

PAL

SONY
SURVEILLANCE
SYSTEMS

SSC-DC10P/DC14P/DC18P

CCD Colour Video Camera

*Smart Control*TM

Digital C €



SSC-DC10P



SSC-DC14P



SSC-DC18P

Lenses shown are options.

SONY®

Sony advanced digital technology delivers greater reliability, integrity and versatility in CCTV operation

Sony introduces the SSC-DC10P/DC14P/DC18P - three, 1/3-inch colour DSP CCD high resolution cameras specifically designed for surveillance and monitoring systems.

Sony advanced digital technology ensures these cameras reproduce high fidelity images even under adverse light conditions. In addition to flexible automatic backlight compensation with the Smart Control™ feature, these cameras offer a host of outstanding features such as ATW pro, Turbo AGC™ and Aperture Control, making them ideal choices for demanding CCTV applications.

The triple multiplexing power supply capability of the SSC-DC10P and the AC Line Lock feature on the SSC-DC14P/DC18P make camera installation and synchronization remarkably easy and simple.



SSC-DC10P



SSC-DC14P



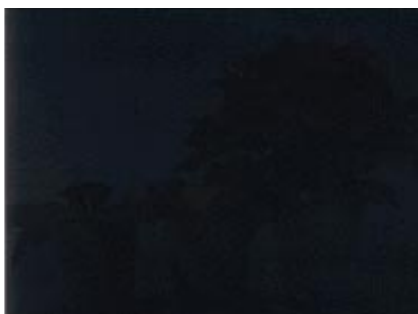
SSC-DC18P

Sony Hyper HAD CCD technology delivers outstanding picture quality with 440,000 effective elements. In addition, newly developed Turbo AGC (Auto Gain Control) drastically improves sensitivity

The SSC-DC10P/DC14P/DC18P cameras incorporate a densely packed 1/3-inch IT (Interline Transfer) Hyper HAD™ (Hole Accumulated Diode) CCD sensor. With 440,000 effective picture elements, the SSC-DC10P/DC14P/DC18P deliver an outstanding 470TV lines of horizontal resolution. This highly advanced Sony Hyper HAD sensor offers remarkably high sensitivity by precisely locating a microlens over each pixel, converging available light onto the photosensitive layer. Even in minimal lighting condition, the SSC-DC10P/DC14P/DC18P cameras produce pictures with sufficient contrast and excellent colour fidelity. Also, HAD sensor™ technology ensures an excellent signal-to-noise ratio of 50dB.

ADVANCED TURBO AGC, A NEW DEVELOPMENT BY SONY

The SSC-DC10P/DC14P/DC18P cameras are equipped with the new Turbo AGC (Auto Gain Control) function, which improves sensitivity more flexibly and effectively than conventional AGC because Turbo AGC can control video gain in a range that is 6dB wider than the AGC range. Thus a subject under very low illumination can be distinguished more clearly.



AGC OFF



AGC ON



TURBO AGC ON

Sony digitally-controlled Smart Control delivers clear, sharp images even in unfavourable light conditions by automatically controlling "Iris, Gain and White Balance" simultaneously

FULL AUTOMATIC BACKLIGHT COMPENSATION (BLC)

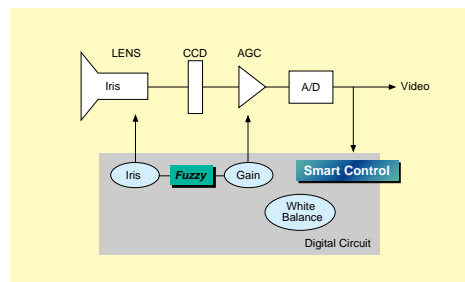
Smart Control™

One of the biggest problems in security surveillance operations is strong backlight which can put the subject into shadow. Of course, surveillance is meaningless if the subject cannot be clearly identified.

Sony Smart Control, a newly developed digital light level control feature, overcomes this problem by automatically controlling Iris and Gain with optimum balance, utilizing highly reliable Sony digital signal processing technology. Smart Control enables the SSC-DC10P/DC14P/DC18P cameras to always obtain a clear image with a suitable light level in any situation and at any time, regardless of changes in incoming light levels such as day to night. Compared with conventional analogue signal processing cameras which control Iris and Gain separately, the SSC-DC10P/DC14P/DC18P cameras deal with these factors more intelligently, ensuring that backlight compensation is accomplished far more effectively.

