SONY®

NTSC/PAL

Color Video Cameras

SSC-DC590
SSC-DC593
SSC-DC593P
SSC-DC598P

DynaView™

SONY

DynaView
COLOR VIDEO CAMERA

Sony
Surveillance
Systems

Lens is optional.

Wide Dynamic Range Day/Night Surveillance Camera

The SSC-DC590/DC593/DC593P/DC598P color video cameras are the latest addition to Sony's surveillance camera line up, specifically designed for challenging lighting conditions as well as day/night surveillance applications. Incorporating Sony's newly developed DynaView technology, these cameras offer an extremely wide dynamic range allowing for the capture of clear images - even in strong backlight situations. In addition, an automatic "Day/Night" function enables the camera to capture high quality color images during the day and clear Black & White (B&W) images at night.

All cameras incorporate a 1/3 type IT CCD, which offers a high horizontal resolution of 480 TV lines and a high sensitivity of 0.8 lx in Color mode and 0.07 lx in B&W mode.

For greater operational flexibility, the SSC-DC590/DC593/DC593P/DC598P cameras provide a variety of convenient features including "Variable Gamma Curve", "Privacy Zone Masking", "Activity Detection" and "CCD IRIS™".

In addition, the SSC-DC593 and the SSC-DC593P cameras feature dual-power capability (AC 24 V and DC 12 V) to safeguard against unwanted power supply compatibility issues.

Offering excellent picture quality and sophisticated features, the SSC-DC590/DC593/DC593P/DC598P color video cameras are the right choice for a wide range of surveillance applications.

* The SSC-DC590 and the SSC-DC593 are intended for use in NTSC areas, the SSC-DC593P and SSC-DC598P are for use in PAL areas.

SONY

DynaView
COLOR VIDEO CAMERA

S U R V E I L L

High resolution and high sensitivity

The SSC-DC590/DC593/DC593P/DC598P cameras incorporate a 1/3 type IT (Interline Transfer) CCD with 380,000 pixels (SSC-DC590/DC593)/440,000 pixels (SSC-DC593P/DC598P) - a feature that contributes to their superb picture quality and high sensitivity. These cameras provide a high resolution of 480 TV lines and can operate under a minimum illumination of 0.07 lx in B&W mode or 0.8 lx in Color mode.

A wide dynamic range with DynaView technology

With the newly developed DynaView technology, these cameras achieve an incredible dynamic range that is 128 times wider than conventional cameras. Thanks to this new technology, users can capture clear images even in extreme high-contrast lighting environments.

By activating the DynaView mode, the camera will capture the same image twice - firstly with a normal shutter speed, and then with a high shutter speed. The newly developed LSI technology then combines the dark areas captured at normal shutter speed with the bright areas captured at high shutter speed to create one image. The result is an extremely high-contrast picture that is unattainable with a conventional camera.

Additionally, DynaView technology allows the SSC-DC590/DC593/DC593P/DC598P cameras to achieve more powerful Back-Light Compensation (BLC). While conventional BLC can result in over exposure of the image background, DynaView reduces this to a minimum by using a high shutter speed for the background, which consequently provides optimum exposure for both the subject and the background.

■ **DynaView**

At normal speed shutter

At high speed shutter

DynaView

Day/Night function

The SSC-DC590/DC593/DC593P/DC598P cameras offer a "Day/Night" function to provide optimized sensitivity in both day and night shooting scenarios. As the scene illumination reduces and the acquired image darkens, the infrared filter is automatically removed and the camera switches to B&W mode, requiring only a minimum illumination of 0.07 lx. In addition, the camera's "Day/Night" function can be initiated on demand through an external control signal for added flexibility.

Variable Gamma Curve

The SSC-DC590/DC593/DC593P/DC598P color video cameras are equipped with a gamma correction function; users can now choose from four preset gamma curves. By selecting the appropriate gamma curve, depending on the brightness of the image, both dark and bright portions of the image are reproduced clearly and sharply.

CCD IRIS

The CCD IRIS function allows the use of a manual iris lens instead of a more costly automatic iris lens. As the image brightness increases, the camera adjusts the exposure by automatically reducing the CCD photo sensor's exposure time (charge accumulation time). This is achieved by using the CCD electronic shutter, which has a range of 1/60 (NTSC)/ 1/50 (PAL) to 1/10,000 second.

