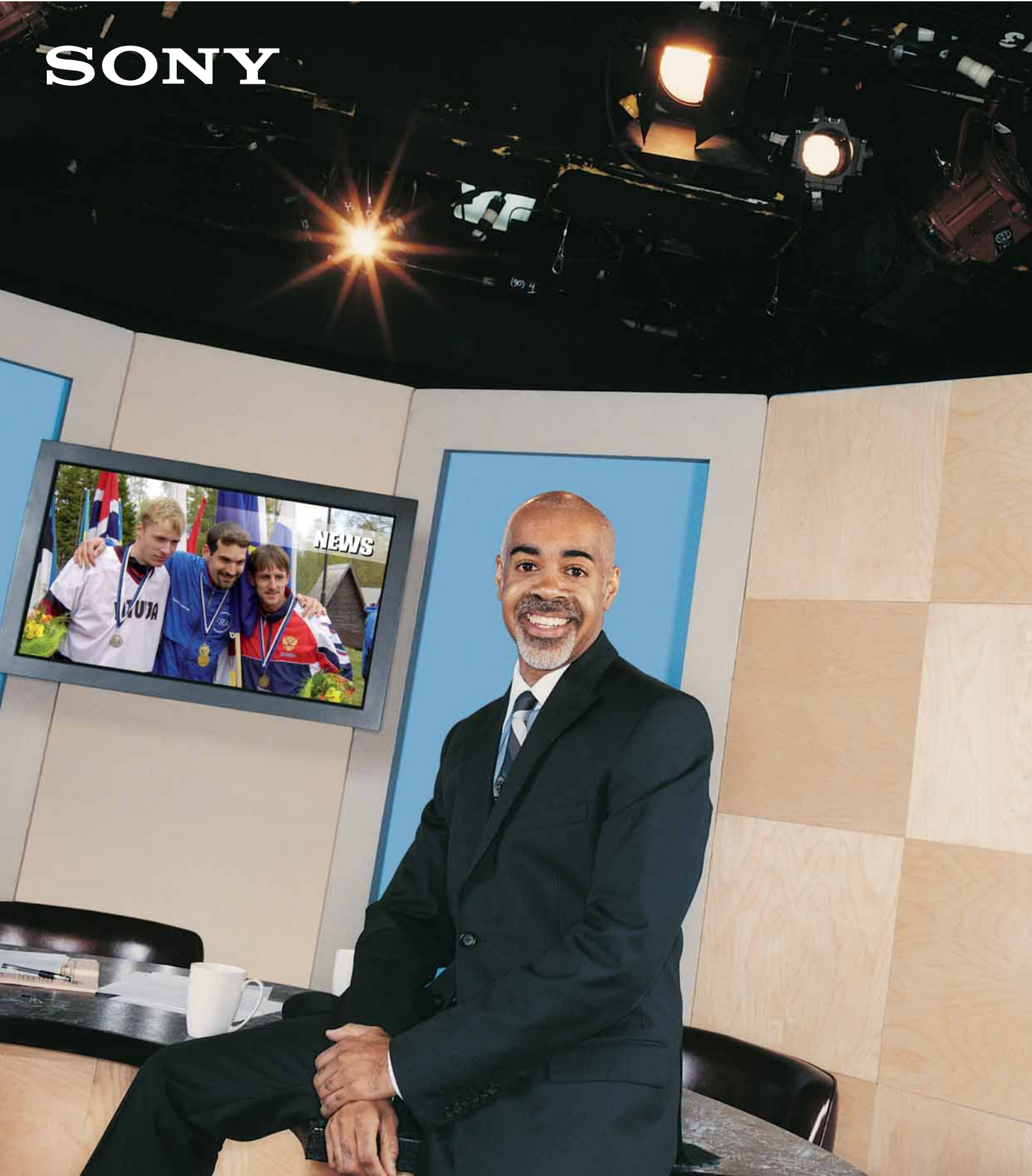


SONY



DXC-D50 Series Digital Video Cameras

www.sonybiz.net/media



The Next-Generation DXC Cameras, for **High Picture Quality** Video Acquisition

Since the first models, the Sony DXC Series of production video cameras have been widely accepted for use in a number of professional video acquisition applications because of their superb picture quality and operational performance.