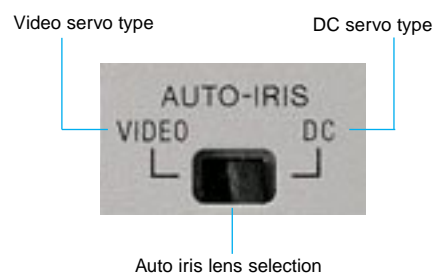
Smart Control works flexibly wherever an object appears in the picture because these cameras sense the entire area of the frame and measure the average light level. This represents a distinct advance in the measurement of picture light levels.

Smart Control allows the operator to install the SSC-DC10P/DC14P/DC18P cameras without any adjustment of light level - another compelling reason for choosing these cameras for various surveillance and security applications.



■ Lens Selection

There is flexibility in the choice of auto iris lenses: the SSC-DC10P/DC14P/DC18P cameras accept both Video type (ALC) and DC type (Non ALC) auto iris lenses. Selection is easily made using the AUTO IRIS select switch. For backlight applications, to fully utilize Smart Control capabilities, the DC type auto iris lens is recommended.



ACCURATE COLOUR REPRODUCTION WITH ADVANCED ATW PRO

Smart Control incorporates a new type of Auto Tracing White Balance mode, ATW pro. This mode is ideal when lighting conditions change

frequently, and is particularly suited to applications where the operator needs to see objects as they appear to the eye. The effective operational colour range is 2500K to 6000K.



The conventional ATW mode can also be selected. This mode allows the operator to see objects as they appear during daylight. The colour temperature compensation range extends down to 2000K and up to 10,000K. This feature ensures faithful and reliable colour reproduction in the most varied picture circumstances. For example, this mode is suitable for a picture of a parking area lit by high pressure sodium lighting.



Even if someone is located in the corner of the picture or is moving, their identity can be distinctly captured.

APERTURE SHARP MODE PROVIDES CRISPER, SHARPER IMAGES

Aperture Sharp Mode makes object outlines sharper in the reproduced picture. This mode is ideal for situations where the object merges into the scene with a similar colour shade. This feature is also effective when a VCR is connected because sharp, crisp images can be recorded. SHARP or NORMAL mode can be selected.

THE CCD IRIS FUNCTION IMPROVES RELIABILITY AND PICTURE MOTION CAPTURE

As the scene illumination level increases, the SSC-DC10P/DC14P/DC18P cameras respond by automatically controlling the exposure time of the photosensors. This is achieved by changing the electronic shutter speed of the CCD, in the range of 1/50 of a second to 1/100,000 of a second. The CCD IRIS function is also digitally controlled by the advanced Sony Smart Control feature. The control of incoming light by the CCD IRIS function is completely electronic and does not require a conventional mechanical iris control facility inside the camera. This means that reliability is greatly enhanced. An added benefit to CCD IRIS function is when the information is achieved onto video tapes. Because of the increased shutter speed, clear still images can be obtained when the tape is reviewed. This facilitates identification of vehicle numbers, etc.

Motion Resolution improved by CCD IRIS Function

<Rotating roulette>

CCD IRIS OFF
– illegible numbers

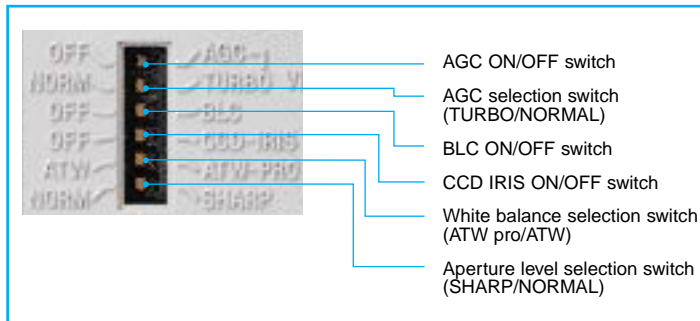
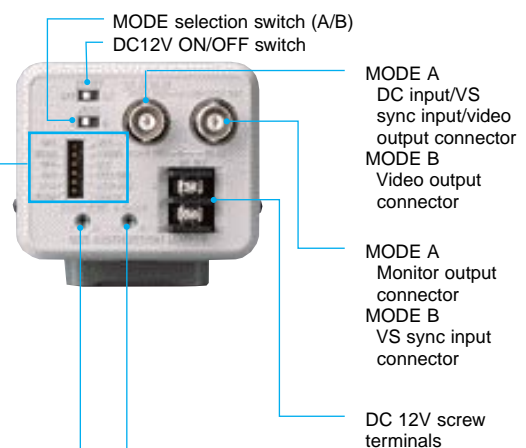
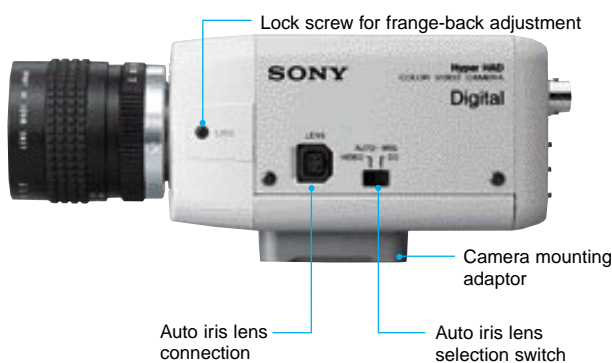


