

SECTION 7 SURVEILLANCE PRODUCTS

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1-1 Color video cameras

SSC-CX34

Built-in Zoom Lens Color Video Camera

- Especially designed for surveillance applications
- Built-in 12x switchable motorized/auto iris zoom lens with zoom/focus preset capabilities
- The lens zoom, focus and iris functions can be remotely controlled from an external controller/receiver (Lens control voltage, ± 6 V or ± 12 V is selectable)
- Digitally-controlled Smart Control function provides intelligent and flexible automatic backlight compensation
- High density 1/3-inch IT Hyper HAD CCD offers a high resolution of 470 TV lines and high sensitivity with a minimum illumination of 4.5 lx (F1.8)
- Excellent signal-to-noise ratio of 50 dB
- Extra gain with Turbo AGC function, providing 6 dB more gain than conventional AGC
- Aperture/Sharp mode makes object outlines sharper in the reproduced picture
- Three alternative automatic white balance control modes : AWB (Auto White Balance) by one push/ATW (Auto Tracing White Balance)/ATWpro
- New ATWpro mode ensures reliable white balance control based on the absolute color temperature of the object (The effective operational color range is 2500 K to 6000 K)
- External synchronization with AC Line Lock

Supplied Accessories: Tripod adaptor (1)
Lens control cable (1)
Operation manual (1)



Front panel

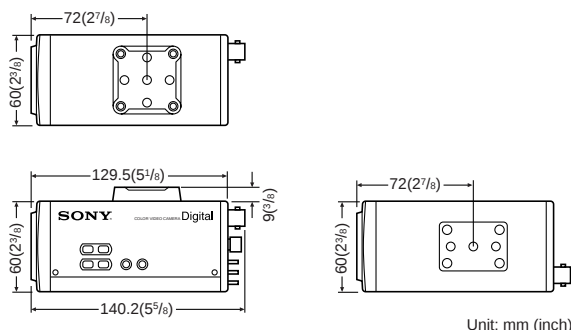


Rear panel

Specifications

Image device:	1/3-inch Interline Transfer Hyper HAD CCD
Picture elements:	768 (H) × 494 (V)
Sensing area:	4.4 × 3.3 mm
Scanning system:	525 lines, 2:1 interlace
Sync system:	Internal or external with AC line lock
Phase control:	V phase adjustment ($\pm 90^\circ$)
Horizontal resolution:	470 TV lines
Lens mount:	Built-in 12x zoom lens
Minimum illumination:	AGC ON (TURBO mode) 2.4 lx at F1.8 (30 IRE) * 4.5 lx at F1.8 (50 IRE) 15 lx at F1.8 (100 IRE)
Aperture control:	SHARP/NORMAL switchable
Enhancer:	3H
Automatic gain control (AGC):	TURBO/NORMAL/OFF switchable
White balance:	ATWpro/ATW/AWB (one-push) switchable
Backlight compensation:	Smart control (BLC ON/OFF switchable)
Signal-to-noise ratio:	50 dB (Weight ON, AGC OFF)
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:	AC 24 V, 60 Hz
Power consumption:	4.8 W
Mass:	520 g (1 lb 2 oz)
Connectors:	AC 24 V terminals, LENS CONTROL (Mini DIN 8-pin), VIDEO OUT (BNC), GND

Dimensions



Unit: mm (inch)

* Equivalent with 1.1 lx at F1.2 fixed lens (30 IRE)

1-1 Color video cameras

SSC-DC50A/DC54A

CCD Color Video Camera

- Especially designed for surveillance applications •High density 1/2 type IT CCD •Exwave HAD™ technology offers excellent sensitivity with a minimum illumination of 0.8 lx (F1.2), very low smear, and high resolution of 470 TV lines
- Digitally-controlled Smart Control function provides intelligent and flexible automatic backlight compensation
- For faster backlight compensation, the detection area can be preset •Excellent signal-to-noise ratio of 50 dB •Y/C output capability •Extra gain with Turbo AGC function, providing 6 dB more gain than conventional AGC
- Aperture/Sharp Mode makes object outlines sharper in the reproduced picture •Four alternative white balance control modes : AWB (Auto White Balance) by one push / ATW (Auto Tracing White Balance) / ATWpro / 5600 K •New ATWpro mode ensures reliable white balance control based on the absolute color temperature of the object (The effective operational color range is 2500 K to 6000 K)
- Variable speed electronic shutter •Accepts 2 types of auto iris lenses (DC servo type/Video servo type) •Accepts C/CS-mount lenses

Exclusive features for SSC-DC50A

- External synchronization with VBS or VS •Single cable operation (video/sync/power triple multiplex transmission) for easy installation with the optional YS-W150/W250 Camera Adaptor (Mode A) •Monitor out function for on-the-spot camera positioning (Mode A) •12 V DC power supply can also be used (Mode B)

Exclusive features for SSC-DC54A

- External synchronization with VBS, VS or AC line lock •AC 24 V power operation

Supplied Accessories:	Lens connector (1) Lens mount cap (1) Operation manual (1)
Optional accessories:	Camera adaptor YS-W150, YS-W250 (for SSC-DC50A only) Aspherical auto iris lens VCL-3ADXEA (3.8 mm, F0.8) Auto iris lens VCL-S03XEA (3.6 mm, F1.6) VCL-S06XEA (6.0 mm, F1.2) VCL-S12XEA (12 mm, F1.2) Manual iris lens VCL-S03XM (3.6 mm, F1.6) VCL-S06XM (6.0 mm, F1.2)

Specifications

Image device:	1/2-inch Interline Transfer Exwave HAD CCD
Picture elements:	752 (H) × 582 (V)
Sensing area:	6.3 × 4.7 mm
Scanning system:	625 lines, 2:1 interlace
Sync system:	DC50A : Internal or external with VBS/VS or MPX-VS DC54A : Internal or external with VBS/VS or AC line lock
Phase control:	H/SC phase adjustment (H phase: ±0.12H, SC phase: 360° with 0/180° switch) V phase adjustment (±90°) for AC line lock (SSC-DC54A only)
Horizontal resolution:	470 TV lines
Lens mount:	C/CS-mount adjustable
Minimum illumination:	AGC ON (TURBO mode) 0.4 lx at F1.2 (30 IRE) 0.8 lx at F1.2 (50 IRE) 3.0 lx at F1.2 (100 IRE)
Aperture control:	SHARP/NORMAL switchable
Automatic gain control (AGC):	TURBO/NORMAL/OFF switchable
Electronic shutter:	1/60, 1/100, 1/250, 1/500, 1/1000, 1/2000, 1/4000, 1/10000 (seconds)
CCD IRIS control:	ON/OFF switchable, 1/50 to 1/100000 (seconds)
White balance:	ATWpro/ATW/AWB (one-push)/5600 K switchable
Backlight compensation:	Smart Control (BLC ON/OFF switchable, eight AE spot is selectable)
Signal-to-noise ratio:	50 dB (Weight ON, AGC OFF)



Lens is optional



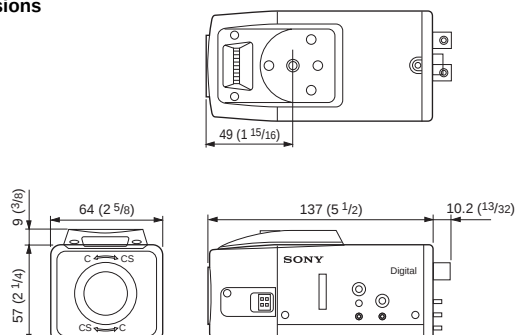
SSC-DC50A



SSC-DC54A

Video out:	BNC: 1.0 Vp-p, 75 Ω, sync negative Y/C: Y: 1.0 Vp-p, 75 Ω, sync negative C: 0.3 Vp-p, at burst level, 75 Ω
Operating temperature:	-10 to 50°C (14 to 122°F)
Storage temperature:	-40 to 60°C (-40 to 140°F)
Power requirements:	DC50A: 1) Multiplexing with YS-W150/W250 2) DC 12 V from DC 12 V power supply DC54A: AC 24 V, 50 Hz
Power consumption:	DC50A: 1) 5.5 W supplied from YS-W150/W250 2) 4.5 W at DC 12 V DC54A: 6.0 W
Mass:	600g (1 lb 5 oz)
Auto iris type:	DC/VIDEO servo type
Connectors:	DC50A: DC 12 V terminals, LENS (4-pin), Mode A (Triple multiplexing operation): DC IN/VS IN/VIDEO OUT (BNC), MONITOR OUT (BNC), S-VIDEO OUT (Mini DIN 4-pin) Mode B (DC 12 V operation): VIDEO OUT (BNC), VBS/VS IN (BNC), S-VIDEO OUT (Mini DIN 4-pin) DC54A: AC 24 V terminals, LENS (4-pin), VBS/VS IN (BNC), VIDEO OUT (BNC), S-VIDEO OUT (Mini DIN 4-pin), GND

Dimensions



1-1 Color video cameras

SSC-DC330/DC334

CCD color video camera

- Especially designed for surveillance applications •1/3 type IT HAD CCD •Exwave HAD technology offers extremely high sensitivity with a minimum illumination of 0.8 lx (F1.2) and high horizontal resolution of 480 TV lines •Excellent signal-to-noise ratio of more than 50 dB •Digital control Smart Control function executes the intelligent and flexible automatic backlight compensation •Turbo AGC raises sensitivity by automatically controlling video gain in a range that is 6 dB wider than the normal AGC range •Aperture/Sharp Mode makes object outlines sharper in the reproduced picture •CCD IRIS function allows use of inexpensive manual iris lenses •Two alternative automatic white balance control modes: ATW (Auto Tracing White Balance)/ATW pro •Accepts 2 types of auto iris lenses (DC servo type/Video servo type) •Accepts both CS and C-mount lenses



SSC-DC330



SSC-DC334

Exclusive features for SSC-DC330

- External synchronization with VBS or VS oSingle cable operation (video/sync/power triple multiplex transmission) for easy installation with the optional YS-W150/W250 Camera Adaptor (Mode A) •Monitor out function for on-the-spot camera positioning (Mode A) •12 V DC power supply can also be used (Mode B)

Exclusive features for SSC-DC334

- External synchronization with AC line lock o AC 24 V power operation



SSC-DC330



SSC-DC334

Supplied accessories: Lens connector
Lens mount cap
Operating instruction manual

Specifications

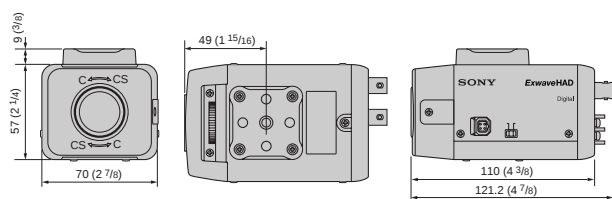
Image device: 1/3-type Interline Transfer HAD CCD
Picture elements: 768 (H) × 494 (V)
Sensing area: 3.3 mm × 4.4 mm
Video signal system: NTSC standard
Scanning system: 525 lines, 2:1 interlace
Sync system: SSC-DC330: Internal or external with VS/VBS*
SSC-DC334: Internal or external with AC line lock
Horizontal resolution: 480 TV lines
Lens mount: C/CS-mount (Back focus adjustable)
Minimum illumination: AGC ON (TURBO mode)
0.4 lx at F1.2 (30 IRE)
0.8 lx at F1.2 (50 IRE)
6.5 lx at F1.2 (100 IRE)
Aperture: SHARP/NORMAL switchable
Automatic Gain Control: TURBO/NORMAL/OFF switchable
Phase control: SSC-DC330: H phase adjustment (+/-0.25H)
SSC-DC334: V-phase adjustment (±90°)
CCD IRIS control: ON/OFF switchable, 1/60 to 1/100000 s
White balance: ATW pro/ATW switchable
Backlight compensation: Smart Control
Signal-to-noise ratio: More than 50 dB (Weight ON, AGC OFF)
Video out: 1.0 Vp-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: DC330: 1) Multiplexing with YS-W150/W250
2) 12 V DC V from DC 12 V power supply
DC334: AC 24 V, 60 Hz
Power consumption: DC330: 5.0 W supplied from YS-W150/W250
3.0 W at 12 V
DC334: 4.5 W
Mass: DC330: 430 g (15 oz)
DC334: 550 g (1 lb 3 oz)
Auto iris lens: DC/VIDEO servo type
Connectors: DC330: DC 12 V terminals
LENS (4-pin)
Mode A (Triple multiplexing operation): DC IN/VS IN/VIDEO OUT (BNC), MONITOR OUT (BNC)
Mode B (DC 12 V operation): VS IN/VIDEO OUT (BNC)
DC334: VIDEO OUT (BNC), LENS (4-pin), AC 24 V terminal, GND

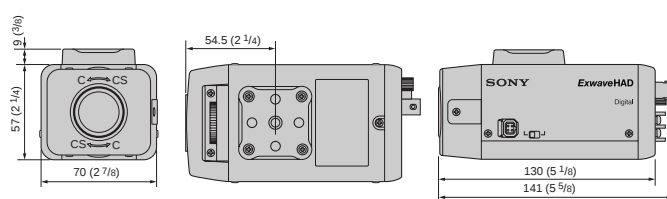
* The burst signal is not locked

Dimensions:

SSC-DC330



SSC-DC334



1-1 Color video cameras

SSC-DC10/DC14

CCD Color Video Camera

- Especially designed for surveillance applications •Digitally-controlled Smart Control function provides intelligent and flexible automatic backlight compensation •High density 1/3-inch IT Hyper HAD CCD offers a high resolution of 470 TV lines and high sensitivity with a minimum illumination of 1.7 lx (F1.2)* •Excellent signal-to-noise ratio of 50 dB •Extra gain with Turbo AGC function, providing 6 dB more gain than conventional AGC •Aperture/Sharp mode makes object outlines sharper in the reproduced picture •Two alternative automatic white balance control modes : AWB (Auto White Balance)/ATWpro •New ATWpro mode ensures reliable white balance control based on the absolute color temperature of the object (The effective operational color range is 2500 K to 6000 K) •Accepts 2 types of auto iris lenses (DC servo type/Video servo type) •Accepts C/CS-mount lenses

Exclusive features for SSC-DC10

- External synchronization with VS •Single cable operation (video/sync/power triple multiplex transmission) for easy installation with the optional YS-W150/W250 Camera Adaptor (Mode A) •Monitor out function for on-the-spot camera positioning (Mode A) •12 V DC power supply can also be used (Mode B)

Exclusive features for SSC-DC14

- External synchronization with AC line lock •AC power operation: AC 24 V, 60 Hz

Supplied Accessories:	Lens connector (1) Lens mount cap (1) Operation manual (1)
Optional Accessories:	Camera adaptor (for SSC-DC10 only) YS-W150, YS-W250 Auto iris lens: VCL-4V8WEA (3.5 to 8.0 mm, F1.8) VCL-S02WEAP (2.8 mm, F1.3) VCL-3ADXEA (3.8 mm, F0.8)

Specifications

Image device:	1/3-inch Interline Transfer Hyper HAD CCD
Picture elements:	768 (H) × 494 (V)
Sensing area:	4.4 × 3.3 mm
Scanning system:	525 lines, 2:1 interlace
Sync system:	DC10: Internal or external with VS/VBS* or MPX-VS DC14: Internal or external with AC line lock
Phase control:	DC10: H phase adjustment (±0.25H) DC14: V phase adjustment (±90°)
Horizontal resolution:	470 TV lines
Lens mount:	C/CS-mount adjustable
Minimum illumination:	AGC ON (TURBO mode) 1.1 lx at F1.2 (30 IRE)** 1.7 lx at F1.2 (50 IRE) 10 lx at F1.2 (100 IRE)
Aperture control:	SHARP/NORMAL switchable
Enhancer:	3H
Automatic gain control (AGC):	TURBO/NORMAL/OFF switchable
CCD IRIS control:	ON/OFF switchable, 1/60 to 1/100000 (seconds)
White balance:	ATWpro/ATW switchable
Backlight compensation:	Smart Control (BLC ON/OFF switchable)
Signal-to-noise ratio:	50 dB (Weight ON, AGC OFF)
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:	DC10: 1) Multiplexing with YS-W150/W250 2) DC 12 V from DC 12 V power supply DC14: AC 24 V, 60 Hz
Power consumption:	DC10: 1) 4.0 W supplied from YS-W150/W250 2) 3.0 W at DC 12 V DC14 : 4.5 W
Mass:	DC10 : 430 g (15 oz) DC14 : 550 g (1 lb 3 oz)

* The burst signal is not locked.

