



DSR-500WSP



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Widescreen Switchable Camcorder

Incorporating 16:9 wide aspect CCDs, the DSR-500WSP offers superb widescreen picture quality plus an aspect ratio switching capability for conventional 4:3 aspect ratio.

Power HAD WS CCD

The DSR-500WSP is equipped with three 2/3" Power HAD WS IT CCDs, each with the high packing density of 620.000 pixels (total)/ 570.000 pixels (effective) Because these CCDs are designed from the outset for the 16:9 aspect ratio, but switchable to 4:3, they provide high quality images in the 16:9 mode without any image loss. A high sensitivity of F11 (at 2000lux,3200K) the remarkable signal to noise ratio of 61db, a resolution of 700 TV lines and a virtually invisible smear level of -120db are the result of this design approach.

16:9 and 4:3 Switchable

The combination of wide aspect ratio CCDs and digital signal processing enables the DSR-500WSP to operate in both 16:9 widescreen and conventional 4:3 modes without any additional conversion equipment. Furthermore in 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-500WSP automatically generates a wide aspect ID pulse signal to indicate that the picture are shot in 16:9 aspect ratio. This ID Pulse is added to the video output signal. The information of the 16:9 is also recorded on to the Video Auxiliary area of a DVCAM tape, together with the video signal.

DXF-701WSCE

The DXF-701WSCE is a high resolution 1,5" black and white viewfinder with a 16:9 aspect capability The size of the scanned area changes automatically according to the camera aspect ratio (4:3 or 16:9)



(A) ; 4:3 mode



(B) ; 16:9 mode

Compact and Lightweight Camcorder

Designed for professional use, The DSR-500WSP is remarkably compact and lightweight.

Small in size, low in weight

By adopting high-density circuit boards and reducing the diameter of the VTR head drum, the DSR-500WSP is remarkably small. It weighs only 6,3 kg including lens, viewfinder,tape, Lithium-ion battery and microphone.

BP-L40 Lithium-ion Battery for Extended Operation

The Sony BP-L40 is a compact Lithium-ion battery for professional use and is designed to match the body height of the DSR-500WSP. It has a high charge capability in a small and light package, providing continuous camcorder operation for approximately 70 minutes. Since Lithium-ion batteries do not suffer from "memory effect", they do not have to be fully discharged to retain their full power capacity

Low Power Consumption

The DSR-500WSP camera head consumes only 24 W. Maximum recording time is approximately 70 minutes with one fully charged BP-L40 Lithium-ion battery.

New Carrying Case for a Compact Package

For acquisition, you need a compact crew package. The Sony LC-DS300SFT is a soft carrying case exclusively designed for DVCAM Camcorders. With several outside and inside pockets, it holds shooting accessories such as batteries and charger, wireless microphone receiver and other items, as well as a DSR-500WSP complete with lens, VF and microphone. With its robust shoulder belt, this case is easy to carry, 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-500WSP captures pictures of superb quality with its use of fully Digital Signal Processing

10-bit DSP (Digital Signal Processing) LSI

Like other DVCAM camcorders, the DSR-500WSP includes 10-bit DSP LSI technology that delivers one of the best picture performance in the industry. The DSR-500WSP is also inherits innovative camera features such as TruEye and DynaLatitude

TruEye Process

The TruEye function is the Sony term for an innovative digital signal processing technology. In conventional RGB analogue and digital processing, some non-linear signal processing, such as white clip and knee correction, takes place after gamma correction. This 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 levels - brightness, hue and saturation - exactly as the human eye works. The result is reproduced images with a wide dynamic range and without hue distortion.

