SONY

EIA/NTSC

S-VHS Videocassette Recorder

SVO-5800

S-VHS

Another Step Forward In Editing

Features

Excellent Video/Audio Quality

S-VHS format

Consistent picture quality is essential in editing. The SVO-5800 provides superb color picture quality with high resolution and excellent signal-to-noise ratio by using the S-VHS format combined with high quality signal processing techniques including a Digital Noise Reducer, a Digital Field Dropout Compensator, Chroma Process Improvement and more. This model incorporates a wide video head gap and track width (58µm) for stable and faithful picture reproduction.

Built-in Time Base Corrector

A TBC (Time Base Corrector) is essential in such system applications as A/B roll editing to eliminate VTR jitter and for the proper adjustment of phase difference. The SVO-5800 is equipped with a built-in TBC. Featuring 4fsc sampling and 8-bit quantization, this TBC offers superior picture quality without any additional time base correction. A separate Digital Noise Reducer for both Y (luminance) and C (chrominance) signals minimizes noise during playback. A field memory incorporated in this noise reducer removes jitter to give stable, sharp images. This field memory also enables a Digital Field Dropout Compensator to be included which replaces a signal dropout with information from the previous field. In addition, the field memory feature also provides clear and crisp still images.

Chroma Process Improvement

The SVO-5800 also incorporates Chroma Process Improvement to achieve excellent color picture quality in the playback mode. This makes a chroma edge sharper and greatly improves the chroma bandwidth, thus enabling sharper and clearer color picture reproduction.

Digital 3-line Comb Filter

The SVO-5800 ensures high quality recording, even with composite signals. In order to obtain highly accurate Y/C separation from composite signals, the SVO-5800 has a digital 3-line Comb Filter which uses advanced correlation techniques. This provides remarkably high picture quality by reducing cross color interference.

Four Channel Audio Recording System

The SVO-5800 incorporates a four-channel audio recording system to cater to a wide range of applications. Two channels use Hi-Fi (AFM) tracks and two use normal longitudinal tracks. The Hi-Fi mode provides a superb 90dB dynamic range and a wide frequency response for high quality sound reproduction. XLR type connectors are used for the inputs and outputs for all four channels, allowing direct connection to professional audio products. Individual level controls are provided for each of the four channels. A Hi-Fi recording ON/OFF mode is also provided to optimize video performance.

Dolby Noise Reduction

A Dolby™ Type B noise reducer is incorporated in the longitudinal audio channels to provide high quality sound.

Advanced Editing Operation

Full Editing Functions

When connected to an RS-422A equipped editing controller such as the Sony FXE-100 or PVE-500, the SVO-5800 functions as an editing recorder. In addition to the assemble and insert edit functions, the SVO-5800 also provides an audio split editing capability with normal longitudinal audio CH-1/CH-2. In the insert mode, video, audio and time code can be inserted independently or in any combination. In the assemble mode, all of the prerecorded signals (video, audio, CTL and time code) are erased and replaced with new signals.

FXE-100

Frame Accurate Editing

The SVO-5800 ensures precise, frame accurate, video editing in both assemble and insert editing modes. This is achieved by a sophisticated servo system, an improved quick response mechanism and built-in LTC/VITC time code capability. In addition to conventional video program production, this function is also suitable for animation and computer graphics (CG) creations, where a frame-by-frame editing function is indispensable.

Back Space Editing Capability

Automatic back space editing is used for seamless sequential recording.

Built-in SMPTE Time Code Generator and Reader

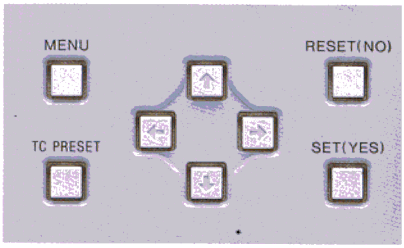
Time code is indispensable for precise, frame accurate editing. The generation and reading of SMPTE standard LTC (Longitudinal Time Code) and VITC (Vertical Interval Time Code) is built into the SVO-5800. User bits are also provided. LTC can be recorded on the longitudinal normal audio CH-2 track to identify the absolute address of a frame. VITC is recorded in the vertical blanking interval of the video signal. This is especially useful for identification of Time Code in slow or still playback mode. VITC also permits both normal audio channels (CH1 and CH2) to be used simultaneously. Functions such as DF/NDF, FREE-RUN/REC-RUN can easily be selected by the setup menu buttons on the front panel. For connection to an external TC generator/reader, TIME CODE IN/OUT connectors are also provided.

