SECTION 3 NON-LINEAR/EDITOR/DME/SWITCHER

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ES-7
EditStation™
• The digital system for power production • Direct Digital Link with DVCAM DSR-60/80/85 VTR • x4 Transfer capability when combined with the DSR-85 VTR • High picture quality • Hybrid operation capability including the unique Disk B-roll™ operation • SDI and SDTI (QSDI) digital interface capability with optional boards • 2-channel playback and 1-channel recording for real-time layering • All-in-one concept • Sophisticated Graphical User Interface (GUI) provided for efficient operation • ClipLink™ operation to save valuable disk space and time • Superb performance DME Switcher • Multiple input/output formats • Direct touch graphics function to enable graphics creation to be performed directly on the live video • Project file exchange capability • Variable compression rate • Optional ESDraw kit available in addition to the standard TextComposer • Control panel available for intuitive operation • Fixed speed DMC • 16:9 editing mode • User Programmable Effect • Movie/Animation file import/export • Narration recording • 16:9 Mode • Effects rubber band • Waveform monitor and vector scope display

Supplied accessories
- Power cord
- Mouse
- Keyboard
- Extension cable for keyboard and mouse (4 m)
- Parallel GPI D-sub 15-pin connector
- Software and online manual (CD-ROM)
- WindowsNT package (CD-ROM) and manual
- Operating instructions

Optional accessories
- Control Panel ESBK-7011
- Basic DME Switcher Board ESBK-7021
- 3D Effect Board for Basic DME Switcher Board ESBK-7022
- Advanced DME Switcher Board ESBK-7023
- 3D Effect Board for Advanced DME Switcher Board ESBK-7024
- SDTI (QSDI) Interface Board ESBK-7031
- SDI Interface Board ESBK-7032
- Disk Recorder Board ESBK-7041
- Disk Unit ESBK-7045
- SCSI Option ESBK-7051
- Ethernet Option ESBK-7052
- SCSI Cable ESBK-7053
- Additional Memory Set ESBK-7054
- ESDraw ESBK-7071
- EditStation Operation Manual ESBK-7091E
- ESDraw Operation Manual ESBK-7092E
- Rack Mount Kit for ES-7 RMM-ES7
- Rack Mount Kit for ESBK-7045 RMM-ES701

Specification
General
- Power requirement AC 120V, 50/60Hz
- Operating voltage AC 90 to 132V, 48 to 63Hz
- Power consumption Main Unit (ES-7): Approx. 450W
- Main Unit (ESBK-7046): Approx. 100W
- Operating temperature 5 to 35°C (41 to 95°F)
- Dimensions Main Unit (ES-7): 424 (W) × 431.6 (H) × 478 (D) mm (16 3/4 × 17 × 18 7/8 inches)
- Disk Unit (ESBK-7045): 424 (W) × 88 (H) × 478 (D) mm (16 3/4 × 3 1/2 × 18 7/8 inches)
- Control Panel (ESBK-7011): 372 (W) × 76 (H) × 228 (D) mm (14 3/4 × 3 × 9 inches)
- Mass Main Unit (ES-7): 35kg (77 lb 3 oz)
- Disk Unit (ESBK-7045): 14kg (30 lb 14 oz)
- Control panel (ESBK-7011): 1.7kg (3 lb 12 oz)

PC
- CPU Pentium 200MHz MMX
- OS Windows NT 4.0
- Memory 64MB
- Hard disk drive 2 GB
- Floppy disk drive 1 × 720KB/1.44MB
1 Non-linear Editing system

CD-ROM drive 1 x ATAPI, Quadraple (x24) speed
Card slot 32-bit PCI bus (33MHz) and 16-bit ISA bus
VGA 1024 x 768, 65K colors
Mouse 1 x Mini Din 6-pin
Keyboard 1 x Mini Din 6-pin

Video
Analog video inputs 3 sources (P1/P2/R) selectable from Y/R-Y/B-Y, or G/B/R/Sync., BNC 1 x Gen. Lock IN, BNC
MiniDin 4-pin: Y/C
1 sources (AUX) selectable from Composite Y/R-Y/B-Y, or G/B/R/Sync., Composite
BNC: Y/R-Y/B-Y, G/B/R/Sync., Composite

Digital video inputs 2 (P1, P2/R) x SDTI (QSDI), BNC
3 (P1, P2, R) x SDI, BNC

Analog video outputs PGM & MONITOR outputs, Y/R-Y/B-Y, G/B/R/Sync., Composite
MiniDin 4-pin: Y/C
1 sources (AUX) selectable from Composite Y/R-Y/B-Y, or G/B/R/Sync., Composite
BNC: Y/R-Y/B-Y, G/B/R/Sync., Composite

Audio
Audio Up to 22-ch input and 4-ch output
Analog audio inputs 4-ch x 3 sources (P1/P2/R), XLR 3-pin
2-ch x 1 source (AUX), XLR 3-pin
Digital audio inputs 2-ch x 1 source (AUX), selectable from AES/EBU or IEC-958

Analog audio outputs LINE OUT: 4-ch, XLR 3-pin
MONITOR OUT: 2-ch (1/3 & 2/4), Pin-jack

Digital audio outputs Multiplied as SDI/SDTI (QSDI)

Compression
Compression scheme DV Compression

DME Switcher
Basic DME Switcher Y:R-Y:B-Y=4:1:1, 13.5MHz, 8-bit
Chromakey & luminance key: 1 bit (linear key)
Downstream keyer: 8 bit

Advanced DME Switcher Y:R-Y:B-Y=4:2:2, 13.5MHz, 8-bit
Chromakey & luminance key: 8 bit (linear key)
Downstream keyer: 8 bit

Control
P1, P2, AUX & R RS-422A, D-Sub 9-pin
GPI (Serial) RS-232C, D-Sub 9-pin
GPI (Parallel) Active low TTL, D-Sub 9-pin
Control Panel D-Sub 15-pin

Graphics/title
Pixel format 4:2:2:4 (Y/R-Y/B-Y/Alpha)
Font True type
Import/Export format BMP, TGA, TIFF, PICT, JPEG

