

# SONY®

NTSC

Digital Video Camera  
**DXC-D30**

Digital Video Camera  
**DXC-D30WS**

Betacam SP Camcorder  
**PVW-D30**

Digital Camcorder  
**DSR-130**

**DVCAM™**



DXC-D30

DXC-D30WS

PVW-D30

DSR-130

The Sony DXC-D30 is a benchmark setting digital video camera designed as a top-end model for video professionals. Incorporating Sony's latest DSP (Digital Signal Processing) technology based on Sony's TruEye™ process, the DXC-D30 offers the faithful color reproduction never before experienced with conventional analog or digital cameras. Drastic vertical smear reduction and high sensitivity achieved by the Power HAD™ CCDs provide more shooting opportunities, while maintaining superior picture quality.

Now Sony introduces the DXC-D30WS wide screen camera to Sony's professional digital camera line-up. The DXC-D30WS incorporates three Power HAD WS™ CCDs which have been specifically designed for a 16:9 aspect

ratio, switchable to 4:3. When shooting in the 16:9 format, the DXC-D30WS offers outstanding picture quality and tremendous flexibility for a variety of applications.

The DXC-D30 and DXC-D30WS are cameras which fit the current analog and digital acquisition systems as well as Sony's new production system based on the DVCAM digital recording format. These cameras dock directly not only to existing camera adaptors and analog on-board VTRs via an analog interface, but also to the newly developed Sony DSR-1 DVCAM Digital Recorder via a component digital interface, "Pro 76-pin Digital" connector.

The DXC-D30/D30WS also offers superior in the operational convenience. Responding to the increasing demands from professionals, it provides a variety of key automatic functions. With all these features packed in its compact camera body, the DXC-D30/D30WS creates a new world of acquisition in a wide spectrum of applications.



# DXC-D30/D30WS Camera Features

DXC-D30

DXC-D30WS

PVW-D30

DSR-130

The DXC-D30 is a digital signal processing camera, and its sister model DXC-D30WS is a wide-screen camera for the 16:9 aspect ratio with a switching capability to also capture the image in a 4:3 aspect ratio. Both models have the following features.

## Sony State-of-the-art Digital Camera Signal Processing Technology

The DXC-D30/D30WS incorporates state-of-the-art digital camera processing technology which is designed to fully exploit the benefits of DSP (Digital Signal Processing).

### ■ TruEye™ Process

The TruEye digital signal process employed in the DXC-D30/D30WS is a true innovation in camera signal processing, made possible by Sony digital signal technology.

In conventional RGB analog or digital processing, some nonlinear signal processing occurs 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 significant problem is totally eliminated by the TruEye process which manages video signal data according to three factors - brightness, hue and saturation - so that color in even a wide dynamic range can be reproduced as faithfully as by the human eye without hue factor distortion.

Based on the TruEye system, the DXC-D30/D30WS also offers a unique feature called DynaLatitude™ which adaptively manages the contrast of each pixel according to a histogram of video signal level distribution. The DynaLatitude feature brings a new dimension to other technologies such as Dynamic Contrast Control (DCC). The DynaLatitude feature optimizes video level distribution based on video signal histograms in order to utilize the limited dynamic range of the video signal standard.

### ■ Real Time Self Diagnostics

Even though the DXC-D30/D30WS was designed to be highly reliable, it employs a powerful self diagnostic system which informs the operator, in real time, of the connecting conditions of the LSI (Large Scale Integration) circuits and printed circuit boards, as well as electrical connection conditions between the camera and a VTR. Even if the operator is not familiar with digital circuitry, the DXC-D30/D30WS informs them of exactly what is happening.

### ■ High Picture Quality

The horizontal resolution and the signal to noise ratio of the DXC-D30/D30WS are ranked among the highest in the industry. The Modulation Depth of the DXC-D30 is 55% (typical) at 5MHz and that of the DXC-D30WS is 70% (typical) in the 16:9 mode. The newly developed digital circuits drastically reduce the aliasing phenomenon, which was found even in conventional digital cameras, while maintaining the high resolution.

### ■ High Stability and Uniformity

Having DSP technology, the DXC-D30/D30WS assures a high degree of stability through its video output. The picture tone is kept uniform among multiple DXC-D30/D30WS's.

### ■ Detail Corrections by DSP

#### Skin Detail with Auto Detection of Active Area

The Skin Detail function in the DXC-D30/D30WS gives the subject a pleasing facial complexion, while maintaining the sharpness of the other areas. The designated active area of Skin Detail can be set with the digital circuits by simply adjusting the Area Detect Cursor on the viewfinder screen and SKIN SET button on a camera side panel. The color range of the Skin Detail active area and Skin Detail level can be also set by the viewfinder menu system. The range of color detection for detail correction is 360 degrees.

#### Black Halo-Free, Clean Detail

The DXC-D30/D30WS provides edges with a natural line and appropriate thickness in areas with extreme dark-to-light or light-to-dark transitions, by digitally optimizing the level of detail signal to each of the transition points, not by just clipping the detail signal. Consequently, the 'Black Halo' effect which is seen as thick black edges surrounding an extremely bright object, as well as a stepping diagonal edge, have been dramatically reduced.

#### Red Vertical Detail Correction

The Vertical Detail Correction signal, which is digitally created from both the Green and Red signals, assures image sharpness when shooting highly saturated subjects or subjects bathed in red light.

