

花火
HANABI

HD/SD 1M/E Digital Video Switcher

HVS-1000HS "1M/E HANABI"



The New, Amazing 1ME Hanabi Switcher!

Multi-bit Rate/Multi-format



HVS-1000HS is switchable between HD or SD formats by simply re-initializing the Operation Unit's mode setup. HVS-1000HS functions in various HD formats such as 1080/60i and 720/60p. Additional support includes generating a 4:3 display in HD mode; or the choice of letter-box or squeeze display in SD mode. Thus, providing the preparation needed for up/down conversions.

HD formats: 1080/60i, 59.94i, 50i, 24p, 24sF, 23.98p, 23.98sF, 720/60p, 59.94p, 50p.

SD formats: 525/60 (NTSC), 625/50 (PAL).

*Other formats coming soon.

2-RU Compact Size

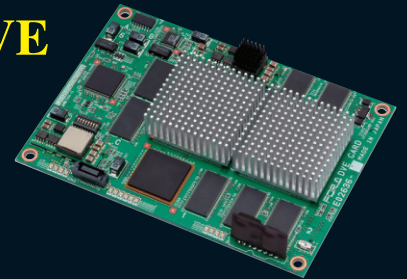


The Main Unit is only EIA 2-rack-unit in height! Regardless of its compact size, up to 2 optional DVE (Digital Video Effect) boards and up to 2 optional keyer boards (each optional keyer board including a chroma key function), and optional redundant power supply can be installed. Since the Operational Unit is only EIA 3-rack-unit, the entire system installation only requires a total of only 5RU, making it ideal for mobile applications.

(HVS-1000LOU is EIA 3RU and HVS-1000EOU is EIA 4RU.)

DVE-1000HS High-performance, Compact DVE

Our DVE comes standard with one internal DVE board for reproducing various effects. Up to two boards can be installed to enable use as a 2-channel DVE for HD formats or a 4-channel DVE for SD formats. DVEs can easily be assigned to each bus (BKGD, KEY1 and KEY2).



2 Kinds of Operation Units

Two operation units, the TYPE-L and the TYPE-E, are available. While carrying over the operating ease of the 2M/E HANABI, TYPE-L features a button layout enabling background (BKGD) and KEYER operations to be conducted independently. It's extremely easy to operate, and boasts a full array of functions for many different applications. TYPE-E comes with a color display screen, and features a button layout designed for situations where background (BKGD) and KEYER operations are conducted simultaneously. By listing the settings on the display and providing other display-oriented conveniences, it offers the benefits of outstanding visual recognition, and proves to be an invaluable tool for creating complex pictures.



TYPE-E Operation Unit
HVS-1000EOU

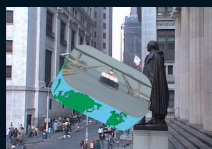


TYPE-L Operation Unit
HVS-1000LOU

DVE-1000HSA Realistic 3-Dimensional DVE

In addition to our standard DVEs, optional DVEs enabling advanced effects supporting realistic 3-dimensional DVEs using a polygon system are also available. Using real-time rendering, images can be mapped into 3-dimensional shapes such as page turns and spheres as well as DVE effects created by full 3-dimensional processing.

Realistic 3D DVE Sample:



3D Pizza box



3D Quad page turn



3D Sphere

Color Correction Features Added

Optional color correction functions can be installed in the primary and keyer. Process control, gamma corrections and various clip functions are all available. The parameters for any of these functions can be registered in the event memory to enable different changes to be made in the course of sequences.

<Main color correction functions>

- Three color correction functions (balance, differential and sepia)
- Gamma adjustment functions in HIGH, MID and LOW tones
- Process control functions (video level, chroma level and setup level)
- Various clip functions (RGB/YPbPr)

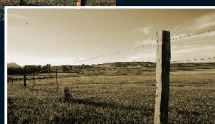
Color correction mode



Balance mode:
For color correction in RGB signals.

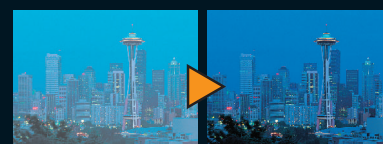
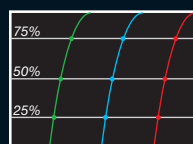


Differential mode:
For color correction without upsetting the white balance.



Sepia mode:
For converting the colors into a monotone.

Gamma function



For gamma correction separately for the RGB signals in the HIGH (near 75%), MID (near 50%) or LOW (near 25%) tone.

