SONY

NTSC

Digital Camcorder

DSR-500WS

DVCAM

*Optional items are included.

THE TOP-END DVCAM™ CAMCORDER

Since the introduction of Sony's DSR-300 DVCAM Camcorder in 1998, shooter such as video journalists have been able to acquire their footage quickly and easily, because the required functionality and performance was packed into this camcorder.

Meanwhile, the next generation widescreen TVs have been introduced in the industry and the demand to produce video material in widescreen (16:9) has greatly increased not only in the professional broadcasting market, but also in the event production and corporate communications area.

Now Sony introduces the DSR-500WS Widescreen Digital Camcorder as part of Sony's DVCAM camcorder line-up. The DSR-500WS offers outstanding picture quality by adopting full Digital Signal Processing and three 2/3-inch Power HAD WS™ CCDs which have been specifically designed for a 16:9 aspect ratio, switchable to 4:3.

Inheriting most of the functions of the DSR-300, the DSR-500WS extends the mobility, operational convenience and system flexibility with a range of peripheral products. Furthermore, the built-in digital output of the i.LINK™ interface for backup and simple field editing is introduced with the DSR-500WS.

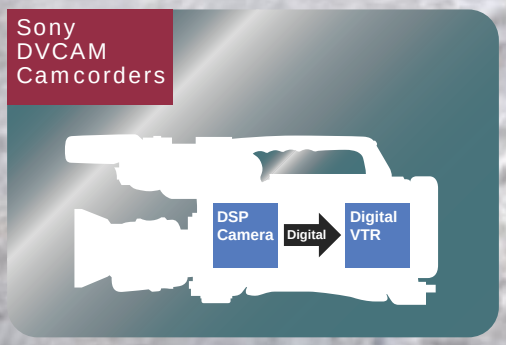
The DSR-500WS can be used for a wide variety of field acquisition applications including video journalist, event photographer, news gathering for broadcasting and more.

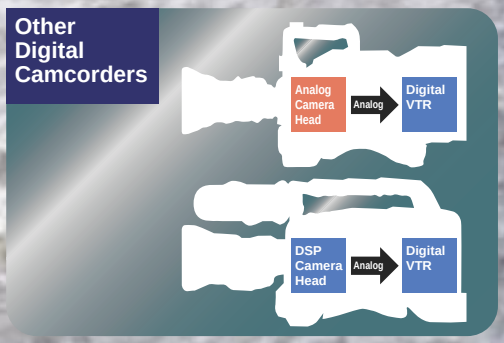
WITH WIDESCREEN CAPTURING

True Digital Camcorder

The DSR-500WS is a "True Digital Camcorder". The signal is maintained in the digital domain. This allows for higher image quality, free of artifacts and the loss of resolution typical of multiple A/D and D/A conversion. This is a major advantage for the user.

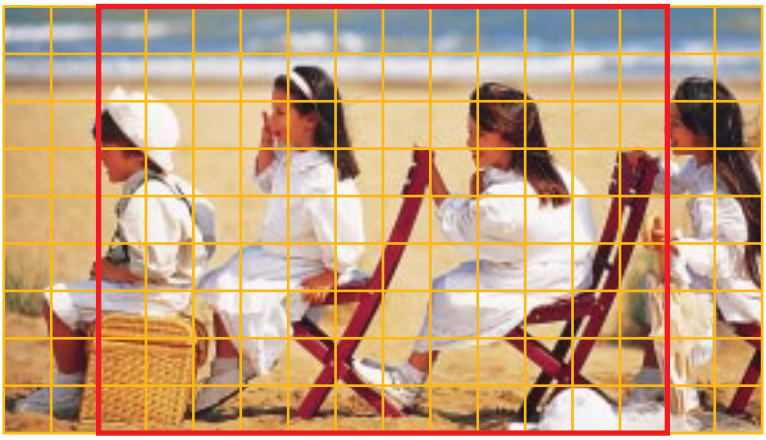
- **Camera Section with Full Digital Processing**
- **Component Digital Transfer from Camera to the Recorder**
- **Digital Recording**



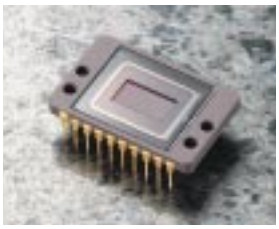


WIDESCREEN SWITCHABLE CAMCORDER

By incorporating 16:9 wide aspect CCD, the DSR-500WS can offer a superb widescreen picture quality, and conventional 4:3 aspect picture with aspect switching capability.



Power HAD WS CCD



The DSR-500WS is equipped with three 2/3-inch Power HAD WS IT CCDs with a high packing density of 520,000 pixels (total)/ 480,000 pixels (effective). Since the CCD is originally designed for the 16:9 aspect ratio, with a capability to be switched to 4:3, high quality images can be obtained in the 16:9 mode with virtually no image loss. High sensitivity of F11 (at 2000 lx, 3200K), remarkable signal to noise ratio of 63 dB, high resolution of 700 TV lines and a low vertical smear level of -120 dB are achieved.