#### Horizontal Detail Frequency Control

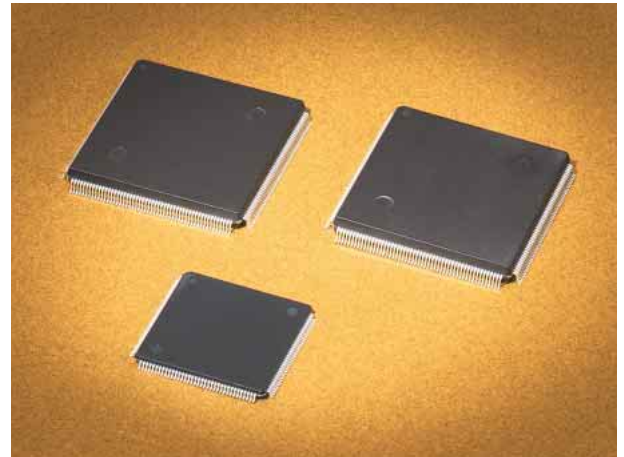
The Horizontal Detail Frequency can be controlled by the VF Menu System according to the user's preference.

## Power HAD CCD (DXC-D30 only)

The DXC-D30 incorporates three Power HAD CCD sensors. These sensors feature a minimal smear level equivalent to conventional FIT CCDs, which addresses the tough demands of the high-end production field. The total performance of the Power HAD CCD sensor approaches that of the standard FIT.

### ■ Low Smear Level

Vertical Smear Level of the DXC-D30 is -125dB which is the same level as conventional FIT sensors. This feature will give



the operator more freedom to shoot subjects in high light situations.

### ■ High Sensitivity

The Power HAD sensor in the DXC-D30 achieves a high sensitivity of F11.0 (at 2000 lx, 3200K) and minimum illumination of 0.5 lx. This feature affords a greater opportunity to shoot under extremely low-light conditions.

### ■ High S/N Ratio

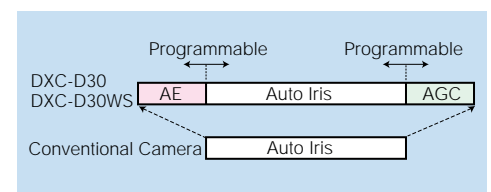
The improved CCD process combined with the camera's new digital circuits means a reduction in CCD noise. The signal-to-noise ratio is improved to 63dB, one of the highest specification in the industry.

## Enhanced Ease of Operation

Responding to the increasing demands for more automatic functions in a professional level camera, the DXC-D30/D30WS boosts several new and improved functions sure to please the most demanding camera person.

### ■ Total Level Control System (TLCS)

Even if the incoming light exceeds the range of the automatic iris control either above or below, by using the iris control in combination with Auto Gain Control (AGC) and CCD AE (Auto Exposure, the application of variable shutter of CCD), the DXC-D30/D30WS offers proper picture exposure. This function is called TLCS. While still maintaining low-noise characteristics, TLCS affords ease of operation for this high-end professional camera.





## ■ EZ Focus Function

EZ Focus is a function to assist focusing without stopping down the lens. By just pushing the EZ Focus button, the iris is automatically opened so that the depth of field is reduced to make 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.

## ■ New EZ Mode Function

Instantly setting a camera to a standard or an auto position is done by simply pressing the EZ Mode button. The DXC-D30/D30WS has two alternative EZ Modes - STANDARD or CUSTOM. When set to CUSTOM EZ Mode, the camera setting is changed in accordance with the selected setup file.

## ■ Auto Tracing White Balance (ATW)

In the DXC-D30/D30WS, tracing of the white area in Auto Tracing White Balance (ATW) is fast enough to meet professional demands. In addition, the accuracy of the white balance adjustment is enhanced.

## Enhanced Functions for Picture Creation

### ■ Camera Setup Files

The DXC-D30/D30WS is equipped with a convenient VF (Viewfinder) Menu System; a control menu with superimposed characters on the VF screen. Depending on the requirement, the menu contents can be selected with the SETUP (STD/FILE) selector switch.

#### STD position (Standard VF Menu System)

When the SETUP switch is set to the STD position, setting of the camera parameters or defining of the switch functions can be done with the VF Menu System, the same way as with conventional Sony cameras.



#### FILE position (VF Menu System for File Management)

When the SETUP switch is set to FILE position, a total of eight setup files can be used with the dedicated VF Menu System. These files are as follows.

#### Factory Preset Files

Five Factory Preset Files are set by Sony to accommodate the five most common lighting situations, such as STANDARD, HIGH SATURATION and FLORESCENT.

#### User Files

Three User Files allow the operator to set camera parameters which match their own particular shooting situations. User Files can be easily made by modifying a Factory Preset File.

#### ■ Scene Files

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 camera operation and camera set-up can be stored into scene files, and the most suitable file for each shooting situation can be instantly recalled using the menu button on the RCP-TX7.

#### ■ Setup Data Management with DVCAM Cassette

The DXC-D30/D30WS combined with the DSR-1 has the following camera data management:

##### SetupNavi™ — Camera Setup File Storage

The DXC-D30/D30WS combined with the DSR-1 has the SetupNavi function to store the User Files or Factory Preset Files of the DXC-D30/D30WS directly onto VAUX (Video Auxiliary) data territory of the DVCAM cassette tape. The data can be stored on or recalled from the tape via the VF Menu System.

Using the DVCAM cassette as a medium, the setup data can be transferred to other DXC-D30/D30WSs.