DynaLatitude Function

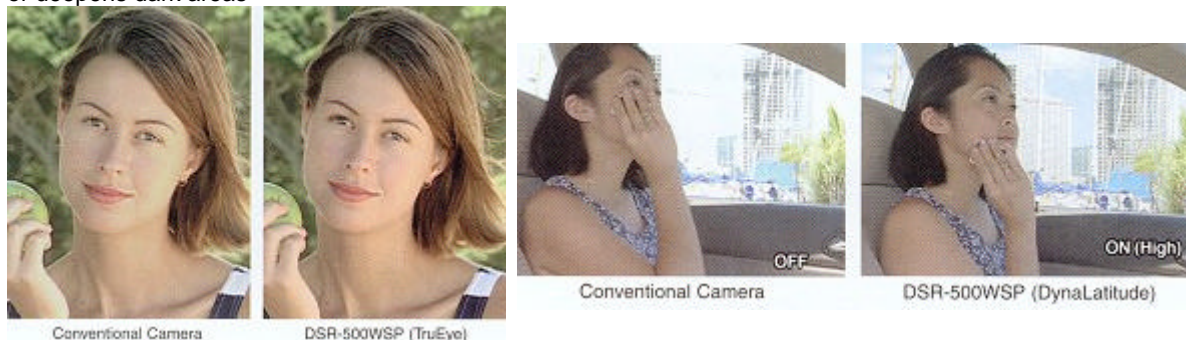
The DSR-500WSP also uses the DynaLatitude process, a unique feature based on the TruEye system. DynaLatitude minimises video level distortion by using video signal histograms to adaptively manage the contrast of each pixel and thus maximise the use of the limited dynamic range of the video signal standard. The DynaLatitude feature brings a new dimension to the other technologies such as Dynamic Contrast Control (DCC)

Skin Details with Auto Detection of Active Area

The Skin Detail function of the DSR-500WSP gives a subject a pleasing facial complexion, while maintaining the sharpness of other areas. The designated active area of Skin Detail is set by simply adjusting the Area Detect Cursor on the viewfinder screen and using the SKIN SET button on the camera side panel. The colour range of the Skin Detail active area and Skin Detail level can also be set from the viewfinder menu, and it is capable of colour and detail corrections over the complete visible spectrum (360 degree range)

Black Stretch and Compress

Contrast in the black area of the image is adjusted using the Black Stretch/Compress Control function. Black Stretch emphasises contrast in the dark area, while Black Compress enhances or deepens dark areas



Convenient and Comfortable Camcorder

DynaFit Shoulder Pad

The DSR-500WSP has a DynaFit shoulder pad, made of a shape-memory material. This innovative shoulder pad does not require forward/backward adjustment. It comfortably moulds to any shoulder

without slipping to maintain very good camera balance.

Selectable Built-in Filters

The DSR-500WSP has four built-in filters : 3200K/3000K (switchable via the viewfinder menu) 5600K, 5600K+1/8 and 5600K+1/64. This four filter construction is the same as that used in Sony 2/3" cameras, such as the DXC-D30WSP and makes the DSR-500WSP 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-500WSP using the Video Light connector. This lighting system is powered from the camcorders battery. The light can be controlled either manually or synchronized with the REC start function of the DSR-500WSP. Manual or automatic control is selected with the LIGHT switch located on the front-right side of the camcorder.

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

A mounting adapter has been developed specially to accommodate the Sony WRR-855A Wireless Receiver. The Sony CA-WR855 Camera Adapter attaches directly to the DSR-500WSP via a V-shoe attachment and a direct audio/power connection interface. A Lithium-ion battery can also be attached directly to the rear panel of the CA-WR855 via the V-shoe attachment. This allows easy battery replacement even with the WRR-855A in place.



DynaFit shoulder Pad



Anton Bauer Ultralight 2



CA-WR855 Camera adapter

Setup Data Management

Camera Setup Files - Eight Setup Files

The DSR-500WSP is equipped with a convenient VF (viewfinder) Menu System : a control menu with superimposed characters on the VF screen. With the SETUP switch set to the 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. Three User Filter allow operator to set camera parameters to match their own particular shooting requirements.

SetupNavi - Camera Setup File Storage

The DSR-500WSP Camcorder has a SetupNavi function to store users Files or Factory Preset Files directly on the VAUX (video auxiliary) data territory of a DVCAM cassette tape. This data can be stored on or recalled from the tape via the VF Menu System.

SetupLog - Automatic Recording of Camera Data

Information relating to the most relevant DSR-500WSP parameters settings for every shot is automatically recorded on to the VAUX area of DVCAM cassette tapes. This function is called SetupLog. This 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 shot.

Pool Feed Operation

When a limited number of camera operators are covering, for example a press conference the DSR-500WSP can function as a recorder using the analogue composite signal from the distributor. This is called Pool Feed Operation. The optional DSBK-501P Analogue Composite Input Board is required for this use.