** These specifications apply to all SSC-DC10 units and to SSC-DC14 units from serial number 104,011 onwards.

The SSC-DC14 units with serial numbers lower than those have the following minimum illumination performance.

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



SSC-DC10

SSC-DC14

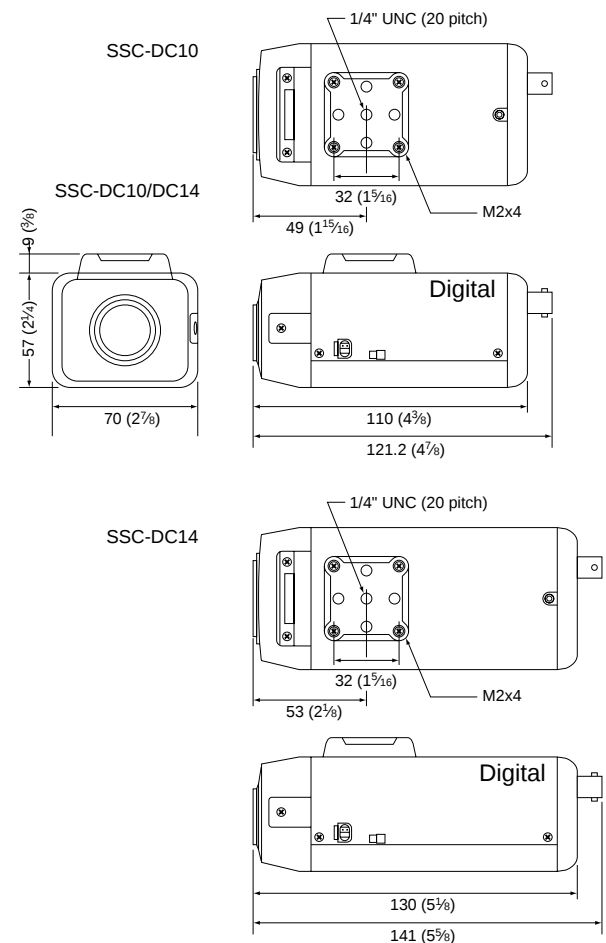
Lenses are optional



Auto iris type:
Connectors:

DC/VIDEO servo type
DC10 : DC 12 V terminals, LENS (4-pin)
Mode A (Triple multiplexing operation):DC IN/VS
IN/VIDEO OUT (BNC), MONITOR OUT (BNC)
Mode B (DC 12 V operation):VIDEO OUT (BNC), VS
IN (BNC)
DC14 : AC 24 V terminals, LENS (4-pin), VIDEO
OUT (BNC), GND

Dimensions



1-1 Color video cameras

SSC-C104

CCD color video camera

•Especially designed for surveillance applications •1/3-inch IT Hyper HAD CCD offers extremely high sensitivity with a minimum illumination of 1.0 lx (F1.2) •Excellent signal-to-noise ratio of 52 dB •Automatic backlight compensation •Turbo AGC function provides extra gain for low light conditions •CCD IRIS function allows use of inexpensive manual iris lenses •ATW (Auto Tracing White Balance) control for white balance adjustment •Accepts 2 types of auto iris lenses (DC servo type/Video servo type) •Accepts C/CS-mount lenses •External synchronization with AC line lock •AC power operation: AC 24 V, 60 Hz

Supplied accessories: Lens connector (1)
Lens mount cap (1)
Operation manual (1)

Optional accessories: Auto iris lens VCL-4V8WEA (3.5 to 8.0 mm, F1.8)
VCL-S02WEAP (2.8 mm, F1.3)
VCL-3ADXEA (3.8 mm, F0.8)

Specifications

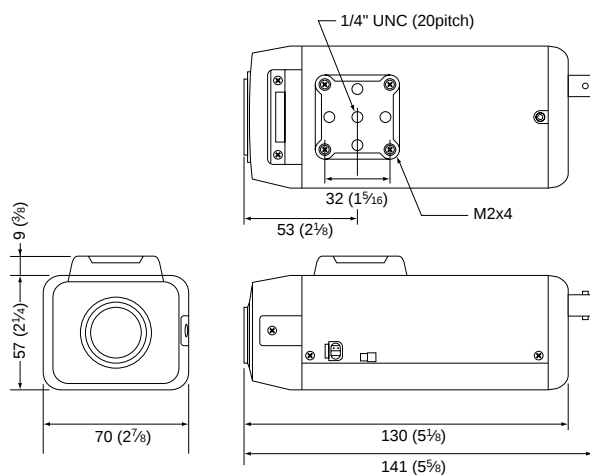
Image device: 1/3-inch Interline Transfer Hyper HAD CCD
Picture elements: 510 (H) × 492 (V)
Sensing area: 4.4 × 3.3 mm
Scanning system: 525 lines, 2:1 interlace
Sync system: External with AC line lock
Phase control: V phase adjustment (±90°)
Horizontal resolution: 330 TV lines
Lens mount: C/CS-mount adjustable
Minimum illumination: AGC ON (TURBO mode) 0.9 lx at F1.2
Enhancer: 3H
Automatic Gain Control: TURBO/NORMAL/OFF switchable
CCD IRIS control: ON/OFF switchable, 1/60 to 1/100000 (seconds)
White balance: ATW
Backlight compensation: BLC ON/OFF switchable
Signal-to-noise ratio: 52 dB (Weight ON, AGC OFF)
Video out: BNC 1.0 Vp-p, 75 Ω, sync negative
Operating temperature: -10 to 50°C (14 to 122°F)
Storage temperature: -40 to 60°C (-40 to 140°F)
Power requirements: AC 24 V, 60 Hz
Power consumption: 3.5 W
Mass: 550 g (1 lb 2 oz)
Auto iris lens: DC/VIDEO servo type
Connectors: AC 24 V terminals, LENS (4-pin), VIDEO OUT (BNC), GND



Lens is optional



Dimensions



Unit: mm (inch)

1-1 Color video cameras

SSC-C370/C374

CCD Color Video Camera

- Especially designed for surveillance applications
- High density 1/2-inch IT Hyper HAD CCD offers a high resolution of 470 TV lines and high sensitivity with a minimum illumination of 2.5 lx (F1.2)
- Excellent signal-to-noise ratio of 48 dB
- CCD IRIS function allows use of inexpensive manual iris lenses
- Two alternative automatic white balance control modes: AWB (Auto White Balance)/ATW (Auto Tracing White Balance)
- Variable speed electronic shutter
- Accepts C-mount lenses

Exclusive features for SSC-C370

- External synchronization with VS
- Single cable operation (video/sync/power triple multiplex transmission) for easy installation with the optional YS-W150/W250 Camera Adaptor (Mode A)
- Monitor out function for on-the-spot camera positioning (Mode A)
- 12 V DC power supply can also be used (Mode B)

Exclusive features for SSC-C374

- External synchronization with VS or AC line lock
- AC power operation: AC 24 V, 60 Hz

Supplied Accessories:	Lens connector (1) Lens mount cap (1) Operation manual (1)
Optional Accessories:	Camera adaptor (for SSC-C370 only) YS-W150, YS-W250
Manual iris lens	VCL-S03XM (3.6 mm, F1.6) VCL-S06XM (6.0 mm, F1.2) VCL-S12XM (12 mm, F1.2)
Auto iris lens	VCL-S03XEA (3.6 mm, F1.6) VCL-S06XEA (6.0 mm, F1.2) VCL-S12XEA (12 mm, F1.2)

Specifications

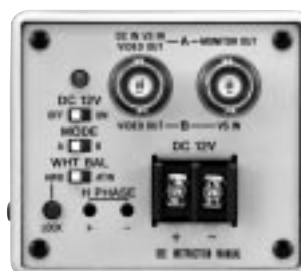
Image device:	1/2-inch Interline Transfer Hyper HAD CCD
Picture elements:	768 (H) × 494 (V)
Sensing area:	6.3 × 4.7 mm
Scanning system:	525 lines, 2:1 interlace
Sync system:	C370 : Internal or external with VS/VBS* or MPX-VS C374 : Internal or external with AC line lock
Phase control:	C370 : H phase adjustment C374 : V phase adjustment (6-position)
Horizontal resolution:	470 TV lines
Lens mount:	C-mount
Minimum illumination:	AGC ON 2.5 lx at F1.2
Enhancer:	3H
Automatic gain control (AGC):	ON/OFF switchable
Electronic shutter:	1/60, 1/100**, 1/250, 1/500, 1/1000, 1/2000, 1/4000, 1/10000 (seconds)
CCD IRIS control:	ON/OFF switchable, 1/60 to 1/100000 (seconds)
White balance:	ATW/AWB switchable
Signal-to-noise ratio:	48 dB (AGC OFF)
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:	C370: 1) Multiplexing with YS-W150/W250 2) DC 12 V from DC 12 V power supply C374: AC 24 V, 60 Hz
Power consumption:	C370: 1) 4.0 W supplied from YS-W150/W250 2) 2.8 W at DC 12 V C374 : 4.9 W at AC 24 V
Mass:	660 g (1 lb 7 oz)
Auto iris type:	VIDEO servo type
Connectors:	C370: DC 12 V terminals, LENS (4-pin) 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) C374: AC 24 V terminals, LENS (4-pin), VIDEO OUT (BNC), GND

* The burst signal is not locked

** Flickerless mode



Lens is optional

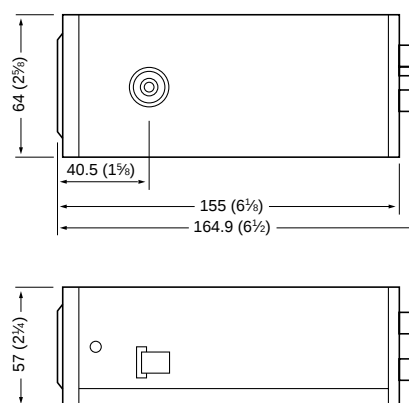


SSC-C370



SSC-C374

Dimensions



Unit: mm (inch)

1-2 Monochrome video cameras

SSC-MX34

Built-in Zoom Lens B/W Video Camera

•Especially designed for surveillance applications •Built-in 12x switchable motorized/auto iris zoom lens with zoom/focus preset capabilities •The lens zoom, focus and iris function can be remotely controlled from an external controller/receiver (Lens control voltage, ± 6 V or ± 12 V is selectable) •Digitally-controlled Smart Control function provides intelligent and flexible automatic backlight compensation •High density 1/3-inch IT Hyper HAD CCD offers a high resolution of 570 TV lines and high sensitivity with a minimum illumination of 0.4 lx at F1.8 (50 IRE) •One push Focus Lock •Excellent signal-to-noise ratio of 50 dB •Extra gain with Turbo AGC function, providing 6 dB more gain than conventional AGC •Aperture/Sharp Mode makes object outlines sharper in the reproduced picture •Three alternative automatic white balance control modes : AWB (Auto White Balance) by one push/ ATW (Auto Tracing White Balance) / ATWpro •New ATWpro mode ensures reliable white balance control based on the absolute color temperature of the object (The effective operational color range is 2500 K to 6000 K)

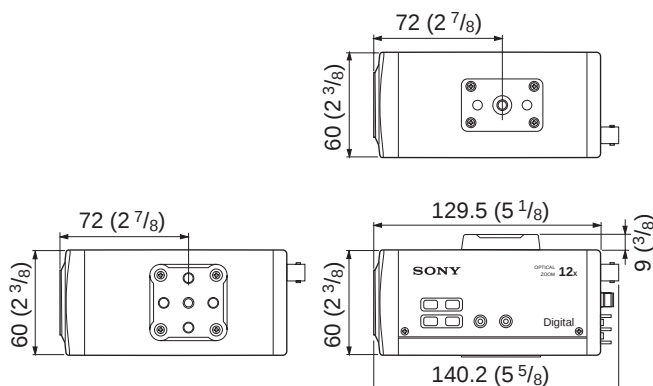
Supplied accessories: Tripod adaptor (1)
Lens control cable (1)
Operation manual (1)