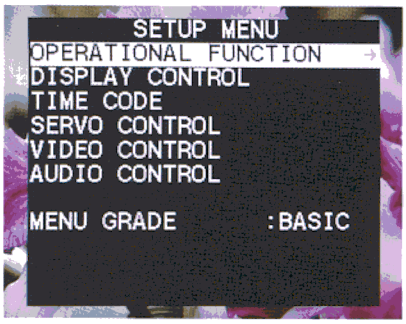
TBC Control

All parameters of the TBC, such as luminance level, chroma level, setup, hue, Y/C delay, sync phase and SC phase are locally controlled from the front panel and also remotely controlled from the optional UVR-60 TBC Remote Controller. The field freeze function is also accessible in the still mode by using the UVR-60 or the optional SVRM-100 Remote Control Unit. In addition, CNR (Chroma Noise Reducer) and YNR (Luminance Noise Reducer) are ON/OFF switchable with the UVR-60.

On-Screen Setup Menu

To provide efficient operation, a VTR mode setup menu is incorporated in the SVO-5800, allowing a variety of customized VTR mode operations. The setup menu is programmed in the form of a layer structure. By simply going through the menu using setup menu buttons on the front panel, users can easily initialize the VTR. Menus are displayed on a monitor connected to the VIDEO MONITOR OUT connector.





Quick and Smooth Picture Search

The picture search mode can be operated by using the optional SVRM-100 Remote Control Unit or with an RS-422A equipped editing controller. Recognizable color pictures are provided at various speeds over a range of up to 10 times normal speed in both forward and reverse to allow any desired point in the tape to be quickly located. In the JOG mode, field by field, accurate picture search is available to precisely locate edit points. Also, when controlled from an RS-422A equipped editing controller, a very rapid response to the search dial control has been achieved thanks to the powerful capstan servo system.

Cue Up Point Preset

Cue up points can be preset by using the setup menu buttons on the front control panel. This provides very quick access to the desired editing points and reduces editing time.

Correspondence to 16:9 Wide Screen

The SVO-5800 corresponds to the 16:9 wide screen TV signal. The SVO-5800 can automatically detect a 16:9 wide screen ID signal, and then record it or pass it to other video equipment.

High Reliability And Durability

Reliable Mechanism

Utmost attention has been paid to ensure high durability and reliability of the SVO-5800. A rigid aluminum diecast chassis and head drum are examples of the care taken to ensure the highly stable operation of the SVO-5800.

Quick Response Mechanism

Sony's tape transport system achieves outstanding operational performance. The SVO-5800 has separate direct drive reel motors for the supply and the take-up sides. These provide rapid response and smooth operation, with mode transitions such as STOP to REC, FAST FWD to PLAY, STOP to REWIND being virtually instantaneous.

Auto Head Cleaner

Each time a cassette is loaded or ejected, a cleaning roller automatically passes over the video/FM audio (rotary) heads, removing tape residue and providing preventive care of the tape heads.

Compact, Lightweight And Low Power Consumption

The SVO-5800 has a compact, lightweight design and is engineered for low power consumption. The unit weighs only 11.5kg (25 lb 6 oz) and is 3 units high (19-inch rack mountable with the optional RMM-980). Thanks to a drastic reduction in the number of electronic components, the incorporation of a newly developed single-chip microcomputer, and other state-of-the-art developments, SVO-5800 power consumption is held to a low 60W.

9-pin REMOTE Interface (RS-422A serial)

The SVO-5800 has the industry standard 9-pin REMOTE Interface for integration with a Sony 9-pin based editing system. The 9-pin connector carries edit commands and time code data between the VTR and an editing control unit. The SVO-5800 can be installed in almost any editing configuration–from basic two-machine editing to a fully featured A/B roll editing system.

Automatic Edit Select System

When connected with an editing controller, the SVO-5800 automatically selects the servo reference sync mode–EDIT (RECORDER) mode or NORMAL (PLAYER) mode–to help avoid misoperation.

Automatic S-VHS Rec Mode

In addition to the S-VHS Rec ON mode, the SVO-5800 also has an AUTO mode. In the recording mode, when the S-VHS Rec Mode is set to ON, the SVO-5800 can automatically detect a videocassette tape (S-VHS or VHS) and switch to the proper recording mode. In the editing mode, when an S-VHS videocassette tape is used and the S-VHS Rec Mode is set to AUTO, the SVO-5800 detects which FM carrier frequencies are used for luminance signal modulation on a prerecorded editing tape, and continuously records in the same recording format.

