SONY

3-861-659-01(1)

Digital Video Camera

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この取扱説明書には、DXC-D30WSLとDXC-D30シリーズカメラとの相違点のみが記載されています。**事故を防ぐための重要な注意事項については、付属のDXC-D30シリーズの取扱説明書をよくお読みのうえ、**製品を安全にお使いください。お読みになったあとは、いつでも見られるところに必ず保管してください。

Power HAD WS

DXC-D30WSL/D30WSPL

Table of Contents

About This Manual

This booklet constitutes an operation manual for DXC-D30WSL/D30WSPL 16:9 wide-screen type digital video camera together with the common Operating Instructions for the DXC-D30 series of digital video cameras.[1]
This book describes only the differences between the DXC-D30WSL/D30WSPL and other DXC-D30 series digital video cameras. For information about general camera operations, handling precautions and so forth, consult the common Operating Instructions for the DXC-D30 series cameras.
When reading the common Operating Instructions, please keep it in mind that "D30" in the camera model name should be replaced with "D30WS" and that "701" in the viewfinder model name should be replaced with "701WS."

Features

The DXC-D30WSL/D30WSPL is a 16:9 wide-screen type digital video camera. It combines the superior performance of the DXC-D30L/D30PL 4:3 standard-screen type digital video camera with the following features.

2/3-inch IT Type Power HAD WS CCD

The DXC-D30WSL/D30WSPL uses a newly developed 520,000-pixel Power HAD WS (wide screen) CCD, for outstanding sensitivity and picture quality.
- Sensitivity: F11.0 (at 3200 K, 2000 lx)
- S/N: 63 dB
- Smear: –120 dB

Switchable between 16:9 and 4:3 aspect ratios

A simple menu operation provides instant switching between the 16:9 and 4:3 aspect ratios. In 4:3 mode, a screen equivalent to a 4:3 screen is obtained through digital processing of the 16:9 video signals produced by the WS CCD.

Wide-aspect ID signals

A menu setting is available to add wide-aspect ID signals [2] to 16:9-mode video signals.[3]

Automatic aspect ratio switching in viewfinder

When the supplied viewfinder (DXF-701WS/701WSCE) is used, the viewfinder scan size (16:9 or 4:3) automatically switches in accordance with the aspect ratio selected for the camera.

For details, see pages 15 and 16.

White balance setting for color temperature of 3000 K

Preset white balance settings are provided for color temperatures of 3200 K and 5600 K. In addition, a menu selection allows use of a preset white balance setting for 3000 K. This feature facilitates shooting under low color temperature light from for example, incandescent lamps. It also facilitates color balance coordination between this camera and those cameras from other manufacturers whose preset white balance values are only for relatively low color temperature.

See page 15 for instructions on how to use the menu to select the preset white balance setting for 3000 K.

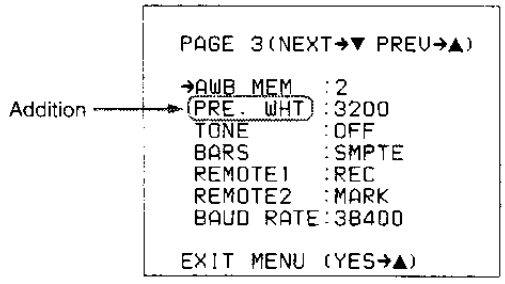
1) DXC-D30F/D30PF/D30K/D30PK/D30L/D30PL/D30H/D30PH
2) ID signals complying with EIAJ CPR-1204 (DXC-D30WSL) or complying with ETS WSS (DXC-D30WSPL).
3) Video signals refers to the following:
   - Video signals output from the VIDEO OUT connector and MONITOR OUT connector.
   - The Y component of Y/C separate signals and the Y component of component signals output from the VTR connector.

Advanced Menu Settings

The Advanced menu of the DXC-D30WSL/D30WSPL camera differs from the Advanced Menu of the DXC-D30 cameras in the following ways.