Specifications

Image device: 1/3-inch Interline Transfer Hyper HAD CCD
Picture elements: 768 (H) $\times$ 494 (V)
Sensing area: 4.4 $\times$ 3.3 mm
Signal system: EIA standard
Scanning system: 525 lines, 2:1 interlace
Sync system: Internal or external with AC line lock
Phase control: V phase adjustment ($\pm 90^\circ$)
Horizontal resolution: 570 TV lines
Minimum illumination: AGC ON (TURBO mode)
0.2 lx at F1.8 (30 IRE)
0.4 lx at F1.8 (50 IRE), equivalent to 0.18 lx at F1.2
2.0 lx at F1.8 (100 IRE)
Aperture control: SHARP/NORMAL switchable
Automatic Gain Control: TURBO/NORMAL/OFF switchable
Backlight compensation: FULL/SPOT/OFF switchable
Signal-to-noise ratio: 50 dB (Weight ON, AGC OFF)
Video out: 1.0 Vp-p, 75 Ω , sync negative
Operating temperature: -10 to 50°C (14 to 122°F)
Storage temperature: -40 to 60°C (-40 to 140°F)
Power requirements: AC 24 V, 60 Hz
Power consumption: 5.1 W
Mass: 520 g (1 lb 2 oz)
Connectors: AC 24 V terminals, LENS CONTROL (Mini DIN 8-pin), VIDEO OUT (BNC), GND



Dimensions



1-2 Monochrome video cameras

SSC-M370/M374

CCD B/W Video Camera

•Especially designed for surveillance applications •High density 1/2-inch IT Hyper HAD CCD offers extremely high resolution of 570 TV lines and high sensitivity with a minimum illumination of 0.3 lx (F1.2) •Excellent signal-to-noise ratio of 50 dB •CCD IRIS function allows use of inexpensive manual iris lenses •Variable speed electronic shutter •Accepts C-mount lenses

Exclusive features for SSC-M370

•External synchronization with VS •Single cable operation (video/sync/power triple multiplex transmission) for easy installation with the optional YS-W150/W250 Camera Adaptor (Mode A) •Monitor out function for on-the-spot camera positioning (Mode A) •12 V DC power supply can also be used (Mode B)

Exclusive features for SSC-M374

•External synchronization with AC line lock •AC power operation : AC 24 V, 60Hz

Supplied Accessories	Lens connector (1) Lens mount cap (1) Operation manual (1)
Optional Accessories	Camera adaptor (for SSC-M370 only) YS-W150, YS-W250
Manual iris lens	VCL-S03XM (3.6 mm, F1.6) VCL-S06XM (6.0 mm, F1.2) VCL-S12XM (12 mm, F1.2)
Auto iris lens	VCL-S03XEA (3.6 mm, F1.6) VCL-S06XEA (6.0 mm, F1.2) VCL-S12XEA (12 mm, F1.2)

Specifications

Image device:	1/2-inch Interline Transfer Hyper HAD CCD
Picture elements:	768 (H) × 494 (V)
Sensing area:	6.3 × 4.7 mm
Scanning system:	525 lines, 2:1 interlace
Sync system:	M370: Internal or external with VS/VBS* or MPX-VS M374: Internal or external with AC line lock
Phase control:	M370: H phase adjustment M374: V phase adjustment (6-position)
Horizontal resolution:	570 TV lines
Lens mount:	C-mount
Minimum illumination:	AGC ON 0.3 lx at F1.2
Automatic gain control (AGC):	ON/OFF switchable
Electronic shutter:	1/60, 1/100**, 1/250, 1/500, 1/1000, 1/2000, 1/4000, 1/10000 (seconds)
CCD IRIS control:	ON/OFF switchable
White balance:	ATW/AWB switchable
Signal-to-noise ratio:	50 dB (AGC OFF)
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:	M370: 1) Multiplexing with YS-W150/W250 2) DC 12 V from DC 12 V power supply M374: AC 24 V, 60 Hz
Power consumption:	M370: 1) 4.0 W supplied from YS-W150/W250 2) 2.8 W at DC 12 V M374 : 3.9 W at AC 24 V
Mass:	660 g (1 lb 7 oz)
Auto iris type:	VIDEO servo type
Connectors:	M370 : DC 12 V terminals, LENS (4-pin) 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) M374: AC 24 V terminals, LENS (4-pin), VIDEO OUT (BNC), GND

* The burst signal is not locked

** Flickerless mode



Lens is optional

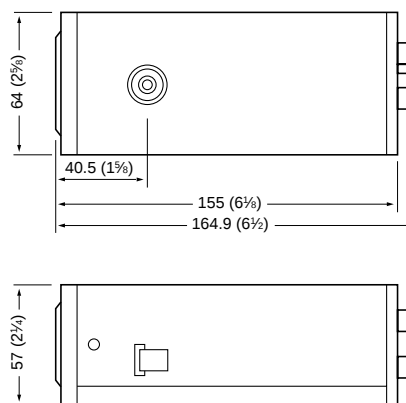


SSC-M370



SSC-M374

Dimensions



Unit: mm (inch)

1-2 Monochrome video cameras

SPT-M320/M324

CCD monochrome video cameras

- Especially designed for surveillance applications •1/3 type HAD CCD •Exwave HAD technology offers extremely high sensitivity with a minimum illumination of 0.07 lx (F1.2)
- Outstanding horizontal resolution of 570 TV lines •CCD IRIS function allows use of inexpensive manual iris lenses
- Backlight compensation is possible with the LEVEL and BLC volume controls (only when using auto iris lenses or the CCD IRIS function) •DC servo circuit drives auto iris facility
- Accepts C or CS-mount lenses

Exclusive features of SPT-M320

- External synchronization with VS •Single cable operation (video/sync/power triple multiplex transmission) for easy installation with the optional YS-W150/W250 camera adaptor (Mode A) •Monitor out function for on-the-spot camera positioning (Mode B) •12 V DC power supply can also be used (Mode B)

Exclusive features of SPT-M324

- External synchronization with VS or AC Line Lock
- AC 24 V power operation

Supplied accessories: Lens connector
Lens mount cap
Operating instruction manual

Specifications

Image device:	1/3-type Interline Transfer HAD CCD
Picture elements:	768 (H) × 494 (V)
Sensing area:	3.3 mm × 4.4 mm
Video signal system:	EIA standard
Scanning system:	525 lines, 2:1 interlace
Sync system:	SPT-M320: Internal or external with VS or MPX-VS SPT-M324: External with AC line lock
Horizontal resolution:	570 TV lines
Lens mount:	C/CS-mount (Back focus adjustable)
Minimum illumination:	AGC ON 0.04 lx at F1.2 (30 IRE) AGC ON 0.07 lx at F1.2 (50 IRE) AGC ON 0.3 lx at F1.2 (100 IRE)
Automatic Gain Control:	Turbo AGC permanently ON
Phase control:	V-phase adjustment (±90°)
CCD IRIS:	1/60 to 1/100000 (seconds)
CCD IRIS control:	ON/OFF switchable
Backlight compensation:	Adjustable
Signal-to-noise ratio:	More than 50 dB (AGC OFF)
Video out:	BNC, 1.0 Vp-p, 75 Ω, sync negative
Operating temperature:	−10 to 50°C (14 to 122°F)
Storage temperature:	−40 to 60°C (−40 to 140°F)
Power requirements:	M320: 1) Multiplexing with YS-W150/W250 2) 12 V DC V from DC 12 V power supply
M324:	AC 24 V, 60 Hz
Power consumption:	M320: 2.8 W supplied from YS-W150/W250 2.4 W at 12 V
M324:	2.6 W
Mass:	M320: 410 g (14 oz) M324: 340 g (12 oz)
Auto iris lens:	DC/VIDEO servo type
Connectors:	M320: DC 12 V terminals LENS (4-pin) Mode A: DC IN/VS IN/VIDEO OUT (BNC), MONITOR OUT (BNC) Mode B: VS IN/VIDEO OUT (BNC) M324: VIDEO OUT (BNC), LENS (4-pin), AC 24 V terminal, GND



SPT-M320



SPT-M324



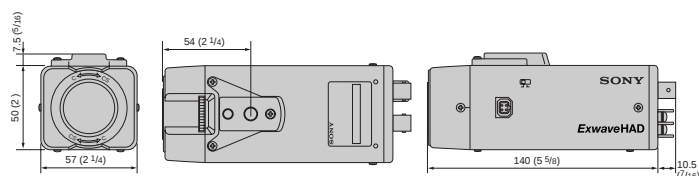
SPT-M320



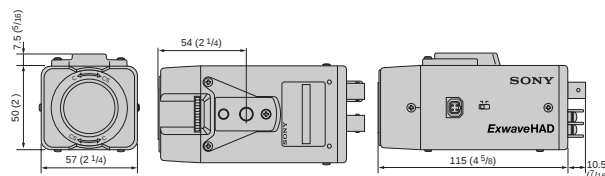
SPT-M324

Dimensions:

SPT-M320



SPT-M324



1-2 Monochrome video cameras

SPT-M124

CCD monochrome video camera

- Especially designed for surveillance applications
- 1/3-inch IT Hyper HAD CCD
- High horizontal resolution of 380 TV lines
- High sensitivity with a minimum illumination of 0.1 lx at F1.2 (50 IRE)
- Excellent signal-to-noise ratio of 45 dB
- CCD IRIS allows the use of inexpensive manual iris lens
- Backlight compensation is possible with the Level and BLC (Back Light Control) volume controls (when using auto iris lenses or the CCD IRIS function)
- AGC (Automatic Gain Control)
- Accepts both DC servo and VIDEO servo auto iris lenses
- Accepts both CS and C-mount lenses
- 4-pin auto iris connector
- External synchronization with AC line lock

Supplied accessories: Lens connector
Lens mount cap
Operating instruction manual

Optional accessories: Auto iris lens VCL-4V8WEA (3.5 to 8.0 mm, F1.8)
VCL-S02WEAP (2.8 mm, F1.3)
VCL-3ADXE (3.8 mm, F0.8)

Specifications

Image device: 1/3-inch Interline Transfer Hyper HAD CCD
Picture elements: 510 (H) × 492 (V)
Sensing area: 4.4 × 3.3 mm
Video signal system: EIA standard
Scanning system: 525 lines, 2:1 interlace
Sync system: External with AC line lock
Horizontal resolution: 380 TV lines
Lens mount: C/CS-mount (Back focus adjustable)
Minimum illumination: 0.06 lx at F1.2 (30 IRE)
0.1 lx at F1.2 (50 IRE)
0.4 lx at F1.2 (100 IRE)

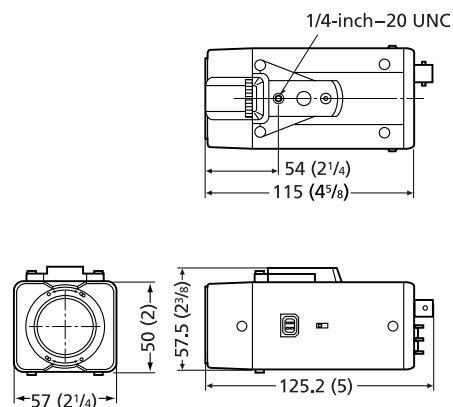
Automatic Gain Control: Always ON
Phase control: V-phase control
CCD IRIS control: ON/OFF switchable, 1/60 to 1/100000 (seconds)
Signal-to-noise ratio: More than 45 dB (AGC ON)
Video out: 1.0 Vp-p, 75 Ω, sync negative
Operating temperature: -10 to 50°C (14 to 122°F)
Storage temperature: -40 to 60°C (-40 to 140°F)
Power requirements: AC 24 V
Power consumption: 2.5 W
Mass: Approx. 320 g (11 oz)
Auto iris lens: DC/Video servo type
Connectors: LENS (4-pin), VIDEO OUT (BNC), AC 24 V terminals, GND



Lens is optional



Dimensions



1-3 Camera accessories

YS-W150

AC adaptor for SSC-DC50A/DC330/DC10/C370/ M370, SPT-M320, DXC-107A

- Power supply and video/sync signal transmission by connecting to the camera with a single coaxial cable
- Internal or external synchronization with VS or AC line lock
- Extends the cable length up to 600 meters by using RG-11A/U (7C-2V) coaxial cable

Connectors:	CAMERA IN, BNC (1) VIDEO OUT, BNC (2) SYNC IN/OUT (BNC, loop-through, 75 Ω ON/OFF)
Power requirements:	AC 120 V, 60 Hz
Power consumption:	15 W
Operating temperature:	−10°C to 50°C (14°F to 122°F)
Maximum cable length:	300 m using RG-59B/U (3C-2V) 500 m using RG-6A/U (5C-2V) 600 m using RG-11A/U (7C-2V)
Dimensions:	218 (W) × 52 (H) × 330 (D) mm (8 3/8 × 2 1/8 × 13 inches)
Mass:	2.8 kg (6 lb 3 oz)



YS-W250

AC adaptor for SSC-DC50A/DC330/DC10/C370/ M370, SPT-M320, DXC-107A

- Power supply and video/sync signal transmission by connecting to the camera with a single coaxial cable
- Up to four cameras can be connected
- Internal or external synchronization with VS or AC line lock
- Extends the cable length up to 600 meters by using RG-11A/U (7C-2V) coaxial cable (SSC series camera) or 300 meters with RG-6A/U (5C-2V) coaxial cable (DXC-107A)

Connectors:	CAMERA IN 1 to 4, BNC (4) VIDEO OUT A: 1 to 4, BNC (4) VIDEO OUT B: 1 to 4, BNC (4) SYNC IN/OUT (BNC, loop-through, 75 Ω ON/OFF)
Power requirements:	AC 120 V, 60 Hz
Power consumption:	48 W
Operating temperature:	−10°C to 50°C (14°F to 122°F)
Maximum cable length:	300 m using RG-59B/U (3C-2V) 500 m using RG-6A/U (5C-2V) 600 m using RG-11A/U (7C-2V)
Dimensions:	424 (W) × 52 (H) × 330 (D) mm (16 3/4 × 2 1/8 × 13 inches)
Mass:	3.6 kg (7 lb 15 oz)



1-3 Camera accessories

YT-B21

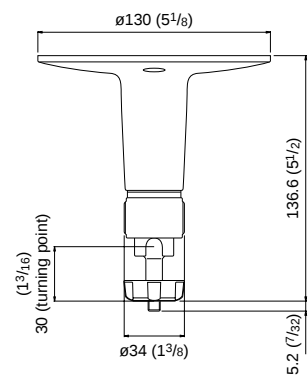
Mounting bracket

•For indoor use

Supplied accessories: Mounting screw (×4)
Operating instruction manual
Maximum load: 2 kg
Mass: 200 g



Dimensions:



Unit: mm (inch)

T-301/305/307

Mounting bracket

•T-301 - Suitable for mounting housed or unboxed cameras, T-305/307 - Only accept unboxed cameras for installation