Notes: The 700 lines of horizontal resolution at 16:9 aspect ratio are actually equivalent to 930 lines, which are converted by 4:3 aspect ratio camera measurement.

16:9 and 4:3 Switchable

Thanks to the adoption of the new wide aspect CCDs and digital signal processing, the DSR-500WS can operate in both 16:9 widescreen and conventional 4:3 mode without any conversion equipment. Furthermore, at the 16:9 mode, both the 16:9 and the 4:3 safety zone shooting are possible on this viewfinder.

16:9 ID Pulse

When shooting 16:9 images, the DSR-500WS automatically adds a wide aspect ID pulse signal, which indicates that the picture is shot in 16:9 aspect ratio, through the video output signal. The information of 16:9 is also recorded onto the Video Auxiliary (VAUX) area in the DVCAM tape, together with video signals.

DXF-701WS

The DXF-701WS is a high resolution, 1.5-inch black and white viewfinder with a 16:9 aspect capability. With the DXF-701WS, the viewfinder scanning aspect ratio is automatically changed according to the camera aspect ratio (4:3 or 16:9), as shown in (A) and (B).

(A): 4:3 mode

(B): 16:9 mode

COMPACT AND LIGHTWEIGHT CAMCORDER

The DSR-500WS is remarkably compact and lightweight for professional use.

Compact and Lightweight

By adopting high-density circuit boards and a smaller recording head drum, the DSR-500WS is remarkably small. It weighs only 6.3 kg (13.9 lb 14.2 oz) including a lens, viewfinder, tape, lithium-ion battery and microphone.

Compact and Lightweight BP-L40 Lithium-ion Battery

The Sony BP-L40 is a compact Lithium-ion battery for professional use, which is designed to match the body height of the DSR-500WS. It has a high charge capability in a small and light package, providing continuous camcorder operation for up to approximately 70 minutes.

Since Lithium-ion batteries do not suffer from a "memory effect", they do not have to be fully discharged to recharge to their full power capacity.

Notes: The Sony BP-L60A/L90A can also be used with the DSR-500WS.
The Sony NP-1B and the BP-90A NiCd Batteries can also be attached to the DSR-500WS using the Sony DC-L1 and DC-L90 respectively.
Anton Bauer batteries can be used with an adapter.

Low Power Consumption

The DSR-500WS camera head consumes only 24 W. A maximum of approximately 70 minutes recording time can be achieved with one fully charged BP-L40 Lithium-ion battery.

Notes: A fully charged BP-L60A lasts for up to approximately 140 minutes of recording time. A fully charged BP-L90A lasts for up to approximately 230 minutes of recording time.

Compact Crew Package with the new carrying cases

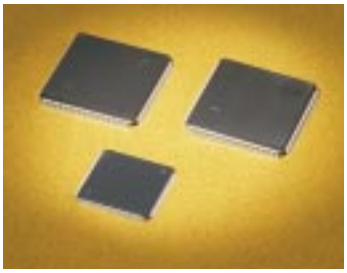
For acquisition, you need a compact crew package. The Sony LC-DS300SFT is a soft carrying case exclusively designed for the DVCAM Camcorder. With several outsides and inside pockets, it can hold shooting accessories such as batteries, a battery charger, wireless receiver, and other items as well as the DSR-500WS with a lens, VF and microphone attached. The case is easy to carry, using the robust shoulder belt; a single person can transport all the required equipment. The LC-DS500 hard-type carrying case will be available in the future.

INTEGRATED DIGITAL PROCESSING CAMERA

The DSR-500WS captures superior pictures by adopting full Digital Signal Processing (DSP).

10-bit A/D DSP (Digital Signal Processing) LSI

Like the DSR-300 DVCAM Camcorder, the DSR-500WS includes 10-bit DSP LSI, technology that delivers one of the best picture performances in the industry. The DSR-500WS also incorporates innovative camera features such as TruEye™ and DynaLatitude™ technologies.



TruEye™ Process

The TruEye function is Sony's term for innovative digital signal processing technology. In conventional RGB analog or digital processing, some non-linear signal processing takes place after gamma correction, such as white clip and knee correction, and can result in hue factor distortion - a phenomenon that is particularly obvious in extreme high-light conditions. This problem is virtually eliminated by the TruEye process, which manages video signal data at three level -brightness, hue and saturation - exactly as the human eye works. The result is reproduced images with a wide dynamic range and without hue distortion.

Conventional Camera

DSR-500WS (TruEye)

DynaLatitude™ Functions

The DSR-500WS also uses the DynaLatitude process, a unique feature based on the TruEye system. DynaLatitude minimizes video level distortion based on video signal histograms in order to utilize the limited dynamic range of the video signal standard by adaptively managing the contrast of each pixel. The DynaLatitude feature brings a new dimension to other technologies such as Dynamic Contrast Control (DCC).