A wide Auto Tracing White (ATW) range

Automatic Tracing White is a feature that automatically adjusts the camera white balance in accordance with any changes in the lighting conditions and different illuminants. This ensures that the appropriate color balance of a picture is always obtained. The SSC-DC590/DC593/DC593P/DC598P cameras provide an extremely wide Automatic Tracing White range of 2,000 K to 10,000 K, allowing adjustment-free operation under a variety of light conditions. Also, these cameras feature preset color temperature settings and user-defined manual settings.

Turbo AGC

The SSC-DC590/DC593/DC593P/DC598P cameras are equipped with the advanced Turbo AGC function. This allows the user to boost the camera's gain to 24 dB, enabling viewers of the image to distinguish the subject more easily - even if it is shot in low light. The AGC mode is selectable from OFF, NORMAL, TURBO, or MANUAL.

Advanced Features

Activity detection function

The SSC-DC590/DC593/DC593P/DC598P provides an activity detection function, which detects changes within an area of the picture designated by the user. When activity is detected, the camera superimposes a blinking "ALARM" indication on the video monitor and outputs an alarm trigger signal to external equipment. Up to three user-defined detection areas can be freely selected. The on-screen, superimposed "ALARM" message is 10 seconds in duration, while the alarm trigger signal output can be selected within the range of 0.5 and 10 seconds.

Privacy Zone Masking

With the Privacy Zone Masking function, unwanted or prohibited areas within an image can be masked. Up to two masking blocks can be freely selected in width and height. The masking areas are selectable from either the inside or the outside of the masking blocks.
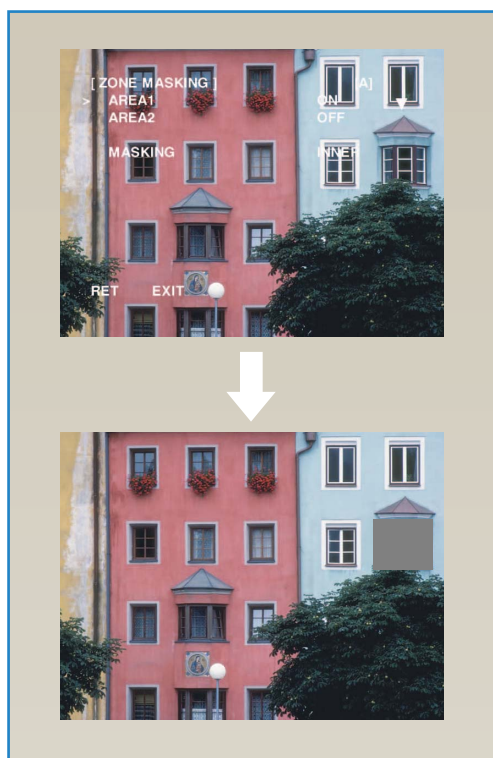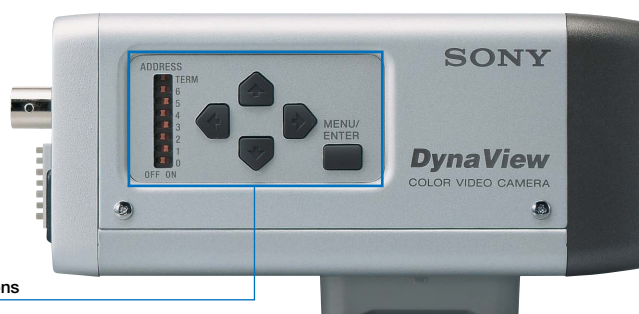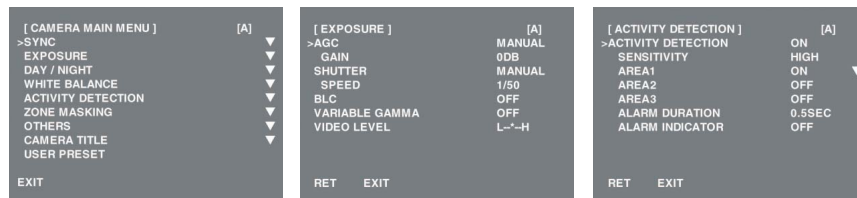
User-friendly operation

On-screen set up menu

Camera settings can be made through the on-screen menu using the cursor keys on the side panel of the camera. Up to two customized settings can be stored in the memory to quickly recall specific setup conditions.