Maximum load: 10 kg
Length: T-301: 260 mm + 150 mm
T-305: Min. 275 mm/Max. 405 mm
T-307: 160 mm
Mass: T-301/305: 0.7 kg
T-307: 0.6 kg



T-301



T-305



T-307

1-4 Lenses

Lenses for 1/2-inch C-mount cameras

1) Auto-iris Type (Video servo type/EE amplifier type/ALC type)

			
Models	VCL-S03XEA	VCL-S06XEA	VCL-S12XEA
Mount	C	C	C
Focal length	3.6 mm	6.0 mm	12 mm
Iris control	Auto	Auto	Auto
Maximum aperture ratio	1 : 1.6	1 : 1.2	1 : 1.2
Filter size	—	M43 × 0.75 mm	M43 × 0.75 mm
Mass	88 g (3.1 oz)	128 g (4.5 oz)	126 g (4.4 oz)
Dimensions	ø45(dia.) × 32.9(L) mm (1 ¹³ / ₁₆ × 1 ⁵ / ₁₆ inches)	ø45.5(dia.) × 48.5(L) mm (1 ¹³ / ₁₆ × 1 ¹⁵ / ₁₆ inches)	ø45.5(dia.) × 48.5(L) mm (1 ¹³ / ₁₆ × 1 ¹⁵ / ₁₆ inches)
Supply voltage	DC 8 to 16V	DC 8 to 16V	DC 8 to 16V

2) Manual-iris Type

			
Models	VCL-S03XM	VCL-S06XM	VCL-S12XM
Mount	C	C	C
Focal length	3.6 mm	6.0 mm	12 mm
Iris control	Manual	Manual	Manual
Maximum aperture ratio	1 : 1.6	1 : 1.2	1 : 1.2
Filter size	M35.5 × 0.5 mm	M35.5 × 0.5 mm	M35.5 × 0.5 mm
Mass	66 g (2.3 oz)	74 g (2.6 oz)	60 g (2.1 oz)
Dimensions	ø38(dia.) × 28.6(L) mm (1 ¹ / ₂ × 1 ³ / ₁₆ inches)	ø38(dia.) × 36.4(L) mm (1 ¹ / ₂ × 1 ⁷ / ₁₆ inches)	ø38(dia.) × 30.8(L) mm (1 ¹ / ₂ × 1 ¹ / ₄ inches)

Aspherical auto-iris lens for 1/2-inch CS-mount cameras

(DC servo type/ Non-EE amplifier type/ Non-ALC type)

	
Model	VCL-3ADXEA
Mount	CS
Focal length	3.8 mm
Iris control	Auto
Maximum aperture ratio	1 : 0.8
Minimum object distance	0.15 m
Filter size	M43 × 0.75 mm
Mass	150 g (5.3 oz)
Dimensions (dia. × H × L)	ø45.0 × 56.8 × 52.5 mm (1 ¹³ / ₁₆ × 2 ¹ / ₄ × 2 ¹ / ₈ inches)
Cable length	90 mm (3 ⁵ / ₈ inch)

Lenses for 1/3-inch CS-mount camera

1) Auto-iris Type (DC servo type/ Non-EE amplifier type/ Non-ALC type)

		
Models	VCL-4V8WEA	VCL-S02WEAP
Mount	CS	CS
Focal length	3.5 to 8.0 mm	2.8 mm
Iris control	Auto	Auto
Maximum aperture ratio	1 : 1.4	1 : 1.3
Minimum object distance	0.3 m	0.2 m
Filter size	—	M30.5 × 0.5 mm
Mass	72 g (3 oz)	41 g (1.4 oz)
Dimensions (dia. × H × L)	ø35.0 × 54.0 × 46.0 mm (1 ⁷ / ₁₆ × 2 ¹ / ₄ × 1 ³ / ₁₆ inches)	ø32.0 × 39.8 × 33.0 mm (1 ⁹ / ₁₆ × 1 ⁵ / ₈ × 1 ¹ / ₁₆ inches)
Cable length	100 mm (4 inch)	310 mm (12 ³ / ₄ inch)

2-1 Color monitors

19" SSM-20N5U (NTSC/PAL/SECAM/NTSC^{4.43})

Color monitor

- Trinitron color monitor especially designed for surveillance applications
- High resolution of 500 TV lines
- Adoption of beam current feedback circuit for stability in the color balance
- Accepts composite video and Y/C signals
- Automatic 75 Ω termination facility
- On-screen menu for adjustment/operation
- Built-in speaker
- EIA standard rack mountable (with the optional SLR-103A)
- Metal cabinet for high immunity to external electrical and magnetic interference

Optional accessory: Slide Rail Kit SLR-103A

Specifications

Video signal system:	EIA 525 lines, 60 fields/CCIR 625 lines, 50 fields (switching of EIA to CCIR or vice versa is automatically done)
Color system:	NTSC/PAL/SECAM/NTSC ^{4.43*1}
Picture tube:	53 cm (20-inch), HR Trinitron tube, visible picture size 48.0 cm (min.) (19-inch) measured diagonally, 90° deflection, P-22 phosphors
Horizontal resolution:	500 TV lines at center
Audio power output:	Monaural, 0.8 W with built-in speaker
Power requirements:	AC 100 to 240 V, 50/60 Hz
Power consumption:	100 W
Dimensions:	449 (W) × 441 (H) × 502 (D) mm (17 ¹¹ / ₁₆ × 17 ³ / ₈ × 19 ³ / ₄ inches)
Mass:	28 kg (61 lb 11 oz)
VIDEO	
LINE ^{*2} :	Loop-through BNC 1.0 Vp-p, sync negative, Automatic 75 Ω termination ^{*3} Loop-through Mini DIN 4-pin Y (luminance): 1.0 Vp-p, sync negative, Automatic 75 Ω termination ^{*3} C (chrominance): NTSC: 0.286 Vp-p, Automatic 75 Ω termination ^{*3} PAL: 0.3 Vp-p, Automatic 75 Ω termination ^{*3}
AUDIO	
LINE:	Loop-through Phono -5 dBu, high impedance



*1 The NTSC^{4.43} system refers to an NTSC color system in which the subcarrier frequency is modified to 4.43 MHz.

*2 The Y/C input has priority over the Composite video input.

*3 75 Ω termination is automatically set to OFF when connection is made to the OUT connector.

2-1 Color monitors

13" SSM-14N5U (NTSC/PAL/SECAM/NTSC_{4.43})

Color monitor

- Trinitron color monitor especially designed for surveillance applications
- High resolution of 500 TV lines
- Adoption of beam current feedback circuit for stability in the color balance
- Accepts composite video and Y/C signals
- Automatic 75 Ω termination facility
- On-screen menu for adjustment/operation
- Built-in speaker
- EIA standard rack mountable (with the optional MB-502B and SLR-102)
- Metal cabinet for high immunity to external electrical and magnetic interference

Optional accessories: Mounting Bracket MB-502B
 Slide Rail Kit (used with the MB-502B) SLR-102

Specifications

Video signal system: EIA 525 lines, 60 fields/CCIR 625 lines, 50 fields (switching of EIA to CCIR or vice versa is automatically done)

Color system: NTSC/PAL/SECAM/NTSC_{4.43}*1

Picture tube: 37.1 cm (14-inch), HR Trinitron tube, visible picture size 33.2 cm (min.) (13-inch) measured diagonally, 90° deflection, P-22 phosphors

Horizontal resolution: 500 TV lines at center

Audio power output: Monaural, 0.8 W with built-in speaker

Power requirements: AC 100 to 240 V, 50/60 Hz

Power consumption: 80 W

Dimensions: 346 (W) × 340 (H) × 414 (D) mm (13⁵/₈ × 13³/₈ × 16⁵/₁₆ inches)

Mass: 15 kg (33 lb 1oz)

VIDEO

 LINE*2: Loop-through BNC
 1.0 Vp-p, sync negative, Automatic 75 Ω termination*3
 Loop-through Mini DIN 4-pin
 Y (luminance):
 1.0 Vp-p, sync negative, Automatic 75 Ω termination*3
 C (chrominance):
 NTSC: 0.286 Vp-p, Automatic 75 Ω termination*3
 PAL: 0.3 Vp-p, Automatic 75 Ω termination*3

AUDIO

 LINE: Loop-through Phono
 -5 dBu, high impedance



*1 The NTSC_{4.43} system refers to an NTSC color system in which the subcarrier frequency is modified to 4.43 MHz.
*2 The Y/C input has priority over the Composite video input.
*3 75 Ω termination is automatically set to OFF when connection is made to the OUT connector.

2-1 Color monitors

8" SSM-8040

Color monitor

•NTSC standard •Trinitron color monitor especially designed for surveillance applications •Adoption of beam current feedback circuit for high black level stability •Automatic 75 Ω termination facility •Front controls: Power, Brightness, Chroma, Contrast •EIA standard 19-inch rack mountable (with the optional MB-520 mounting bracket) •Metal cabinet for high immunity to external electrical and magnetic interference

Supplied accessory: Operating Instruction Manual
Optional accessories: Mounting Panel MB-509
Mounting Bracket MB-520

Specifications

Video signal system:	EIA 525 lines, 60 fields
Color system:	NTSC
CRT Type:	22 cm (9-inch) Trinitron tube, visible picture size 19.7 cm (8-inch) measured diagonally, 70° deflection (AG pitch 0.5 mm)
Resolution:	250 TV lines at center
Frequency response:	6.0 MHz ($+1.5\text{dB}$ -3.0dB)
Aperture correction:	-4.0 dB to +6.0 dB (at 3.0 MHz)
Sync system:	AFC time constant 1.0 ms
Normal scan:	6% overscan
H-linearity:	Less than 7% (Typical)
V-linearity:	Less than 7% (Typical)
Convergence:	Central: 0.4 mm (Typical) Peripheral: 0.5 mm (Typical)
Raster size stability:	H: 1.0% V: 1.5%
HV-regulation:	3% (Cut off to High light)
color temperature:	6500 K
Operating temperature:	0 to 35 °C (32 to 95 °F)
Storage temperature:	-10 to 40 °C (14 to 104 °F)
Humidity:	0 to 90%
Power requirements:	AC 120 V, 50/60 Hz
Power consumption:	39 W
Video input:	BNC, 1.0 Vp-p, sync negative
Video output:	Loop-through BNC, automatic 75 Ω termination*
Dimensions:	217 (W) × 217 (H) × 352.5 (D) mm (8 $\frac{5}{8}$ × 8 $\frac{5}{8}$ × 14 inches)
Mass:	Approx. 7.8 kg (17 lb 3 oz)



* 75 Ω termination is automatically set to OFF when connection is made to the OUT connector.

2-2 Monochrome monitors

17" SSM-Q177

Monochrome quad monitor

- EIA standard
- Quad Screen Display permits up to four compressed, split pictures to be displayed simultaneously and recorded on a single VCR
- High quality compressed images with 8-bit signal processing for clearer pictures
- Sequential Switcher Function provides automatic switching between up to four cameras, with a selectable dwell time; SKIP channel also selectable
- Newly developed flyback transformer provides the high voltage stability required to minimize picture zooming
- Freeze Picture Function can freeze each picture in quad mode, as well as freeze a VCR playback picture
- Alarm IN/OUT with audible alarm and flashing LED
- Video Loss Detection with on-screen notification
- On-screen menus display Date, Time and Camera ID
- 19-inch EIA standard rack mountable

Supplied accessory: Operating Instructions
Optional accessory: Mounting Bracket RMM-171

Specifications:

Video signal system: EIA standard
Picture tube: 17-inch CRT (16-inch viewable area, measured diagonally), 90° deflection
Resolution: More than 850 lines (full screen)
Camera input/VCR input: Composite: 1.0 Vp-p, sync negative, 75 Ω
Video output/VCR output: Composite: 1.0 Vp-p, sync negative, 75 Ω
Power requirements: AC 120 V, 50/60 Hz
Power consumption: Approx. 45 W
Operating temperature: 0 to 35 °C (32 to 95 °F)
Storage temperature: -10 to 40 °C (14 to 104 °F)
Operating humidity: 0 to 90% (no condensation)
Storage humidity: 0 to 90% (no condensation)
Dimensions: 424 (W) × 409 (H) × 380 (D) mm
(16 5/8 × 16 1/8 × 15 inches)
Mass: 18.8 kg (41 lb 6 oz)
Regulation compliance: UL 6500, CSA (cUL), FCC Class A, IC Class A, DHHS, DNHW



2-2 Monochrome monitors

17" SSM-175A

Monochrome monitor

- EIA standard •17-inch CRT size •Excellent picture quality with more than 850 TV lines horizontal resolution •Dual loop-through video inputs with switchable 75 Ω termination
- DC clamp switch provides a stable reference for the black level •19-inch EIA standard rack mountable •Front controls: Power, INPUT select, H-hold, V-hold, contrast and brightness
- High immunity to external electrical and magnetic interference •Suitable for many monitoring applications

Supplied accessory: Operating Instruction Manual

Optional accessory: Mounting Bracket RMM-171

Specifications

Video signal system:	EIA standard
Picture tube:	17-inch B/W measured diagonally, 90° deflection
Video input:	Impedance 75 Ω /high switchable Level 0.5 to 2.0 Vp-p, sync negative, BNC-type (2)
Video output:	Impedance more than 10 k Ω , loop-through, BNC-type (2)
Horizontal resolution:	More than 850 TV lines (at center)
Power requirements:	AC 120 V, 50/60 Hz
Power consumption:	35 W
Operating temperature:	0 to 35 °C (32 to 95 °F)
Storage temperature:	-10 to 40 °C (14 to 104 °F)
Dimensions:	424 (W) $\times$ 409 (H) $\times$ 380 (D) mm (16 $\frac{3}{4}$ $\times$ 16 $\frac{1}{8}$ $\times$ 15 inches)
Mass:	17.5 kg (38 lb 9 oz)



2-2 Monochrome monitors

12" SSM-125

Monochrome monitor

- EIA standard
- 12-inch CRT size
- Excellent picture quality with more than 750 TV lines horizontal resolution
- Dual loop-through video inputs, with switchable 75 Ω termination
- DC clamp switch provides a stable reference for the black level
- Front controls: Power, INPUT select, H-hold, V-hold, contrast and brightness
- High immunity to external electrical and magnetic interference
- Suitable for many monitoring applications