The DXC-D50P/D50WSP represent the next-generation of DXC cameras, designed for even greater picture quality and operational convenience. These cameras are offered in two different versions: the DXC-D50P 4:3 model and DXC-D50WSP 16:9/4:3-switchable model. Both feature the new high performance Power HAD™ EX CCD sensor and precise 12-bit A/D conversion built into a highly sophisticated LSI.

The result is superior picture quality, high sensitivity, plus lower noise and smear characteristics compared to previous models. A variety of automatic functions have also been included, allowing easy and convenient operation in any shooting scenario.

Another important aspect of Sony DXC-D50 Series cameras is their excellent system versatility. Two types of camera control unit are available; the CCU-D50P for multi-core operation and the new CCU-TX50P for triax operation. The RCP-D50/D51 Remote Controllers can also be used with either system.

With a host of sophisticated features, the DXC-D50 Series provides an ideal solution for small studio operations at an affordable price.



High Quality Pictures

New Power HAD EX CCDs

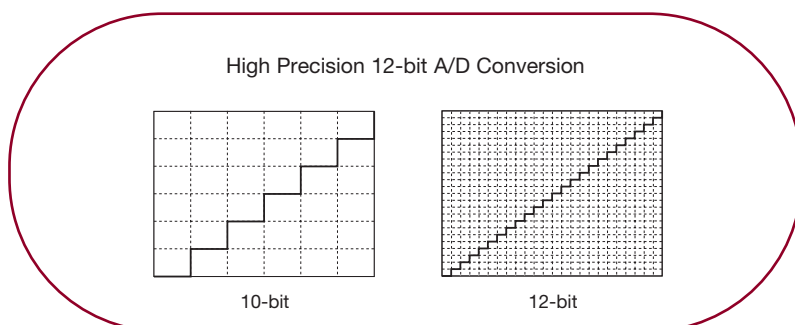
The DXC-D50 Series cameras are equipped with state-of-the-art three 2/3-inch Power HAD EX CCDs offering high horizontal resolutions of 920* TV lines. A high sensitivity of F11 (at 2000 lux, 3200 K), an excellent S/N ratio of 63 dB, and a remarkable low smear level of -140 dB (typical) are achieved.

* On DXC-D50P models



12-bit A/D Conversion

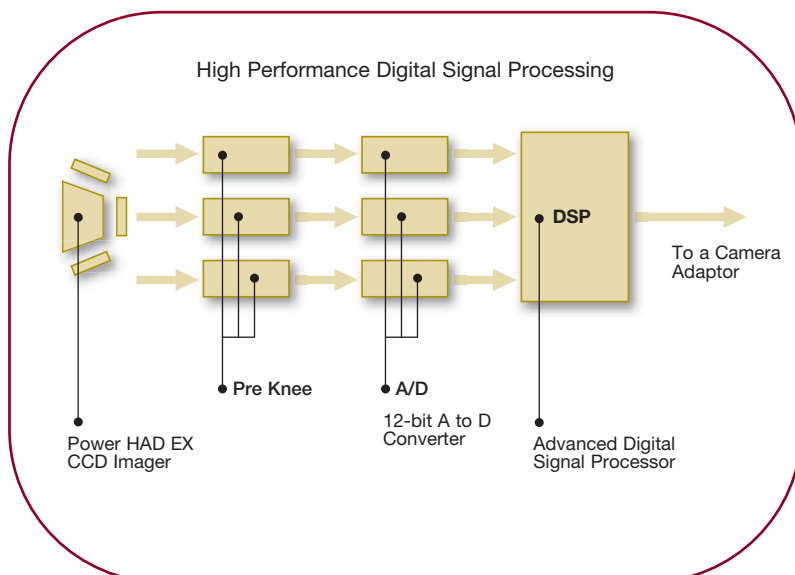
The Sony DXC-D50 Series incorporates a high precision 12-bit A/D LSI, so that the high quality images captured by the Power HAD EX CCDs are processed with greater precision than conventional 10-bit A/D LSIs. In particular, this higher bit resolution allows the contrast to be reproduced more faithfully in mid-tone areas of the picture.



Advanced Digital Signal Processing (DSP)

Another key to quality in a DSP camera is how many bits are used in its nonlinear processes, such as gamma correction.

The DXC-D50 Series camera uses more than 30 bits, minimising rounding errors to maintain the CCD's high quality. The DSP LSI of the DXC-D50 Series also enables highly sophisticated image controls, such as Knee Saturation and Adaptive Highlight Control functions.