CCD IRIS ON
– legible numbers

SSC-DC10P

Side view

Rear view



H (horizontal) PHASE adjustment screw (+/-)

VIDEO LEVEL adjustment screw (+/-)

SIMPLE SINGLE CABLE WIRING (SSC-DC10P ONLY)

The SSC-DC10P features optional Triple Multiplexing operation. With only a single coaxial cable, the video and sync signals can be transmitted together with DC power from the optional YS-W150P/W250P Camera Adaptors. The camera can be operated up to 600m from these adaptors by using an RG-11A/U (7C-2V) coaxial cable. Since the SSC-DC10P has a connector for MONITOR OUT function, the picture can be easily checked at the installation point with a portable monitor. Of course, the SSC-DC10P also operates from a local DC 12V power source using a commercially available power supply adaptor.

EXTERNAL SYNCHRONIZATION

SSC-DC10P

The SSC-DC10P also accepts VS (Video and Sync) or composite sync signals so that a number of cameras can be synchronized. Thus when controlled by a video switcher, camera outputs can be switched without any picture disturbance.

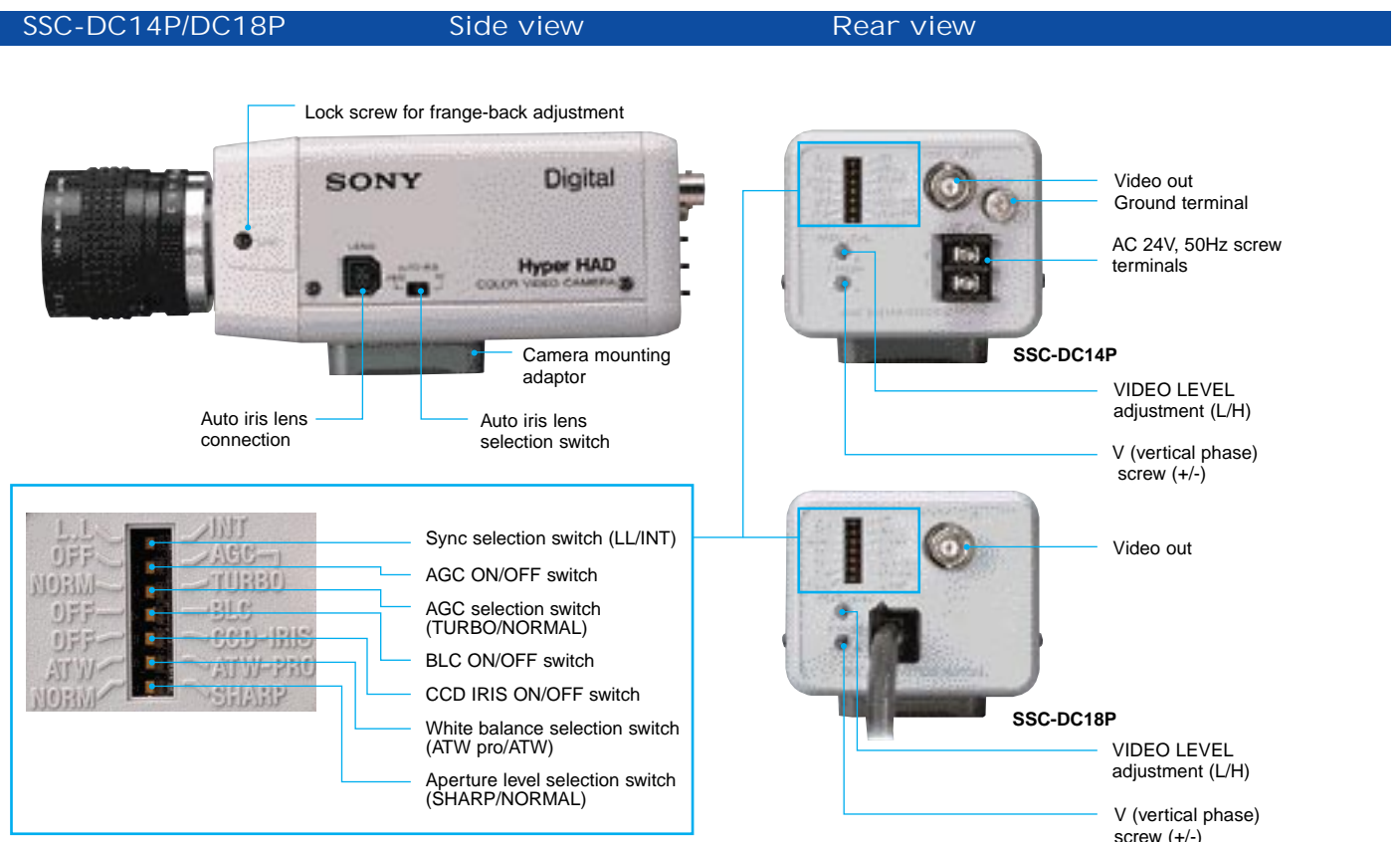
SSC-DC14P/18P

The SSC-DC14P/18P feature AC Line Lock for external synchronization. The SSC-DC14P operates from 24V AC while the SSC-DC18P operates from a 220 to 240V AC power source. Using the AC power frequency (50Hz) as the vertical sync reference provides roll-free switching in multi-camera installations. In addition, as the SSC-DC14P/DC18P have an externally adjustable Vertical Phase ($\pm 90^\circ$) control, completely accurate synchronization can be attained.

HIGH RELIABILITY, HIGH DURABILITY MECHANISM

C OR CS-MOUNT LENSES CAPABILITY

MODERN AND COMPACT DESIGN

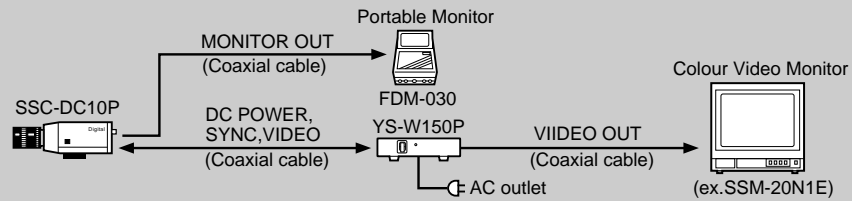


TYPICAL SYSTEM

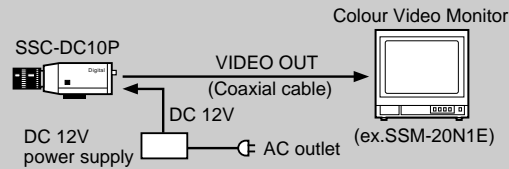
SSC-DC10P

1. Single camera operation

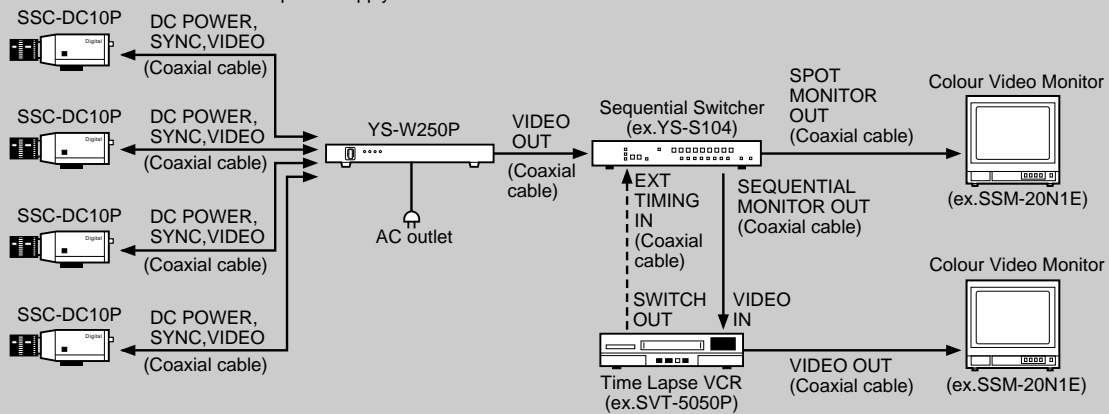
(a) Mode A : Triple multiplexing operation



