode)	-1 to +3 times normal playback speed	
Servo lock time	0.5 s or less (from standby on)	
Load/unload time	6.0 s or less	

INPUT/OUTPUT SIGNAL

VIDEO		
Input	SDI	BNC (x1) with active through out, ITU-R BT.656, 270 Mbits/s
	Analogue component	BNC (x1, Y/R-Y/B-Y), Y: 1.0 Vp-p, 75 Ω , R-Y/B-Y: 0.7 Vp-p, 75 Ω
	Analogue composite (option)	BNC (x 1) with loop-through, 1.0 Vp-p, 75 Ω ,(with use of optional BKDW-506)
	Reference	BNC (x 1) with loop-through, 0.3 Vp-p, 75 Ω
Output	SDI	BNC (x4), ITU-R BT.656, 270 Mbits/s (including 1 character out)
	Analogue component	BNC (x1, Y/R-Y/B-Y), Y: 1.0 Vp-p, 75 Ω , R-Y/B-Y: 0.7 Vp-p, 75 Ω
	Analogue composite	BNC (x3), 1.0 Vp-p, 75 Ω (including 1 character out)
AUDIO		
Input	Digital	XLR 3-pin (CH 1/2, 3/4), AES/EBU format, stereo mode, balanced, BNC (SDI, video and audio), ITU-R BT.656, 270 Mbits/s
	Analogue	XLR 3-pin (CH 1,2,3,4, Cue), LOW OFF: -60 dBu, high impedance, balanced, HIGH OFF: +4 dBu, high impedance, balanced, HIGH ON: +4 dBm, 600 Ω termination, balanced
Output	Digital	XLR 3-pin (CH 1/2, 3/4), AES/EBU format, stereo mode, balanced, BNC (SDI, video and audio), ITU-R BT.656, 270 Mbits/s
	Analogue	XLR 3-pin (CH 1,2,3,4, Cue), +4 dBm at 600 Ω load, low impedance, balanced
	Monitor L/R	XLR-3-pin , +4 dBm at 600 Ω load, low impedance, balanced
	Headphones	JM-60 Stereo phone jack , ∞ to -12 dBu at 8 Ω load, unbalanced
Time code	Time code input	XLR-3-pin , 0.5 to 18 Vp-p, 10 k Ω , balanced
	Time code output	XLR-3-pin , 2.2 Vp-p, low impedance, balanced
Remote	Remote 1 In	D-sub 9-pin, RS-422A interface
	Remote 1 Out	D-sub 9-pin, RS-422A interface
	RS-232C	D-sub 25-pin, RS-232C interface
	Remote 2 Parallel I/O	D-sub 50-pin, (with optional BKDW-509 Parallel (50P) interface kit)
	Video control	D-sub 15-pin, (for optional BVR-50P Remote Controller)
	Control panel	15-pin, (for optional BKDW-510 Control Panel Extension Kit)

PROCESSOR ADJUSTMENT RANGE

Video level	\pm 3 dB/- ∞ to +3 dB, selectable	
Chroma level	\pm 3 dB/- ∞ to +4 dB, selectable	
Black level	\pm 210 mV	
Chroma phase/hue	\pm 30°	
System sync phase	\pm 15 μ s	
System SC phase	\pm 200 ns	
Y/C delay	\pm 100 ns	—