Creative Image Control

Natural Colour Reproduction with “Knee Saturation Control”

Traditionally, shooting very bright portions of an object (such as key light reflections from a person's forehead) can reduce colour saturation and change the hue in highlight areas.

The DXC-D50 Series cameras adopt a Knee Saturation Control function in which this 'washed-out' effect on saturation and hue change is reduced to a minimum, and far more natural colour reproduction in highlight areas is achieved.



Knee Saturation Control Off



Knee Saturation Control On

Adaptive Highlight Control

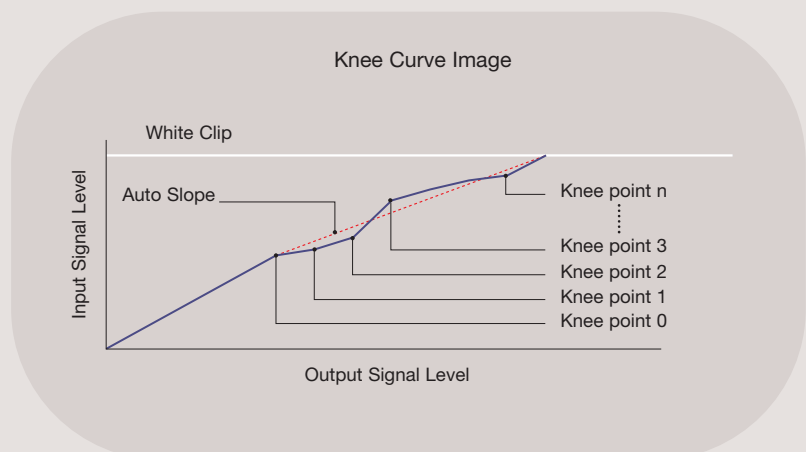
In conventional cameras, only a single knee-point/slope is available for contrast control over highlights. The DXC-D50 Series cameras, however, provide multiple knee-points/slopes for superior over-exposure control. The camera analyses the highlight areas of a scene and automatically sets and optimises multiple knee points/slopes accordingly. This allows the reproduction of extremely difficult images (such as an interior scene that includes a brightly sunlit window) with much more overexposure latitude. This function applies only to input video levels in excess of the knee point – the middle and low luminance parts of the video signal are unaffected by this control.



Adaptive Highlight Control Off

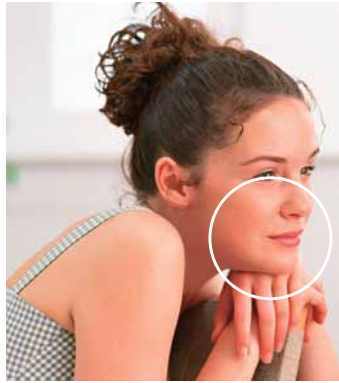


Adaptive Highlight Control On



Low Key Saturation

With traditional cameras, low-light areas can be subject to reduced saturation, resulting in the colour in these areas being 'washed-out'. The Low Key Saturation function on the DXC-D50 Series helps eliminate this problem by optimising the amplification of colour saturation at low light levels, providing more natural colour reproduction.



Low Key Saturation Off



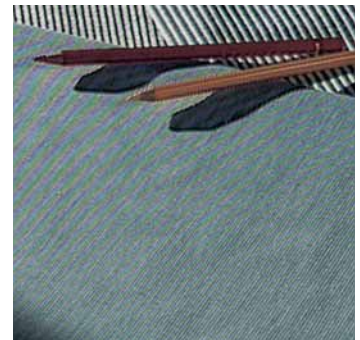
Low Key Saturation On

Cross-Colour Suppression

Separating the luminance and chrominance components of a composite signal can be a difficult task, even with the most advanced comb-filtering techniques. In order to keep cross colour and cross luminance to a minimum, the DXC-D50 Series minimises frequency components that may result in such artifacts being generated prior to the signal output. These frequency components are virtually eliminated from the Y/R-Y/B-Y signals within the camera head through sophisticated digital five-line comb filtering, resulting in a great reduction of the cross colour and dot crawl normally seen on picture monitors fed with a composite video signal.