##### SetupLog™ — Automatic Recording of Camera Setting Data

Even without using the file system, the information of each setting parameter of the DXC-D30/D30WS for every shot is automatically recorded by the DSR-1 on the VAUX territory in each video track of the DVCAM cassette tape. This function is called SetupLog. It is useful not only for the camera operator if there is a need to re-take the same shot, but also for checking the operating conditions during a particular shoot.

#### ■ File Management from Personal Computers

The REMOTE connector (10-pin) of the DXC-D30/D30WS is designed in accordance with the RS-232C standard. This feature also makes it possible to manage the setup file data from personal computers with proper Sony protocol.

## Convenient Features

#### ■ Remote Control of Hyper Gain

Hyper Gain is a convenient function for shooting under extremely low-light situations without using a lighting system. It instantly increases the gain-up value to be +36dB in total, combining the electronic gain-up of +30dB and the Dual Pixel Readout effects (equivalent to +6dB gain-up). The Hyper Gain can be assigned to be the highest gain position (H) of the GAIN selector switch (H/M/L). Consequently, Hyper Gain can be switched on or off remotely from the RM-M7G, CCU-M5, CCU-M7 or the CCU-TX7 system.

#### ■ Adjustable Black Stretch and Compress

The contrast in the black area of the image can be adjusted by the black stretch/compress control function. Black Stretch emphasizes the contrast in the dark areas, while Black Compress enhances or deepens the darkness.

#### ■ Dual Zebra

The DXC-D30/D30WS has two types of zebra patterns - 'ZEBRA 1' and 'ZEBRA 2'. 'ZEBRA 1' can be set within a range of 70 IRE to 90 IRE by 1 IRE. 'ZEBRA 2' provides a zebra pattern in the area with more than 100% video level. Dual zebra display - to show both ZEBRA 1 and 2 - as well as display of either one is possible.

#### ■ Monitor Out

The DXC-D30/D30WS is equipped with a MONITOR OUT connector (BNC). Via this connector, the user can check the shooting conditions by displaying a color picture with characters superimposed on a connected external monitor. This is in addition to the image displayed on the unit's viewfinder.

#### ■ Others

- Programmable Gain
- Clear Scan (CLS)
- Date & Time Superimposition
- Built-in 1kHz Audio Reference
- Adjustable Shoulder Pad
- SMPTE/ SNG Color Bars



## System Versatility

### ■ Dockable to a Variety of VTRs

The DXC-D30/D30WS is equipped with two types of connectors - the new 'Pro 76-pin Digital' connector and the conventional 'Pro 50-pin' connector. The Pro 76-pin Digital connector supplies 4:2:2 10-bit component digital output, which allows expandability for unlimited applications and future digital interfacing, with a variety of devices. Via the Pro 76-pin Digital connector, the DSR-1 DVCAM Recorder can be directly docked to the DXC-D30/D30WS. Through the Pro 50-pin connector, a variety of dockable analog video recorders can be attached to the DXC-D30/D30WS.



### ■ Supports Current CA and CCU

Via the Pro 50-pin connector, the CA-537/ 327/ 325A/ 325B Camera Adaptors can also be used just like the current camera system. Via the Pro 76-pin Digital connector, the CA-TX7 Triax Adapter can be connected. Sony's RM-M7G, CCU-M5, CCU-M7 and CCU-TX7 can also be used for remote control operation.