Conventional Camera

DSR-500WS (DynaLatitude)

Skin Detail with Auto Detection of Active Area

The Skin Detail function of the DSR-500WS gives the subject a pleasing facial complexion, while maintaining the sharpness of other areas. The designated active area of Skin Detail can be set by simply adjusting the Area Detect Cursor on the viewfinder screen and using the SKIN SET button on the camera's side panel. The color range of the Skin Detail active area and Skin Detail level can also be set from the viewfinder menu, and it is capable of color and detail corrections within the full range of the visible spectrum.

Black Stretch and Compress

Contrast in the black area of the image can be variably adjusted using the Black Stretch/Compress Control function. Black Stretch emphasizes contrast in the dark area, while Black Compress enhances or deepens darkness.

CONVENIENT AND COMFORTABLE CAMCORDER

The DSR-500WS offers a combination of comfort, operational convenience and simplicity.

DynaFit™ Shoulder Pad

The DSR-500WS is equipped with a "DynaFit" shoulder pad, which is made of a shape-memory material. This innovative shoulder pad does not require forward/backward adjustment. It comfortably molds to any shoulder without slipping, maintaining a very good balance, free of painful pressure points common to harder shoulder pads.

Selectable Built-in Filters

The DSR-500WS has four built-in filters: 3200 K/3000 K (switchable via the viewfinder menu), 5600 K, 5600 K+ 1/8 and 5600 K+ 1/64. This four-filter construction is the same as used in the Sony 2/3-inch cameras such as the DXC-D30, and makes the DSR-500WS suitable for use under virtually any lighting condition.

Video Light Connector for Anton Bauer Ultralight 2

An optional Anton Bauer Ultralight 2 can be directly attached to the DSR-500WS using the video light connector. This system is powered from the camcorder's attached battery. Light ON/OFF can be controlled manually or can be synchronized automatically with the REC start function of the DSR-500WS. The LIGHT switch located on the front-right side of the camcorder can set this to manual or automatic control.

CA-WR855 Camera Adaptor (for the WRR-855A)

A wireless receiver case has been developed specifically to accommodate the Sony WRR-855A Wireless Receiver.
The Sony CA-WR855 Camera Adaptor attaches directly to the DSR-500WS via a V-shoe attachment and a direct audio/power connection interface. A Lithium-ion battery can also be directly attached to the rear panel of the CA-WR855 via the V-shoe attachment. This allows easy battery replacement even when the WRR-855A is mounted.

Setup Data Management

■ **Camera Setup Files** — *Eight Setup Files*

The DSR-500WS is equipped with a convenient VF (Viewfinder) Menu System; a control menu with superimposed characters on the VF screen. When the SETUP switch is set to FILE position, a total of eight setup files can be used with the dedicated VF Menu System. Five Factory Preset Files are set by Sony to accommodate the five most common lighting situations, such as STANDARD, HIGH SATURATION and FLUORESCENT.
In addition, three User Files allow the operator to custom set camera parameters, to match particular shooting situations.

■ **SetupNavi™** — *Camera Setup File Storage*

The DSR-500WS Camcorder has the SetupNavi function to store the User Files or Factory Preset Files of the DSR-500WS directly onto VAUX (Video Auxiliary) data territory of the DVCAM cassette tape. The data can be stored on and recalled from the DVCAM tape via the VF Menu System.

■ **SetupLog™** — *Automatic Recording of Camera Data*

Information of the most relevant DSR-500WS setting parameters for every shot is automatically recorded onto the VAUX area of DVCAM cassette tapes. This is called the SetupLog function. It is useful for the camera operator not only when the same shot has to be re-taken, but also when re-shooting or operating conditions have to be checked during a particular shoot.

Pool Feed Operation

When only a few cameramen are delegated to a press conference, the DSR-500WS can be configured as a recorder through the analog composite input. This is called "Pool Feed Operation". The optional DSBK-501 Analog Composite Input Board must be installed.

Dual Zebra

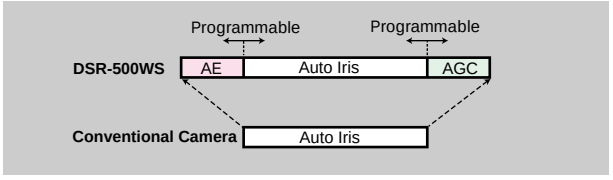
The DSR-500WS has two simultaneous types of zebra patterns - 'ZEBRA 1' and 'ZEBRA 2'. 'ZEBRA 1' can be set within a range of 70 IRE to 90 IRE, in 1 IRE steps. 'ZEBRA 2' provides a zebra pattern in any area with a more than 100% video level.

EASY OPERATION CAMCORDER

To ensure the best possible results with simple operation, the DSR-500WS incorporates:

Total Level Control System (TLCS)

If incoming light is outside the range of the automatic Iris Control (either above or below), the DSR-500WS is still able to achieve correct picture exposure by using the Iris Control in combination with Auto Gain Control (AGC) and CCD AE (Auto Exposure, uses variable CCD shutter speeds). This is called the Total Level Control System (TLCS), which ensures ease of operation for this high-end professional camera while also maintaining low-noise characteristics.



Auto Tracing White Balance (ATW)

In the DSR-500WS, tracing of the white area in Auto Tracing White Balance mode (ATW) is extremely fast enough to meet professional demands. This also improves the accuracy of the white balance adjustment.