Cross Colour Suppression Off



Cross Colour Suppression On

Skin-Tone Detail Control

The Skin-Tone Detail function on the DXC-D50 Series allows softer detail correction to be applied in the facial area, while maintaining the sharpness of other parts of the picture.

The Skin-Tone Detail area can be selected simply and quickly using the Area-Detect Cursor in the viewfinder screen. The colour range for the Skin-Tone Detail (and skin detail level) can also be selected manually using the viewfinder menu system.



Skin-Tone Detail Control Off



Skin-Tone Detail Control On

Operating Convenience



Supplied DXF-801 Viewfinder

The DXC-D50PK, DXC-D50PL and DXC-D50WSPL models are equipped with a 1.5-inch* type Black/White viewfinder, which includes the following features.

- Automatic scan-size switching between 16:9 and 4:3
- VF light (LED)
- Time, camera ID, and colour temperature display
- Display switch - turns on/off character superimposition on the viewfinder
- Vertical and horizontal detail-level control via peaking potentiometer
- Tally lamp levels (high/low/off)
- Two red REC tally lamps
- Diecast aluminium body
- Wide range of diopter adjustments

* Viewable area measured diagonally.



File Operation Using Memory Stick™ Media Storage

The DXC-D50 Series incorporates the Sony Memory Stick system, enabling you to store and recall setup-parameter files for individual scene or camera setup preferences. The setup parameter files stored on a Memory Stick media card can be transferred to another DXC-D50 Series camera or a RCP-D50/D51 remote control unit, allowing quick, easy setup in multiple camera systems. What's more, the setup files can be loaded to a PC equipped with a Memory Stick slot, enabling them to be e-mailed as attachments and installed in cameras at remote locations.

Optical ND Filter and Electronic CC Filter

Using the DXC-D50 Series, optimum light and colour control is easily achieved using an optical ND (Neutral Density) filter wheel and electronic Colour Correction. The use of electronic Colour Correction allows all filters in the filter wheel to be of the ND type, providing the operator with greater flexibility in depth-of-field and exposure control. Electronic Colour Correction can also be controlled using a remote controller for even easier operation.



Adjustable Shoulder Pad

The position of the shoulder pad can be adjusted, either forwards and backwards, to provide the operator with a comfortable, well-balanced camera, both when docked with a camera adaptor or with a dockable VTR.

EZ Functions

Recognizing the importance of making camera operation as quick and straightforward as possible, the DXC-D50 Series cameras provide two highly convenient "EZ Functions", enabling operators to start shooting with minimum setup procedures and in less time.

EZ Mode

Settings for key camera parameters are instantly set to the standard or auto position by simply pressing the EZ Mode button - making the camera instantly ready for shooting. This feature is very convenient when operators require fast camera setup within a limited time frame.

EZ Focus

The EZ Focus function allows accurate focus adjustments without manually opening the lens iris. Simply by pushing the EZ Focus button, the iris automatically opens to reduce the depth of field and make focusing significantly easier. At the same time, the electronic shutter is automatically set to obtain the correct exposure.

Auto-Tracing White Balance (ATW)

The DXC-D50 Series cameras feature a convenient Auto-Tracing White Balance (ATW) function, which automatically adjusts white balance as lighting conditions change. This function is very useful when shooting in rapidly changing lighting conditions, such as when moving from indoor to outdoor locations.

Clear Scan™ (CLS) Function

The Clear Scan function allows operators to shoot computer displays without the horizontal bands or flickers they usually create on screen. This is achieved by activating the Clear Scan function to select a shutter speed, which then precisely matches the scanning frequency of the computer display. Shutter speeds are available ranging from 50.2 Hz to 6000 Hz.

Factory-Preset Matrix

Factory-Preset Matrix files are provided, allowing operators to instantly set up camera parameters that match common lighting situations, such as STANDARD, HIGH SATURATION, FLORESCENT, etc.

Other Features

- Programmable gain (-3/0/3/6/9/12/18/24/30/36 dB)
- Variable-speed electronic shutter
- Monitor output
- Built-in 1-kHz audio reference
- Date-and-time superimposition on the video signal and viewfinder
- Enhanced Vertical-Definition System (EVS)
- Auto iris mode (spot, backlight)
- Mic low cut
- Dual zebra

Backlit Switch Panel

The switch panel is backlit, allowing operators to see switch positions in dark environments.