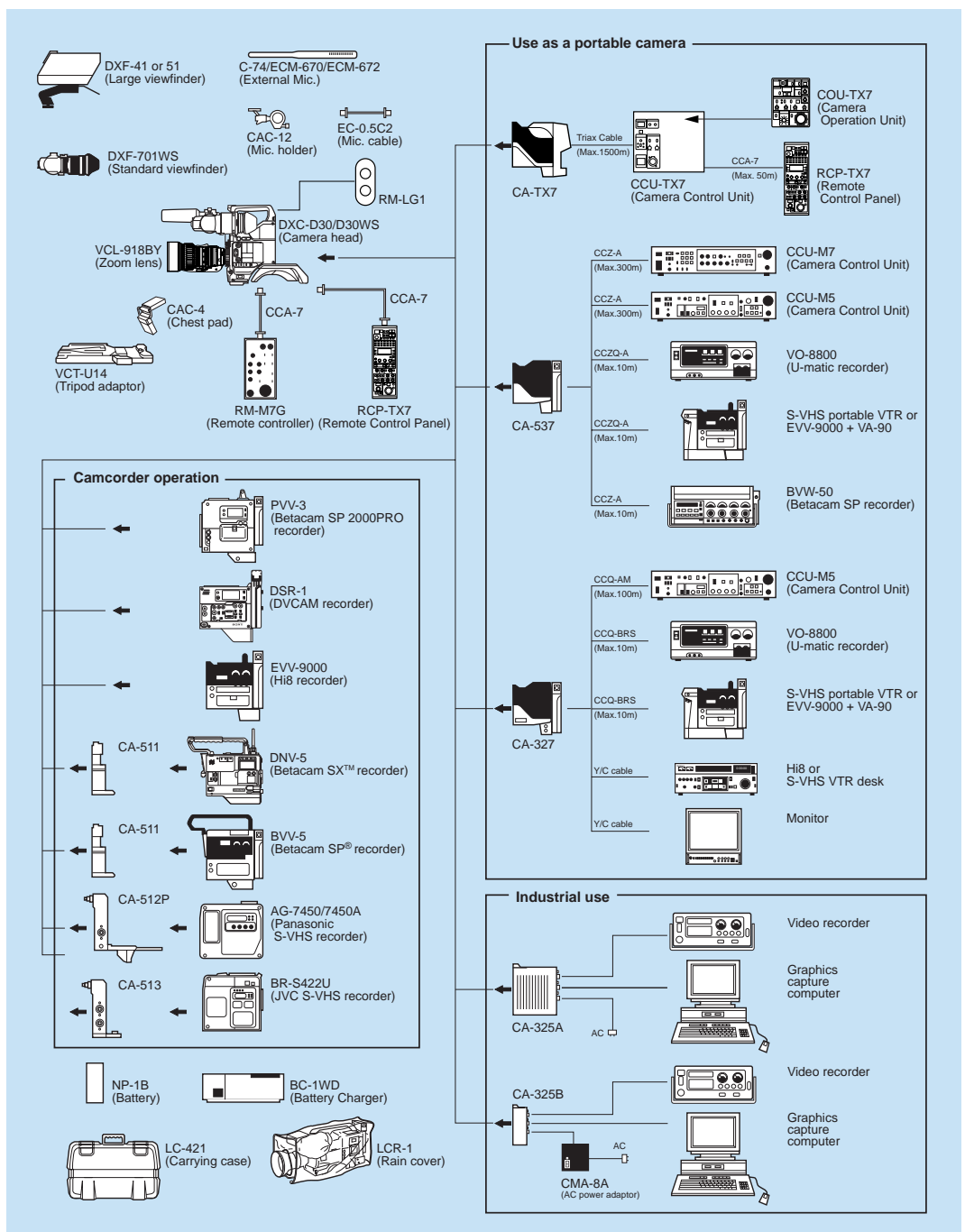
### ■ With Personal Computers

The 10-pin connector (REMOTE Connector) for the RM-M7G and RCP-TX7 is designed in accordance with the RS-232C standard. This allows the DXC-D30/D30WS to be remotely controlled from an external personal computer with proper Sony protocol.



### ■ VCL-918BY Inner Focus Zoom Lens

To meet the enhanced performance of the DXC-D30/D30WS, the Sony VCL-918BY x18 zoom lens is newly incorporated as their standard lens. Its inner focus adjustment method and excellent performance will further expand acquisition applications of the cameras.



# DXC-D30WS Unique Features



In addition to the features described previously, the DXC-D30WS has the following features.

## Power HAD WS™ CCD

The DXC-D30WS is equipped with three chips of newly developed 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 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 without any image loss. High sensitivity of F11 (at 2000 lx, 3200K), remarkable signal to noise ratio of 63dB and a virtually invisible smear level of -120dB are achieved.



## 16:9 and 4:3 Switchable

Thanks to the adoption of the new wide aspect CCDs and digital signal processing, the DXC-D30WS can operate in both 16:9 widescreen and conventional 4:3 mode without any additional conversion equipment.

## 16:9 ID Pulse

When shooting 16:9 images, the DXC-D30WS automatically adds a wide aspect ID pulse signal, which indicates that the picture is shot in 16:9 aspect ratio, on the video output signal from the camera VBS OUT, MONITOR OUT and 50-pin/76-pin interface. The 16:9 aspect ratio picture shot by the DXC-D30WS can be recorded and played back with Sony DSR-1/30/60/80/85 DVCAM Players/Recorders, SVO-5800 V-VHS Recorder, SVP-5600 S-VHS Player and all types of UVW/PVW Players/Recorders.

## Selectable Preset White Balance

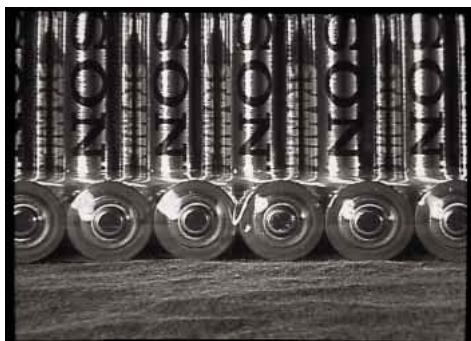
The color temperature of the preset white balance can be switched to conventional 3200K or 3000K. This makes it possible for the DXC-D30WS to capture natural color reproduction even under a low color temperature lighting condition.

## DXF-701WS

The DXF-701WS is a new 1.5-inch black and white viewfinder developed for the DXC-D30WS, with the following features. The DXF-701WS can also be used with the DXC-D30 in the 4:3 mode.

### ■ Aspect Ratio Adjustment

With the DXF-701WS, the viewfinder scanning size can be switched into AUTO or FULL, using the viewfinder control menu. In AUTO mode, viewfinder scanning size is automatically changed according to the camera aspect ratio (4:3 or 16:9), as shown in (A) and (B). In FULL mode, the image is displayed using the full size of the screen. This means that the 16:9 image in FULL mode is vertically enlarged as (C) shows, while the 4:3 image in FULL mode is the same as AUTO mode (A). As a result, the shape in the 16:9 picture captured in FULL mode is not exactly the same as what it should be, but the use of the whole screen in FULL mode provides greater viewing comfort.



AUTO/FULL mode in 4:3

Figure (A)



AUTO mode in 16:9

Figure (B)



FULL mode in 16:9

Figure (C)



### ■ V/H Detail Control

Both vertical and horizontal detail levels can be variably adjusted by the PEAKING potentiometer on the viewfinder body, while monitoring the ratio of both detail levels.

### ■ Two Red REC Tally Lamps

In addition to the standard REC tally above the viewfinder screen, another REC tally is located below the screen to prevent overlooking the REC tally indication. This second tally lamp is ON/OFF switchable through the ADVANCED MENU.