Others
EDL import/export format Sony BVE-9100 Format
1 Non-linear Editing system

ES-3 EditStation
- Flexible non-linear editing system • Offers DV compression operation and uncompressed operation (option) • Direct Digital Link with DVCAM VTR • High picture quality • SDI and SDTI(QSDI) digital interface capability with option
- Sophisticated Graphical User Interface (GUI) provided for efficient operation • ClipLink operation to save valuable disk space and time • Multiple input/output formats provided • Video special effects (including third-party effect software) • Standard Titler • Control panel available for intuitive operation • Text EDL output • Open software architecture • Support of QuickTime/AVI file format • Multiple Languages for GUI

Supplied items: Main unit
PCI interface board
ES-3 application software
Title software
Installation instructions
AC power code
Modular cable
Cable splitter

Specifications
General
Main Unit
Power Requirements: AC 120 V, 50/60 Hz
Power Consumption: 100 W
Operating Temperature: 5~35°C (41~95°F)
Dimensions: 442 (W) x 134 (H) x 365 (H) mm (without projection) (17 1/2 x 5 3/8 x 14 3/8 inches)
Mass: 11 kg (24 lb 4 oz)
Video Signal Standard: NTSC
Video Processing: Y:R-Y:B-Y = 4:2:2, 13.5 MHz, 8-bit
Audio Processing: 48 kHz, 16-bit
Compression Scheme: DV compression (fixed 25 Mbit/s)

PCI Interface Board
Standard: PC/AT PCI Rev 2.1
Dimensions: PCI Full size

Signal Connectors
Analog Inputs
COMPOSITE: BNC
Y, R-Y, B-Y: BNC
S VIDEO: Mini-DIN 4-pin
GEN LOCK IN, THRU OUT: BNC
AUDI0 CH-1, 2, 3, 4: XLR 3-pin

Anal0g Outputs
COMPOSITE: BNC
Y, R-Y, B-Y: BNC
S VIDEO: Mini-DIN 4-pin
B.B. OUT: BNC
MONITOR: Mini-DIN 4-pin (at PCI interface board)
AUDI0 CH-1, 2: XLR 3-pin (2)
AUDI0 MONITOR: Stereo Mini Jack (at Cable splitter)

Digital Inputs
SDI/SDTI(QSDI): BNC • ESBK-3031 is required.
DV IN: DV-type 4-pin Jack
AES/EBU: XLR 3-pin

Digital Outputs
SDI/SDTI(QSDI): BNC • ESBK-3031 is required.
AES/EBU: XLR 3-pin

Control Connectors
PLAYER REMOTE: D-sub 9-pin, RS-422A
RECORDE R REMOTE: D-sub 9-pin, RS-422A
PC INTERFACE: Modular Jack 8-pin
MAIN UNIT IF: Modular Jack 8-pin
( at PCI interface board)
CONTROL PANEL: D-sub 15-pin (at PCI interface board)

Titler
Pixel Format: Y/R-Y/B-Y/Alpha = 4:2:2:4
Display Area: 720x480 for NTSC
Font: True type
Import Format: BMP, TGA, TIFF

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RM-450A

Editing control unit

• Can be connected to 9-pin equipped editing VTRs on both the player side and recorder side • The RM-450A not only allows CTL based editing but also makes Time Code editing possible • Provides the Relative Time Code (RTC) editing mode, in which time code is used as an edit reference and time code progress is like CTL on the LED counter • The AUDIO COUNTER RESET function automatically sets the editing point first designated to "0:00:00:00" • Can use the Assemble and Insert (V/A1/A2) edit modes, and provides editing functions such as editing IN-POINT/OUT-POINT ENTRY, PREVIEW, TRIM, AUTO EDIT/END, REVIEW/JUMP, GO TO, AUDIO SPLIT, and LAST EDIT • The function keys are laid out to enable easy operation • Provides the JOG/SHUTTLE dials on both the player side and recorder side • Accepts REF. VIDEO IN (reference video input) for synchronized operation • Can memorize the pinch on delay and adjust the editing in-point automatically • Mode setting is very easy and convenient when using the preset switches on the front panel • A cue pulse out is provided for external equipment • Indicates the "Error" and error number on the LED counter along with a warning sound • A built-in self-diagnostic function improves serviceability and make maintenance easy

Supplied accessories: AC power cord
Error message chart
Operation manual

Optional accessories: 9-pin remote control cable RCC-5G/10G/30G
Rack mount kit RMM-450
(for 19-inch EIA and SONY SU-512 rack)

Specifications

Power requirements: AC 108 to 132V, 48 to 63Hz
Power consumption: 11W
Mass: Approx. 3.1 kg (6 lb 13 oz)
Dimensions: 390(W) x 93(H) x 265(D) mm
(15 3/4 x 3 3/4 x 10 1/2 inches)
Operating temperature: 0 to 40°C (32 to 104°F)
Edit reference: CTL, SMPTE/EBU LTC, VITC
Reference video input: 0.5Vp-p to 2.0Vp-p, negative, 75Ω, unbalanced
External sync input: 0.5Vp-p to 5.0Vp-p, negative, 75Ω, unbalanced
Cue pulse signal: Active low: low level 0 to 0.5V/high 3.5 to 5.0V
# PVE-500

## Editing control unit

- Three VTR control capability in A/B roll editing
- Serial switcher interface via 9-pin RS-422A connection
- Both parallel and serial audio mixer interface capability
- Handles TC (Time Code), CTL (Control Track Signal), and RTC (Relative Time Code) as editing reference
- Assemble and Insert (V, A1, A2) editing capability
- Features variable speed control over VTRs equipped with Dynamic Tracking function
- Up to 99 edits can be stored in the built-in EDL memory
- Audio split edit capability offers effective insertion of sound effects
- Snapshot memory number in the DFS-500/DFS-300 can be stored and recalled by the Edit Number
- Reference video input allows synchronized operation with other equipments
- Equipped with an RS-232C interface allowing SAVE/LOAD of the EDL data onto a floppy disk
- A GPI output enables basic control of peripheral equipments such as audio tape recorders and title generators which cannot be directly interfaced with the PVE-500
- The two search dial operation enables quick and easy access to the edit points