System Versatility

The DXC-D50 Series can be used with a variety of peripheral equipment including camera adaptors, camera control units, dockable VTRs and remote controllers, allowing operators to flexibly build systems according to their needs both in the studio and out in the field. The DXC-D50 Series can be configured in four key operation styles: Triax CCU, Multicore CCU, and portable-VTR operation. An easy-to-use range of remote controllers – the RCP Series – is also available for added operational convenience.

Triax CCU Operation – for Wide-Bandwidth Transmission

CCU-TX50P and CA-TX50P



CA-TX50P Rear Panel



CCU-TX50P Rear Panel

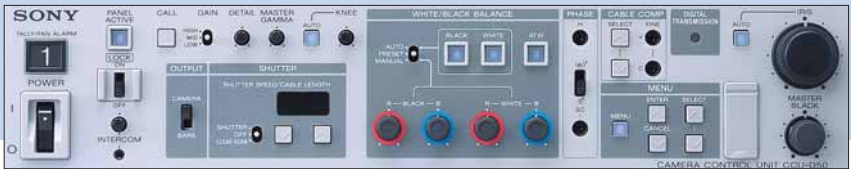
With the CA-TX50P Triax Camera Adaptor attached, the DXC-D50 Series can be remotely controlled from the CCU-TX50P Camera Control Unit using triax cable, the use of which enables sophisticated remote control over distances of up to 1500 metres. The wide-band width transmission system is employed, enabling the higher resolution of DXC-D50 Series cameras to be transmitted with virtually no drop in resolution.



CCU-TX50P Front Panel

The CCU-TX50P supports the following features:

- Wideband transmission (10 MHz for Y and 4.5 MHz for R-Y/B-Y)
- High quality analogue component video transmission
- Long-distance transmission (ex. 1500 m via a \varnothing 14.5 mm cable)
- Compact design - half rack width and 3U height
- Wide range of advanced control functions
- Compatibility with the RCP-D50 and RCP-D51 Remote Control Panels
- Three SDI outputs or three composite outputs
- One component output (Y/R-Y/B-Y or R/G/B selectable)
- Three inputs for return video (BNC type)
- Teleprompter support
- Red/Green tally indication
- Support for major intercom systems (four-wire/RTS/Clearcom)
- Program audio input
- Two-channel microphone system (two XLR connectors)



CCU-D50P Front Panel



CCU-D50P Rear Panel

Multi-Core CCU Operation – for End-to-End Digital Systems

CCU-D50P and CA-D50

With the CA-D50 Camera Adaptor attached, the DXC-D50P/D50WSP can be remotely controlled from the CCU-D50P Multicore Camera Control Unit using a CCZ-A cable (26-pin). The video and audio output of the CA-D50 Camera Adaptor are transferred to the CCU-D50P Camera Control Unit as a component digital-SDI signal* through a CCZ-A cable up to 75 m long. This combination allows the establishment of a full digital-acquisition system.

The CCU-D50P supports the following features:

- Digital or analogue signal transmission (switchable)
- 75 m cable compensation for component digital-SDI transmission via a CCZ-A cable (26-pin)
- 200 m cable compensation for component digital-SDI transmission using a separate low-loss coaxial video cable in addition to a CCZ cable
- Analogue transmission for longer control distances of up to 300 m via a CCZ-A cable
- Analogue composite output and one of the following outputs: SDI, Y/R-Y/B-Y, RGB, Y/C
- Wide variety of control functions
- Compatibility with remote-control panels, including the RCP-D50 and RCP-D51
- Support for major intercom systems (two-wire/four-wire/RTS/Clearcom)
- Teleprompter support
- Red/Green tally indication**
- Fan alarm LED**

* Embedded audio is not supported.

** The tally and fan alarm share the same LED.

Remote Controllers

For remote operation of the DXC-D50 Series cameras, two types of remote controllers are available, each offering direct control of the camera.

RCP-D50 (Joystick Type) RCP-D51 (Dial Type)

The RCP-D50 and RCP-D51 have been newly designed for use with Sony DXC-D50 Series cameras. The RCP-D50 is a joystick-type controller, while the RCP-D51 is a dial-type controller. Both are equipped with a 3.5-inch* colour touch panel LCD screen and offer extensive control of camera functions through easy-to-use menu-based operations. The LCD also allows the incoming camera image to be monitored – a feature that comes in handy when identifying which RCP is controlling which camera in multi-camera systems.