Camera title indication

The SSC-DC590/DC593/DC593P/DC598P cameras also feature a camera title indication function. To easily identify individual cameras, users can assign a title of up to 24 characters to each unit, which can then be superimposed onto a video monitor screen. The position of the superimposed title is selectable from OFF, TOP LEFT, TOP RIGHT, BOTTOM LEFT, or BOTTOM RIGHT.

[CAMERA MAIN MENU]	[A]
>SYNC	▼
EXPOSURE	▼
DAY / NIGHT	▼
WHITE BALANCE	▼
ACTIVITY DETECTION	▼
ZONE MASKING	▼
OTHERS	▼
CAMERA TITLE	▼
USER PRESET	
EXIT	

[EXPOSURE]	[A]
>AGC	MANUAL
GAIN	0DB
SHUTTER	MANUAL
SPEED	1/50
BLC	OFF
VARIABLE GAMMA	OFF
VIDEO LEVEL	L--*--H
RET EXIT	

[ACTIVITY DETECTION]	[A]
>ACTIVITY DETECTION	ON
SENSITIVITY	HIGH
AREA1	ON ▼
AREA2	OFF
AREA3	OFF
ALARM DURATION	0.5SEC
ALARM INDICATOR	OFF
RET EXIT	

Menu operation buttons

Other Convenient Features

DC servo/video servo lens connection capability

The SSC-DC590/DC593/DC593P/DC598P cameras are easily connected to either DC-servo or video-servo lenses.

CS-mount

This range of Sony cameras can also be used with CS-mount lenses, allowing for easy and precise back-focus adjustments.
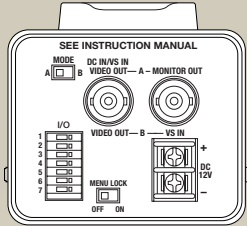
AC 24 V/DC 12 V operation

The SSC-DC593 and SSC-DC593P accept both AC 24 V and DC 12 V power sources and will automatically switch to the appropriate mode upon receiving power.
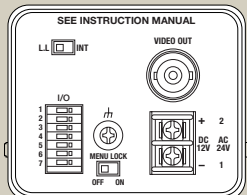
Sync system

The sync system of these cameras can be switched between internal lock and AC line lock. When AC line lock is selected, the V-phase can be adjusted by ±90°.
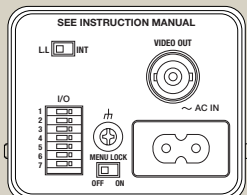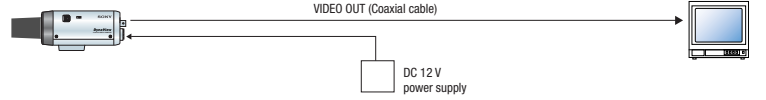
Typical System

SSC-DC590 Rear Panel

SEE INSTRUCTION MANUAL

MODE A B
DC IN/VS IN
VIDEO OUT— A — MONITOR OUT
VIDEO OUT— B — VS IN
I/O 1 2 3 4 5 6 7
MENU LOCK OFF ON
+ − DC 12V

SSC-DC593/DC593P Rear Panel

SEE INSTRUCTION MANUAL

LL INT
VIDEO OUT
I/O 1 2 3 4 5 6 7
MENU LOCK OFF ON
+ − DC 12V AC 24V 2 1

SSC-DC598P Rear Panel

SEE INSTRUCTION MANUAL

LL INT
VIDEO OUT
I/O 1 2 3 4 5 6 7
MENU LOCK OFF ON
~ AC IN

SSC-DC590

Single Camera Operation

VIDEO OUT (Coaxial cable)
Video Monitor
DC 12 V power supply

Multiple Camera Operation (In case of Line Lock)

VIDEO OUT (Coaxial cable)
Camera Adaptor (YS-W270A)
Multiplexer (YS-DX504)
Color Video Monitor
MONITOR OUT (Coaxial cable)
VIDEO OUT (Coaxial cable)
AC outlet
VIDEO OUT
VIDEO IN
DC 12 V power supply
Time Lapse VCR (HSR-X200/X200P)
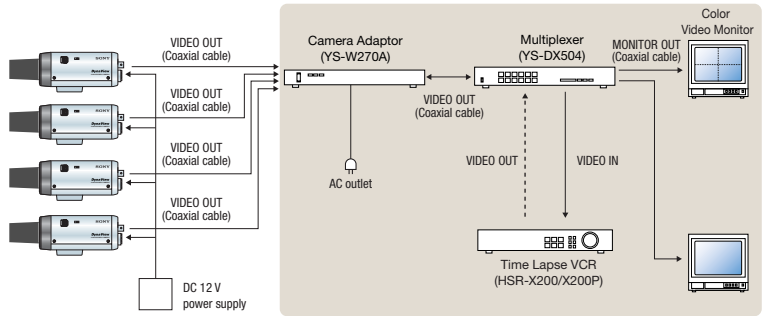
SSC-DC593/DC593P