Versatile System Interface

S-video Signal Input/Output (4-pin DIN)

The SVO-5800 is fitted with S-VIDEO IN/OUT connectors which carry separate Y (luminance) and C (chrominance) signals. This reduces picture deterioration due to cross color and dot interference during signal transmission. For secure connections, Sony employs a locking connector which is compatible with current S-VIDEO connectors and cables.

Composite Video Signal Input/Output

In addition to the S-video connectors, the SVO-5800 is equipped with composite video signal inputs/outputs for system integration with a variety of video equipment.

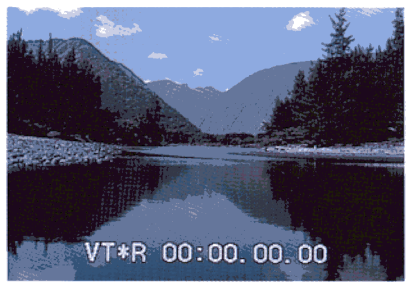
Optional Y/R-Y/B-Y Component Video Signal Output

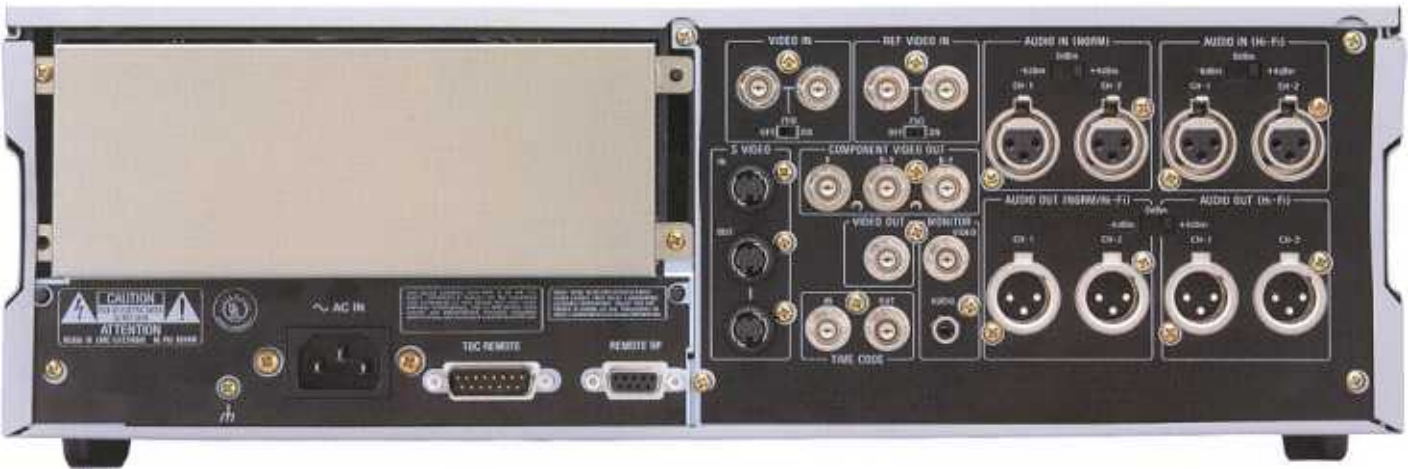
By installing the optional SVBK-170 Component Output Board, the SVO-5800 provides Y/R-Y/B-Y component signal output through BNC connectors. By using this component signal output, the SVO-5800 can be integrated with Betacam SP based component editing systems.

User Friendly Convenient Operation

Character Superimposition

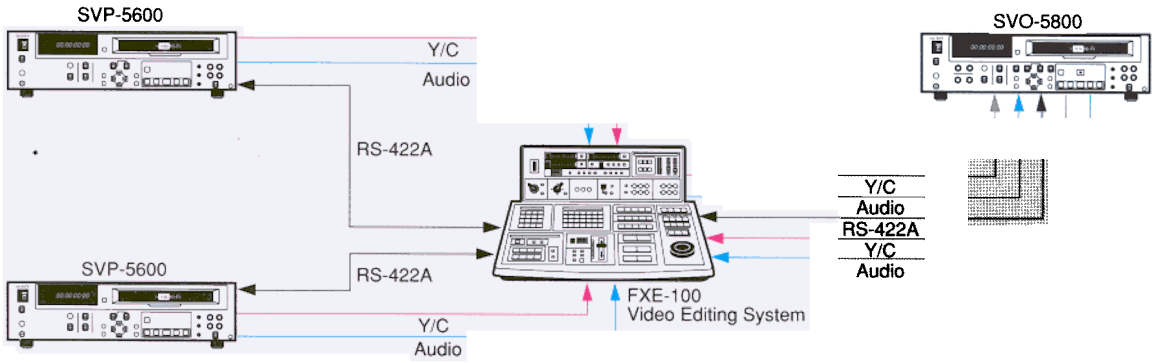
The SVO-5800 has a built-in character generator which superimposes characters on the output signal obtained at the VIDEO MONITOR OUT connector. This allows time code data (LTC, VITC, U-bit), CTL and VTR function status to be shown on a monitor. Menu items can also be displayed for system setup.