Another convenient feature is the Memory Stick system which allows various scene files to be stored on and recalled from the Memory Stick media. The files can then be loaded to either a different RCP-D50/D51 controller, or to a DXC-D50 Series camera.

* Viewable area measured diagonally.

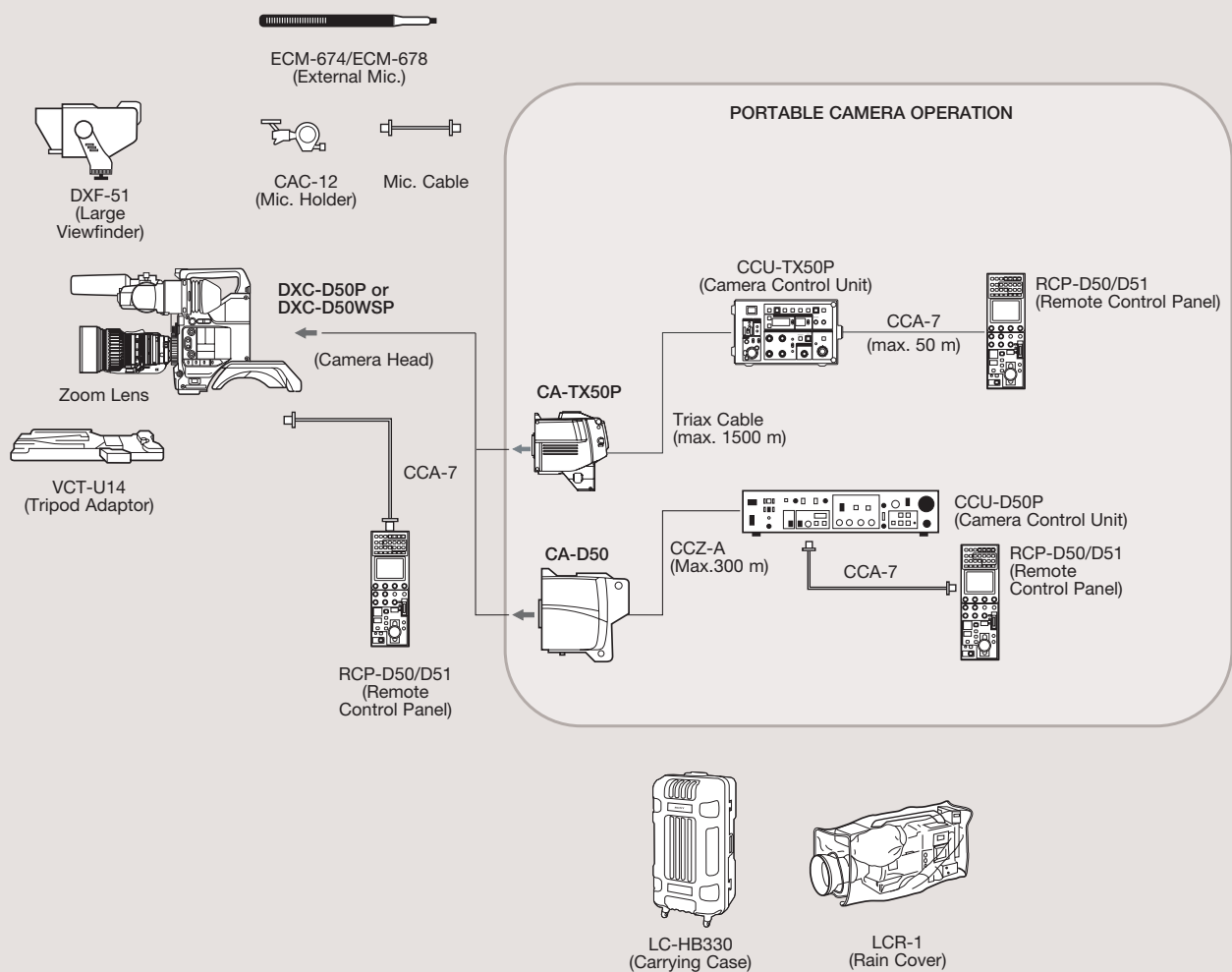


RCP-D50 (Joystick)



RCP-D51 (Dial)