### Supplied accessories:
- AC power cord
- Operation manual

### Optional accessories:
- Audio mixer control cable RCC-5AA
- 9-pin remote control cable RCC-5G/10G/30G
- Rack mount metal RMM-500

## Specifications

### General

<table>
<thead>
<tr>
<th>Power requirements</th>
<th>AC 100/120/220 to 240 V ±10%, 47.5 to 63 Hz</th>
</tr>
</thead>
<tbody>
<tr>
<td>Power consumption</td>
<td>11W maximum</td>
</tr>
<tr>
<td>Operating temperature</td>
<td>5 to 40°C (41 to 104°F)</td>
</tr>
<tr>
<td>Storage temperature</td>
<td>−20 to 60°C (−4 to 140°F)</td>
</tr>
<tr>
<td>Dimensions</td>
<td>390(W) × 93(H) × 265(D) mm (15 3/8 × 3 3/4 × 10 1/2 inches)</td>
</tr>
<tr>
<td>Mass</td>
<td>3.2 kg (7 lb 8 oz)</td>
</tr>
</tbody>
</table>

### Systems

- Editing reference: CTL, RTC, SMPTE/EBU Time Code
- Edit accuracy: ±0 frame with time code
- ±1 frame with CTL
- Memory capacity: 99 events

### Controls

- VTR interface: RS-422A 9-pin remote connector
- Switcher interface: RS-422A 9-pin remote connector
- Mixer interface: 9-pin serial/parallel switchable
- Controllable VTRs: 1 recorder and up to 2 players
FXE-120
Video Editing System
•Integration of an editing controller, video switcher, audio mixer and digital effects generator •Three VTR control (RS-422A/RS-232C) •LANC (Local Application Control bus system) interface for controlling home-use LANC VTRs and camcorders as player VTRs •Time code based editing •Equipped with two buses •GPI input/output •8-bit quantizing, 4:1:1 digital processing •Built-in Frame Synchronizers allow editing without a Time Base Corrector •140 wipe patterns •Digital effects (Mix Effect/Fade Effect/ Input Effects) •Built-in chromakeyer and luminance keyer •Color correction capability •25 different color background •Editing memory for 99 events •Saving/load of EDL Data is possible

Supplied Accessories
AC power cord (1)
Instruction manual (1)
User’s guide (1)
LANC cord (2)

Optional Accessories
RCC-5/10/30G RS-422A remote cable
SMF-3036C (RS-232C remote cable, 9-pin to 25-pin)

Specifications
General
Signal system: NTSC
Power requirements: AC 120 V ± 10%, 50/60Hz ± 5%
Power consumption: Maximum 57 W
Operating temperature: 5 to 40°C (41 to 104°F)
Storage temperature: -20 to 60°C (-4 to 140°F)
Dimensions (W x H x D): 424×138.5×437.5 mm (16 3 ⁄ 4×5 1 ⁄ 2×17 1 ⁄ 4 inches)
Mass: Approx. 7.3 kg (16 lb 1 oz)

Systems
Time counter: Internal time counter (3)
Time count display range: Time code: 00:00:00:00 to 3:59:59:29
CTL: ± 9:59:59:29 Full edit mode
Editing mode: Assemble edit: Video, Audio 1/2
Insert Edit: Video Audio 1/2
First edit, Time code insert
Split edit, Dynamic Motion Control (DMC)
Edit type: MIX, WIPE, SYNC-ROLL, CUT, MANUAL 1st Edit, Audio Split Edit, DMC Control
Edit reference: CTL, LTC, SMPTE/EBU time code, 8mm time code, RC time code, DV time code
Edit Accuracy: RS-422A: ±0 frame with TC, ±1 frame with CTL
RS-232C: ±1 frame with TC
LANC: ±5 frame with RC time code
Transition time range: 0 to 999 (unit: frames)
Pinch-on Delay: Simultaneous measurement of pinch-on delay for up to three VCRs connected to RS-422A/RS-232C/ LANC connectors
EDL memory capacity: 99 edits
EDL split edit reference: Audio or Video Input

Control
VTR Interface: RS-422A: 9-pin
RS-232C: D-sub 9-pin
Controllable VTR: 1 recorder, up to 2 players
LANC: stereo mini-mini jack
GPI interface: GPI IN (BNC)
GPI OUT (BNC) (2)
EDL Interface: EDL IN/OUT (D-sub 9-pin)

Video
Video inputs: BNC (4), unbalanced
(PLAYER 1, PLAYER 2, AUX1, RECORDER)
Video: 1.0 Vp-p, 75 Ω
Sync: 0.286 Vp-p
Burst: 0.286 Vp-p
S-Video: 4-pin, unbalanced
(PLAYER 1, PLAYER 2, AUX1, RECORDER)
Y: 1.0 Vp-p, 75 Ω, sync negative
C: 0.286 Vp-p, 75 Ω
Sync: 0.286 Vp-p

Audio
Audio Inputs (stereo): AUDIO L/R INPUT (PIN jack), (2 channels (5))
PLAYER 1 MAIN (2), SUB (2)
PLAYER 2 MAIN (2), SUB (2)
RECORER (2)
AUX 1 (2)
AUX 2 (2)
Input impedance: selectable with 600 Ω terminal switch
Input level: -60 dB, +4dB (input impedance 600Ω switch ON)
Audio Outputs (stereo): AUDIO L/R OUTPUT (PIN jack) (6)
PGM 1 (2), PGM 2(2), MONITOR (2)
Output level: -7.5 dB (5.0 dB at 600 Ω switch OFF)
Signal Processing
Sampling rate: Y: 910 kHz (1 Hz = 15.734kHz)
R-Y/B-Y: 1×910 kHz
Quantization: 8-bit
Frequency response: 0 to 5 MHz +1dB -1dB
Signal to noise ratio: More than 53 dB
Y/C delay: Less than 50 ns (Composite)

Recommended LANC VTRs
Camcorders: CCD-VX1, CCD-TR3000, CCD-TR3200,
CCD-TR100, CCD-TRV300, DCR-VX1000,
DCR-PC7, DCR-PC10, DCR-SC100, DCR-TRV7,
DCR-TRV6, DCR-TRV900, DSR-200, DSR-200A,
DSR-PD1, DSR-PD100
Player VTR: EV-S9000, EV-C2000, DHR-1000, DSR-20,
DSR-V10, DSR-30
Recorder VTR: DSR-30
2 Editing control units

IF-FXE2
LANC Interface Box
• Converts the RS-422A protocol to LANC protocol
• Supports connection between recorder LANC VTR’s and FXE-100UPG(*1)/FXE-120
• Supports connection between player LANC VTR’s and RM-450A/PVE-500

(*1) FXE-100UPG is an FXE-100 which is upgraded with FXE-KIT1. Please contact your nearest Sony office.