### ■ TAKE Tally Lamp

The DXF-701WS also has a TAKE tally lamp for use with the ClipLink system. The TAKE tally can also be used as a second tally lamp for CCU operations.

### ■ Reliable and Ergonomic Design

A diecast aluminum body makes the DXF-701WS extremely durable. The viewfinder's position can be adjusted in a broad horizontal plane according to the operator's preference. The large diameter eye cup not only provides greater comfort but also simplifies focusing. A wide range of diopter adjustments (-3 to 0) is provided to compensate for differences in eyesight.



# PVW-D30 Betacam SP Camcorder



## High Quality Betacam SP Camcorder

The PVW-D30 is a Betacam SP PRO2000 Camcorder consisting of the DXC-D30 and the PVV-3 Betacam SP Recorder. The high quality picture of the DXC-D30 can be directly recorded onto the Betacam SP format - one of the best analog recording formats currently available in the professional field. The status information and data from the PVV-3, such as time code, recording audio level, remaining battery power, and remaining tape time can be superimposed on the viewfinder.

*(Note: These features and functions are also available with the DXC-D30WS when combined with the PVV-3.)*



# DSR-130 DVCAM Camcorder Operation



## Acquisition Tool for the DVCAM System

The DSR-130 Two-piece DVCAM Camcorder - the combination of the DXC-D30 and the DSR-1 Digital Recorder - is an acquisition tool based on the DVCAM recording format. The following are the basic features of the DSR-130.

*(Note: The following features and functions are also available with the DXC-D30WS combined with the DSR-1.)*

### ■ DVCAM Recording Format

Sony's DVCAM recording format is designed for professional use. While maintaining the playback compatibility with the consumer DV recording format, higher picture quality is achieved by the wider track pitch of the DVCAM format.

### ■ Equivalent to One-piece Camcorder

The DXC-D30 and the DSR-1 have been carefully designed so that the DSR-130 can operate just like a one-piece camcorder. The recording status and the warning messages from the DSR-1 can be superimposed on the viewfinder of the DXC-D30. The body of the DSR-1 and the DXC-D30 are made of magnesium, which makes the DSR-130 a lightweight yet durable camcorder.

When recording with the DSR-1, both DVCAM Mini Cassette tapes (PDVM -40ME/ 32ME/ 22ME/ 12ME or PDVM-40N/32N) and DVCAM Standard Cassette tapes (PDV-184ME/ 124ME/ 94ME/ 64ME or PDV-184N/ 124N/ 64N) can be used without any adaptors. Maximum recording time of PDVM and PDV tapes are 40 minutes and 184 minutes respectively.



## Time Code Superimposed during Playback

For operational convenience while shooting, the time code is superimposed on the viewfinder screen or MONITOR OUT screen, even during playback.

## CH-1 Audio Level Control

The CH-1 audio level can be adjusted with the level control located on the front panel of the DXC-D30 while recording with the DSR-1.

## Edit Search

The DSR-1 incorporates an Edit Search function. Its control button is located on the side panel of the DXC-D30 to afford easy access while shooting.

## Freeze Mix Function

When the camera operator needs to shoot a subject in the same framework as that of a previously recorded subject, it was very difficult to perfectly place the subject in the same position as the previous shot with conventional cameras. With the DSR-130, a picture previously recorded on the DVCAM tape can be superimposed on the viewfinder screen, so that the camera operator can easily frame or position the subject just like a previous shot.



## 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 Sony's new digital video products such as the DSR-130 Digital Camcorder, the Digital VTRs (DSR-85/80/60), and the ES-7 EditStation™ System will enhance the productivity and operating efficiency throughout the entire video production process.

### ClipLink Data

The DSR-130 automatically generates two types of useful information while shooting, which drastically reduces the work traditionally required during the video tape editing process. One is Index Picture which is a digitally miniaturized picture of the video image of the "in" point of each shot - MARK IN point\*. Index Pictures are recorded on the DVCAM tape. The other is shot information needed for the editing process, such as reel number, scene number, take number, time code of MARK IN/ MARK OUT point\*, and OK/NG status. This reference data is stored in the Cassette Memory of the DVCAM Cassette Tape.

The combination of these two types of information is called ClipLink data. The ClipLink data can be quickly uploaded to the EditStation System from the DVCAM Digital VTRs, so that the selection of usable shots can be done using only visual ClipLink information displayed on the monitor of the EditStation. The ClipLink system eliminates the work of having to load all the shots on the tape to the EditStation System.

### TAKE button

The DXC-D30 has a TAKE button on the front of the camera. Depending on the situation, the user can assign it to operate either in a MARK or a CUE mode using the VF Menu System. In the MARK mode, it triggers to record the time code of MARK IN or MARK OUT points\* as well as an Index Picture of the MARK IN point during shooting everytime it is pushed. The MARK button is useful, for example, if the program origination is based on a certain sequence. In the CUE mode, the moment the recording is started or ended is regarded as the MARK IN or MARK OUT point. In addition to this, the time code of the CUE point\*\* is recorded by pushing the CUE button. Logging of the CUE point is useful for shooting events where the shooting sequence is undetermined or very changeable.

#### \* MARK IN/ MARK OUT point:

Starting/ Ending point of a duration to be used for editing. In the ClipLink System, the Index Picture of the MARK IN point is automatically recorded as well.

#### \*\* CUE point:

The point where an operator wants to review work at a later time. The CUE point does not accompany an Index Picture.