Advanced menu page 3

For the DXC-D30WSL/D30WSPL, the item "PRE. WHT" has been added to page 3 of the Advanced menu *(see page 58 of the common Operating Instructions for the DXC-D30 series)*.



Item	Settings
PRE. WHT Selects the preset white balance setting made available when the FILTER knob is set to position 1.	**3200:** White balance for 3200 K **3000:** White balance for 3000 K

Advanced menu page 7

On page 7 of the DXC-D30 series Advanced menu *(see page 60 of the common Operating Instructions)* there is a menu item A.IRIS. This item can be set to either STD (standard value) or AI (artificial intelligence).
In the DXC-D30WSL/D30WSPL, the STD mode has been enhanced by incorporating functions from the AI mode. Therefore the A.IRIS menu item was abolished.

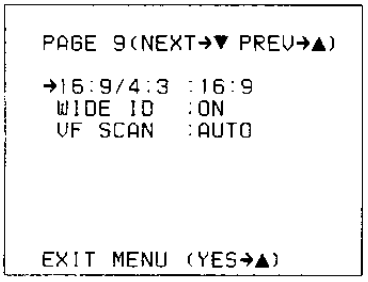
Advanced menu page 9

A page was added to the Advanced menu of the DXC-D30WSL/D30WSPL to permit aspect ratio settings. This menu page was numbered page 9. Pages 9 and following from the DXC-D30 series Advanced menu were renumbered as pages 10 and following, as shown below.

Advanced menu page numbers

DXC-D30 series		DXC-D30WSL/D30WSPL
Page 9	→	Page 10
Page 10	→	Page 11
Page 11	→	Page 12
Page 12	→	Page 13
Page 13	→	Page 14
Page 14	→	Page 15

The items on page 9 of the DXC-D30WSL/D30WSPL Advanced menu are shown below.



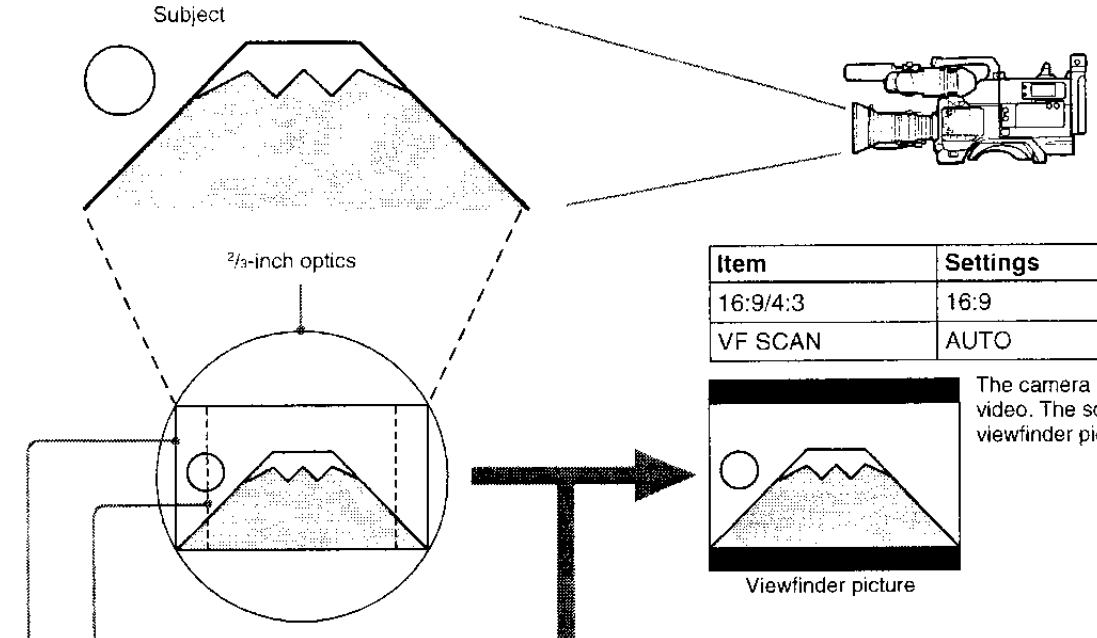
Item	Settings
16:9/4:3 Selects whether to put the camera in 16:9 mode or 4:3 mode.	**16:9, 4:3** [a]
WIDE ID Selects whether or not to add a wide aspect ID signal to video output signals in 16:9 mode.	**ON:** Add **OFF:** Do not add
VF SCAN Selects 16:9 or 4:3 as the viewfinder scan size when using the supplied viewfinder (DXF-701WS/701WSCE).	**AUTO:** Automatically switch to 16:9 size when the camera is in 16:9 mode, and automatically switch to 4:3 size when the camera is in 4:3 mode.[a] **FULL:** Regardless of camera's mode (16:9[b] or 4:3), the viewfinder picture completely fills the display area.