Supplied Accessories: LANC Connecting Cord (Stereo mini-mini) (1)
AC Power Adaptor (1)
Instruction Manual (1)
List of the recommended products (1)

Optional Accessories: RS-422A Remote Control Cable: RCC-5G/10G/30G

Specifications
General
Mass: Approx. 500 g (17.6 oz)
Dimensions: Approx. 106 (W) x 40 (H) x 163 (D) mm
(4 1/4 x 1 5/8 x 6 1/2 inches)
Power requirements: DC 6 V
Power consumption: Less than 3W (with the supplied AC power adaptor)
Operating temperature: 5°C to 40°C
Storage temperature: -20°C to 60°C
Operational position: Horizontal or vertical

Connectors
RS-422A port: D Sub 9-pin (1)
LANC port: Stereo mini-mini jack (1)
DC input: 6V (1)

Function Switches
Power: Seesaw Switch (1)
Learn: Push Switch (1) and LED (1)
Preset: Dip Switch (4-bit)
3-1 Digital multi effects/switcher systems

DFS-700
DME Switcher
• Video switcher equipped with powerful digital multi effector
• Full digital component processing from input to output at 4:2:2:4 (video and key)
• No need for external A/D converters
• Incorporates thousands of factory preset effect patterns including non-linear digital effects
• The perfect companion for Sony digital VTRs and servers
• Real-time system, capable of delivering effects in an instant
• Eight standard inputs include four SDIs and four analog components
• Eight standard outputs include two SDIs, two analog components, and two Y/Cs
• Can be used with Sony BVE-2000 and PVE-500 editors via the serial interface
• Optional boards are prepared to change the types of inputs (BKDF-701/702)
• Chroma keyer, Y/U/V color correction, down stream keyer, fade-to-black, and frame memory are included
• 2nd channel DME board prepared as an option (BKDF-711)
• 3D video mapping effects board prepared as an option (BKDF-712)

Supplied Accessories: D-sub 25-pin control cable (10 m)
AC cord
Instruction manual

Optional Accessories
BKDF-701 Digital/Analog Input Board for NTSC
BKDF-702 Analog Composite Input Board for NTSC
BKDF-711 2nd Channel DME Board
BKDF-712 3D Video Mapping Effects Board

Specifications
General
Power requirements: AC 120 V, 50/60 Hz
Operating voltage: AC 90 to 130 V, 47 to 63 Hz
Power consumption: 200 W
Operating temperature: 0 to 40 °C (32 to 104 °F)
Dimensions: Control panel: 440 x 121 x 287 mm
17 1/4 x 4 3/4 x 11 1/4 inches
Processor unit: 440 x 132 x 520 mm
17 1/4 x 5 1/4 x 20 1/2 inches
Mass: Control panel: 3 kg, 6 lb 10 oz
Processor unit: 14 kg, 30 lb 14 oz

Input Signals
VIDEO INPUTS
SDI: BNC type x 4
270 Mb/s
Component: BNC type x 4 (Y/R-Y/B-Y)
Y: 1.0 Vp-p, 75 Ω, Sync negative
R-Y/B-Y: 0.7 Vp-p, 75 Ω
DSK KEY IN: BNC type x 2, Loop-through
REF VIDEO: BNC type x 2, Loop-through connection
Sync: 0.286 Vp-p
Burst: 0.286 Vp-p

Output Signals
PGM OUT
SDI: BNC type x 2
270 Mb/s
Component: BNC type x 2 (Y/R-Y/B-Y)
Y: 1.0 Vp-p, 75 Ω, Sync negative
R-Y/B-Y: 0.7 Vp-p, 75 Ω
Composite: BNC type x 2
Video: 1.0 Vp-p, 75 Ω, Sync negative
S-Video: DIN type x 2 (Y/C)
Y: 1.0 Vp-p, 75 Ω, Sync negative
C: 0.286 Vp-p at burst, 75 Ω
CLEAN OUT: BNC type x 1
SDI: 270 Mb/s
PREVIEW OUT: BNC type x 1, Composite
Video: 1.0 Vp-p, 75 Ω, Sync negative
BLACK BURST OUT: BNC type x 3
Sync: 0.286 Vp-p, 75 Ω
Burst: 0.286 Vp-p, 75 Ω

Signal Processing
Sampling rate: Y: 13.5 MHz
R-Y/B-Y: 6.75 MHz
Quantization: Y/R-Y/B-Y: 8 bits
Linearity (Composite output): Less than 3.5% (composite input)

BKDF-701
With the BKDF-701, the following 8 inputs can be added to the standard 8 inputs of the DFS-700, making the total number of inputs 16. During use, any 8 of the 16 inputs can be assigned to the control panel.

Input Signals
SDI: BNC type x 4
Component: BNC type x 4 (Y/R-Y/B-Y)
Y: 1.0 Vp-p, 75 Ω, Sync negative
R-Y/B-Y: 0.7 Vp-p, 75 Ω

BKDF-702P
With the BKDF-702P, the following 4 inputs (composite or S-Video) can be added to the standard 8 inputs of the DFS-700, making the total number of inputs 12. During use, any 8 of the 12 inputs can be assigned to the control panel.