EZ Mode

The camera can be instantly set to a standard or auto position simply by pressing the EZ Mode button. The DSR-500WS has a choice of two EZ Modes - STANDARD or CUSTOM. When set to CUSTOM EZ Mode, the camera setting is changed in accordance with the user selected menu setting.

EZ Focus

EZ Focus is a function to help the user focus precisely without stopping down the lens. Pushing the EZ Focus button automatically opens the iris so that the depth of field is reduced, making critical focusing easier. At the same time, the electronic shutter is automatically set to obtain the correct light level. The EZ Focus function is overridden while recording.

Menu Control by Jog Dial Operation

The DSR-500WS incorporates a jog dial that controlls the viewfinder menu. The user simply selects his or her desired menu item and sets the value by easy, one-fingered jog dial operation. This jog dial means fewer control button/switches are required on the camcorder, and therefore contributes to the unit's simple operation.

New Switch Guard

A new Switch Guard is provided with the DSR-500WS to prevent mis-operation of the EZ Mode, AUTO IRIS Mode and ATW buttons. It is a door flip type so that you can open the door and easily access to the EZ Mode / AUTO IRIS /ATW buttons if needed. The guard has five tiny holes for the operator to see the LED indicators for the buttons while shooting.

HIGH QUALITY DVCAM RECORDER

Based on the DVCAM format, the DSR-500WS delivers high quality, efficient recording.

DVCAM Recording Format

The Sony DVCAM recording format has superior video and audio quality and reliability for professional use. The 8-bit component digital recording with a 5:1 compression ratio and sampling at the rate of 4:1:1 provides superior picture quality, a superb multi-generation capability and excellent production flexibility. It is also capable of playing back the consumer DV format, which is one of the great advantages of the DVCAM format.

Long Recording Time (maximum 184 minutes)

The DSR-500WS boasts remarkably long recording time. Both mini cassettes (PDVM series) and standard cassettes (PDV series) can be used with the DSR-500WS. In using the PDV-184ME (Standard cassette) the DSR-500WS provides a maximum recording time of 184 minutes.

Digital Output of i.LINK™* interface

The DSR-500WS adopts a 6-pin i.LINK interface (DV output only) for digital signal output. It enables a back-up recording of DV and DVCAM VTRs with just one i.LINK cable. The i.LINK cable carries digital video/audio signals and control signals simultaneously. When the DSR-500WS is connected to the Sony DSR-70 Field Editor, simple field editing can also be done on the DSR-70 operational panel. (The DSR-500WS is set up as a feeder.) This digital output is convertible to a SDI signal using the Sony BKNW-25 DV Interface Box.

** i.LINK stands for IEEE 1394-1995 standards and their revisions.*
i, is the logo for products that implement i.LINK.

26-pin VTR Interface Capability

With the 26-pin VTR interface, the DSR-500WS can feed live camera output signals to an external recorder. This function enables parallel recording or back-up recording by using an external VTR. Depending on the external VTR connected to the DSR-500WS, camera output signals can be selected from component*/VBS or Y/C signals by using the EXT VTR OUTPUT switch on the operational panel.

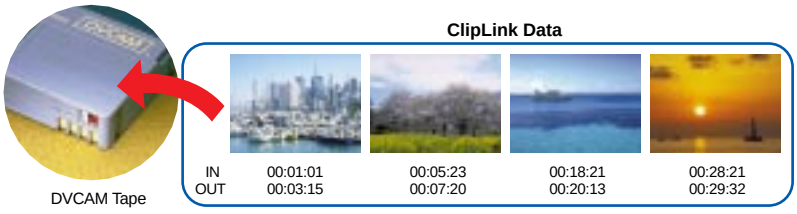
Notes: Playback of analog component output is not provided.

Edit Search
The DSR-500WS incorporates an Edit Search function. Its control button is located on the side panel to allow easy access while shooting.

Freeze Mix Function
With conventional cameras, when the camera operator needs to shoot a subject in the same framework as that of a previously recorded subject, it is very difficult to perfectly re-position the subject. With the DSR-500WS, a picture previously recorded on the DVCAM tape can be superimposed on the viewfinder screen, so that the camera operator can easily frame or re-position the subject just as in the previous shot. Combined with the SetupLog function, a retake shot is a breeze.

ClipLink™ FEATURE

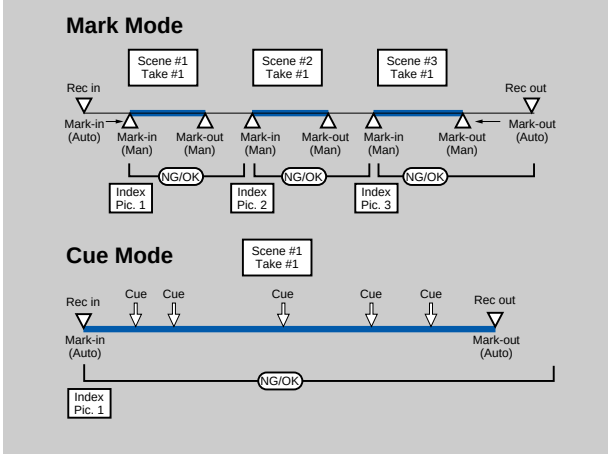
The DSR-500WS offers Sony's unique and convenient ClipLink* operation.