Supplied accessory: Operating Instruction Manual

Specifications

Video signal system:	EIA standard
Picture tube:	12-inch B/W measured diagonally, 90° deflection
Video input:	Impedance 75 Ω /high switchable Level 0.5 to 2.0 Vp-p, sync negative, BNC-type (2)
Video output:	Impedance more than 10 k Ω , loop-through, BNC-type (2)
Horizontal resolution:	More than 750 TV lines (at center)
Power requirements:	AC 120 V, 50/60 Hz
Power consumption:	30 W
Operating temperature:	0 to 35 °C (32 to 95 °F)
Storage temperature:	-10 to 40 °C (14 to 104 °F)
Dimensions:	296 (W) $\times$ 303 (H) $\times$ 300.5 (D) mm (11 $\frac{3}{4}$ $\times$ 12 $\times$ 11 $\frac{7}{8}$ inches)
Mass:	9.2 kg (20 lb 5 oz)



2-2 Monochrome monitors

9" SSM-930

Monochrome monitor

- EIA standard •9-inch CRT size •Excellent picture quality with more than 750 TV lines horizontal resolution •Loop-through video input with switchable 75 Ω termination •DC clamp switch provides a stable reference for the black level •19-inch EIA standard rack mountable for dual monitor configuration
- Front controls: Power, H-hold, V-hold, contrast and brightness
- High immunity to external electrical and magnetic interference
- Suitable for many monitoring applications

Supplied accessory: Operating Instruction Manual

Specifications

Video signal system:	EIA standard
Picture tube:	9-inch B/W measured diagonally, 90° deflection
Video input:	Impedance 75 Ω /high switchable Level 0.5 to 2.0 Vp-p, sync negative, BNC-type
Video output:	Impedance more than 10 k Ω , loop-through, BNC-type
Horizontal resolution:	More than 750 TV lines (at center)
Power requirements:	AC 120 V, 50/60 Hz
Power consumption:	27 W
Operating temperature:	0 to 40 °C (32 to 104 °F)
Storage temperature:	-10 to 65 °C (14 to 149 °F)
Dimensions:	220 (W) $\times$ 219 (H) $\times$ 252.8 (D) mm (8 $\frac{3}{4}$ $\times$ 8 $\frac{5}{8}$ $\times$ 10 inches)
Mass:	5.8 kg (13 lb)



3 Switchers

YS-S6

Six-channel sequential switcher

- Compact-size sequential switcher for small surveillance systems
- Six VIDEO INPUTs with loop-through capability
- Accepts also CCIR/PAL signal
- Pictures from connected cameras which don't have to be monitored can be skipped by the use of SKIP buttons 1 through 6
- Dwell time is selectable anywhere from 1 to 30 seconds per camera input
- Both Auto/Manual switching modes are available

Supplied accessory: Operation manual (1)

Note: AC Adapter is optional



Specifications

General

- Power requirements: DC 9 V
Power consumption: Approx. 1.0 W
Operating temperature: 0 to 40°C (32 to 104°F)
Storage temperature: -20 to 60°C (-4 to 140°F)
Dimensions
220 (W) × 96 (H) × 265.5 (D) mm
(8³/₄ × 3⁷/₈ × 10¹/₂ inches)
Mass: Approx. 2.1 kg (4 lb 10 oz)

Input signals

- VIDEO INPUT 1 to 6: BNC type, 1.0 Vp-p, 75 Ω, unbalanced, sync negative
DC IN: DC jack type, DC 9 V
(DC 7 V to 15 V is allowed)

Output signals

- VIDEO OUTPUT 1 to 6: BNC type, loop-through output of VIDEO INPUT, 75 Ω termination ON/OFF switchable
SELECT VIDEO OUT: BNC type, 1.0 Vp-p, 75 Ω, unbalanced, sync negative



4 Quad Switcher

YS-Q440

Quad switcher

- High performance Quad Image Splitter with an auto sequential switcher
- Up to four compressed, split pictures can be simultaneously displayed on a single monitor and recorded on a single VCR
- Automatic switching between up to four cameras can also be performed on a monitor and the switching interval can be selected in one-second increments from 1 to 30 seconds
- Either asynchronous or synchronous, color or black & white cameras can be connected
- 8-bit signal processing and four field memories provide high picture quality compressed images
- Up to eight characters can be superimposed onto each of the four compressed pictures
- The built-in date and time generator allows time and date information to be displayed
- Freeze picture function (Quad mode only)
- Alarm function
- Video loss detection
- RS-232 remote control port

Supplied accessories: Rack mounting bracket (for EIA standard rack)
AC power cord
Operating instruction manual

Specifications

General

Video signal system: NTSC/EIA standard
Power requirements: AC 100 to 120 V, 60 Hz
Power consumption: Less than 10 W
Operating temperature: 0 to 40°C (32 to 104°F)
Storage temperature: -20 to 60°C (-4 to 140°F)
Mass: Approx. 3.8 kg (8 lb 4 oz)

Video input/output

Video input: VIDEO INPUT CH1 to CH4, 1.0 Vp-p, 75 Ω
automatic termination
Input (BNC type) (4)
Loop through output (BNC type) (4)

Video output: VIDEO OUT (BNC type) (1)
Quad-picture image signal
1.0 Vp-p, 75 Ω
VIDEO OUT (BNC type) (1)
Quad, Sequential, Full screen signal (selectable)
1.0 Vp-p, 75 Ω

Sync

External SYNC IN 1.0 Vp-p, 75 Ω VBS or VS signal
External SYNC OUT 1.0 Vp-p, 75 Ω VBS or VS signal

Control

Remote connector: REMOTE (D-sub 9 pin RS-232C port)
Alarm input: ALARM IN terminal (4)
CMOS "L" level or MAKE
Alarm output: ALARM OUT terminal (1)
Relay Out, switching DC 30 V at up to 2 A
RESET OUT terminal (1)
Open Collector Output up to 12 V 20 mA

Other

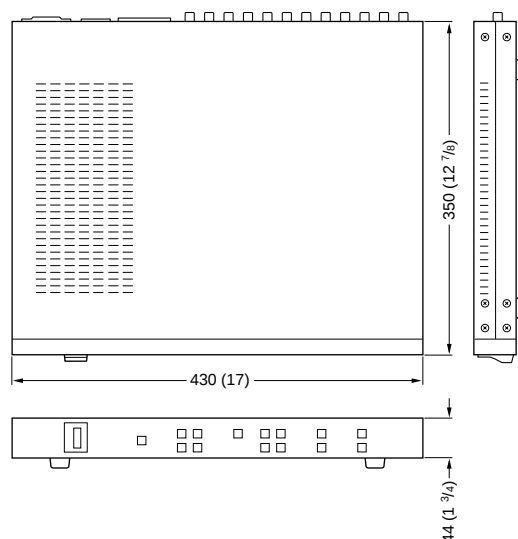
Alarm hold duration: 1 to 30 s (one second increments)
30 to 180 s (ten second increments)
Manual

Auto sequential duration: 1 to 30 s (one second increments)

Picture tone: 8-bit video (256 gradations)



Dimensions



5 Multiplexers

YS-DX516/DX416

Multiplexer

•Full duplex video multiplexer with up to 16 camera inputs
•Either asynchronous or synchronous cameras can be connected
•Multiplex recording to one VCR while switching between each camera by a field for precise surveillance of multiple points
•Live pictures can be displayed in full screen, sequence, quad and multi-screen (4/7/9/13/16) while simultaneously recording
•Playback can be reviewed in full screen, sequence, and multi-screen (4/7/9/13/16)
•1-Field switching
•Individual sequence dual time
•Individual alarm duration/output
•Activity detection
•Monitor masking
•Post alarm
•RS-232C/RS-485 compatible
•Menu: English/French/Spanish

Specifications

General

Video Signal System: DX516: NTSC standard, DX416: EIA standard
Power requirements: AC 120 V, 60 Hz
Power consumption: DX516: 20 W
DX416: 18 W
Operating temperature: 5 to 40°C (40 to 105°F)
Mass: 4.1 kg (9 lb 1 oz)
Dimensions: 86(H) × 420(W) × 325(D) mm
(3 ½ × 16 ⅝ × 12 ⅞) inches

Video inputs

Camera input 1 to 16: DX516: BNC type, VS or VBS, 1.0 Vp-p, 75 W
DX416: BNC type, VS, 1.0 Vp-p, 75 W
VCR input: DX516: BNC type, VS or VBS, 1.0 Vp-p, 75 W, Auto termination type
DX416: BNC type, VS, 1.0 Vp-p, 75 W
S-VHS Y/C inputs: DX516 only: Din Connector, Y: 1.0 Vp-p, 75 W
C: 0.286 Vp-p, 75 W

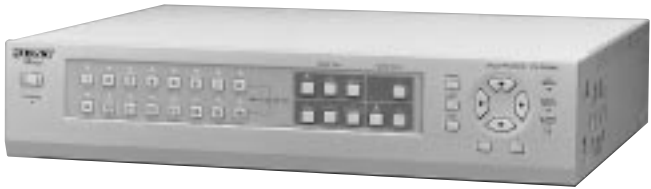
Video outputs

Camera output 1 to 16: DX516: BNC type, VS or VBS, 1.0 Vp-p, 75 W
DX416: BNC type, VS, 1.0 Vp-p, 75 W
Monitor 1 output: DX516: BNC type (1), VS or VBS
DX416: BNC type (1), VS
Monitor 2 output: DX516: BNC type (1), VS or VBS
DX416: BNC type (1), VS
VCR output: DX516: BNC type, VS or VBS, 1.0 Vp-p, 75 W
DX416: BNC type, VS, 1.0 Vp-p, 75 W
S-VHS Y/C output: DX516 only: Din Connector, Y: 1.0 Vp-p, 75 W
C: 0.286 Vp-p, 75 W

Other

Synchronization: Asynchronous individual inputs
Alarm output: DC 5 V 5.7 kW
Alarm duration: 10, 20, 30, 40, 50, 60, CC* s
Switch input from VCR: Low active 100 kW pull-up
Control terminal: RS-232C (D-sub 9 pin), RS-485 (RJ-11)
Alarm input: contact close (16)
Remote control input: Alarm output, Sensor alarm output, Switch in
Sequence time: 1.0 to 30 s (1.0 s increments)
On-screen display: 10 character title, date/time
Buzzer: ON/OFF

* Stays in alarm mode for as long as alarm input remains active



YS-DX516



YS-DX416



YS-DX516



YS-DX416

6-1 Time lapse video recorders

SVT-S3100

S-VHS time lapse videocassette recorder

•High horizontal resolution of 400 TV lines using S-VHS format •Excellent signal-to-noise ratio of 45 dB •Seven different time lapse recording/playback modes are available in addition to the standard mode (2-hour time mode) with a normal 120-minute tape

TIME MODE (h)	2	12	24	48	72	96	120	168
INTERVAL (s)	1/60	0.12	0.22	0.42	0.62	0.82	1.02	1.42

Note: In time lapse modes, it is possible to additionally record two hours longer than the original modes.

•Adaptive Picture Control (APC) delivers optimum picture quality to the recording image •A tape recorded in the 2-hour mode can be played back by any S-VHS or VHS VTR •Audio recording and playback are possible in 2, 12 and 24-hour modes •Built-in time and date generator allows time and date information to be displayed along with the Alarm Count and Recording/Playback speed •Various recording modes such as Auto Repeat Recording, Timer Recording and Alarm Recording for versatile situations •By using alarm recall and scan functions, pictures recorded during alarm mode can be easily checked •Field-by-field picture playback capability (Forward only) •On-screen display permits easy-to-follow operation •Auto head cleaning function •Tape before-end signal output capability •Warning signal output capability •Power-failure protection for up to 30 days •Security lock function for avoiding accidental operation errors •External control capability via an optional RS-232C interface •Remote control capability of basic operational functions through ø3.5 mm mini jack

Supplied accessories: AC power cord (1)
Operation manual (1)
Optional accessories: RS-232C interface board SVT-RS1A
Remote control unit SVT-RM10
TLV parts kit TPK-S881

Specifications

General

Tape format: S-VHS or VHS
Power requirements: AC 120 V, 60 Hz
Power consumption: 22 W
Operating temperature: 5 to 40°C (41 to 104°F)
Operating humidity: Less than 80 %
Dimensions: 420 (W) × 100 (H) × 340 (D) mm
(16 5/8 × 4 × 13 1/2 inches)
Mass: Approx. 5.8 kg (12 lb 13 oz)
Tape speed: 33.35 mm/sec (2-hour mode)
Recording/playback time: 2, 12, 24, 48, 72, 96, 120 and 168 hours (with a T-120 tape)
Alarm recording speed: 2, 12-hour mode, NC*
Alarm recording duration: 20 s, 1 m, CC**
Fast forward/rewind time: Approx. 4 minutes (with a T-120 tape)

Video

Recording system: Rotary four-head helical scanning system
Luminance signal: FM recording
Color signal: Low-pass band-pass transformation direct recording
Input: BNC: 1.0 Vp-p, 75 Ω, unbalanced, sync negative
Y/C: (Mini DIN 4-pin)
Y: 1.0 Vp-p, 75 Ω, sync negative
C: 0.286 Vp-p, at burst level, 75 Ω
Output: BNC: 1.0 Vp-p, 75 Ω, unbalanced, sync negative
Y/C: (Mini DIN 4-pin)
Y: 1.0 Vp-p, 75 Ω, sync negative
C: 0.286 Vp-p, at burst level, 75 Ω
Horizontal resolution: Color mode: More than 400 TV lines
Black & White mode: More than 430 TV lines
Signal-to-noise ratio: 45 dB

* No change of recording speed

** Stays in alarm mode for as long as the alarm input remains active.

0 dBu = 0.775 Vrms



Audio

Audio recording mode: 2, 12 and 24-hour mode
Input: -7.8 dBu, 100 kΩ, unbalanced (phono jack)
Output: -7.8 dBu, 600 Ω, unbalanced (phono jack)
Microphone input: -60 dBu, high impedance (ø3.5 mm minijack)

Others

Alarm input: No voltage contact closure activated
Alarm output: +5 V, 5.7 kΩ
Tape end output: +5 V, 5.7 kΩ
Switch output: +5 V, 5.7 kΩ
Warning output: +5 V, 5.7 kΩ
Timer output: +12 V, 5.7 kΩ
Control terminals: ø3.5mm mini jack
Optional RS-232C interface (D-sub 9-pin)

6-1 Time lapse video recorders

SVT-5050

Time lapse videocassette recorder

•Twelve different time lapse recording/playback modes are available in addition to the standard mode (2-hour time mode) with a normal 120-minute tape

TIME MODE (h)	2	12	24	48	72	96	120	168	240	360	480	720	960
INTERVAL (s)	1/60	0.12	0.22	0.42	0.62	0.82	1.02	1.42	2.02	3.02	4.02	6.02	8.02

Note: In time lapse modes, it is possible to additionally record two hours longer than the original modes.