Input Signals
Composite: BNC type x 4
Video: 1.0 Vp-p, 75 Ω, Sync negative
S-Video: DIN type x 4 (Y/C)
Y: 1.0 Vp-p, 75 Ω, Sync negative
C: 0.286 Vp-p at burst, 75 Ω

BKDF-711
The BKDF-711 adds a second Title Key.
3-1 Digital multi effects/switcher systems

DFS-500
DME switcher
• Video switcher equipped with powerful digital multi effector
• More than 300 factory preset effect patterns including non-linear digital effects
• Up to 40 manually created effect patterns can be stored in the User Program memory system for subsequent recall
• Built-in two frame synchronizer accepts non time base corrected video signals
• Composed of 2 busses and 4 primary inputs
• 15 Original background patterns
• Up to 99 panel status storage in the Snap Shot memory system
• Equipped with 5 individual color matte generators
• Built-in title keyer
• Equipped with fader lever to allow manual picture transition
• Perfect interface capabilities with BVE-3000 Series
• Simple A/B roll editing system with PVE-500
• Modular design composed of a control panel and a processor unit
• Down stream keyer function available with optional board
• Lighting, trail, shadow and drop border effects are available with optional board

Typical preset patterns
mosaic, mirror, negative, solarization, posterization
picture in picture, ripple wipe, accordion, sphere, page turn, page roll, split slide, melt down, stream, flag

Supplied accessories:
- AC power cord
- 25-pin control cable, 10 m
- Label (1 set)
- Operation Manual

Optional accessories:
- BKDF-501 Trail and lighting board
  Provides drop border, shadow, trail and lighting effects.
- BKDF-504 DSK board
  Provides 8bit down stream keyer.
- BKDF-503 Rack mount kit
  Enables the control panel to be mounted onto the editing console.

Specifications

General
- Power requirements: AC 100/120V, 50/60Hz
- Operating voltage: AC 85 to 132V, 47 to 63Hz
- Power consumption: 140W
- Operating temperature: 0 to 40°C (32 to 104°F)
- Dimensions: Control Panel: 424(W) × 116(H) × 344(D) mm (16 ¾ × 4 5/8 × 13 3/8 inches)
  Processor Unit: 424(W) × 177(H) × 450(D) mm (16 ¾ × 7 17/4 inches)
- Mass: Control Panel: 3 kg (6 lb 10 oz)
  Processor Unit: 17 kg (37 lb 4 oz)

Input Signals
VIDEO INPUTS 1 through 4
- Composite: BNC type (1 each)
  VIDEO: 1.0Vp-p, 75Ω
  SYNC: 0.286Vp-p
  Y/C: 4-pin (1 in each)
  Y: 1.0Vp-p, 75Ω
  C: 0.286Vp-p, 75Ω
  SYNC: 0.286Vp-p

Component: 12-pin
- Y: 1.0Vp-p, 75Ω
- G: 0.7Vp-p, 75Ω
- B/B-Y: BNC type
  B-Y: 0.7Vp-p, 75Ω
  B: 0.7Vp-p, 75Ω
- R/R-Y: BNC type
  R-Y: 0.7Vp-p, 75Ω
  R: 0.7Vp-p, 75Ω

DSK VIDEO IN
- Composite/G/Y: BNC type
  VIDEO: 1.0Vp-p, 75Ω
  SYNC: 0.286Vp-p
  BURST: 0.286Vp-p
  Y/C: 4-pin (1 in each)
  Y: 1.0Vp-p, 75Ω
  C: 0.7Vp-p, 75Ω
  G: 0.7Vp-p, 75Ω

Output Signals
PGM OUT 1 and 2
- Composite: BNC type
  VIDEO: 1.0Vp-p, 75Ω
  SYNC: 0.286Vp-p
  BURST: 0.286Vp-p
  Y/C: 4-pin
  Y: 1.0Vp-p, 75Ω
  C: 0.286Vp-p, 75Ω
  G: 0.286Vp-p

Signal Processing
- Sampling Rate: Y: 910fH (fH : 15.625 kHz)
  R-Y/B-Y: 1/4 × 910fH
- Quantization: Y/R-Y/B-Y: 8 bits
- Linearity (Composite output):
  DG: Less than 3.5% composite input
  Less than 2% component/S input
  DP: Less than 2.5% composite input
  Less than 1% component/S input
- Cross talk: Less than ~50dB
- Frequency response: 0 to 5 MHz ±0.5dB/~1dB
- S/N: More than 51dB (composite)
  More than 55dB (Y/C, component)
- Y/C delay: Less than 20ns (component)
  Less than 50ns (composite)

Control Signals
- Editor: 9-pin remote
- T1/T2, cue: BNC type
- Control Panel: 25-pin remote
3-1 Digital multi effects/switcher systems

DFS-300
DME switcher

• Video switcher equipped with powerful digital multi effector
• More than 300 factory preset effect patterns including 2D digital effects
• With the optional board BKDF-301, 3D linear and non linear factory preset effect patterns can be added
• Up to 20 manually created effect patterns can be stored in the User Programme memory system for subsequent recall
• With the optional board BKDF-301, up to 40 effect patterns can be manually created and stored in the User Programme memory system
• Built-in two frame synchronizers accept non time base corrected video signals
• 4:1:1 digital component processing realizes high picture quality
• Accepts component, composite and S-video signals
• Accepts RGB signals for graphic image data processing
• Composed of two busses and four primary inputs
• 31 original background patterns
• Up to 99 snapshots can be stored in the Snap Shot memory system
• Equipped with five individual color matte generator
• Built-in chromakeyer, title keyer and color correction controller
• Equipped with fader lever to allow manual picture transition
• Provides simple A/B roll or two machine editing system with PVE-500
• Modular design composed of a control panel and a processor unit
• 8-bit Down Stream Keyer function available with optional board BKDF-504
• 3D and non-linear effects are available with optional board BKDF-301

Typical preset patterns
mosaic, mirror, negative, solarization, posterization, split, slide, melt down, stream, etc

Supplied accessories: AC power cable
25-pin control cable (10m)
Operation manual

Optional accessories: BKDF-303 3D effect board
Provides 3D, and non-linear effect
BKDF-503 Rack mount kit
BKDF-504 DSK board