System Configuration



Product Configurations

	DXC-D50PK	DXC-D50PL DXC-D50WSPL	DXC-D50PH
Camera Head	Yes	Yes	Yes
Camera Handle	Yes	Yes	Yes
Viewfinder DXF-801 (includes microphone holder)	Yes	Yes	Option
Tripod Adaptor VCT-U14	Yes	Yes	Option
External Microphone	Yes	Yes	Option
Zoom Lens	Yes	Option	Option

Optional Accessories



CA-D50
Camera Adaptor



CA-TX50P
Camera Adaptor



RCP-D50
Remote Control Panel



RCP-D51
Remote Control Panel



BP-GL95/GL65/L60S
Rechargeable Li-ion Battery Pack



AC-DN10
AC Adaptor



ECM-674
Electret Condenser Microphone



ECM-678
Electret Condenser Microphone



CAC-12
Microphone Holder



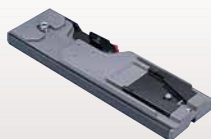
WRT-847B
UHF Synthesized Transmitter
(Microphone capsule is optional)



WRR-862B
UHF Synthesized Tuner



DXF-51
5-inch Monochrome Viewfinder



VCT-U14
Tripod Adaptor



CCZ-A5/A10/A25/A50/A100
Connecting Cable
(26-pin - 26-pin)



CCU-D50P
Camera Control Unit



CCU-TX50P
Camera Control Unit



YJ13 x 6 IRS/KRS
(Canon)



YJ20 x 8.5B IRS/KRS
(Canon)



A13 x 6.3 BERM/BRM
(Fujinon)



A20 x 8.6 BERM/BRM
(Fujinon)

Silver Support



BC-M150
Battery Charger for
BP-IL75/M50/M100



BC-L70/L500
Battery Charger for
BP-GL/IL/L Series



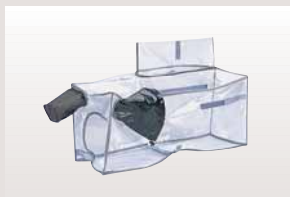
WRT-822B
UHF Synthesized Transmitter



WRT-8B
UHF Synthesized Transmitter



LC-HB330
Hard Carrying Case



LCR-1
Rain Cover



2-year Support

The Silver Support Pack extends the support period from the standard 1-year warranty to 2 years. Not only that, extra features and services are also included.



Operational Helpdesk

Operational phone support is provided to give advice and help so that you can get the most out of your unit and maximise its performance. The multi-lingual helpdesk is available from Monday to Friday.



Collection Anywhere

In the event of equipment failure, Sony will arrange for the collection, repair and return of the unit directly to your location, anywhere in mainland EU, Norway or Switzerland. That makes it simpler, quicker and even more convenient for you.



Repair within 7 days

Sony will collect, repair and return the unit to your preferred location within 7 working days. So, minimum downtime, increased confidence and the ability to plan your business are guaranteed.



Loan

If the repair is likely to exceed 7 working days, Sony will contact you and offer to send a loan unit for the remainder of the repair.

Services from Sony: working with you, working for you.

Recognising that every company and every challenge is unique, we offer a complete and comprehensive range of services all the way through consulting, planning, financing, implementation, training, servicing, maintenance and support. Choose exactly what's right for you, when and where you need it.

Sony Professional Services: Tailor-made design, installation and project management of audio-visual and IT (AV/IT) systems using skills developed over 25 years of systems integration.

Sony Financial Services: Innovative and flexible finance solutions designed to meet budgetary and financial requirements and constraints, enabling businesses to always have the most current technology.

Sony Training Services: A range of off-the-shelf or customised training services from basic operation through to high-level technical maintenance.

Sony Support Services: Fully integrated and customised support for products and systems throughout their operational life, combining proactive and reactive technical services

Not all services are available in all countries.

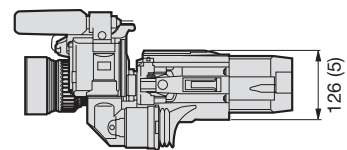
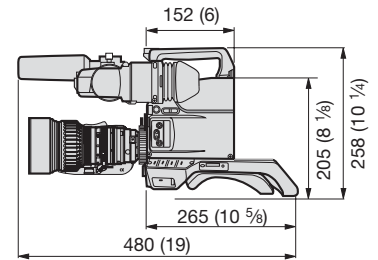
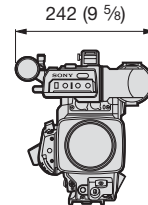
If you'd like to find out more about what we do, who we do it for and how we do it, visit <http://www.sonybiz.net> or contact your local Sony office.