ClipLink System
The ClipLink system is a comprehensive shooting information and image management system necessary for the total digital production process, ranging from acquisition to editing. The ClipLink system in combination with new Sony digital video products such as the DSR-130/DSR-300/DSR-500WS Camcorder, the Digital VTRs (DSR-85/80/70/60) and the EditStation™ systems (ES-7/ES-3) enhances the productivity and operating efficiency throughout the entire video production process.

ClipLink Operation
Two types of useful information designated ClipLink data are automatically generated while shooting. One is Index Picture which is a digitally miniaturized picture of the video image of the "IN" point of each shot - the MARK IN point. Index Pictures are recorded on DVCAM tape. The other is shot information needed for the editing process, such as the reel number, scene number, take number, time code of the MARK IN/ MARK OUT point, and OK/NG status. This reference data is stored in the cassette memory of the DVCAM cassette tape.

ClipLink data can be quickly uploaded to a Sony EditStation system from DVCAM VTRs, so that usable shots can be easily selected using only visual ClipLink information displayed on the EditStation GUI. The ClipLink system eliminates the task of loading all the shots on tape onto the EditStation system.



ClipLink Operation

RM-LG1
The Sony RM-LG1 Remote Control Unit is specifically designed for the remote control of ClipLink and VTR REC operations. It has two switches, which can be assigned by the operator from four choices: VTR, MARK, CUE or NG.

Note: For the DSR-500WS, IP (Index Picture) recording is optional. When the DSR-500WS is configured with the optional DSBK-301A, IP recording is available.*

OTHER FEATURES

Scene Files from the RCP-TX7
With the optional Sony RCP-TX7 Remote Control Panel with powerful remote capabilities, 16 scene files can be created and stored. Almost all the parameters for DSP functions and camera set-up can be stored into a scene files, and the most suitable file for each shooting situation can be instantly recalled using the menu button on the RCP-TX7.

With Personal Computers
The REMOTE connector (10-pin) of the DSR-500WS for the RM-M7G is designed in accordance with the RS-232C standard. This allows the DSR-500WS to be remotely controlled from an external personal computer with the proper Sony protocol.

BC-L50 LITHIUM-ION BATTERY CHARGER

The Sony BC-L50 is a battery charger which can be used with Lithium-ion battery packs such as the BP-L40. This compact and easy to carry unit quickly charges up to two Lithium-ion batteries and use a unique new time-saving charging system.

Compact and Lightweight

The BC-L50 has a retractable foot and a carrying handle. The foot can be used to stabilize the unit during battery charging. The handle can be used when carrying the unit. Both the foot and the handle retract into the unit when not in use.

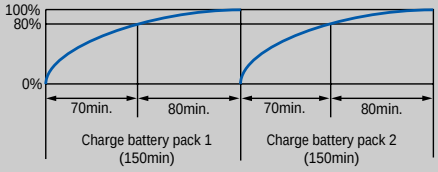
Charge Progress Indicator

The BC-L50 has charge indicators which flash or light to indicate the status of up to two installed battery packs.

New Charging System

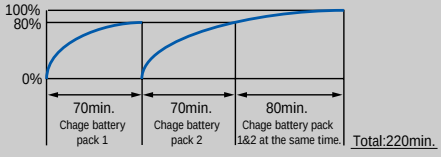
When charging two battery packs at the same time, the BC-L50 begins to charge the second pack when the first is 80% charged. Conventional charging systems only start to charge the second pack when the first is 100% charged. With the BC-L50, battery packs are charged in less time than before, thanks to this unique new charging system.

●Conventional charging system (charging two BP-L40s)



*Charging of battery pack 2 starts after battery pack1 is 100% charged.

●New charging system of BC-L50 (charging two BP-L40s)



*Charging of battery pack 2 starts when battery pack 1 is 80% charged. When battery pack 2 is 80% charged. simultaneous charging of both battery packs up to 100% starts, This allows two battery packs to be charged in less time than previously.

RM-VJ1 REMOTE CONTROL UNIT

The Sony RM-VJ1 Remote Control Unit is an exclusive accessory for the DSR-300/500WS, which directly connects to the camcorder via a CCA-7-7A cable. This compact, mobile and highly reliable remote controller with a professional microphone and a hand-held LCD screen enhances the operational convenience for one-person operation.

Hand-held Monitor

The RM-VJ1 has a 2.5-inch color TFT LCD monitor for framing or composing a shot. The LCD has a brightness control and monitor hood for field use. Moreover, a LCD back light OFF switch is available for saving power.