Specifications

General
Power requirements: AC120V, 50/60Hz
Operating Voltage: AC90 to 132V, 48 to 63Hz
Power consumption: 80W
Operating temperature: 0 to 40˚C (32 to 104˚F)
Dimensions: Control panel: 424(W) x 69(H) x 287(D) mm
Processor: 424(W) x 132(H) x 450(D) mm
Mass: Control panel: 2.3 kg (5 lb 1 oz)
Processor: 13.0 kg (28 lb 11 oz)

Inputs/Outputs
Primary video inputs 1 to 3/Program video outputs:
Composite: Connector: BNC type (x1, each)
Video: 1.0Vp-p, 75Ω
Sync: 0.286Vp-p
Burst: 0.286Vp-p

S-video (Y/C):
Connector: DIN-4-pin (x1, each)
Y: 1.0Vp-p, 75Ω
C: 0.286Vp-p, 75Ω, burst
Sync: 0.286Vp-p

Component (Betacam):
Connector: 12-pin (x1, each)
Y: 1.0Vp-p, 75Ω
R-Y/B-Y: 0.7Vp-p

Primary video inputs 4:
Y/G: Connector: BNC type (x1, each)
Y: 1.0Vp-p, 75Ω
G: 0.7Vp-p, 75Ω
R-Y/R: Connector: BNC type
R: 0.7Vp-p, 75Ω
G: 0.7Vp-p, 75Ω
B-Y/B: Connector: BNC type
B-Y: 0.7Vp-p, 75Ω
B: 0.7Vp-p, 75Ω
Sync: Connector: BNC type, 0.286 to 4.0Vp-p, 75Ω

DSK Video Inputs:
Composite/G/Y (NTSC):
Connector: BNC type (x2, loop-through)
Video: 1.0Vp-p, 75Ω
Sync: 0.286Vp-p
Burst: 0.286Vp-p
G: 0.7Vp-p, 75Ω

B/B-Y: Connector: BNC type
B-Y: 0.7Vp-p, 75Ω

R/R-Y: Connector: BNC type
R-Y: 0.7Vp-p
R-Y: 0.7Vp-p, 75Ω

EXT KEY IN/DSK KEY IN/KEY OUT:
Connector: BNC type (x1, each), 1.0Vp-p, 75Ω

GEN LOCK IN:
Connector: BNC type (x2, loop-through)
Video: 1.0Vp-p, 75Ω
Sync: 0.286Vp-p
Burst: 0.286Vp-p

BLACK BURST OUT 1 to 3:
Connector: BNC type (x3)
Sync: 0.286Vp-p (75Ω)
Burst: 0.286Vp-p (75Ω)

Signal Processing
Frequency response: 0 to 5MHz (Ref. 1MHz) +0.5dB/-1dB
Linearity: DG 3.5% (composite input)
2.0% (component/S input)
DP 2.5˚ (composite input)
1.0˚ (component/S input)

Crosstalk: -50dB
S/N: 51dB (composite)
55dB (Y/C, component)

Y/C delay: Less than 20ns (component)
Less than 50ns (composite)

Sampling rate: Y: 910fH (fH: 15.734kHz)
R-Y/B-Y: 1/4 x 910fH
Quantization: Y/R-Y/B-Y: 8 bits

Control Signals
EDITOR: D-sub 9-pin, 9-pin remote (RS-422A)
T1/CUE IN/T2 IN: BNC type (x1, each), TTL level
CONTROL PANEL: D-sub 25-pin, 25-pin remote (RS-422A)
3-2 Composite/Component Video Switchers

BVS-3200 /3200C
Composite/Component Video Switcher
•Choice of composite or component version:
BVS-3200 Composite Video Switcher
—Accepts composite video signals
BVS-3200C Component Video Switcher
—Accepts composite or a combination of RGB,
Y/R-Y/B-Y component signals
—12-pin Component Video Connector Inputs/Outputs
for Betacam VTRs are provided
•Ten Primary inputs (including color black and color background)
•One M/E and two KEY Busses/Processors (assignable) •KEY OVER function •Two common EXT KEY sources and FILLs available
for both KEYERs •One EXT KEY source and FILL available for DSK
•Ten basic and eight matrix wipe patterns with modifiers •Fully adjustable internal BOX MASK and EXT MASK inputs •Four COLOR MATTE GENERATORS for BACKGROUND, EFF/BORDER (KEY 1
and KEY 2), and DSK •CHROMAKEYER (RGB or Y/R-Y/B-Y selectable)
•DSK with BORDER, DROP SHADOW, OUTLINE-2H/4H selectable
•FADE to BLACK (FTB) function •Auto Transition for M/E, DSK,
and FTB •RS-422A interface •Communication of E-File and initial panel information with BVE-2000/9100 •DFS-500 interface
•Four Black Burst Outputs •GPI Input port for M/E, DSK, FTB, and
SELECT •Four (BVS-3200C)/two (BVS-3200) PGM Outputs and one
PVW Output

Supplied accessories: AC power cord
Control panel cable (5 m)
Extension board
Optional accessories: SWC-2530D Control panel cable (30 m)
RMM-3000 Rack mount kit

Specifications
Power requirements: AC 100V to 240V ±10%, 50/60Hz ±10%
Power consumption: BVS-3200: 140W
BVS-3200C: 180W
Operating temperature: 0 to 40°C (32 to 104°F)
Storage temperature: −20 to 60°C (−4 to 140°F)

Dimensions:
Control panel: Approx. 424(W) × 111(H) × 440(D) mm
(16⅞ × 3⅞ × 17⅛ inches)
Processor unit: BVS-3200:
Approx. 424(W) × 132(H) × 397(D) mm
(16⅞ × 5⅜ × 15¾ inches)
BVS-3200C:
Approx. 424(W) × 176(H) × 450(D) mm
(16⅞ × 7 × 17¼ inches)

Mass:
Control panel: Approx. 4.4 kg (9 lb 11 oz)
Processor unit:
BVS-3200:
Approx. 13 kg (28 lb 11 oz)
BVS-3200C:
Approx. 18 kg (39 lb 11 oz)

*For this product, please contact your nearest Sony office.