Dual Zebra

The DSR-500WSP 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 more than 100% video level.

Easy Operation Camcorder

Total Level Control System (TLCS)

If the incoming light level is above or below the range of the automatic Iris Control, the

DSR-500WSP can still achieve the correct picture exposure by combining the Iris Control with Auto Gain Control (AGC) and CCD-AE (auto exposure using variable CCD shutter speed) This is called The Total Level Control System (TLCS) and provides ease of operation while maintaining the low-noise characteristics of this high-end professional camera.

Auto Tracing White Balance (ATW)

In the DSR-500WSP operation of the Auto Tracing White Balance (ATW) is fast enough to meet professional demands. It 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-500WSP has a choice of two EZ modes : STANDARD or CUSTOM. When set to CUSTOM EZ mode, camera setting are changed in accordance with the selected menu settings.

EZ Focus

EZ Focus is a function to help the user to focus precisely without having to manually open up the lens Iris. Pushing the EZ Focus button automatically opens the Iris to reduce the depth of field making it easier to focus accurately. At the same time, the electronic shutter is automatically set to obtain the correct exposure. This EZ Focus function is overridden during recording.

Menu Control by Jog Dial Operation

The DSR-500WSP incorporates a jog dial controlled from the viewfinder menu. The user simply selects the desired menu item and then set the value by easy, one-fingered jog dial operation. This jog dial means that fewer control buttons / switches are required on the camcorder, and therefore contributes to the units simple design and operation.

New Switch Guard

A new switch guard is provided on the DSR-500WSP to help prevent mis-operation of the EZ-mode. Auto Iris mode and ATW buttons. Lifting the guard provides quick access to the buttons when required. The guard has five tiny holes for the operator to see the button LED indicators while shooting

High Quality DVCAM Recorder

DVCAM Recording Format

The Sony DVCAM Recording Format has high video and audio quality, and the reliability essential for professional use. The 8-bit component digital recording with a 5:1 compression ratio and 4:2:0 sampling provides superior picture quality, excellent multi-generation performance and outstanding production flexibility. It is capable of playing back the consumer DV format - one of the great advantages of the DVCAM format.

Long Recording Time (maximum 184 minutes)

The DSR-500WSP has a remarkably long recording time. Both Mini cassettes (PDVM Series) and standard cassettes (PDV Series) can be used. When using the PDV-184ME (standard) the DSR-500WSP provides a maximum recording time of 184 minutes.

Digital Output of i.LINK Interface

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

26-pin VTR Interface Capability

With its 26-pin VTR Interface, the DSR-500WSP can feed camera output signals to an external recorder. This function enables parallel or back-up recordings to be made using an external VTR. Depending on the type of external VTR in use, either component/VBS or Y/C camera output signals can be selected with the EXT VTR OUTPUT switch on the operator panel.

Edit Search

The DSR-500WSP 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 has to shoot a subject with exactly the same framing as an earlier shot, it can be very difficult to replicate the framing. With the DSR-500WSP, a picture previously recorded on DVCAM tape can be superimposed on the viewfinder screen, so that the camera operator can easily and accurately position and frame the subject exactly as it was in the earlier shot. Combined with the SetupLog function, the retake shot becomes very simple to achieve.

ClipLink Feature

ClipLink System

The ClipLink system is a comprehensive shooting information and image management system for every stage of the digital production process - from acquisition to editing. Used in combination with Sony digital video products such as the DSR-130P/DSR-300P/DSR-500WSP camcorders, digital VTRs (DSR-85P/80P/70P/60P) and EditStation systems (ES-7 / ES-3), ClipLink enhances the productivity and operating efficiency of the entire video production process.

ClipLink Operation

Two types of useful information, known as ClipLink Data, are generated automatically by the DSR-500WSP while shooting. One is Index Picture, 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 type of information is the shot data needed for the editing process, such as the reel number, scene number, take number, timecode of the MARK IN / MARK OUT point and OK/NG status. This reference data is stored in the cassette memory of a DVCAM cassette tape. ClipLink data can be quickly uploaded to a Sony EditStation system from DVCAM VTRs, so that useable shots are easily selected using only the visual ClipLink information displayed on the EditStation GUI. The ClipLink system eliminates the task of loading all the shots on the tape onto the EditStation system.