High Quality Microphone

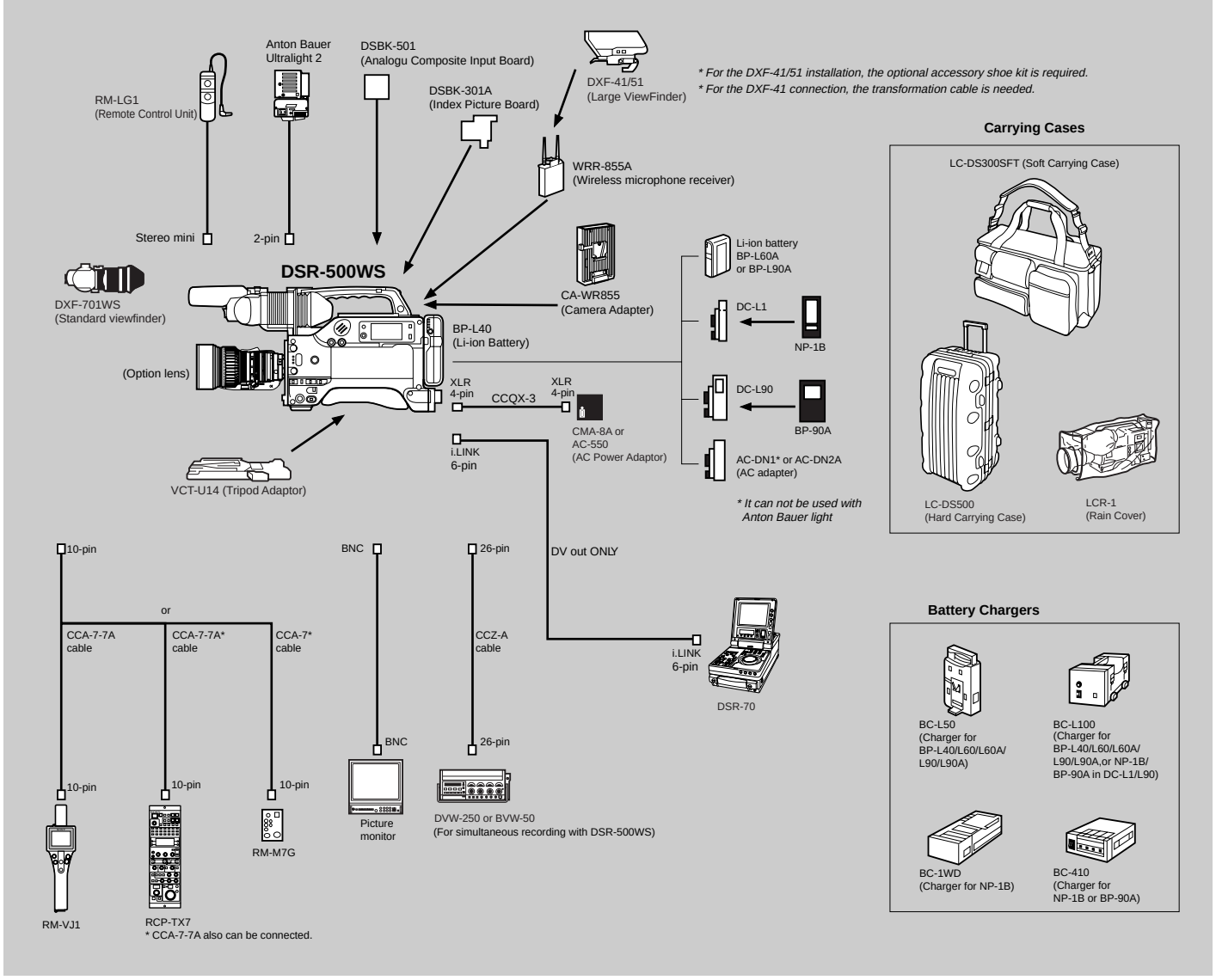
The microphone is Omni-Directional for superior sound quality. Sony Lavaliere Microphones (ECM-44BC/55BC/77BC) can be connected to the RM-VJ1 in place of the built-in microphone for added flexibility.

Remote Control of Camcorder Functions

REC Start/Stop, REC Review and TAKE and NG marking for ClipLink operation can be controlled with the RM-VJ1. In addition, remote Zoom/Focus control* is possible when a lens with the Interactive Technology function is attached to the unit via 12-pin connector. These lenses are newly developed from CANON and Fujinon.

Note: The optional lens cable as a service part (No. 1-790-779-11) is prepared from Sony to accommodate Zoom control for the other lens like VCL-918BY, etc.*

SYSTEM CONFIGURATIONS



PRODUCT CONFIGURATION

		DSR-500WSL
1	Camcorder DSR-500WS	Yes
2	Remote control unit RM-LG1	Yes
3	Viewfinder DXF-701WS (incl. Microphone holder)	Yes
4	Tripod adapter VCT-U14	Yes
5	External microphone	Yes
6	Flange back chart	Yes
7	Shoulder strap	Yes