BVS-3100
Composite Video Switcher
•Ten Primary inputs (including color black and color background)
•One M/E and one KEY Bus •Two EXT KEY sources and FILLs available for KEYER •One EXT KEY source and FILL available for DSK •Ten basic and eight matrix wipe patterns with modifiers •Fully adjustable internal BOX MASK and EXT MASK inputs •Three COLOR MATTE GENERATOR for BACKGROUND, EFF/BORDER,
and DSK •CHROMAKEYER (RGB or Y/R-Y/B-Y selectable) •DSK with BORDER, DROP SHADOW, OUTLINE (2H/4H) selectable
FADE to BLACK (FTB) function •Auto Transition for M/E, DSK,
and FTB •RS-422A interface •Communication of E-File and initial panel information with BVE-9100 •DME-450 interface •Four Black Burst Outputs •GPI Input port for M/E, DSK, FTB, and
SELECT •Two PGM Outputs and one PVW Output

Supplied accessories: AC power cord
Control panel cable (5 m)
Extension board
Optional accessories: SWC-2530D Control panel cable (30 m)
RMM-3000 Rack mount kit

Specifications
Power requirements: AC 100V to 240V ±10%, 50/60Hz ±10%
Power consumption: 125W
Operating temperature: 0 to 40°C (32 to 104°F)
Storage temperature: −20 to 60°C (−4 to 140°F)

Dimensions:
Control panel: Approx. 424(W) × 111(H) × 440(D) mm
(16⅞ × 3⅞ × 17⅛ inches)
Processor unit:
BVS-3200:
Approx. 424(W) × 132(H) × 397(D) mm
(16⅞ × 5⅜ × 15¾ inches)
BVS-3200C:
Approx. 424(W) × 176(H) × 450(D) mm
(16⅞ × 7 × 17¼ inches)

Mass:
Control panel: Approx. 4.4 kg (9 lb 11 oz)
Processor unit:
BVS-3200:
Approx. 13 kg (28 lb 11 oz)
BVS-3200C:
Approx. 18 kg (39 lb 11 oz)

*For this product, please contact your nearest Sony office.
3-3 Special effects system

SEG-2550A

*E-File*

Production of this product has been discontinued. For details, please consult your nearest Sony office.

Color special effects generator
- The SEG-2550A is a compact and cost effective special effects generator for program production and post production.
- The E-File function, which memorizes and reproduces the setting of switches and buttons and the movement of the controls, levers and sticks, is adopted. Interface capability with the BVE-900/910 automatic editing control unit and an external computer.
- A total of 137 versatile wipe patterns.
- Wipe pattern modifiers such as the positioner, the border wipe, softness, border edge, echo/pairing wipe, and mosaic wipe are provided.
- 8 video inputs and 4 bus lines (A, B, PGM and PST) for special effects (MIX, WIPE, and EXTERNAL KEY).
- Built-in background color
- Built-in downstream keyer (DSK)
- Independent color generation for the DSK
- Shadow and edge adjustment for the key signal
- Built-in sync generator
- 4 black burst outputs for synchronization of video equipment.
- SC and H phase indicators for easy phase adjustment
- 19-burst signal outputs for synchronization of video equipment.
- Adjustable white level
- White seal
- Transparent designation chips

Supplied accessories:
- AC power cord
- Wipe pattern list
- Designation label
- D-sub (15-pin) connector
- Transparent designation chips
- White seal

Specifications

<table>
<thead>
<tr>
<th>Power requirements:</th>
<th>AC 120V, 60Hz</th>
</tr>
</thead>
<tbody>
<tr>
<td>Power consumption:</td>
<td>82W</td>
</tr>
<tr>
<td>Operating temperature:</td>
<td>0 to 40°C (32 to 104°F)</td>
</tr>
<tr>
<td>Dimensions:</td>
<td>Approx. 481(W) x 155.5(H) x 310.4(D) mm (19 x 6 1/8 x 12 1/4 inches)</td>
</tr>
<tr>
<td>Mass:</td>
<td>Approx. 14.5 kg (31 lb 15 oz)</td>
</tr>
<tr>
<td>Video signal system:</td>
<td>NTSC color</td>
</tr>
<tr>
<td>Switching system:</td>
<td>MIX</td>
</tr>
</tbody>
</table>

Mixing by PGM/PST MIX lever and the EFF lever

WIPE
- 137 wipe patterns (selectable)
- Wipe edge: The softness is continuously variable
- Border: Hue, chroma, luminance and width are continuously variable
- Pairing: Scanning lines 2 lines/3 lines/4 lines (selectable)
- Echo: Possible

EXT KEY
- Output signal (DIN, 6-pin)
  - HD, VD, 4Vp-p, 75Ω, unbalanced
  - Input signal (BNC type and DIN, 6-pin)
  - 0.714Vp-p (video), 1Vp-p (VS), 75Ω, unbalanced with 75Ω termination switch
  - EXT KEY connector (BNC type and DIN, 6-pin) with 75Ω termination switch
  - Slicer circuit is included (Clip level is variable)

DOWNSTREAM KEYER
- Output signal (DIN, 6-pin)
  - HD, VD, 4Vp-p, 75Ω, unbalanced
  - Input signal (BNC type and DIN, 6-pin)
  - 0.714Vp-p (video), 1Vp-p (VS), 75Ω, unbalanced
  - DSK KEY connector (BNC type and DIN, 6-pin) with 75Ω termination switch
  - Shadow: Wide and narrow (selectable)
  - Edge: Variable
  - Color matte: Continuously variable
  - Chroma: Approx. 0 to 700mVp-p (variable according to the hue level)
  - Hue: 0 to 360°
  - Luminance (Y): Approx. 50 to 700mV continuously variable

BACKGROUND COLOR
- Chroma: Approx. 0 to 700mVp-p (variable according to the hue level)
- Hue: 0 to 360°