a) Compared to 16:9 mode, the 4:3 mode video appears as if a zoom lens has been adjusted slightly toward the telephoto end *(see figure on next page)*.

b) When the camera is in 16:9 mode, the viewfinder picture appears stretched vertically *(see figure on next page)*.

Video Output and Viewfinder Picture

The video output and viewfinder picture of this camera vary as shown below according to the settings of the 16:9/4:3 item and the VF SCAN item of the Advanced menu.

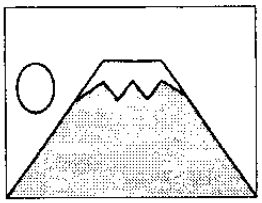


Item	Settings
16:9/4:3	16:9
VF SCAN	AUTO

Viewfinder picture

The camera outputs 16:9 video. The scan size of the viewfinder picture is 16:9 size.

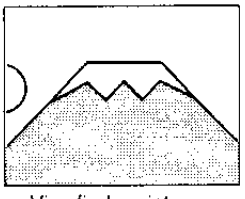
Item	Settings
16:9/4:3	16:9
VF SCAN	FULL



Viewfinder picture

The camera outputs 16:9 video. The viewfinder picture is 16:9 video that has been stretched vertically to completely fill the display area.

Item	Settings
16:9/4:3	4:3
VF SCAN	AUTO or FULL



Viewfinder picture

The camera outputs 4:3 video that has been electronically extracted from the effective area of the 16:9 aspect ratio. Compared to 16:9 video, this video appears as if a zoom lens has been adjusted slightly toward the telephoto end. The picture in the viewfinder is 4:3 video, which completely fills the display area.

Battery Pack Operating Times

The following table shows the maximum continuous operating times when this camera (including viewfinder) is operated at normal temperature under battery pack power. The times varies depending on the battery pack and attached equipment.

Battery pack	When the camera is coupled to:	
	Camera adaptor	Portable VTR (DSR-1/1P or PVV-3/3P)
NP-1B	Approx. 90 minutes	Approx. 50 minutes
NP-1A	Approx. 70 minutes	Approx. 35 minutes
BP-90A [a]	—	Approx. 105 minutes

a) The DC-500 battery case is required when using the BP-90A battery pack. The BP-90A cannot be used when a camera adaptor is coupled to the camera.