(b) Mode B : DC 12V operation

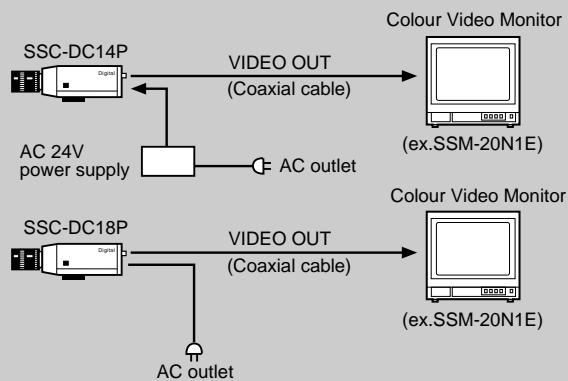


2. Multiple camera operation

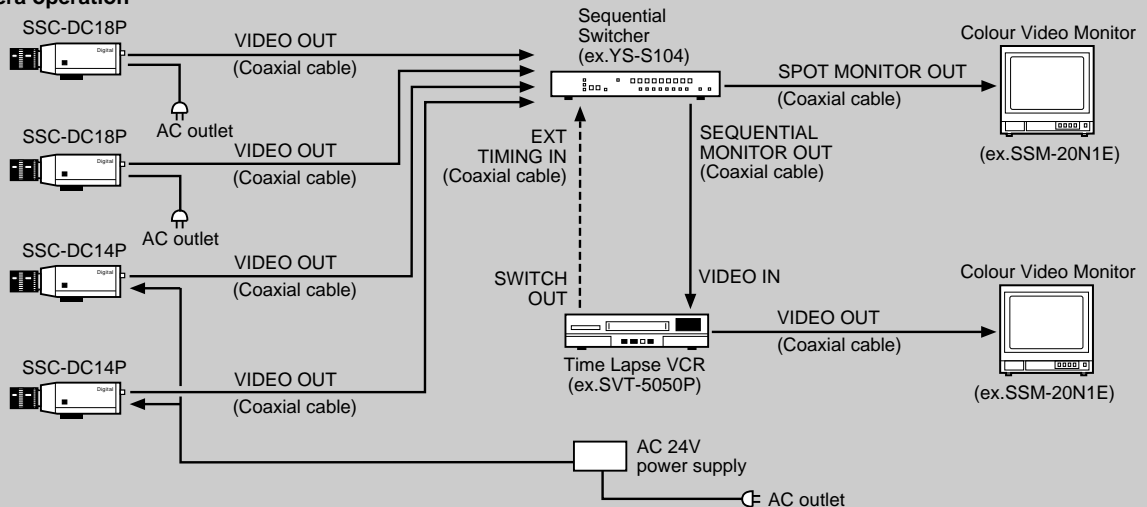


SSC-DC14P/DC18P

1. Single camera operation



2. Multiple camera operation



Optional Accessories

YS-W150P/W250P Camera Adaptors

The YS-W150P/W250P Camera Adaptors are designed to transmit power and video/sync signals between the YS-W150P/W250P and the camera using a single coaxial cable. The YS-W150P is for use in a single camera configuration while the YS-W250P is used in configurations of up to four cameras. Both units have two camera outputs for each camera input, allowing the camera picture to be monitored in two locations. The YS-W150P/W250P not only accept VS sync signal but also feature AC line lock for external synchronization. Cable runs of up to 600m (1968ft) using RG-11A/U(7C-2V) cable is possible.