### NG button

NG (No Good) status for each take can be input by pushing an NG button on the DXC-D30 during or after shooting. Unless the NG button is pushed, OK status is automatically input.

### RM-LG1

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



### ClipLink

#### Basic Information in ClipLink Data

Scene No.	Index Picture	Time Code (IN)	Time Code (OUT)
1		00:01:01	00:05:22
2		00:05:23	00:18:20
3		00:18:21	00:24:13

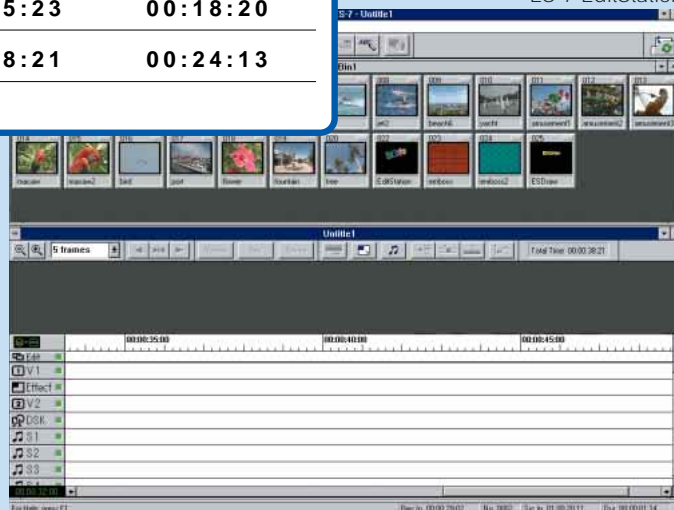
DSR-130  
Digital Camcorder



DVCAM or DV  
Cassette Tape

Automatically  
recorded.

ES-7 EditStation





# DXC-D30/DXC-D30WS/PVW-D30/DSR-130

## Product Configurations



### DXC-D30 Series

	DXC-D30F1	DXC-D30K1	DXC-D30L1	DXC-D30H
1	DXC-D30 Camera Head	Yes	Yes	Yes
2	Camera Handle*	Yes	Yes	Yes
3	DXF-701WS Viewfinder	Yes	Yes	Option
4	External Microphone*	Yes	Yes	Option
6	VCT-U14 Tripod Adaptor	Yes	Yes	Option
7	VCL-918BY Zoom Lens	Yes	Option	Option
8	LC-421 Carrying Case	Yes	Option	Option
14	RM-LG1 Logger Unit	Yes	Yes	Option

### DXC-D30WS Series

	DXC-D30WSL
13	DXC-D30WS Camera Head
2	Camera Handle*
3	DXF-701WS Viewfinder
4	External Microphone*
6	VCT-U14 Tripod Adaptor
14	RM-LG1 Logger Unit

### PVW-D30 Series

	PVW-D30F1	PVW-D30K1	PVW-D30L1
1	DXC-D30 Camera Head	Yes	Yes
11	PVW-3	Yes	Yes
12	Handle for PVW-D30*	Yes	Yes
3	DXF-701WS Viewfinder	Yes	Yes
4	External Microphone*	Yes	Yes
5	Shoulder Strap*	Yes	Yes
6	VCT-U14 Tripod Adaptor	Yes	Yes
7	VCL-918BY Zoom Lens	Yes	Option
8	LC-421 Carrying Case	Yes	Option
14	RM-LG1 Logger Unit	Yes	Yes

### DSR-130 Series

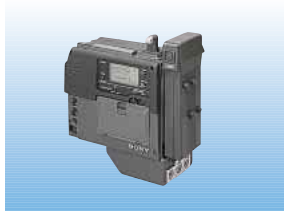
	DSR-130F1	DSR-130K1	DSR-130L1
1	DXC-D30 Camera Head	Yes	Yes
9	DSR-1	Yes	Yes
10	Handle for DSR-130*	Yes	Yes
3	DXF-701WS Viewfinder	Yes	Yes
4	External Microphone*	Yes	Yes
5	Shoulder Strap*	Yes	Yes
6	VCT-U14 Tripod Adaptor	Yes	Yes
7	VCL-918BY Zoom Lens	Yes	Option
8	LC-421 Carrying Case	Yes	Option
14	RM-LG1 Logger Unit	Yes	Yes

\*The microphone, shoulder strap and handles are available only as service parts.