SPECIFICATIONS | PORTABLE VTR AND COMPACT PLAYERS

DVW-250P

GENERAL

Power requirements	DC 12V +5/-1V
Power consumption	Approx. 26 W (REC. Mode, CONFI. Off)
Operating temperature	0°C to 40°C (32°F to 104°F)
Storage temperature	-20°C to 60°C (-4°F to 140°F)
Humidity	25% to 80% (relative humidity)
Weight	Approx. 6.6kg (14 lb 9 oz)
Operating weight	Approx. 7.7kg (16 lb 16 oz) (including battery and cassette)
Recording format	Digital Betacam
Tape speed	96.7mm/sec.
Record/playback time	Max. 124 min (BCT-D124L), Max. 40 min (BCT-D40)
Fast forward/rewind time	420 s or less (BCT-D124L), 160 s or less (BCT-D40)
Fast forward/rewind speed	Max. 24 times (with colour picture)
Search speed	Max. 8 times (2/5/8 selectable) (with colour picture)
Servo lock time	0.5 s or less (from Pause Mode)
Load/unload time	4.5 s or less
Battery	BP-L90A, BP-IL75
Recommended cassettes	BCT-D6/D12/D22/D32/D40, BCT-D34L/D64L/D94L/D124L

DIGITAL VIDEO PERFORMANCE

Sampling frequency	Y: 13.5 MHz, R-Y/B-Y: 6.75 MHz
Quantization	10 bits/sample
Error correction	Reed-Solomon code
Error concealment	Adaptive three dimensional

DIGITAL INPUT TO ANALOGUE COMPONENT OUTPUT

(playback with standard playback machine)

Bandwidth	Y: 0 to 5.75 MHz +0.5 dB, R-Y/B-Y: 0 to 2.75 MHz ± 0.5 dB
S/N ratio	62 dB or more
K-factor (2T pulse)	1% or less

ANALOGUE COMPONENT INPUT TO ANALOGUE COMPONENT OUTPUT

(playback with standard playback machine)

Input A/D quantization	10 bits/sample
Bandwidth	Y: 0 to 5.75 MHz +0.5/-0.7 dB, R-Y/B-Y: 0 to 2.75 MHz + 0.5/-0.7 dB
S/N ratio	60 dB or more
K-factor (2T pulse)	1% or less
LF non-linearity	2% or less

ANALOGUE COMPOSITE INPUT TO ANALOGUE COMPOSITE OUTPUT

Input A/D quantization	10 bits/sample
Bandwidth	0 to 5.5 MHz ± 0.7 dB
S/N ratio	56 dB or more
Differential gain	2% or less
Differential phase	2° or less
Y/C delay	15 ns or less
K-factor (2T pulse)	1% or less

DIGITAL AUDIO PERFORMANCE

(playback on standard playback machine with 20 bits D/A)

Sampling frequency	48 kHz (Synchronised with video)
Quantization	20 bits/sample
Input A/D quantization	20 bits/sample
Frequency response	20 Hz to 20 kHz ± 0.5 dB
Dynamic range	100 dB or more (at 1kHz, emphasis ON)
Distortion	0.03% or less (at 1 kHz, emphasis ON)
Cross talk	-80 dB or less (at 1 kHz, reference level)
Wow & flutter	Below measurable level
Headroom	20 dB (or 18 dB selectable)
Emphasis	T1=50 µs, T2=15 µs (ON/OFF selectable)

INPUT/OUTPUT SIGNAL

SDI (Serial digital interface)	Serial digital component with embedded audio 4 channels, SMPTE-259M/ ITU-R BT.656
SDI input	BNC x 1
SDI output	BNC x 1

CAMERA

26-pin camera connector x 1	
Analogue component input	Y: 1.0 Vp-p, 75 Ω (sync negative) R-Y/B-Y: 0.7 Vp-p, 75Ω
SDI input	Serial digital component embedded audio 4 channels
Analogue audio input	-60 dBu/-20dBu/+4dBu, high impedance, balanced

VIDEO

Analogue composite input	BNC x 1, 1.0 Vp-p, 75 Ω
Analogue composite output	BNC x 2, 1.0 Vp-p, 75 Ω (x1: character ON/OFF selectable)

AUDIO

Analogue audio input	XLR x 4, -60 dBu/-20 dBu/-4 dBu, high impedance, balanced, +48 V power supply (ON/OFF selectable)
Analogue audio output	XLR x 4, +4 dBm (0dBm), low impedance, balanced
Headphones	Stereo standard jack, -17 dBu
Earphone	Stereo mini jack, -17 dBu