YS-W150P



YS-W150P Rear Panel



YS-W250P



YS-W250P Rear Panel

Lenses

1) Auto-iris

Type			
Model	VCL-3V8WEAP	VCL-S02WEAP	VCL-S04WEAP
Mount	CS	CS	CS
Focal length	3.5 to 8.0mm	2.8mm	4.0mm
Iris control	Auto	Auto	Auto
Maximum aperture ratio	1: 1.8	1: 1.3	1: 1.4
Maximum object distance	0.2m	0.2m	0.2m
Filter size	M30.5 x 0.5mm	M30.5 x 0.5mm	M30.5 x 0.5mm
Mass	70g (2 oz)	41g (1.4 oz)	75g (3 oz)
Dimensions (dia. x H x L)	42.0 x 52.0 x 47.0 mm (1 11/16 x 2 1/8 x 1 7/8 inches)	32.0 x 39.8 x 33.0 mm (1 5/16 x 1 5/8 x 1 5/16 inches)	42.0 x 39.8 x 33.0 mm (1 11/16 x 2 1/8 x 1 7/8 inches)
Cable length	260mm (10 1/4 inch)	310mm (12 1/4 inch)	260mm (10 1/4 inch)

Type			
Model	TG2813FCS	TG0412FCS-3	TG0812FCS-3
Mount	CS	CS	CS
Focal length	2.8mm	4.0mm	8.0mm
Iris control	Auto	Auto	Auto
Maximum aperture ratio	1 : 1.3	1 : 1.2	1 : 1.2
Filter size	M30.5 x 0.5mm	M30.5 x 0.5mm	M30.5 x 0.5mm
Mass	41g (1.4 oz)	38g (1.3 oz)	39g (1.4 oz)
Dimensions (dia. x H x L)	32.0 x 39.8 x 33.0mm (1 5/16 x 1 5/8 x 1 5/16 inches)	32.0 x 39.8 x 33.0mm (1 5/16 x 1 5/8 x 1 5/16 inches)	32.0 x 39.8 x 33.0mm (1 5/16 x 1 5/8 x 1 5/16 inches)
Note	By computer	By computer	By computer

2) Manual-iris

Type			
Model	T2616FICS-3	T0412FICS-3	T0812FICS-3
Mount	CS	CS	CS
Focal length	2.6mm	4.0mm	8.0mm
Iris control	Manual	Manual	Manual
Maximum aperture ratio	1 : 1.6	1 : 1.2	1 : 1.2
Filter size	-	M30.5 x 0.5mm	M30.5 x 0.5mm
Mass	45g (1.6 oz)	68g (2.4 oz)	37g (1.3 oz)
Dimensions (dia. x L)	34.5 x 34.7mm (1 3/8 x 1 3/8 inches)	32.0 x 33.0mm (1 5/16 x 1 5/16 inches)	32.0 x 33.0mm (1 5/16 x 1 5/16 inches)
Note	By computer	By computer	By computer

SSC-DC10P

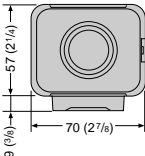
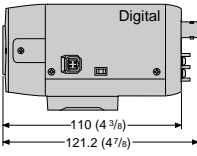
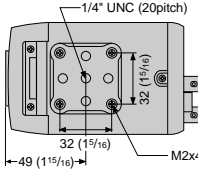
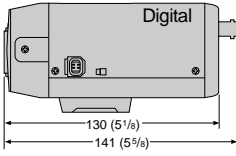
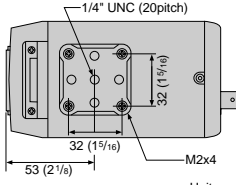