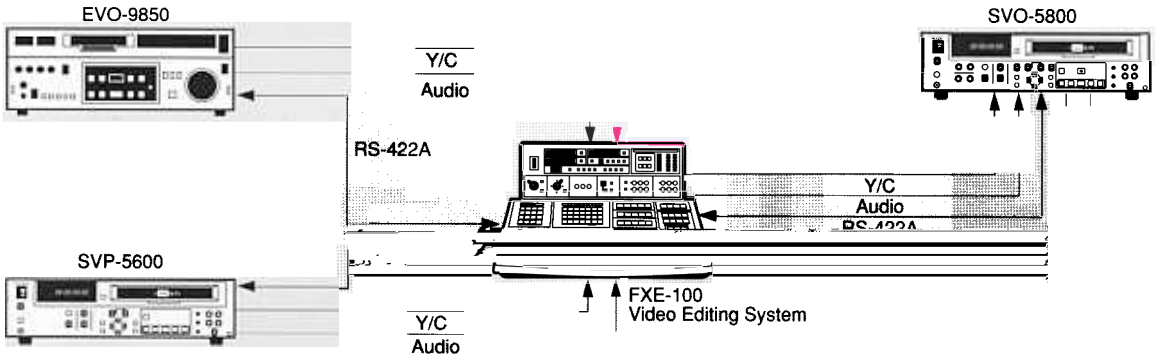


System Connections

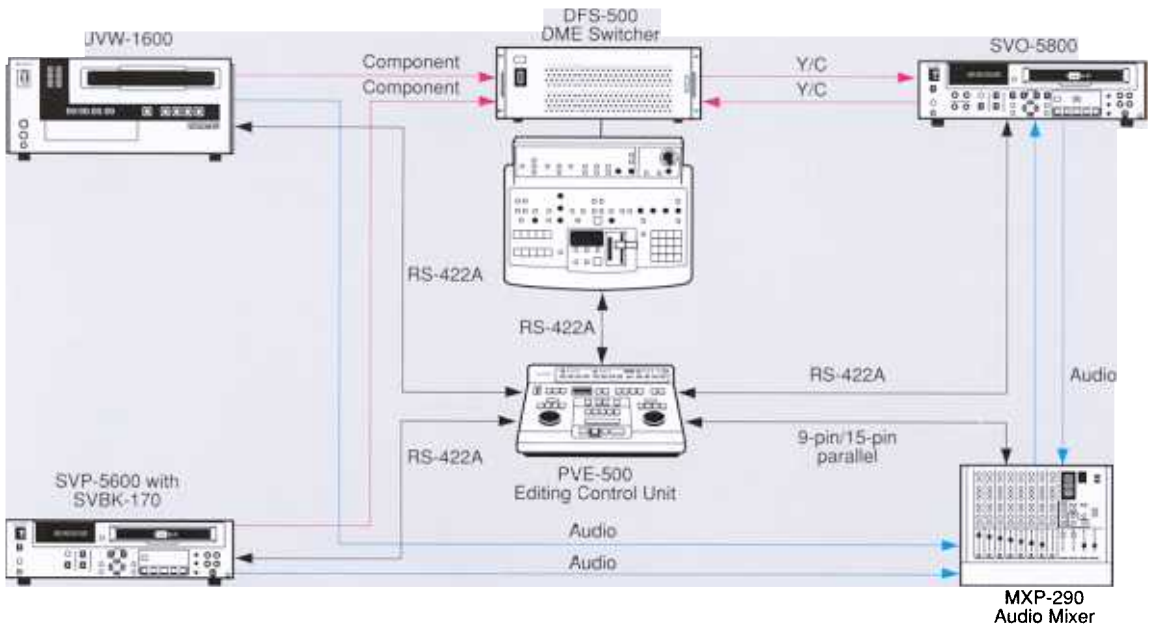
S-VHS A/B Roll Editing System



Hi 8/S-VHS A/B Roll Editing System



Betacam SP/S-VHS A/B Roll Editing System



Optional Accessories

Component Output Board
SVBK-170

Remote Control Unit
SVRM-100

TBC Remote Controller
UVR-60

Rack Mount Kit
RMM-980

S-VHS Videocassette
MQST-30/60/120

Specifications

General

Weight:	11.5kg (25 lb 6 oz)
Dimensions (W x H x D):	425 x 145 x 457mm (16 3/4 x 5 3/4 x 18 inches)
Power requirements:	AC 120V, 60Hz, 3 wire grounded receptacle
Power consumption:	60W
Operating temperature:	5 to 40°C (41 to 104°F)
Tape speed:	33.35mm/s
Tape format:	S-VHS or VHS
F.FWD and REW time:	Approx. 2.5min. (with MQST-120)
Search speed: (with optional SVRM-100)*	SHUTTLE: STILL, 1/30, 1/10, 1/5, 1/2, 1, 2, 10 times normal speed, forward and reverse JOG: Frame by frame, forward and reverse

Video

Video signal:	NTSC (color)/ EIA (monochrome)
Video recording system:	Rotary two-head helical scanning Luminance: FM recording Chrominance: Converted subcarrier direct recording
Inputs:	REF VIDEO IN (BNCx2, loop-through): Black burst or 1.0Vp-p, 75Ω, unbalanced, sync negative COMPOSITE IN (BNCx2, loop-through): 1.0Vp-p, 75Ω, unbalanced, sync negative S-VIDEO IN (Mini DIN 4-pin): Y; 1.0Vp-p, 75Ω, unbalanced, sync negative C; 0.286Vp-p (burst), 75Ω, unbalanced
Outputs:	COMPOSITE OUT (BNC): 1.0Vp-p, 75Ω, unbalanced, sync negative S-VIDEO OUT (Mini DIN 4-pinx2): Y; 1.0Vp-p, 75Ω, unbalanced, sync negative C; 0.286Vp-p (burst), 75Ω, unbalanced COMPONENT OUT (BNCx3, with optional SVBK-170): Y; 1.0Vp-p, 75Ω, unbalanced, sync negative R-Y; 0.7Vp-p, 75Ω, unbalanced B-Y; 0.7Vp-p, 75Ω, unbalanced VIDEO MONITOR OUT (Super) (BNC): 1.0Vp-p, 75Ω, unbalanced, sync negative