SPECIFICATIONS SONY DSR-500WSP**General :**

Power requirements :	DC 12 V (11 to 17 V)
Power consumption :	24 W without VF, 26,1 W with VF
Operating temperature :	0C to 40 C
Storage temperature :	-20C to +60C
Operating humidity :	Less than 85%
Storage humidity :	Less than 90%
Tape Speed :	28.221 mm/s
Rec / playback time :	Standard size = 184 min Mini size = 40 min
Fast FF / Revind time :	Standard size = 12 min Mini size = 3 min
Continious Rec time :	70 min with BP-L40 battery 140 min with BP-L60A battery 230 min with BP-L90A battery
Mass :	Approx. 3,6 kg camera head only Approx. 4,4 kg with VF and mic Approx. 5,8 kg with VF and mic and lens Approx. 6,3 kg with VF and mic and lens, BP-L40 battery and tape
Dimention w/h/d :	121 x 192 x 280 mm

Camera Part

Image device :	3 chip 2/3" Interline-Transfere CCD
Optics :	F1,4 medium index prism system
Effective pic. elements :	980 x 582
Total pic. elements :	1038 x 594
Sensing area :	9,6 x 4,4 mm
Built-in filters :	1 : 3200K / 3000K 2 : 5600K +1/8 ND 3 : 5600K 4 : 5600K + 1/64 ND
Lens mount :	Sony 2/3" bayonet mount
Signal system :	PAL colour system
Scanning system :	2:1 interlaced 625 lines 50 fields
Horizontal frequency :	15.625 Hz
Vertical frequency :	50 Hz
Sync system :	Internal and external with the VBS or BS signal
Horizontal resolution :	16:9 mode = 700 TV lines 4:3 mode = 700 TV lines
Vertical resolution :	480 TV lines (w/o EVS) 530 TV lines (w EVS)
Minimum illumination :	0,5 lx with F:1,4 Hyper Gain 30db+DPR 0,8 lx with F:1,8 Hyper Gain 30db+DPR
Sencivity :	F:11 at 2000 lx (3200K, 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, 1/60, 1/250, 1/500, 1/1000, 1/2000 sec.
Clear scan selection :	50,3 to 201,4 Hz
Signal-to-noise ratio :	61 db typical
registration :	0,05% (all zones, without lens)
Geometric distortion :	Below measurable level

VTR part

Video performance

Bandwidth : Luminance : 25Hz to 5.5MHz +1/-2db
 Chrominance : 25Hz to 2,0MHz +1/-2db
 S/N ratio (luminance) : More than 52db
 K-factor : Less than 2%
 Y/C delay : Less than 30 nsec

Audio performance

Frequency response : 48KHz = 20Hz to 20KHz +0,5/-1,0db
 32KHz = 20Hz to 14,5KHz +0,5/-1,0db
 Dynamic range : More than 80db
 Distortion (THD) : Less than 0,08% (1KHz reference level, 48KHz)

In/Output connectors**Signal Inputs**

Genlock video in : BNC, 1,0 Vp-p, 75ohm
 TC in : BNC, 0,5 V to 18 Vp-p 10Kohm
 Ext Audio ch 1/2 : XLR 3-pin female x 2, -60dbu 3Kohm / +4dbu 10Kohm
 Mic in : XLR 3-pin female
 Analogue Video in : BNC, 1,0 Vp-p, 75ohm

Signal Outputs

Video Out : BNC, 1,0 Vp-p, sync negative, 75ohm, 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, 525mVp-p
 Y/C : Y, 1,0 Vp-p, sync negative
 C, 300mVp-p burst level
 DV Out : I.LINK 6-pin IEEE1394 based
 Monitor Out : BNC, 1,0 Vp-p, sync negative, 75ohm
 TC Out : BNC, 1,0 Vp-p, 75ohm
 Audio ch 1/2 Out : Phono, -10dbu, 47Kohm
 S-Video Out : Din 4-pin 1,0 Vp-p, 75ohm

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
 Remote 1 : Stereo mini
 Remote 2 : 10-pin
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Oppdatert 02.04.00

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