# Optional Accessories



**DSR-1**  
DV CAM Digital Recorder



**PVV-3**  
Betacam SP 2000 PRO Recorder



**VA-300**  
Playback Adaptor for PVV-3



**EVV-9000**  
Hi8 Videocassette Recorder



**VO-8800**  
Portable SP U-matic Recorder



**DNV-5**  
Betacam SX Recorder



**BVV-5**  
Betacam SP Recorder



**RM-LG1**  
Remote Control Unit



**CCU-TX7**  
Camera Control Unit



**CA-TX7**  
Camera Adaptor



**RCP-TX7**  
Remote Control Panel for CCU-TX7



**COU-TX7**  
Camera Control Unit for CCU-TX7



**RM-M7G**  
Remote Control Unit



**CCU-M5**  
Camera Control Unit



**CCU-M7**  
Camera Control Unit



**CA-537**  
Camera Adaptor



**CA-327**  
Camera Adaptor  
(Only models with serial No. above  
10270 can be used)



**CA-325A**  
RGB Adaptor (AC operation)



**CA-325B**  
RGB Adaptor (DC operation)



**CA-511**  
Camera Adaptor (for BVV-5 and  
DNV-5)



**CA-512**  
Camera Adaptor  
(for AG-7450/7450A Panasonic S-VHS  
on-board recorder)



**CA-513**  
Camera Adaptor  
(for BR-422U JVC S-VHS  
on-board recorder)



**NP-1B**  
NiCd Rechargeable Battery



**BP-90A**  
NiCd Rechargeable Battery



**DC-520**  
Battery Case to contain two  
NP batteries



**DC-500**  
Battery Case for BP-90A



**DC-210**  
Battery Case for BP-90A  
(Waist belt type)



**BC-1WD**  
Battery Charger for up to four  
NP-1B



**BC-410**  
Battery Charger for four BP-90A's and  
four NP-1B's



**BP-L60/L90**  
Rechargeable Li-ion Battery Pack (only  
with the DSR-1, PVV-3 and EVV-9000)



**BKW-L601**  
Adaptor to attach BP-L60/L90 to dockable VTRs (DSR-1, PVV-3 and EVV-9000)



**BC-L100**  
Battery Charger for BP-L60/L90



**DC-L1**  
Battery Adaptor for charging NP-1B with BC-L100



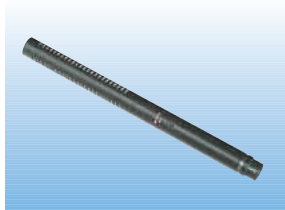
**DC-L90**  
Battery Adaptor for charging BP-90A with BC-L100



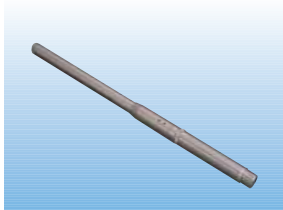
**CMA-8A**  
AC Power Adaptor



**ACL-550**  
AC Power Adaptor



**ECM-672**  
Electret Condenser Microphone



**C-74**  
Condenser Microphone



**EC-0.5C2**  
Microphone Cable



**CAC-12**  
Microphone Holder



**WRT-810A**  
UHF Wireless Microphone



**WRT-820A**  
UHF Synthesized Transmitter



**WRR-855A/810A (\*)**  
UHF Synthesized Tuner  
(For WRR-855A, BTA-801 Mount Adaptor is required.)



**DXF-701/701WS**  
1.5-inch Monochrome Viewfinder



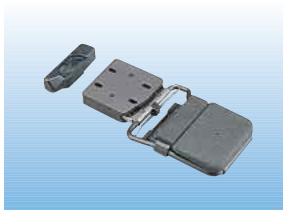
**DXF-41**  
4-inch Monochrome Viewfinder



**DXF-51**  
5-inch Monochrome Viewfinder



**VCT-U14**  
Tripod Adaptor



**CAC-4**  
Chest Pad



**DR-100**  
Intercommunication Headset



**CCZ-A2/A5/A10**  
Connecting Cable (26-pin - 26-pin)



**CCZQ-A2/A5/A10**  
Connecting Cable (26-pin - 14-pin)



**LC-304SFT**  
Soft Carrying Case



**LC-421**  
Carrying Case



**LCR-1**  
Rain Cover

(\*) WRR-855A/810A cannot be used in some areas.

**Lenses (2/3-inch format lens)**



**VCL-918BY**  
(F1.8, 9 to 162 mm)



**A8.5 x 5.5 BEVM-28**  
(F1.7, 5.5 to 47mm)



**A15 x 8BEVM-28**  
(F1.7, 8 to 120mm)



**VCL-916BYA**  
(F1.8, 9.0 to 144mm)



**J15a x 8BIRS**  
(F1.7, 8 to 120mm)



**YJ18 x 9BIRS**  
(F1.8, 9 to 162mm)



# Specifications

## DXC-D30/D30WS Video Camera Head

Image device:	3-chip 2/3-inch Interline-Transfer CCD
Optics:	F1.4 medium index prism system
Effective picture elements:	768 (h) x 494 (v) (DXC-D30) 980 (h) x 494 (v) (DXC-D30WS)
Total picture elements:	811 (h) x 508 (v) (DXC-D30) 1038 (h) x 504 (v) (DXC-D30WS)
Sensing area:	6.6mm x 8.8mm (DXC-D30) 9.6mm x 5.4mm (DXC-D30WS)
Built-in filters:	1: 3200K(D30), 3200K/3000K(DXC-D30WS) 2: 5600K+1/8ND 3: 5600K 4: 5600K+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:	D30: 850TV lines D30WS: 700TV lines (16:9), 700TV lines (4:3)
Vertical resolution:	400TV lines (without EVS), 450TV lines (with EVS)
Minimum illumination:	0.5 lx with F1.4, Hyper gain (30dB+DPR) 0.8 lx with F1.8, Hyper gain (30dB+DPR)
Sensitivity:	F11 at 2000 lx (3200K, 89.9% reflectance) (typical)
Gain selection:	-3dB, 0dB, +3dB, +6dB, +9dB, +12dB, +18dB, 18dB+DPR, +24dB, 24dB+DPR, Hyper Gain (30dB+DPR)
Shutter speed selection:	OFF, 1/100, 1/250, 1/500, 1/1000, 1/2000 sec or CLS (1/60.3 to 1/200.3)
Signal-to-noise ratio:	63dB (typical)
Registration:	0.05% (all zones, without lens)
Geometric distortion:	Below measurable level
Video output:	
Camera head BNC connector:	
VBS:	1.0 Vp-p, sync negative
26-pin connector of CA-537 docked to DXC-D30/D30WS	
VBS:	1.0Vp-p, sync negative
Y/R-Y/B-Y:	Y: 1.0Vp-p, sync negative R-Y/B-Y: 700mVp-p
RGB:	1.4Vp-p
Y/C:	Y: 1.0Vp-p, sync negative C: 286mVp-p
Inputs/ Outputs:	
INTERFACE:	Pro 76-pin Digital, Pro 50-pin
VIDEO OUT:	BNC-type
MONITOR OUT:	BNC-type
LENS:	12-pin
VF:	DIN 8-pin, DIN 20-pin
REMOTE1:	Stereo mini
REMOTE2:	10-pin
Power requirements:	DC 12V (10.5 to 17V)
Power consumption:	DXC-D30:12W (camera head only), 12.7W (with the DSR-1) DXC-D30WS:14.9W (camera head only), 15.3W (with the DSR-1)
Operating temperature:	-10°C to 45°C (-14°F to 113°F)
Storage temperature:	-20°C to 60°C (-4°F to 140°F)
Mass:	DXC-D30 Approx. 2.3 kg (5 lb 1 oz) for camera head only Approx. 3.1 kg (6 lb 13oz) with VF Approx. 4.3 kg (9 lb 8 oz) with VF and lens (w/o lens hood) Approx. 2.5 kg (5 lb 8 oz) for camera head only Approx. 3.3 kg (7 lb 4 oz) with VF
DXC-D30WS	
Dimensions (w/h/d):	121 x 206 x 273 (mm) 4 7/8 x 8 1/8 x 10 3/4 (inches)
<Note>	DPR is equivalent to +6dB gain up. 18dB+DPR: Equivalent to +24dB 24dB+DRR: Equivalent to +30dB Hyper Gain (30dB+DPR): Equivalent to +36dB