OPTIONAL ACCESSORIES

DVCAM

RCP-TX7
Remote Control Panel

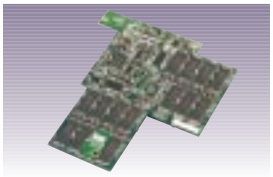
RM-M7G
Handy Remote Control Unit

RM-LG1
Handy Remote Control Unit

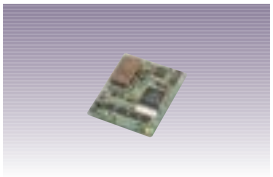
RM-VJ1
Remote Control Unit

CA-WR855
Camera Adapter for WRR-855A

WRR-855A
UHF Synthesized Tuner
(Wireless microphone receiver)



DSBK-301A
Index Picture Board



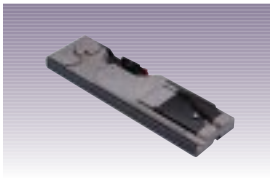
DSBK-501
Analog Composite Input Board

ECM-670/672
Electret Condenser Microphone

CAC-12
Microphone Holder

DXF-701WS
1.5" Viewfinder

DXF-51
5" B/W Viewfinder (When it is attached to the DSR-500WS, an attachment kit (Service parts No. A-8274-968-A) is required.)



VCT-U14
Tripod Adapter

BP-L40
Rechargeable Li-ion Battery Pack

BP-L60A
Rechargeable Li-ion Battery Pack

BP-L90A
Rechargeable Li-ion Battery Pack

NP-1B
NiCd Rechargeable Battery

BP-90A
NiCd Rechargeable Battery

DC-L1
Battery Case for an optional NP-1B

DC-L90
Battery Case for an optional BP-90A

BC-L50
Battery Charger for
BP-L40/L60/L60A/L90/L90A

BC-L100
Battery Charger for
BP-L40/L60/L60A/L90/L90A/NP-1B/BP-90A

CMA-8A
AC Power Adapter

AC-550
AC Adapter

AC-DN1
AC Adapter (for operation under 38W)

AC-DN2A
AC Adapter (for operation under 150W)

LC-DS300SFT
Carrying Case (soft type)

LC-DS500
Carrying Case (hard type)

LCR-1
Rain Cover

VCL-918BY
2/3" Format Lens

YJ18x9B4 KAS-SS12
2/3" format lens with the Interactive Technology function from Canon (x 18)

A19x8.7BRD-S28
2/3" format lens with the Interactive Technology function from Fujinon (x 19)

W80Y-50
Wide Conversion Lens Adaptor for VCL-918BY and YJ18xB4 (Canon)

CCFD-3L
DV cable (6-pin with lock* - 4-pin)

CCF-3L
DV cable (6-pin with lock* - 6-pin)

Note: The connector on one end of the cable has a locking mechanism, and is attached to a DV connector with the same locking mechanism, such as the DSR-500WS.*

SPECIFICATIONS

DVCAM

DSR-500WS

General

Power requirements:	DC 12 V (11 to 17 V)
Power consumption:	24.0 W (w/o VF), 26.1 W (w/ VF)
Operating temperature:	0°C to 40°C (32°F to 104°F)
Storage temperature:	-20°C to 60°C (-4°F to 140°F)
Operating humidity:	Less than 85%
Storage humidity:	Less than 90%
Tape speed:	28.193 mm/s
Recording/Playback time:	Standard size: 184 min. w/PDV184ME Mini size: 40 min. w/PDVM40ME
Fast forward/Rewind time:	Standard size: Approx. 12 min. w/PDV184ME Mini size: Approx. 3 min. w/PDVM40ME
Continuous recording time:	Approx. 70 min. w/BP-L40 140 min. w/BP-L60A 230 min. w/BP-L90A
Mass:	Approx. 3.7 kg (8.2 lb, 2.5 oz) for camera head only Approx. 4.4 kg (9.7 lb, 11.2 oz) with VF and microphone Approx. 5.8 kg (12.8 lb, 12.6 oz) with VF, microphone and lens Approx. 6.3 kg (13.9 lb 14.2 oz) with VF, microphone, lens, battery (BP-L40) and videocassette tape
Dimensions (w/h/d):	121 x 192 x 280 mm (4 7/8 x 7 5/8 x 11 1/8 inches) (without projections) 242 x 247 x 547 mm (9 5/8 x 9 3/4 x 21 5/8 inches) (with projections)