Input signal:
- VIDEO IN 1 to 8 connectors (BNC type)
- VIDEO OUT 1 to 8 connectors (BNC type)
- TALLY/INTERCOM 1 to 4 connector
- TALLY/INTERCOM 5 to 8 connector
- DSK INSERT IN connector (BNC type) x 1
- DSK KEY connector (BNC type) x 8
- DSK KEY connector (BNC type) x 8
- DSK KEY connector (BNC type) x 8
- 0.714Vp-p (VB) or 1Vp-p (VBS), 75Ω, unbalanced with 75Ω termination switch
- with the VB input signal.
- GENLOCK IN connector (BNC type) x 1
- 0.286V/0.286V (BS) or 1Vp-p (BVS), with 75Ω termination switch
- DSK INSERT IN connector (BNC type) x 1
- 1Vp-p (VS)
- EXT WIPE IN connector (DIN, 6-pin) x 1
- VIDEO OUT 1 to 8 connector (BNC type) x 8
- 1Vp-p (VBS), 75Ω, unbalanced (loop-through output of the corresponding VIDEO IN connector)
- PGM OUT 1 to 3 connector (BNC type) x 3
- 1Vp-p (VBS), 75Ω, unbalanced
- PST OUT 1 to 2 connector (BNC type) x 2
- 1Vp-p (VBS), 75Ω, unbalanced
- GENLOCK OUT connector (BNC type) x 1
- (loop-through output of the GENLOCK IN connector)
- DSP OUT connector (BNC type) x 1
- 1Vp-p (VS), 75Ω, unbalanced
- BLACK BURST OUT 1 to 4 connector (BNC type) x 4
- (BNC type) x 4
- Signal level ±9V
- Trigger: TRIGGER (SPECIAL MINI-JACK) x 1
- TAKE function by earth
  - OPEN: +5V, impedance 65kΩ
- GPI: (D-sub, 15-pin) x 1
- TAKE function, PGM DSK Cut-in/out by earth
  - OPEN: ±5V, impedance 65kΩ
- RS-232C: 9600 baud (fixed), DTE (terminal), DCF, RTS handshake
- Signal level ±9V
- DG: Less than 1%
- DP: Less than 1°
- Crosstalk: Over –50dB
- Frequency response: 8MHz ±0.5dB
- S/N ratio: Over –60dB

Output signal:
- VIDEO OUT 1 to 8 connectors (BNC type)
- VIDEO IN 1 to 8 connectors (BNC type)
- Trigger: TRIGGER (SPECIAL MINI-JACK) x 1
- GENLOCK IN connector (BNC type) x 1
- GENLOCK OUT connector (BNC type) x 1
- TALLY/INTERCOM 1 to 4 connector (DIN, 4-pin) x 4
- TALLY/INTERCOM 6 to 8 connector (CCJ, 10-pin) x 1
- Maximum pick-up value in a relay: 24V 200mA DC
4 Chromakeyer

DCK-500
Digital Chromakeyer
-8-bit Digital processiong for High Picture Quality •Auto-Chromakey •Manual Key Control Including Color Cancel •Digital Color Correction •Multiple Format Inputs and Outputs •Snapshot Control from Editing Controller •Two Frame Synchronizers

Supplied accessories: AC power cable
Operation manual
Optional accessories: Control panel adopter BKDC-501

Specifications
General
Power requirement: AC 120V, 50/60Hz
Operating voltage: AC 90 to 132V, 48 to 63Hz
Power consumption: 65W
Dimensions: Processor 424 (W) x 132 (H) x 450 (D) mm (16⅞ x 5¼ x 17¾ inches)
Control Panel 325 (W) x 52 (H) x 132 (D) mm (12¾ x 2¼ x 5¼ inches)
Mass: Processor Approx. 12 kg (26 lb 7 oz)
Control Panel Approx. 1.6 kg (3 lb 8 oz)
Operating temperature: 0 to 40°C (32 to 104°F)

Inputs
Video Inputs 1/2:
Input 1
Input 2
Composite
BNC type
Video: 1.0Vp-p, 75Ω
Sync: 0.286Vp-p
Burst: 0.286Vp-p
Y/C (S-video)
DIN 4-pin
Y: 1.0Vp-p, 75Ω
C: 0.286Vp-p, 75Ω, burst
Component (Betacam)
BNC type
Y: 1.0Vp-p, 75Ω
R-Y/B-Y: 0.7Vp-p, 75Ω, 100/7.5/77/7.5
Component RGB
BNC type
RGB: 0.7Vp-p, 75Ω
Sync: 0.286 to 4.0Vp-p, 75Ω
GENLOCK IN
BNC type, Loop-through
Video: 1.0Vp-p, 75Ω
Sync: 0.286Vp-p
Burst: 0.286Vp-p

Outputs
PGM OUT 1/2
Composite
BNC type
Video: 1.0Vp-p, 75Ω
Sync: 0.286Vp-p
Burst: 0.286Vp-p
Y/C (S-video)*
DIN 4-pin
Y: 1.0Vp-p, 75Ω
C: 0.286Vp-p, 75Ω, burst
Component
12-pin (for OUTPUT 1), BNC type (for OUTPUT 2)
Y: 1.0Vp-p, 75Ω
R-Y/B-Y: 0.7Vp-p, 75Ω, 100/7.5/77/7.5
KEY OUT 1/2:
BNC type
1.0Vp-p, 75Ω, without sync
BLACK BURST OUT 1/2/3:
BNC type
Sync: 0.286Vp-p, 75Ω, burst
Burst: 0.286Vp-p, 75Ω, burst

Interface
Editor:
D-sub 9-pin, conforming to RS-422A
GPI:
BNC type, TTL level
Control panel:
D-sub 25-pin, conforming to RS-422A
DFS:
D-sub 9-pin, conforming to RS-422A

Signal Processing
Sampling Frequency:
Y: 910Hz (FH: 15.734kHz)
R-Y/B-Y: 1/2 x 908Hz
Quantization:
YR-Y/B: 8 bits

Linearity (Composite output):
DP: Less than 2.5° - Composite input
Less than 1.0° - Y/C, Component input
DG: Less than 3.5% - Composite input
Less than 2.0% - Y/C, Component input
Crossstalk:
Less than -50dB
Frequency response:
0 to 5MHz +0.5dB/-1dB
Signal to noise ratio:
More than 51dB - Composite
More than 55dB - Y/C, Component
Y/C delay:
Less than 20ns - Component
Less than 50ns - Y/C, Composite

*OUTPUT 1 only