Single Camera Operation

VIDEO OUT (Coaxial cable)
Video Monitor
AC 24 V or DC 12 V
AC outlet
AC 24 V or DC 12 V power supply

Multiple Camera Operation (In case of Line Lock)

VIDEO OUT (Coaxial cable)
Multiplexer (ex. YS-DX504/DX504P)
Sony Time Lapse VCR or Hard Disk Recorder (HSR-X200/X200P)
Video Monitor
Monitor 1
Monitor 2
AC outlet
AC 24 V or DC 12 V power supply
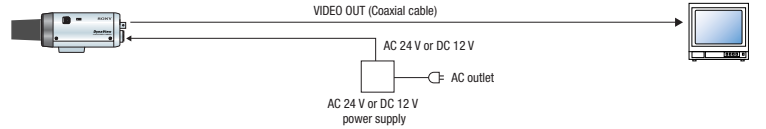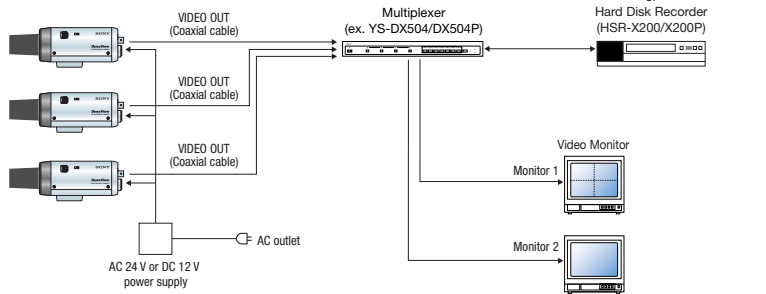
SSC-DC598P

Single Camera Operation

VIDEO OUT (Coaxial cable)
Video Monitor
AC outlet

Multiple Camera Operation (In case of Line Lock)

VIDEO OUT (Coaxial cable)
Multiplexer (ex. YS-DX504P)
Sony Time Lapse VCR or Hard Disk Recorder (HSR-X200P)
Video Monitor
Monitor 1
Monitor 2
AC outlet
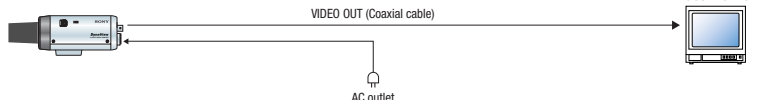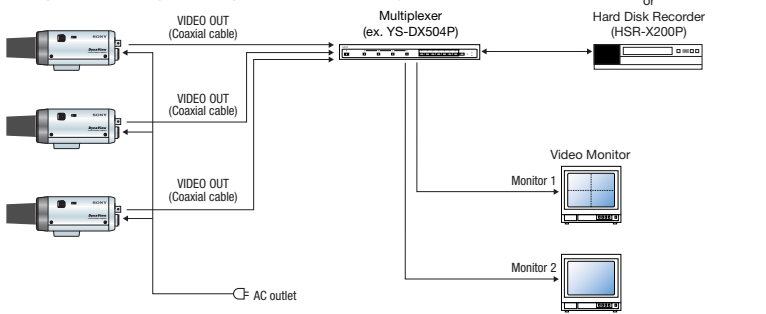
SSC-DC590/DC593/DC593P/DC598P

Multiple Camera Operation over LAN

VIDEO OUT (Coaxial cable)
Video Monitor
VIDEO OUT (Coaxial cable)
Video Network Station
Ethernet
LAN
Ethernet
PC
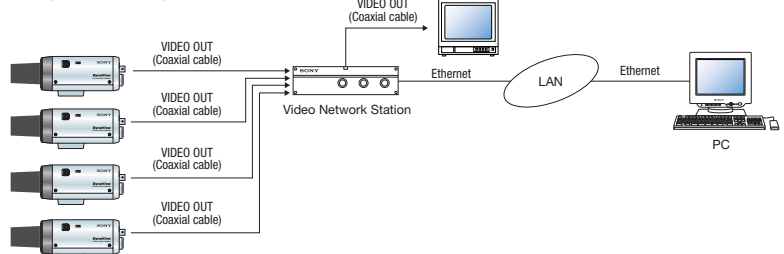
Specifications