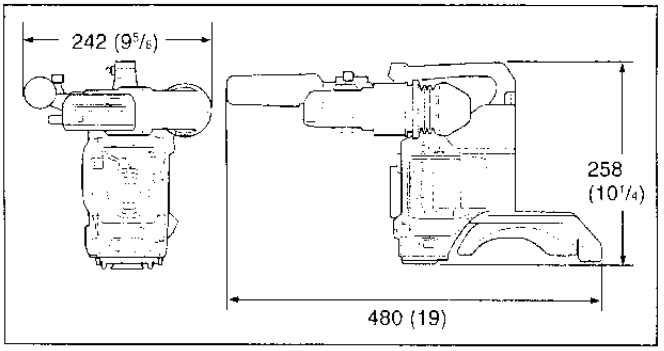
Specifications

DXC-D30WSL/D30WSPL Camera Head

Imaging element	Three-chip interline transfer CCD
Pixel resolution	980 (horizontal) × 494 (vertical) (DXC-D30WSL) 980 (horizontal) × 582 (vertical) (DXC-D30WSPL)
Imaging area	9.6 × 5.4 mm (2/3-inch)
Built-in filter settings	1: 3200K (3000K) 2: 5600K + 1/8ND 3: 5600K 4: 5600K + 1/64ND
Lens mount	Bayonet mount
Signal standards	EIA standard signal (NTSC color system) (DXC-D30WSL) CCIR standard signal (PAL color system) (DXC-D30WSPL)
Scanning system	525 lines, 2:1 interlace (DXC-D30WSL) 625 lines, 2:1 interlace (DXC-D30WSPL)
Scanning frequencies	Horizontal: 15.734 kHz (DXC-D30WSL) 15.625 kHz (DXC-D30WSPL) Vertical: 59.94 Hz (DXC-D30WSL) 50.00 Hz (DXC-D30WSPL)
Synchronization	Internal sync External sync, using signal input (VBS or BS) to the GEN LOCK IN connector of an optional camera adaptor or input from the GEN LOCK connector of a CCU-M5/M5P/M7/M7P camera control unit to the VTR/CCU/CMA connector of an optional camera adaptor.
Horizontal resolution[1]	16:9: 700 TV lines 4:3: 700 TV lines
Minimum illumination	0.5 lx (at F1.4, +36 dB) 0.8 lx (at F1.8, +36 dB)
Sensitivity	F11 at 2000 lx (3200K, 89.9% reflectance) (typical)
Gain levels	Selectable –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)
Video output	Composite signal 1.0 Vp-p, sync negative, 75 Ω, unbalanced Y/C separate signals Y: 1.0 Vp-p, sync negative, unbalanced C: burst level 0.286 Vp-p (DXC-D30WSL) or 0.300 Vp-p (DXC-D30WSPL), no sync
Video S/N ratio	63 dB (typical) (DXC-D30WSL) 61 dB (typical) (DXC-D30WSPL)
Registration	0.05% for all zones, without lens
Input/output connectors	VIDEO OUT connector: BNC, 75 Ω, unbalanced LENS connector: 12-pin, for 2/3-inch lens VF connector (front): 20-pin VF connector (left side): 8-pin REMOTE connector 1: Stereo mini-jack REMOTE connector 2: 10-pin MONITOR OUT connector: BNC, 75 Ω, unbalanced
Power supply	12 V DC
Power consumption	14.9 W (camera proper; 15.3 W when connected with DSR-1/1P) 17 W (when fitted with viewfinder)
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	2.5 kg approx. (5 lb 8 oz)

1) About horizontal resolution measurement, see page 21.

External dimensions in millimeters (inches)



DXF-701WS/701WSCE Viewfinder

Picture tube	1.5-inch monochrome
Indicators	REC/TALLY (×2), TAKE, BATT, SHUTTER, GAIN UP
Resolution	600 TV lines
Power supply	12 V DC
Power consumption	2.1 W
Mass	660 g approx. (1 lb 7 oz)
Maximum external dimensions	236 (W) × 85 (H) × 219 (D) mm (9⅜ × 3⅜ × 8⅝ inches)
Scan size	Switchable between 16:9 and 4:3

Supplied accessories

DXF-701WS/701WSCE Viewfinder (1)
RM-LG1 Remote Control Unit (1)
Microphone (1)
Wind screen (1)
VCT-U14 Tripod Adaptor (1)
Lens mount cap (1)
Flange focal length adjustment test chart (1)
Operating Instructions (common to DXC-D30 Series) (1)
Operating Instructions (for DXC-D30WSL/D30WSPL only) (1)
Operating Instructions (for RM-LG1) (1)
ClipLink™ Guide (1)

Design and specifications are subject to change without notice.