TIME CODE

Time code input	BNC x 1, 0.5 V to 18 Vp-p, 10 kΩ
Time code output	BNC x 1, 1.2 Vp-p, 75 Ω, 2.2 Vp-p, 600 Ω

OTHERS

Remote	D-sub 9-pin, Sony 9-pin serial or ISR (RS-232C)
DC input	XLR 4-pin x 1 (for AC-550CE)
DC output	Mini 4-pin (for BVR-3)
RFU modulator interface	Video out/ Audio out/ DC out

PROCESSOR ADJUSTMENT RANGE

Video input and output level adjustable range	±3 dB
System sync phase	±2 µs

J-3/A AND J-3/SDI

GENERAL

Power requirements	AC 100 V to 240 V, 50/60 Hz
Power consumption	50 W
Operating temperature	+5 °C to +40 °C (+41 °F to +104 °F)
Storage temperature	-20 °C to +60 °C (-4 °F to +140 °F)
Humidity	25% to 80% (relative humidity)
Mass	7 kg (15 lb 7 oz)
Dimensions (W x H x D)	307 x 100 x 397 mm (12 1/8 x 4 x 15 3/4 inches)

TAPE SPEED

Digital Betacam	96.7 mm/s
MPEG IMX	64.467 mm/s (525 mode), 53.776 mm/s (625 mode)
Betacam SX	59.515 mm/s (525 mode), 59.575 mm/s (625 mode)
Betacam/Betacam SP	118.6 mm/s (525 mode), 101.5 mm/s (625 mode)

PLAYBACK TIME

Digital Betacam	Max. 124 min. with BCT-D124L
MPEG IMX	Max.184 (625 mode)/220 (625 mode) min with BCT-184MXL cassette
Betacam SX	Max. 194 min with BCT-194SXLA cassette
Betacam/Betacam SP	Max. 90 (525 mode)/105 (625 mode) min with BCT-90MLA cassette

FAST FORWARD/REWIND TIME

Digital Betacam	Approx. 5 min with BCT-D124L
MPEG IMX	Approx. 5 min with BCT-184MXL cassette
Betacam SX	Approx. 5 min with BCT-194SXLA cassette
Betacam/Betacam SP	Approx. 5 min with BCT-90MLA cassette

SEARCH SPEED RANGE

Digital Betacam	±20 times normal playback speed
MPEG IMX	±32 times normal playback speed
Betacam SX	±35 times normal playback speed
Betacam/Betacam SP	±18 times normal playback speed
Servo lock time	0.5 s or less (from standby on)
Load/unload time	6 s or less

INPUT SIGNALS

Ext. sync	BNC (x1), Frame lock
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OUTPUT SIGNALS

Analogue composite output	BNC (x1), Pin Jack (x1), 1.0 Vp-p, 75 Ω
S-video output	Mini DIN 4-pin (x1), Y: 1.0 Vp-p, C.0.286 Vp-p burst, 75 Ω
Analogue component output (with J-3/A)	BNC (x3), Y: 1.0 Vp-p, R-Y/B-Y: 0.7 Vp-p, 75 Ω
SDI output (with J-3/SDI)	BNC (x1), SMPTE 259M, 270 Mb/s, 0.8 Vp-p, 75 Ω

REMOTE CONTROL

RS-422A	D-sub 9-pin (female) (x1), Sony 9-pin remote interface
RS-232C	D-sub 9-pin (female) (x1)
Monitor output L/R	Pin Jack (x1): -10 dBu at 47 kΩ load, unbalanced, XLR (male x2): +4 dBm, 600 Ω load, low impedance, balanced
Headphone output unbalanced	JM-60 Stereo Phone Jack, ∞ to -12 dBu at 8 Ω load,

SUPPLIED ACCESSORIES

Operation manual (CD-ROM) (x1), Vertical stand (x2), Quick Operation Guide (x1)

Sony address/contact details/dealer stamp

SONY

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SONY BUSINESS EUROPE

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