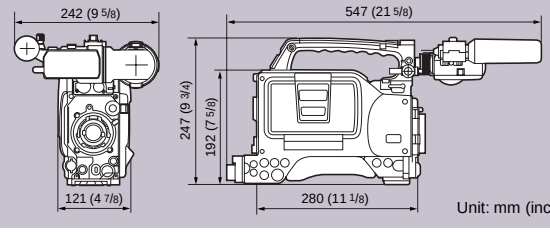
Camera part

Image device:	3-chip 2/3-inch, Interline-Transfer CCD
Optics:	F1.4 medium index prism system
Effective picture elements:	980 x 494 (H x V)
Total picture elements:	1038 x 504 (H x V)
Sensing area:	9.6 mm x 5.4 mm
Built-in filters:	1: 3200 K/3000 K 2: 5600 K+1/8ND 3: 5600 K 4: 5600 K+1/64ND
Lens mount:	Sony 2/3-inch Bayonet mount
Signal system:	NTSC color system
Scanning system:	2:1 interlaced, 525 lines, 60 fields/sec.
Horizontal frequency:	15.734 kHz
Vertical frequency:	59.94 Hz
Sync system:	Internal and External with the VBS or BS signal
Horizontal resolution:	16:9 mode : 700TV lines 4:3 mode : 700TV lines
Vertical resolution:	400TV lines (w/o EVS), 450TV lines (w/EVS)
Minimum illumination:	0.5 lx with F1.4, Hyper gain (30 dB+DPR)* 0.8 lx with F1.8, Hyper gain (30 dB+DPR)*
Sensitivity:	F11 at 2000 lx (3200 K, 89.9% reflectance) (typical)
Gain selection:	-3 dB, 0 dB, 3 dB, 6 dB, 9 dB, 12 dB, 18 dB, 18 dB+DPR, 24 dB, 24 dB+DPR, Hyper Gain (30 dB+DPR)*
Shutter speed selection:	OFF, 1/100, 1/250, 1/500, 1/1000, 1/2000 sec
Clear scan selection:	60.4 to 200.3 Hz
Signal-to-noise ratio:	63 dB (typical)
Registration:	0.05% (all zones, without lens)
Geometric distortion:	Below measurable level

VTR part

VIDEO PERFORMANCE	
Band width:	Luminance: 30 Hz to 5.0 MHz ± 1.0 dB Chrominance: 30 Hz to 1.5 MHz +1.0/-5.0 dB
S/N ratio (luminance):	More than 55 dB
K-factor (K2T, KPB):	Less than 2.0%
Y/C delay	Less than 30 nsec
AUDIO PERFORMANCE	
Frequency response:	48 kHz: 20 Hz to 20 kHz +0.5/-1.0 dB 32 kHz: 20 Hz to 14.5 kHz +0.5/-1.0 dB
Dynamic range:	More than 80 dB
Distortion (THD)	Less than 0.08% (1 kHz reference level, 48 kHz)

DSR-500WS Dimensions



Unit: mm (inches)

INPUT/OUTOUT connectors

Signal inputs:	
GENLOCK VIDEO IN:	BNC, 1.0 Vp-p, 75 Ω
TC IN:	BNC, 0.5 Vp-p to 18 Vp-p, 10 kΩ
EXT AUDIO CH-1/2	XLR 3-pin x 2 Female, -60dBu, 3 kΩ-/+4 dBu, 10 kΩ
MIC IN:	XLR 3-pin Female
ANALOG VIDEO IN:	BNC, 1.0 Vp-p, 75 Ω (When the option board DSBK-501 is installed.)
Signal outputs:	
VIDEO OUT:	BNC, 1.0 Vp-p, sync negative, 75 Ω, 26-pin Male
VBS:	1.0 Vp-p, sync negative
Y/R-Y/B-Y:	Y: 1.0 Vp-p, sync negative R-Y/B-Y: 700 mVp-p
Y/C:	Y: 1.0 Vp-p, sync negative C: 286 mVp-p (burst level)
DV OUT:	i.LINK, 6-pin IEEE1394-based
MONITOR OUT:	BNC, 1.0 Vp-p, sync negative, 75 Ω
TC OUT:	BNC, 1.0 Vp-p, 75 Ω
AUDIO CH-1/2:	RCA pin, -10 dBu, 47 kΩ
S-VIDEO:	DIN 4-pin, 1.0 Vp-p, 75 Ω
Others:	
DC IN :	XLR 4-pin, Male
DC OUT:	4-pin, Female
BATTERY TERMINAL:	5-pin
EARPHONE:	Mini-jack
LIGHT OUT:	2-pin Female
WRR OUT:	7-pin
LENS:	12-pin
VF:	20-pin
REMOTE1:	Stereo mini
REMOTE2:	10-pin

<Notes>

* DPR is equivalent to +6 dB gain up.
  - 18 dB+DPR: Equivalent to +24 dB
  - 24 dB+DRR: Equivalent to +30 dB
  - Hyper Gain (30 dB+DPR): Equivalent to +36 dB

** The specifications of "Video/Audio performance" were measured by playing back material on the DSR-85 (via analog component out) that had been recorded on the DSR-500WS.*

** 0 dBu = 0.775 Vrms*

DSBK-501

Mass:	approx. 22 g (0.7 oz)
Dimensions:	54 mm x 47 mm (2 1/4 x 1 7/8 inches)

DSBK-301A

Mass:	approx. 47 g (1.6 oz)
Dimensions:	111 mm x 113 mm (4 3/8 x 4 1/2 inches)

LC-DS500

Mass:	approx. 8 kg (17 lb 10 oz)
Dimensions(w/h/d):	424 x 777 x 396 mm (16 3/4 x 30 5/8 x 15 5/8 inches)

LC-DS300SFT

Mass:	approx. 3.5 kg (7 lb 11 oz)
Dimensions(w/h/d):	220 x 300 x 620 mm (without projection) (8 3/4 x 11 7/8 x 24 1/2 inches)

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