•Adaptive Picture Control (APC) delivers optimum picture quality to the recording image •A tape recorded in the 2-hour mode can be played back by any VHS VTR •Audio recording and playback are possible in 2,12 and 24-hour modes •Built-in time and date generator allows a required scene to be easily searched by presetting the desired time and date •Multiple recording modes such as Auto Repeat Recording, Timer Recording, Alarm Recording, One-shot Recording and Series Recording for versatile situations •Holiday setting function •Daylight Saving Time setting function •Quick recording check function •By using alarm recall/scan/search functions, pictures recorded during alarm mode can also be easily checked •Field-by-field picture playback capability •External timer input capability •Automatic clock setting is possible when several VTRs are connected •On-screen display permits easy-to-follow operation •Auto head cleaning function •Tape before-end signal output capability •Warning signal output capability •Buzzer function •Power-failure protection for up to 30 days •Security lock function for avoiding accidental operation errors •External control capability via an optional RS-232C interface •Remote control capability of basic operational functions through ø3.5 mm mini jack

Supplied accessories: AC power cord (1)
Operation manual (1)
Optional accessories: RS-232C interface board SVT-RS1A
Remote control unit SVT-RM10
TLV parts kit TPK-883

Specifications

General

Weight: Approx. 4.3 kg (9 lb 6 oz)
Dimensions: 420 (W) × 100 (H) × 300 (D) mm
(16 5/8 × 4 × 11 7/8 inches)
Power requirements: 120 V, 60 Hz
Power consumption: 17 W
Operating temperature: 5 to 40 °C (41 to 104 °F)
Operating humidity: 80 % or less
Fast forward/rewind time: Approx. 100 seconds (when using T-120 tape)

System

Color system: NTSC color
Video Recording System: Dual-head rotating helical scanning system
Tape speed: 33.35 mm/sec (2-hour mode)
Recording & Playback time:
T-120 2, 12, 24, 48, 72, 96, 120 and 168 hours
Horizontal resolution: B/W 350 TV lines or more
Color 300 TV lines or more

Video Input/Output

Input: BNC (1), 1 Vp-p, 75 Ω, unbalanced
Output: BNC (1), 1 Vp-p, 75 Ω, unbalanced
S/N ratio: 44 dB

Audio Input/Output

Audio recording system: Monaural
Input: Phono (1), -8 dBs, 47 kΩ, unbalanced
Output: Phono (1), -8 dBs, 600 Ω, unbalanced
Microphone Input: 3.5 mm minijack (1), -60 dBs, 600 Ω
Distortion: Less than 4 %
Audio S/N ratio: 42 dB



Others

Alarm input: Low level, terminal trip (1)
Alarm output: +5 V, 5.7 kΩ (low active), terminal trip (1)
Switch output: +5 V, 5.7 kΩ, terminal trip (1)
Tape end output: +5 V, 5.7 kΩ (low active), terminal trip (1)
Warning output: +5 V, 5.7 kΩ (low active), terminal trip (1)
External timer input: Low level, terminal trip (1)
Clock set output: +5 V, 5.7 kΩ (low active), terminal trip (1)
Clock set input: Low level, terminal trip (1)
Series output: +5 V, 5.7 kΩ (low active), terminal trip (1)
Series input: Low level
Remote control input: 3.5 mm minijack (1)
Control terminals: RS-232C, RS-485

6-1 Time lapse video recorders

SVT-168

Time lapse videocassette recorder

•Reality Regenerator provides clearer, more accurate pictures during playback •Six different time lapse recording/playback modes are available in addition to the standard mode (2-hour time mode) with a normal 120-minute tape

TIME MODE (h)	2	12	24	48	72	96	120	168
INTERVAL (s)	1/60	0.12	0.22	0.42	0.62	0.82	1.02	1.42

Note: In time lapse modes, it is possible to additionally record two hours longer than the original modes.

•Fast forward and rewind: 100 seconds with an entire T-120 tape •Quick start mechanism for smooth operation •Adaptive Picture Control (APC) delivers optimum picture quality to the recording image •A tape recorded in the 2-hour mode can be played back by any VHS VTR •Audio recording and playback are possible in 2,12 and 24-hour modes •Built-in time and date generator allows time and date information to be displayed along with the alarm count and recording/playback speed •Various recording modes such as auto repeat recording, timer recording and alarm recording for versatile situations •Holiday setting function •Daylight saving Time setting function •Quick recording check function •By using alarm recall and scan functions, pictures recorded during alarm mode can also be easily checked •Field-by-field picture playback capability •External timer input capability •Automatic clock setting is possible when several VTRs are connected •Real time display indicates real operating times in recording or stop modes •On-screen display permits easy-to-follow operation •Auto head cleaning function •Thread check •Clog detection •Tape end out •Warning signal output capability •Records the number of the time tape used on the beginning of the tape for checking •Buzzer function •Power saving mode •Power-failure protection for up to 30 days •Security lock function for avoiding accidental operation errors •External control capability via supplied RS-232C/485 interface •Loop-through capability •Remote control capability of basic operational functions through ø3.5 mm mini jack

Supplied accessories: AC power cord (1)
Operation manual (1)
Optional accessories: Remote control unit SVT-RM10

Specifications

General

Mass: Approx. 4.3 kg (9 lb 6 oz)
Dimensions: 420 (W) × 100 (H) × 300 (D) mm
(16⁵/₈ × 4 × 11⁷/₈ inches)
Power requirements: 120 V, 60 Hz
Power consumption: 17 W
Operating temperature: 5 °C to 40°C (41 °F to 104°F)
Operating humidity: 80% or less
Fast forward/rewind time: Approx. 100 seconds (when using T-120 tape)

System

Video signal: EIA standard (monochrome)/NTSC (color)
Recording/Playback system: Rotary four-head helical scanning system
Tape speed: 33.35 mm/sec (2-hour mode)
Recording/Playback time T-120: 2, 12, 24, 48, 72, 96, 120 and 168 hours
Horizontal resolution: B/W 350 TV lines or more
Color 300 TV lines or more

Video Input/Output

Input: BNC (1), 1.0 Vp-p, 75 Ω, unbalanced
Output: BNC (1), 1.0 Vp-p, 75 Ω, unbalanced
S/N ratio: 44 dB



Audio Input/Output

Audio recording system: Monaural
Input: Phono (1), -8 dBs, 47 kΩ unbalanced
Output: Phono (1), -8 dBs, 600 Ω unbalanced
Microphone input: ø3.5 mm minijack (1) -60 dBs, 600 Ω
Distortion: Less than 4%
Audio S/N ratio: 42 dB

Others

Alarm input: Low level, terminal trip (1)
Alarm output: +5 V, 5.7 kΩ (low active), terminal trip (1)
Switch output: +5 V, 5.7 kΩ, terminal trip (1)
Tape end output: +5 V, 5.7 kΩ (low active), terminal trip (1)
Warning output: +5 V, 5.7 kΩ (low active), terminal trip (1)
External timer input: Low level, terminal trip (1)
Clock set output: +5 V, 5.7 kΩ (low active), terminal trip (1)
Clock set input: Low level, terminal trip (1)
Series output: +5 V, 5.7 kΩ (low active), terminal trip (1)
Series input: Low level
Remote control input: ø3.5 mm mini jack (1)
Control terminals: RS-232C, RS-485

6-1 Time lapse video recorders

SVT-LC300

Time lapse videocassette recorder

•Sony's 'RealAction' technology allows high density recording of 20 fields per second •Maximum 96-hour time lapse recording mode is available with a normal 120-minute tape

TIME MODE (h)	6	18	30	48	72	96
INTERVAL (s)	1/60	1/20	1/12	0.15	0.22	0.28

•Adaptive Picture Control (APC) delivers optimum picture quality to the recording image •Audio recording and playback are possible in 6, 18, 30-hour modes •Built-in time and date generator allows time and date information to be displayed along with the Alarm count and Recording/Playback speed •Various recording modes such as Auto Repeat Recording, Timer Recording, Alarm Recording and Series Recording for versatile situations •Daylight Saving Time setting function •Holiday setting function •Camera switcher interface •Quick recording check function •By using alarm recall, scan and search functions, pictures recorded during alarm mode can be easily checked •Field-by-field picture playback capability •External timer input capability •Automatic clock adjusting is possible when several VCRs are used •On-screen display permits easy-to-follow operation •Auto head cleaning function •Tape before-end/Tape-end signal output capabilities •Warning signal output capability •Buzzer function •Power-failure protection for up to 30 days •Security lock function for avoiding accidental operation errors •Loop-through capability enables video and audio to be output through to the monitor automatically •Clog detection function •Remote control capability of basic operational functions through ø3.5 mm mini jack

Supplied Accessories AC power cable
 Operation manual

Optional Accessories Remote control unit SVT-RM10
 TLV parts kit TPK-952

Specifications

General

Mass: 3.8 kg (8 lb 6 oz)
Dimensions: 240(W) × 96.5 (H) × 333 (D) mm
(9 1/2 × 3 7/8 × 13 1/8 inches)
Power requirements: AC 120V, 60 Hz
Power consumption: 18 W
Operating temperature: 5°C to 40°C (41°F to 104°F)
Operating humidity: Less than 80%

System

Video signal: EIA standard (monochrome)/NTSC (color)
Recording system: Rotary four-head helical scanning system
Tape speed: 11.11 mm/second (6 or 8-hour mode)
Recording/Playback mode: 6, 18, 30, 48, 72, 96 hours (with a T-120 tape)
8, 24, 40, 64, 96, 126 hours (with a T-160 tape)
Fast forward/Rewind time: Approx. 2.5 minutes (with a T-120 tape)

Video

Input: 1.0 Vp-p, 75 Ω, unbalanced (BNC type)
Output: 1.0 Vp-p, 75 Ω, unbalanced (BNC type)
Horizontal resolution: Color mode: More than 300 TV lines
Black & white mode: More than 350 TV lines
Signal-to-noise ratio: 43 dB

Audio

Audio recording system: Monaural
Input: -7.8 dBu, 47 kΩ (Phono jack)
Output: -7.8 dBu, 600 Ω (Phono jack)
Microphone input: -60 dBu, 600 Ω (3.5 mm mini jack)
Distortion: Less than 4%
Audio signal-to-noise ratio: 40 dB



Others

Alarm input: Low level
Alarm output: +5 V, 5.7 kΩ (Low active)
Switch output: +5 V, 5.7 kΩ
Tape end output: +5 V, 5.7 kΩ (Low active)
Warning output: +5 V, 5.7 kΩ (Low active)
Timer output: +5 V, 5.7 kΩ (High active)
External timer input: Low level
Clock set output: +5 V, 5.7 kΩ (Low active)
Clock set input: Low level,
Series output: +5 V, 5.7 kΩ (Low active)
Remote control input: Stereo mini pin (1)

* Stays in alarm mode for as long as the alarm input remains active.
0 dBu = 0.775 Vrms

6-1 Time lapse video recorders

SVT-124

Time lapse videocassette recorder

•Two different time lapse recording/playback modes are available in addition to the standard mode (2-hour time mode) with a normal 120-minute tape

TIME MODE (h)	2	12	24
INTERVAL (s)	1/60	0.12	0.22

•Compact and lightweight •Adaptive Picture Control (APC) delivers optimum picture quality to the recording image •Audio recording and playback are possible in 2, 12 and 24-hour modes •Built-in time and date generator allows time and date information to be displayed along with the Alarm Count and Recording/Playback speed •Various recording modes such as Auto Repeat Recording, Timer Recording and Alarm Recording for versatile situations •Holiday setting function •Daylight Saving Time setting function •Camera switcher interface •Quick recording check function •By using alarm recall and scan functions, pictures recorded during alarm mode can be easily checked •External timer input capability •On-screen display permits easy-to-follow operation •Auto head cleaning function •Tape before-end signal output / Tape-end signal output capabilities •Warning signal output capability •Buzzer function •Power-failure protection for up to 30 days •Security lock function for avoiding accidental operation errors •Clog detection function •Remote control capability of basic operational functions through Ø3.5 mm mini jack

Supplied accessories: AC power cord (1)
Operation manual (1)
Optional accessory: Remote control unit SVT-RM10
TVL parts kit TPK-951

Specifications

General

Power requirements: AC 120 V, 60 Hz
Power consumption: 18 W
Operating temperature: 5 to 40°C (41 to 104°F)
Operating humidity: Less than 80 %
Dimensions: 240 (W) × 96.5 (H) × 333 (D) mm
(9½ × 3⅞ × 13¼ inches)
Mass: Approx. 3.8 kg (8 lb 6 oz)
Tape speed: 33.33 mm/sec (SP mode)
Recording/playback time: 2, 12 and 24 hours (with a T-120 tape)
Alarm recording speed: 2-hour mode
Alarm recording duration: 20 s, 40 s, 1 m, 2 m, 3 m, 5 m, CC*, TRIG
Fast forward/rewind time: Approx. 2.5 minutes (with a T-120 tape)

Video

Recording system: Rotary four-head helical scanning system
Luminance signal: FM recording
Color signal: Low-pass band-pass transformation
direct recording
Input: 1.0 Vp-p, 75 Ω, unbalanced (BNC type)
Output: 1.0 Vp-p, 75 Ω, unbalanced (BNC type)
Horizontal resolution: Color mode : More than 300 TV lines
Black & White mode : More than 350 TV lines
Signal-to-noise: 44 dB

Audio

Audio recording system: Monaural
Audio recording mode: 2, 12 and 24-hour modes
Input: -7.8 dBu, 47 kΩ (phono jack)
Output: -7.8 dBu, 600 Ω (phono jack)
Microphone input: -60 dBu, 600 Ω (Ø3.5 mm mini jack)
Distortion: Less than 4 %
Audio signal-to-noise: 42 dB

Others

Alarm input: Low level
Alarm output: +5 V, 5.7 kΩ (Low active)
Switch output: +5 V, 5.7 kΩ (Low active)
Tape end output: +5 V, 5.7 kΩ (Low active)
Warning output: +5 V, 5.7 kΩ (Low active)
External timer input: Low level
Remote/Tally: Stereo mini pin
AC input: 3-pin inlet

* Stays in alarm mode for as long as the alarm input remains active.
0dBu = 0.775Vrms