## PVW-D30 Camcorder

Power consumption:	24.1W (with DXF-701WS Viewfinder)
Mass:	8.1kg (17 lb 14 oz) (incl. DXF-701WS viewfinder, microphone, VCL-916BYA lens, NP-1B battery, videocassette, carrying handle)
Operating time:	60 min.
Dimensions (w/h/d):	123 x 232 x 367 mm (4 7/8 x 9 1/4 x 14 1/2 inches)

## DSR-130 Camcorder

Power consumption:	24.8W (with DXF-701WS Viewfinder)
Mass:	7.3kg (16 lb 2 oz) (incl. DXF-701WS viewfinder, microphone, VCL-916BYA lens, NP-1B battery, videocassette, carrying handle)
Operating time:	60 min.
Dimensions (w/h/d):	121 x 206 x 344 mm (4 7/8 x 8 1/8 x 13 5/8 inches)

## DXF-701WS Electronic Viewfinder

Picture tube:	1.5-inch monochrome
Scan size:	4:3 (DXF-701), 4:3/16:9 Switchable (DXF-701WS)
Indicators:	REC x 2, TAKE, BATT, SHUTTER, GAIN UP
Resolution:	600TV lines
Power requirements:	DC12V
Power consumption:	2.1W
Weight:	660g (1 lb 7 oz)
Dimensions (w/h/d):	Approx. 236 x 85 x 219 mm

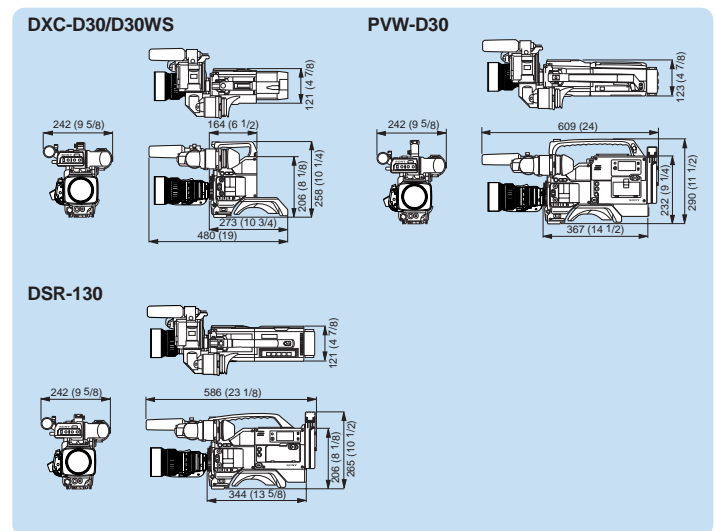
## VCL-918BY Zoom Lens

Focal length:	9 to 162mm
Zoom ratio:	18 x
Zoom control:	Manual/ Motorized
Maximum aperture ratio:	1:1.8 (f=9 to 117) 1:2.5 (f=162)
Iris control:	Manual/ Auto, selectable F1.8 to F16 and C (Close)
Range of object field: (at a distance of 0.9m)	W(Wide angle): 782 x 592 mm (31 1/8 x 23 3/8 inches) T(Telephoto): 45 x 34 mm (1 13/16 x 1 3/8 inches)
Minimum object distance:	0.9 m (35 1/2 inches)
Filter Thread:	82 mm P-0.75 mm (lens)
Mount:	Bayonet mount
Mass:	Approx. 1.3kg (2 lb 14 oz) without lens hood Approx. 122 x 102 x 219.7 mm (4 7/8 x 4 1/8 x 8 3/4 inches) with lens hood

## LC-421 Carrying Case

Mass:	Approx. 7.7kg (17 lb)
Dimensions (w/h/d):	Approx. 790 x 440 x 340mm (31 1/8 x 17 3/8 x 13 1/2 inches)

## Dimensions



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