	SSC-DC590	SSC-DC593	SSC-DC593P	SSC-DC598P
Image device	1/3 type Interline Transfer CCD			
Picture elements (H x V)	768 x 494		752 x 582	
Sensing area	1/3 type format (4.8 x 3.6 mm)			
Signal system	NTSC standard		PAL standard	
Sync system	INT/AC Line Lock			
Horizontal resolution	480 TV lines			
Lens mount	CS			
Minimum illumination	Color: 0.4 lx at F1.4 (30 IRE, AGC ON, Turbo mode) 0.8 lx at F1.4 (50 IRE, AGC ON, Turbo mode) 2.9 lx at F1.4 (100 IRE, AGC ON, Turbo mode) B&W: 0.03 lx at F1.4 (30 IRE, AGC ON, Turbo mode) 0.07 lx at F1.4 (50 IRE, AGC ON, Turbo mode) 0.25 lx at F1.4 (100 IRE, AGC ON, Turbo mode)			
AGC	NORMAL/TURBO/MANUAL/OFF selectable			
CCD IRIS	ON/OFF switchable (1/60 to 1/100,000 s)		ON/OFF switchable (1/50 to 1/100,000 s)	
Electric shutter	1/60 to 1/10,000 s, 8 steps		1/50 to 1/10,000 s, 8 steps	
White Balance (WB)	ATW-PRO/ATW/3200K/5600K/MANUAL/DUAL WB selectable			
Back-Light Compensation (BLC)	DYNAVIEW/SPOT/WEIGHT/OFF selectable			
S/N ratio	More than 50 dB (AGC OFF, WEIGHT ON)			
Dynamic range	52 dB			
Variable Gamma Curve	Scene 1/Scene 2/Scenc 3/Scene 4/Off selectable			
Aperture	Soft/Normal/Sharp selectable			
Day/Night function	Auto/External/Color to B/W selectable			
Camera title	Up to 24 characters			
User preset	Two presets			
Remote control	RS-485 (Band rate: 38,400 bps)			
Video out	BNC, 1.0 Vp-p, 75 Ω, sync negative			
Operating temperature	-10 °C to 50 °C (14 °F to 122 °F)			
Storage temperature	-40 °C to 60 °C (-40 °F to 140 °F)			
Power requirements	(1) Multiplexing with the YS-W170A/W270A (2) DC 12 V ±10 %	AC 24 V ±10 %, 60 Hz or DC 12 V ±10 %	AC 24 V ±10 %, 50 Hz or DC 12 V ±10 %	AC 220 to 240 V ±10 %, 50 Hz
Power consumption	5.8 W		5.6 W	
Auto iris lens	DC/video servo switchable			
Mass	500 g (1 lb 2 oz)			
Dimensions (W x H x D)	70 x 57 x 129 mm (2 ⁷/₈ x 2 ¹/₄ x 5 ¹/₈ inches)			
Supplied accessories	Lens mount cap (1), Operating instructions (1), Menu operations (1), AC power cable (1, SSC-DC598P only)			

YS-W170A/W270A Camera Adaptor

	YS-W170A	YS-W270A
Video output	BNC (2), composite video	BNC (8), composite video
Video input	Camera In, BNC (1)	Camera In, BNC (4)
Synchronization	External sync (VS or VD-W)/Internal sync (MPX-VS or MPX-VD-W)	
Max cable length	300 m (984 ft) using RG-59B/U, 500 m (1640 ft) using RG-6A/U, 600 m (1968 ft) using RG-11A/U	
Cable compensation	3 steps	
Power requirements	AC120 V, 60 Hz	
Power consumption	27 W	92 W
Operating temperature	-10 to 50 °C	
Mass	1.9 kg (4 lb 3 oz)	3.8 kg (8 lb 6 oz)
Dimensions		

SSC-DC590/DC593/DC593P/DC598P Dimensions

57 (2 ¹/₄)
9.3 (³/₈)
70 (2 ⁷/₈)
129 (5 ¹/₄)
139 (5 ¹/₂)

Unit: mm (inches)

Distributed by

MK07823V2OHB04APR