SSC-DC14P/DC18P



SSC-DC14P SSC-DC18P

SSC-DC10P/DC14P/DC18P Specifications

	SSC-DC10P	SSC-DC14P	SSC-DC18P										
Image device:	1/3-inch Interline Transfer Hyper HAD CCD												
Picture elements:	752(H) x 582(V)												
Sensing area:	3.3 x 4.4mm (1/3-inch)												
Signal system:	PAL standard												
Scanning system:	625 lines, 2:1 interlace												
Sync system:	Internal or external with VS or VBS*		Internal or external with AC line lock										
Horizontal resolution:	470TV lines												
Phase control:	H phase adjustment (±0.25H)		V phase adjustment (±90°)										
Lens mount:	C/CS mount adjustable												
Minimum illumination**:	1.1 lx at F1.2 (30 IRE, Turbo AGC ON) 1.7 lx at F1.2 (50 IRE, Turbo AGC ON) 10 lx at F1.2 (100 IRE, Turbo AGC ON)												
Aperture:	Sharp/Normal switchable												
Enhancer:	3H												
Automatic gain control (AGC):	Turbo/Normal/OFF switchable												
CCD IRIS control:	ON/OFF switchable, 1/50 to 1/100,000 (second)												
White balance:	ATW pro/ATW switchable												
Backlight compensation:	Smart Control												
Signal-to-noise ratio:	More than 50dB (Weight ON, AGC OFF)												
Video out:	BNC, 1.0Vp-p, 75Ω, sync negative												
Operating temperature:	-10 to 50°C (14 to 122°F)												
Storage temperature:	-40 to 60°C (-40 to 140°F)												
Power requirements:	Supplied from YS-W150P/W250P or DC 12V from DC 12V power supply adaptor	AC 24V, 50Hz	AC 220 to 240V, 50Hz										
Power consumption:	4.0W supplied from YS-W150P/W250P or 3.0W at DC 12V	4.5W	5.5W										
Mass:	430g (15 oz)	550g (1 lb 3 oz)	770g (1 lb 11 oz)										
Auto iris lens type:	DC/VIDEO servo type												
Connectors:	DC 12V terminals Mode A (Triple multiplexing operation): DC IN/VS IN/VIDEO OUT (BNC), MONITOR OUT (BNC) Mode B (DC 12V operation): VIDEO OUT (BNC), VS IN (BNC)	AC 24V terminals, VIDEO OUT (BNC), GND	VIDEO OUT (BNC)										
<div><div>LENS (4-pin)</div><div><table><tr><th>Pin</th><th>DC servo</th></tr><tr><td>1</td><td>Control (-)</td></tr><tr><td>2</td><td>Control (+)</td></tr><tr><td>3</td><td>Drive (+)</td></tr><tr><td>4</td><td>Drive (-) (GND)(+)</td></tr></table></div></div>				Pin	DC servo	1	Control (-)	2	Control (+)	3	Drive (+)	4	Drive (-) (GND)(+)
Pin	DC servo												
1	Control (-)												
2	Control (+)												
3	Drive (+)												
4	Drive (-) (GND)(+)												
Supplied accessories:	Lens connector, lens mount cap, operating instruction manual												
Dimensions:													
SSC-DC10P/DC14P/DC18P	SSC-DC10P	SSC-DC14P/18P											
													
Unit: mm (inch)													

*The Burst signal is not locked.

**The specifications for minimum illumination apply to all SSC-DC10P units, to SSC-DC14P units from serial number 401,201 onwards and to SSC-DC18P units from serial number 402,801 onwards. SSC-DC14P and SSC-DC18P units with serial numbers lower than the those have the following minimum illumination performance.

- 1.2 lx at F1.2 (30 IRE, Turbo AGC ON)
- 1.9 lx at F1.2 (50 IRE, Turbo AGC ON)
- 13 lx at F1.2 (100 IRE, Turbo AGC ON)

YS-W150P/W250P Specifications

	YS-W150P	YS-W250P
Power requirements:	AC 220 to 240V, 50Hz	
Power consumption:	15W	48W
Operating temperature:	-10°C to 50°C (14°F to 122°F)	
Input connectors:	CAMERA IN (BNC), SYNC IN (BNC)	
Output connectors:	VIDEO OUT (BNC x 2), SYNC OUT (BNC, Loop-through, 75Ω ON/OFF)	VIDEO OUT A: 1 to 4 (BNC x 4), SYNC IN (BNC) VIDEO OUT B: 1 to 4 (BNC x 4) SYNC OUT (BNC, Loop-through, 75Ω ON/OFF)
Synchronization:	Internal or external with VS or AC line lock	
Maximum cable length:	300m (984ft) using RG-59B/U (3C-2V) 500m (1640ft) using RG-6A/U (5C-2V) 600m (1968ft) using RG-11A/U (7C-2V)	
Cable compensation:	3 steps (100/200/300m)	
Mass:	1.9kg (4 lb 3 oz)	3.6kg (7 lb 15 oz)
Dimensions:	<div><div>YS-W150P</div><div>YS-W250P</div></div> <div></div> <div>Unit: mm (inch)</div>	

Features and specifications subject to change without notice. Sony is a registered trademark of Sony Corporation. "Hyper HAD", "HAD sensor", "Smart Control" and "Turbo AGC" are trademarks of Sony Corporation.

Distributed by