Horizontal resolution:	S-VHS: More than 400TV lines VHS: More than 240TV lines
S/N ratio:	More than 47dB (in S-VHS/VHS mode)

Audio

Inputs:	Normal CH-1/2 (XLR): +4/0/-6dBm selectable, 600Ω, balanced Hi-Fi CH-1/2 (XLR): +4/0/-6dBm selectable, 600Ω, balanced
Outputs: (0dBu=0.775Vrms)	Normal CH-1/2 (XLR): +4/0/-6dBm selectable at 600Ω load, low impedance, balanced Hi-Fi CH-1/2 (XLR): +4/0/-6dBm selectable at 600Ω load, low impedance, balanced AUDIO MONITOR OUT (PIN): -5dBu, at 47kΩ load, unbalanced HEADPHONE OUT (STEREO PHONE): -50 to -18dBu at 8Ω load unbalanced
S/N ratio (Normal audio at 3% distortion, Dolby OFF) :	More than 43dB
Frequency response:	Normal: 50Hz to 12kHz Hi-Fi: 20Hz to 20kHz
Dynamic range:	More than 90dB (in Hi-Fi mode)

Others

TIME CODE IN (BNC):	0dBu±6dB, 10kΩ, unbalanced (0dBu=1.55Vp-p PULSE)
TIME CODE OUT (BNC):	0dBu±3dB at 10kΩ load, unbalanced (0dBu=1.55Vp-p PULSE)

Remote

TBC REMOTE:	15-pin multi
REMOTE:	9-pin multi, SMPTE RS-422A standards
WIRED SIRCS:	Control-S (Power supplied type)

Supplied accessories

AC power cord (1) Operation manual (1)

* Without the SVRM-100 attached, picture search is conducted at ±10 times normal speed by continuously pushing the F.FWD or REW button.

"Dolby" is a trademark of the Dolby Laboratories Licensing Corporation.
"Betacam SP" is a registered trademark of Sony Corporation.

Design and specifications subject to change without notice.

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