6-1 Time lapse video recorders

SVT-168E

Time lapse videocassette recorder

•Sony's 'RealAction' technology allows high density recording of 20 fields per second (24-hour mode) •Reality Regenerator provides clearer, more accurate pictures during playback •Maximum 168-hour time lapse recording mode is available with a normal 120-minute tape

TIME MODE (h)	6	18	30	48	72	96	120	168
INTERVAL (s)	1/60	1/20	1/12	0.15	0.22	0.28	0.35	0.48

•Fast forward and rewind: 100 seconds with an entire T-120 tape •Quick start mechanism for smooth operation •Adaptive Picture Control (APC) delivers optimum picture quality to the recording image •Audio recording and playback are possible in 6, 18 and 30-hour modes •Built-in time and date generator allows time and date information to be displayed along with the alarm count and recording/playback speed •Various recording modes such as auto repeat recording, timer recording, alarm recording and series recording for versatile situations •Daylight saving time setting function •Holiday setting function •Camera switcher interface •Quick recording check function •By using alarm recall and scan functions, pictures recorded during alarm mode can be easily checked •Field-by-field picture playback capability •External timer input capability •Automatic clock adjusting is possible when several VTRs are used •Real time display indicates real operating times in recording or stop modes •On-screen display permits easy-to-follow operation •Auto head cleaning function •Thread check •Clog detection •Tape end out •Warning signal output capability •Records the number of the time tape used on the beginning of the tape for checking •Buzzer function •Power saving mode •Power-failure protection for up to 30 days •Security lock function for avoiding accidental operation errors •External control capability via supplied RS-232C/485 interface •Loop-through capability •Loop-through capability enables video and audio to be output through to the monitor automatically •Clog detection function •Remote control capability of basic operational functions through ø3.5 mm mini jack

Supplied accessories: AC power cord (1)
Operation manual (1)
Optional accessories: Remote control unit SVT-RM10

Specifications

General

Mass: Approx. 4.3 kg (9 lb 6 oz)
Dimensions: 420 (W) × 100 (H) × 300 (D) mm
(16 5/8 × 4 × 11 7/8 inches)
Power requirements: 120 V, 60 Hz
Power consumption: 17 W
Operating temperature: 5 to 40 °C (41 to 104 °F)
Operating humidity: 80 % or less
Fast forward/rewind time: Approx. 100 seconds (when using T-120 tape)

System

Video signal: EIA standard (monochrome)/NTSC (color)
Recording/Playback system: Rotaty four-head helical scanning system
Tape speed: 11.12 mm/sec (6 or 8-hour mode)
Recording/Playback time:
T-120 6, 18, 30, 48, 72, 96, 120, 168 hours
T-160 8, 24, 40, 64, 96, 128, 160, 224 hours
Horizontal resolution: B/W 350 TV lines or more
Color 300 TV lines or more



Video Input/Output

Input: BNC (1), 1 Vp-p, 75 Ω, unbalanced
Output: BNC (1), 1 Vp-p, 75 Ω, unbalanced
S/N ratio: 44 dB

Audio Input/Output

Audio recording system: Monaural
Input: Phono (1), -8 dBs, 47 kΩ, unbalanced
Output: Phono (1), -8 dBs, 600 Ω, unbalanced
Microphone Input: ø3.5 mm minijack (1), -60 dBs, 600 Ω
Distortion: Less than 4 %
Audio S/N ratio: 42 dB

Others

Alarm input: Low level, terminal trip (1)
Alarm output: +5 V, 5.7 kΩ (low active), terminal trip (1)
Switch output: +5 V, 5.7 kΩ, terminal trip (1)
Tape end output: +5 V, 5.7 kΩ (low active), terminal trip (1)
Warning output: +5 V, 5.7 kΩ (low active), terminal trip (1)
External timer input: Low level, terminal trip (1)
Clock set output: +5 V, 5.7 kΩ (low active), terminal trip (1)
Clock set input: Low level, terminal trip (1)
Series output: +5 V, 5.7 kΩ (low active), terminal trip (1)
Series input: Low level
Remote control input: ø3.5 mm minijack (1)
Control terminals: RS-232C, RS-485

6-1 Time lapse video recorders

SVT-40E

Time lapse videocassette recorder

•Sony's 'RealAction' technology allows high density recording of 20 fields per second (24-hour mode) •Reality Regenerator provides clearer, more accurate pictures during playback •2 different time lapse recording/playback modes are available in addition to the standard mode (8-hour time mode) with a normal 160-minute tape

TIME MODE (h)	8	24	40
INTERVAL (s)	1/60	1/20	1/12

•Fast forward and rewind: 100 seconds with an entire T-120 tape •Quick start mechanism for smooth operation •Adaptive Picture Control (APC) delivers optimum picture quality to the recording image •Audio recording and playback are possible in 8, 24 and 40-hour modes •Built-in time and date generator allows time and date information to be displayed along with the alarm count and recording/playback speed •Multiple recording modes such as auto repeat recording, timer recording, alarm recording and series recording for versatile situations •Holiday setting function •Daylight saving time setting function •Quick recording check function •By using alarm recall and scan functions, pictures recorded during alarm mode can also be easily checked •Field-by-field picture playback capability •External timer input capability •Automatic clock setting is possible when several VTRs are used •Real time display indicates real operating times in recording or stop modes •On-screen display permits easy-to-follow operation •Auto head cleaning function •Thread check •Clog detection •Tape end out •Warning signal output capability •Records the number of the time tape used on the beginning of the tape for checking •Buzzer function •Power saving mode •Power-failure protection for up to 30 days •Security lock function for avoiding accidental operation errors •External control capability via supplied RS-232C/485 interface •Loop-through capability •Remote control capability of basic operational functions through ø3.5 mm mini jack

Supplied accessories: AC power cord (1)
Operation manual (1)
Optional accessories: Remote control unit SVT-RM10

Specifications

General

Mass: Approx. 4.3 kg (9 lb 6 oz)
Dimensions: 420 (W) × 100 (H) × 300 (D) mm
(16 5/8 × 4 × 11 7/8 inches)
Power requirements: 120 V, 60 Hz
Power consumption: 17 W
Operating temperature: 5 to 40 °C (41 to 104 °F)
Operating humidity: 80 % or less
Fast forward/rewind time: Approx. 100 seconds (when using T-120 tape)

System

Video signal: EIA standard (monochrome)/NTSC (color)
Recording/Playback system:

Rotary four-head helical scanning system

Tape speed: 11.12 mm/sec (6 or 8-hour mode)
Recording/Playback time:

T-120 6, 18, 30 hours

T-160 8, 24, 40 hours

Horizontal resolution: B/W 350 TV lines or more
Color 300 TV lines or more

Video Input/Output

Input: BNC (1), 1 Vp-p, 75 Ω, unbalanced
Output: BNC (1), 1 Vp-p, 75 Ω, unbalanced
S/N ratio: 44 dB



Audio Input/Output

Audio recording system: Monaural

Input: Phono (1), -8 dBs, 47 kΩ, unbalanced
Output: Phono (1), -8 dBs, 600 Ω, unbalanced
Microphone Input: ø3.5 mm minijack (1), -60 dBs, 600 Ω
Distortion: Less than 4 %
Audio S/N ratio: 42 dB

Others

Alarm input: Low level, terminal trip (1)
Alarm output: +5 V, 5.7 kΩ (low active), terminal trip (1)
Switch output: +5 V, 5.7 kΩ, terminal trip (1)
Tape end output: +5 V, 5.7 kΩ (low active), terminal trip (1)
Warning output: +5 V, 5.7 kΩ (low active), terminal trip (1)
External timer input: Low level, terminal trip (1)
Clock set output: +5 V, 5.7 kΩ (low active), terminal trip (1)
Clock set input: Low level, terminal trip (1)
Series output: +5 V, 5.7 kΩ (low active), terminal trip (1)
Series input: Low level
Remote control input: ø3.5 mm minijack (1)
Control terminals: RS-232C, RS-485

6-1 Time lapse video recorders

SVT-DL224

Time lapse videocassette recorder

•Sony's 'RealAction' technology allows high density recording of 20 fields per second (24-hour mode) •Two alternative recording/playback modes are available with a normal 160-minute tape

TIME MODE (h)	8	24
INTERVAL (s)	1/60	1/20

- Compact and lightweight •DC 12 V power operation
- Adaptive Picture Control (APC) delivers optimum picture quality to the recording image •Audio recording and playback are possible in 8 and 24-hour modes •Built-in time and date generator allows time and date information to be displayed along with the Alarm Count and Recording/Playback speed •Various recording modes such as Auto Repeat Recording, Timer Recording and Alarm Recording for versatile situations •Daylight Saving Time setting function
- Camera switcher interface •Quick recording check function
- By using alarm recall and scan functions, pictures recorded during alarm mode can be easily checked •Field-by-field picture playback capability (Forward only) •External timer input capability •On-screen display permits easy-to-follow operation •Auto head cleaning function •Tape-end signal output capability •Warning signal output capability •Clog detection function •Power-failure protection for up to 30 days
- Security lock function for avoiding accidental operation errors •Overwrite inhibit function •Clog detection function
- Remote control capability of basic operational functions through ø3.5 mm mini jack

Supplied accessory: Operation manual (1)
Optional accessory: Remote control unit SVT-RM10
TVL parts kit TPK-952

Specifications

General

Power requirements: DC 10 V to 16 V
Power consumption: 18 W
Operating temperature: 5 to 40°C (41 to 104°F)
Operating humidity: Less than 80 %
Dimensions: 240 (W) × 96.5 (H) × 333 (D) mm
(9½ × 37½ × 13½ inches)
Mass: Approx. 3.8 kg (8 lb 6 oz)
Tape speed: 11.11 mm/sec (EP mode)
Recording time: 8 and 24 hours (with a T-160 tape)
Playback time: 8 and 24 hours, and 2 hours 40 minutes* (with a T-160 tape)
Alarm recording speed: 8-hour mode, NC**
Alarm recording duration: 20 s, 40 s, 1 m, 2 m, 3 m, 5 m, CC***, TRIG
Fast forward/rewind time: Approx. 3 minutes (with a T-160 tape)

Video

Recording system: Rotary four-head helical scanning system
Luminance signal : FM recording
Color signal : Low-pass band-pass transformation direct recording
Input: 1.0 Vp-p, 75 Ω, unbalanced (BNC type)
Output: 1.0 Vp-p, 75Ω, unbalanced (BNC type)
Horizontal resolution: Color mode : More than 300 TV lines
Black & White mode : More than 350 TV lines
Signal-to-noise: 43 dB

Audio

Audio recording system: Monaural
Audio recording mode: 8 and 24-hour modes
Input: -7.8 dBu, 47 kΩ (phono jack)
Output: -7.8 dBu, 600 Ω (phono jack)
Microphone input: -60 dBu, 600 Ω (ø3.5 mm mini jack)
Distortion: Less than 4 %
Audio signal-to-noise: 40 dB



Others

Alarm input: Low level
Alarm output: +5 V, 5.7 kΩ (Low active)
Switch output: +5 V, 5.7 kΩ (Low active)
Tape end output: +5 V, 5.7 kΩ (Low active)
Warning output: +5 V, 5.7 kΩ (Low active)
External timer input: Low level
DC input: DC 12 V terminals
Control terminals: ø3.5 mm mini jack

* This applies in the event that a tape recorded in SP mode is played back in EP mode.
* No change of recording speed
* Stays in alarm mode for as long as the alarm input remains active.
0 dBu = 0.775Vrms

6-2 Time lapse video recorders accessories

SVT-RM10

Remote Control Unit

- Works with all Sony SVT series time lapse VTRs
- Provides wired remote control operation for REC/PLAY/STOP/REW/FF/REV PLAY/PAUSE
- MENU button and REC/PLAY SPEED button are also available
- Cable Length: 2.4 m



SVT-RS1A

RS-232C Interface Board

- When installed in the SVT-S3100 and SVT-5050, this board allows these recorders to be remotely controlled from computers
- Connectable with standard RS-232C cable (male type)
- REC CHECK function is available



TLV parts kit

- Parts kit for all SVT-series time lapse VCRs
- A total of 19 parts including VCR cylinder and brake assembly

7-1 Digital surveillance recorder

HSR-1/HSR-2

Digital Surveillance Recorder

- Hybrid configuration of HDD and DV tape drive
- Four alternative quality modes: Super, High, Middle and Low modes
- Excellent picture quality provided by super mode with a horizontal resolution of more than 500 TV lines
- Large storage capacity(more than 60 GB) and long recording time by using DV cassette tape(270-minute tape) as a storage medium
- High refresh rate for recording of each camera
- High reliability on tape transport mechanism and heads offered by the hybrid configuration of HDD and DV tape drive.
- Compact body which matches that of a 14-inch monitor
- Compact storage medium which requires less space
- Up to 16 camera inputs provided by installing optional HSRA-11
- Built-in multiplexing capability which allows recording and monitoring of up to 16 camera inputs independently.
- A variety of monitoring patterns
- Two monitoring outputs for simultaneous playback on the first monitor and monitoring on the second monitor
- Five preset recording modes to be flexibly combined with picture quality mode, tape length, recording time, number of camera inputs and the recording cycle of each camera.
- Flexible camera assignment
- RS-232C interface for PC control
- Freely configurable 37-pin parallel port
- Flexibility in alarm mode
- Continuous recording function without breaks even while changing or rewinding the tape
- Sophisticated security functions
- Water mark
- Intelligent search functions: time/date search, alarm search, specific user data search and noiseless picture search
- Pre Alarm recording capability for event recording
- Power On recording capability
- Frame recording in hyper mode



Exclusive features for HSR-2

- Built-in triple multiplexing capability which allows simultaneous playback, recording and monitoring of up to 16 camera inputs
- Large HDD capacity

Supplied Accessories: AC power cord (1)
Operation manual (1)

Optional Accessories: HSRA-11 (Input Board)
SVRM-100A (Remote Control Unit)

Specifications

General

Mass: 10 kg (22 lb 1 oz)

Dimensions: 355 (W) x 125 (H) x 410 (D) mm
(14 x 5 x 16 1/4 inches)

Power requirements: AC 100 V ~ 120 V, 50/60 Hz

Power consumption: 58 W (without options)
78 W (with full options)

Operating temperature: 5 °C ~ 40 °C (41 °F ~ 104 °F)

Operating humidity: Less than 80 %

Usable tape: DV*1 or DVCAM*2 cassette tape
(standard size, mini size)

HDD capacity: More than 4 GB (HSR-1)
More than 20 GB (HSR-2)

System

Video signal: EIA standard, NTSC color

Recording system: Rotary two-head helical scanning system

Digital components

Quantization: 8-bit

Sampling frequency: 13.5 MHz (4:1:1 components)

Recording/Playback time: Maximum 9999 hours (Approx. 400 days)

Fast forward/Rewind time: Less than 3 min. (with a DV270 tape)

Video

Input: VBS, VS (BNC type):
1.0 Vp-p, 75 Ω, unbalanced

Output: VBS (BNC type):
1.0 Vp-p, 75 Ω, unbalanced

S-VIDEO (DIN 4-pin):
Y: 1.0 Vp-p, 75 Ω, sync negative
C: 0.286 Vp-p, 75 Ω, at burst level

Quality mode: SUPER, HIGH, MIDDLE and LOW mode (selectable)
(Field-by-field recording)
HYPER mode
(Frame-by-frame recording with a trigger signal)

Horizontal resolution: More than 500 TV lines (HYPER and SUPER mode)

Signal-to-noise ratio: More than 48 dB

Built-in Multiplexer

Input: 4 inputs (up to 16 inputs with optional boards)

Output: 2 outputs

Split screen display: 9 patterns

Connectors

Parallel input/output: D-SUB 37-pin (1)
Input: 24 terminals to be freely assigned
(Alarm, Clock set, Series rec, Alarm cancel, etc.)
Output: 8 terminals to be freely assigned
(Auto off, Tape end, Series rec, Rec tally, ect.)
Power output: +12 V (max 100 mA)

Control S: Stereo mini (1)

*1 The recorded tape by the HSR-1/HSR-2 cannot be played back on DV equipment.