Specifications

Video Camera Head	DXC-D50P	DXC-D50WSP
GENERAL		
Power requirements	DC 12 V (10.5 to 17 V)	
Power consumption	14 W	
Operating temperature	-10 °C to 45 °C (14 °F to 113 °F)	
Storage temperature	-20 °C to 60 °C (-4 °F to 140 °F)	
Operating humidity	Less than 85%	
Mass (camera head only)	2.2 kg (4 lb 13 oz)	
Dimensions (W x H x D)	126 x 258 x 265 mm (5 x 10 1/4 x 10 5/8 inches), camera head only	
SIGNAL INPUTS/OUTPUTS		
Video output Analogue composite	BNC, 1.0 Vp-p, sync negative	
Monitor output Analogue composite	BNC, 1.0 Vp-p, sync negative	
Microphone input	XLR-3-pin	
OTHER INPUTS/OUTPUTS		
Camera/VTR interface	Pro 76-pin Digital, Pro 50-pin	
Lens	12-pin	
VF	20-pin	
Remote	10-pin	
CAMERA PERFORMANCE		
Pickup device	3-chip 2/3-inch, Power HAD EX CCD	
Aspect ratio	4:3	
Total picture elements (H x V)	1038 x 1188	
Effective picture elements (H x V)	980 x 586	
Optical system	F1.4 medium index prism system	
Built-in filters	1: Clear, 2: 1/4ND, 3: 1/16ND, 4: 1/64ND	
Lens mount	Sony 2/3-inch Bayonet mount	
Signal system	PAL color system	
Scan format	2:1 interlaced, 625 lines, 50 fields/s	
Horizontal scan frequency	15.625 kHz	
Vertical scan frequency	50 Hz	
Sync system	Internal and External with the VBS or BS signal	
A/D conversion	12-bits	
Sensitivity	F11 at 2000 lux (3200 K, 89.9% reflectance) (typical)	
Minimum illumination	0.5 lux with F1.4, Hyper gain (36 dB), 0.8 lux with F1.8, Hyper gain (36 dB)	
Video S/N ratio (typical)	63 dB	
Horizontal resolution	920 TV lines	800 TV lines (16:9 mode) 850 TV Lines (4:3 mode)
Vertical resolution	480 TV lines (without EVS) 530 TV lines (with EVS)	
Shutter speed	OFF, 1/60, 1/250, 1/500, 1/1000, 1/2000 s	
Clear scan	50.2 to 6000 Hz	
Gain selection	-3, 0, 3, 6, 9, 12, 18, 24, 30, 36 dB	
Registration	0.05% (all zones, without lens)	
Geometric distortion	Below measurable level	
DXF-801 VIEWFINDER*		
CRT	1.5-inch monochrome, 4:3/16:9 switchable	
Indicators	REC TALLY (2), TAKE TALLY, BATT, SHUTTER, GAIN UP	
Horizontal resolution	600 TV lines	
Power requirements	DC 12 V	
Power consumption	2.1 W	
Mass	620 g (1 lb 9 oz)	
Dimensions (W x H x D)	240 x 91 x 196 mm (9 1/2 x 3 5/8 x 7 3/4 inches) including protruding parts projection	

* This model is not available as a stand-alone model.

Dimensions Unit: mm (inches)



- ⤷ Halogenated flame retardants are not used in the cabinets and the printed wiring boards.
- ⤷ Lead-free solder is used for soldering.

SONY

Specialist

Dealer

Sony Specialist Dealers receive extensive training on all our products and services. They combine this with an in-depth knowledge of the market, ensuring you get advice that meets your needs before and after purchase. To find your nearest Sony Specialist Dealer visit our "dealer locator" at:

www.sonybiz.net/dealer



© 2006 Sony Corporation. All rights reserved. Reproduction in whole or in part without written permission is prohibited. Features and specifications are subject to change without notice. All non-metric weights and measures are approximate. Sony, Clear Scan, Memory Stick, Silver Support and Power HAD are registered trademarks of Sony Corporation. All other trademarks are the property of their respective owners.
CA DXC-D50 Series/GB-02/08/2006