Related Products

There is a range of Sony products available to meet every conceivable video shooting requirement. For details, consult your Sony sales representative or supplier.

Lenses

VCL-915BYA/916BYA/916BY/918BY/1012BY Zoom Lens

Camera adaptor products

CA-325A/325AP/325B/327/327P/511/512[1]/512P[1]/513/537/537P Camera Adaptor
CMA-8A/8ACE AC Adaptor
RM-M7G Camera Remote Control Unit

VTR products

DSR-1/1P Digital Videocassette Recorder
EVV-9000/9000P Videocassette Recorder
PVV-1/1P/1A/1AP/3/3P Portable Videocassette Recorder
VO-8800/8800P Portable Videocassette Recorder
BVU-150/150P Portable Videocassette Recorder
BVV-5/5PS Videocassette Recorder
BVW-50/50P Portable Videocassette Recorder
VA-5/5P/90/90P VTR Adaptor

Battery products

NP-1B Battery Pack
BP-90A Battery Pack
BC-1WD/1WDCE/410/410CE Battery Charger

Microphone products

ECM-670/672 Electret Condenser Microphone
C-74 Condenser Microphone
CAC-12 Microphone Holder
EC-0.5C2 Microphone Cable
EC-0.3C2 Micorphone Cable

Studio equipment

CCU-M5/M5P/M7/M7P Camera Control Unit
DFS-300/300P/500/500P DME Switcher
DCK-500/500P Chroma Key Unit
DXF-51 5-inch Viewfinder (monochrome)
DXF-41 4-inch Viewfinder (monochrome)

1) When connecting a CA-512/512P, remove the blank panel on the CA-512/512P.

Cables and miscellaneous

The suffix number on a cable part number indicates the length in meters: e.g. a CCZ-A2 is 2 meters long. (Approximate equivalents in feet: 2 m = 6 ft, 5 m = 16 ft, 10 m = 33 ft, 25 m = 82 ft, 50 m = 164 ft, 100 m = 328 ft)

Camera cables with Z-type 26-pin connectors
- CCZ-A2/A5/A10/A25/A50/A100

Camera cables with Q-type 14-pin connectors
- CCZQ-A2/A5/A10/A2AM

CCZZ-1B/1E Cable Extension Connector

Camera cables with Q-type 14-pin connectors
- CCQ-2BRS/5BRS/10BRS
- CCQ-10AM/25AM/50AM/100AM

LC-421 Carrying Case

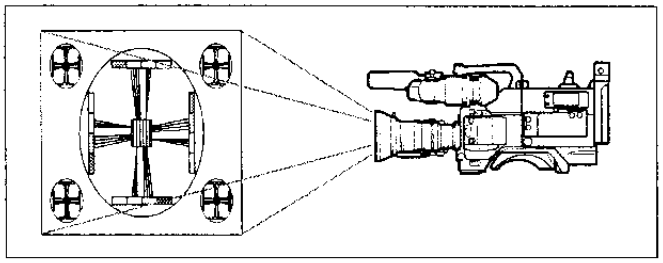
LCR-1 Rain Cover

CAC-4 Chest Pad

LC-304SFT Soft Case

Measuring Horizontal Resolution

The number of effective pixels of this camera in horizontal direction is 980. However, when horizontal resolution measurement is executed using a 4:3 resolution chart, the results show a horizontal resolution of approximately 700 TV lines for both 16:9 mode and 4:3 mode as described below.