*2 A DVCAM 184-minute tape can be used with the HSR-1/HSR-2. It has the same storage capacity as that of a DV 270-minute tape.

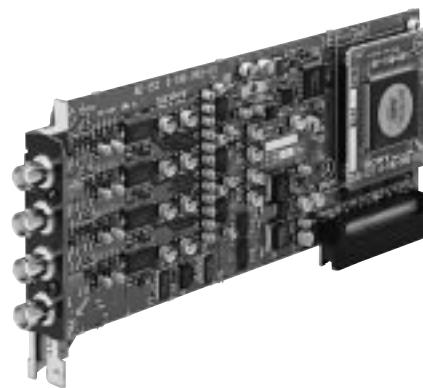
7-2 Digital surveillance recorder accessories

HSRA-11

Input Board for HSR-1/HSR-2

When installed in the HSR-1/HSR-2, this board enables signals from camera to be input to the unit.

Connector: Input : BNC (4)



SVRM-100A

Remote Control Unit for the HSR-1/HSR-2

- Provides wired remote control operation for STOP/REC/PAUSE/REW/PLAY/FFWD
- JOG/SHUTTLE operation

Specifications

Power requirements:	DC 5 V(supplied from the HSR-1)
Power consumption:	40 mW
Remote control:	Stereo mini plug
Control signal:	Control S
Dimensions:	90 (W) × 39 (H) × 182 (D) mm (3 5/8 × 1 9/16 × 7 1/4 inches)
Mass:	250 g (8.8 lb)



8-1 Video transmitter

RSE-500/400

RSE-500 and RSE-400 comparison

	Video		Voice		Control	
	Send	Receive	Send	Receive	Send	Receive
RSE-500	YES	YES	YES	YES	YES	YES
RSE-400	YES	NO	YES	YES	YES	YES

(Features of both RSE-500 and RSE-400)

- Transmission of smooth and clear video at a maximum of 30 frames per second via ISDN line
- Selectable picture transmission mode (Fast/Normal/Fine)
- Accept eight camera inputs which are selectable from a control center or local terminals
- I/O port to control camera pan/tilt and zoom lens
- Relay output port to control external devices (i.e. door locks, lights)
- Transmission and receiving capability of audio which allows conversation between two sites
- When an alarm signal is input to a terminal, it automatically activates the control center to switch the monitor to watch that terminal
- Compatible with a wide range of cameras, monitors, and TLV equipment
- Password protection
- An RS-232C serial interface for PC control
- Remote diagnostics

Supplied Accessories: RM-R500 Remote Control Unit (for RSE-500 only)
Size AA (LR6) alkaline batteries (2) (for RSE-500 only)
Operation manual
Menu sheet
AC power cord

Specifications

Video

Coding: H.261/H.236 (ITU-T recommendation)
Operating bandwidth: 56 kbps/64 kbps/112 kbps/128 kbps/384 kbps
Frame rate: Max. 30 frames per second
Picture elements: 352 pixels x 288 lines
Color difference (B-Y, R-Y) 176 pixels x 144 lines
Color system: NTSC (mutually connectable with PAL)
PinP: RSE-500 only

Input

Video In/Ext. Video In: 1 Vp-p, 75 Ω, sync negative (BNC type)
Video Out/Through Out: 1 Vp-p, 75 Ω, sync negative (BNC type)
Monitor Out: 1 Vp-p, 75 Ω, sync negative (BNC type)

Input connectors

Video In: RSE-500: 8
RSE-400: 8
Ext. Video In: RSE-500: 1
RSE-400: 1
Video Out: RSE-500: 1
RSE-400: -
Monitor Out: RSE-500: 1
RSE-400: 1

Audio

Coding: G.728 (ITU-T recommendation)
Transfer rate: 16 kbps
Bandwidth: 3.4 kHz

Input

Headphone Mic In: -60 dBu/4.7 kΩ, unbalanced (mini-jack)
Line Out: Variable, 4.7 kΩ (phono)
Headphone SP Out: Variable, 72 Ω (mini-jack)

Input connectors

Mic In: RSE-500: 1
RSE-400: 1
Headphone Mic In: RSE-500: 1
RSE-400: 1
Line Out: RSE-500: 1
RSE-400: 1
Headphone SP Out: RSE-500: 1
RSE-400: 1

Communications interface

Network

Multiplexing: Video, audio, data
Transmission rate: ISDN interface, 1B/2B
V 35 with RS-366 (56 k to 384 k)

Network connectors

ISDN BRI (S/T): RJ45
V 35 with RS-366: 36-pin half-pitch connector (2)

Computer control port

Interface: RS-232C
Baud rate: 1200/4800/9600/19200/34000 bps



RSE-500



RSE-400

Tablet input

Interface: RS-232C or RS-422
Baud rate: 9600 bps

User data I/O

I/O parallel

Alarm input: D-sub 9-pin
TTL input, pull-up resistance 10 kΩ
Relay control: D-sub 9 pin
Output mode: Open collector (40 V, 40 mA)
Input mode: TTL input, pull-up resistance 10 kΩ
Output mode: Open collector (40 V, 40 mA)
Input mode: TTL input, pull-up resistance 10 kΩ
Camera control: Mini-jack, SIRCS format

I/O serial

Baud rate: 1200/4800/9600/19200/34000 bps
Interface: RS-232C or RS-422 (1)
RS-232C or RS-485 (1)
RS-232C (1)

RS-232C: RSE-500: 3 (switchable with RS-422/485)
RSE-400: 3 (switchable with RS-422/485)

Alarm input: RSE-500: 8
RSE-400: 8

Relay output: RSE-500: 8
RSE-400: 8

Camera P I/O: RSE-500: 12
RSE-400: 12

SIRCS input: RSE-500: 1
RSE-400: 1

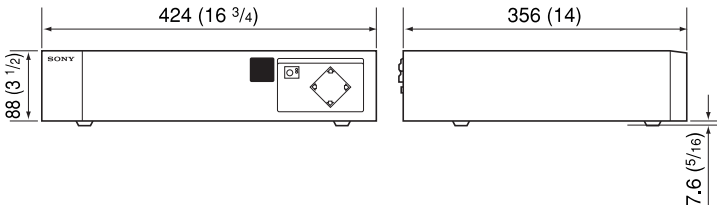
RS-485: RSE-500: (1)
RSE-400: (1)

Operation keys: Main unit keys, remote control, tablet (option)

General

Power requirements: AC 120 V, 50/60 Hz
Power consumption: 0.55 A
Operating temperature: 5 to 35°C (41 to 94°F)
Operating humidity: 20% to 80% (no condensation)
Storage temperature: - 20 to 60°C (- 4 to 140°F)
Storage humidity: 20% to 80% (no condensation)
Mass: 7.0 kg (15 lb 7 oz)

Dimensions



8-2 Video transmitter accessory

RM-R500

Remote Control Unit (for RSE-500 only)

- Remotely controls the RSE-500
- Choice of wired or wireless
- Control buttons include camera switching, tilt and lens control



9-1 Automotive monochrome video camera

SSC-530AM

CCD monochrome video camera

•Compact, lightweight and rugged construction •1/2-inch IT Hyper HAD CCD provides extremely high sensitivity with a minimum illumination of 0.3 lx •Wide angle view—a full 100 degrees horizontally, 80 degrees vertically •Built-in electret condenser microphone •Only single 4-pin Multiple Cable required between the SSC-530AM and the SSM-721AMR to transmit video and audio signals, together with DC power



- Supplied accessories:
- Camera bracket
 - Rubber cap
 - Adhesive
 - Self-fusing tape (2)
 - Angle adjusting screw (4)
 - 3mm allen key
 - 4mm washer (4)
 - 5mm hexagon head bolt (5)
 - 5mm washer (5)
 - Rubber nut (5)
 - Operating instruction manual
- Optional accessories:
- Camera cable VK-110A/120A (10 m/20 m)
 - Water-resistant extension cable VK-305 (5 m)
 - Water-resistant camera cable VK-310A/318A/320A (10/18/20 m)

Specifications

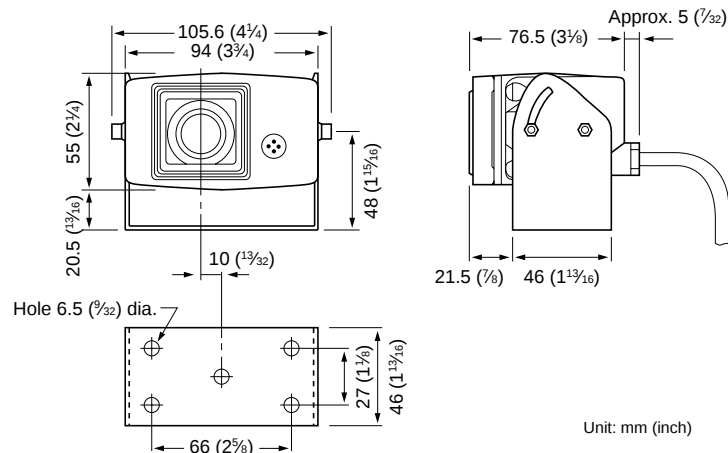
Image device: 1/2-inch Interline Transfer Hyper HAD CCD
 Picture elements: 510 (H) × 492 (V)
 Sensing area: 6.3 mm × 4.7 mm
 Lens: f=3.0 mm, F1.6 with auto-iris
 Signal system: EIA standard
 Scanning system: 525 lines, 2:1 interlace
 Synchronization: Internal
 Horizontal resolution: 380TV lines
 Minimum illumination: 0.3 lx
 Signal-to-noise ratio: 50 dB (AGC OFF)
 Video/audio output: 4-pin Multi-connector



- ① DC input
- ② Video output: 1.0 Vp-p, 75 Ω, sync negative
- ③ Ground
- ④ Audio output: -5 dBu (436 mVrms), less than 10 kΩ, unbalanced

Power requirements: DC 12 V
 Power consumption: 1.2 W (at DC 12 V)
 Operating temperature: -20 to 70°C (-4 to 158°F)
 Storage temperature: -30 to 85°C (-22 to 185°F)
 Mass: 550 g (1 lb 3 oz)

Dimensions:



9-2 Automotive monochrome video monitor

SSM-721AMR*

7-inch monochrome monitor

- Offers bright, clear and high-contrast pictures
- Compact, lightweight and rugged construction
- Built-in speaker
- Day/Night switch adjusts picture brightness for normal or low-light conditions
- Automatic back-up operation
- Only a single 4-pin Multiple Cable required between the SSC-530AM and the SSM-721AMR to transmit video and audio signals, together with DC power
- Semi-flat square/non-glare CRT
- Audio output connection for an optional external speaker
- Dual camera inputs
- Alternative power supply mode (DC 12/24 V)

Supplied accessories: Mounting Bracket
Screw (4)
Bolt (4)
Washer (12)
Spring Washer (8)
Nut (4)
Power Supply Cable
Bracket Holder
Monitor Scale
Operating Instruction Manual
Monitor Hood WU-700AM

Optional accessory: Monitor Hood WU-700AM



Specifications

Video signal system: EIA standard
Picture tube: 7-inch B/W measured diagonally 90° deflection
Speaker: ø50 mm (2-inch) impedance 8 Ω, 0.5 W output (max.)
Video/audio output: 4-pin Multi-connector (2)



- ① 12 V DC output
- ② Video input: 1.0 Vp-p, 75 Ω, sync negative
- ③ Ground
- ④ Audio input: -5 dBu (436 mVrms)
more than 30 kΩ, unbalanced

Output: External speaker jack (mini jack)
impedance 8 Ω

Power requirements: DC 12 or 24 V

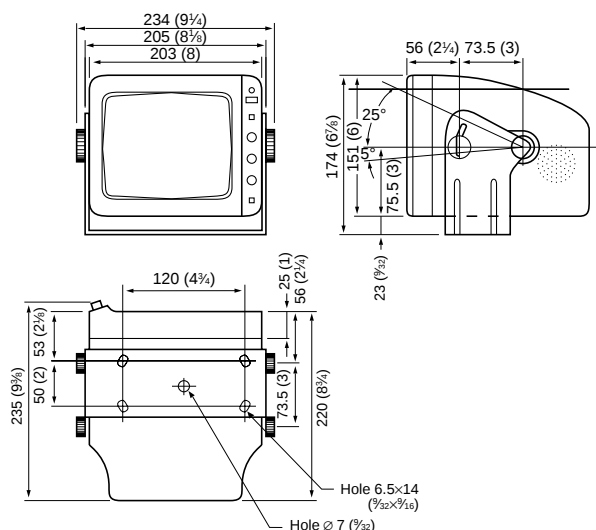
Power consumption: 23 W (max.)

Operating temperature: -15 to 60 °C (5 to 140 °F)

Storage temperature: -25 to 80 °C (-13 to 185 °F)

Mass: Approx. 3.2 kg (7 lb)

Dimensions



Unit: mm (inch)

* Not available in some areas. For details, please contact your nearest Sony office.