Horizontal resolution in 16:9 mode

When the horizontal image frame of this camera is aligned with the width of the 4:3 resolution chart, the resolution is about 935 TV lines *(see Figure A)*. However, to measure the resolution of a video camera precisely, the vertical image frame must be aligned with the height of the chart. When this is done, the resolution is approximately 700 (935 × 3/4) TV lines *(see Figure B)*.

Horizontal resolution in 4:3 mode

In 4:3 mode, frame memory is used to extract the 4:3 area from the 16:9 video signals produced by the WS CCD, and the 4:3 signals are electronically enlarged. As a result, the horizontal resolution is approximately 700 TV lines, the same as for 16:9 mode *(see Figure C)*.

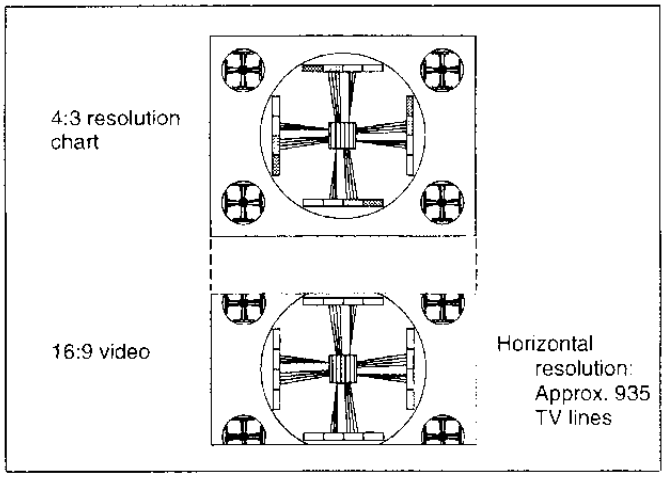


Figure A.

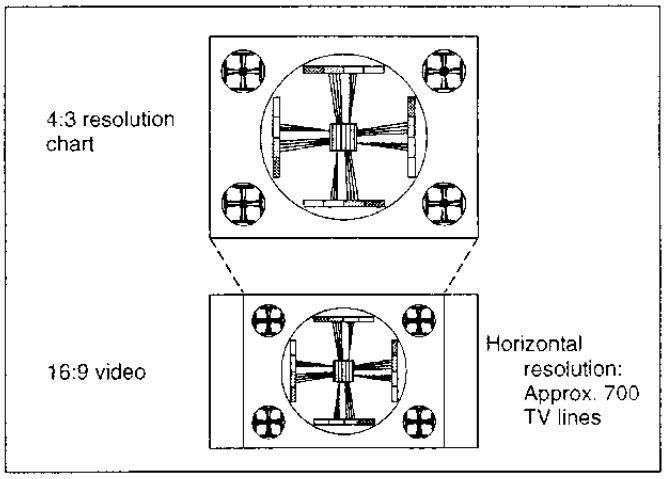


Figure B.

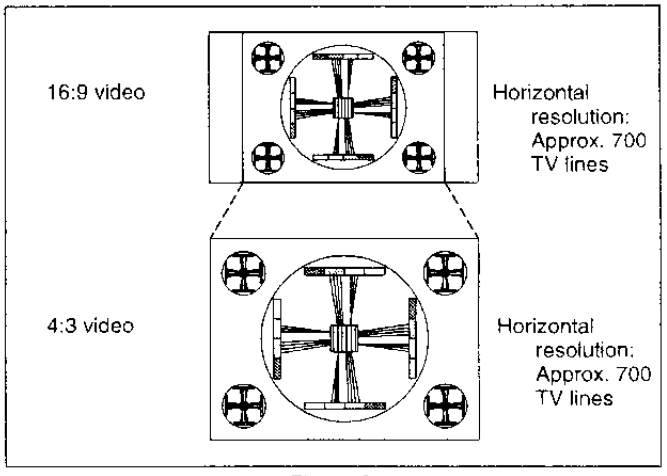


Figure C.

Chart of Optional Components and Accessories