Inputs & Outputs

Eight inputs come standard. Up to 16 inputs and 1 utility input can be installed as an option. Four still store inputs are available. Two PGM, 1 PVW, 1 AUX and direct input PVW (without DVE and key) outputs are available as standard. Three additional AUX outputs can be configured as an option.



Main unit rear panel (full option)

Still Store

The Still Store function allows internal storage of up to 4 stills. A compact flash memory card can be used for easy downloading of graphic images created on a separate computer.



Forced Background

The Forced Background function allows mixing or wiping inside the digital effects picture, for more versatility in 1ME operation.

Line DVE

DVE can be applied to the PGM, PST, KEY1 and KEY2 buses. Since the DVE can be mixed or wiped, simple arrangements of more effective transitioning effects, such as picture-in-picture are possible.

3 Separate Keyers

The number of keyers can be increased to three on the main unit, enabling synthesis in up to six layers. Three keyers with a DSK function are supplied as a standard feature. Optional keyer 1 and keyer 2 can provide a chroma key function and color correction function.

Motion Blur

The Motion Blur function can provide blur trail effects for moving pictures. Blur effects can be varied by the fader control.

Animation Logo

Using the Still Store function, up to 4 animation logo displays are possible.

Safety Area Marker & Color bars

Available standard, a Safety Area Mark generator is useful for verifying picture aspect/location when pictures are down-converted from HD to SD. Color bar generation also comes standard.

Network Supported

The HANABI series can be connected to a network by installing an optional ARCNET board. A soon to be released optional Ethernet board will make it possible to receive images from a computer over a network.

Choice of Two Packages to Su

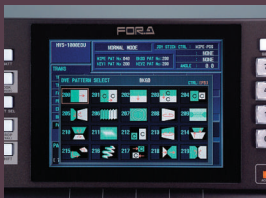
TYPE-E Package HVS-1000EOU is ideal for editing applications.



Configuration

- *HVS-1000HS 1ME Hanabi Main Unit: 8 inputs, 2 PGM outputs, 1 PVW output, 1 AUX output, 1ch keyer (DSK)
- *HVS-1000EOU Operation Unit: designed for editing applications
- *DVE-1000HS 2.5D DVE: 1 channel for HD and 2 channels for SD
- *HVS-ED100 Editing Control Software: supports GVG-100 and BVS-3000 protocol

Large Color LCD Display



A 6.4-inch color LCD is provided for easy operation. Format mode setup, wipe and DVE patterns, and other setup parameters, are visibly selected.

Line DVE Buttons



Since the Line DVE button is independently available on each bus, DVEs can be assigned to the remaining buses for DVE transitions.

Event Memory

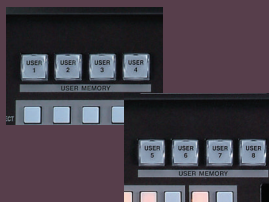
200 event memories are available.

Setup Condition



Current Wipe, Keyers, and DVE setup conditions are available via LED indicators for easy operator verification.

User Preset Buttons



Eight user Preset buttons are available on the EOU for quick selection and retrieval of operator settings. Definitely useful for editing applications.

Sequence Memory

Sequence displays using up to 20 event patterns are available. Sequences can be linked to enable fader operations.

Support Your Ideal Production

TYPE-L Package HVS-1000LOU is ideal for LIVE or simple editing applications.



Configuration

- *HVS-1000HS 1ME Hanabi Main Unit: 8 inputs, 2 PGM outputs, 1 PWV output, 1AUX output, 1 input direct output, 1ch keyer (DSK)
- *HVS-1000LOU Operation Unit: designed for LIVE or simple editing applications
- *DVE-1000HS 2.5D DVE: 1 channel for HD and 2 channels for SD

DVE Pattern Selectors



Five DVE Pattern Selection buttons are available for instant selection of required DVEs.

Key Selectors



Three independent key selection buttons are available for Keyer 1, Keyer 2 and Keyer 3, efficiently improving live operation.

Input Direct Preview



The Input Direct Preview button allows the operator to see and check all input signals which are not linked through the ME bus.

Utility Input



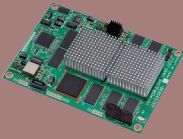
The optional Utility Input is used for camera returns to a studio camera, or floor monitoring, in the studio, and can only be selected on the AUX bus.

A Large VFD Display

Vacuum Fluorescent Displays offer the best format for live use.

Options

DVE-1000HS HD/SD switchable DVE card

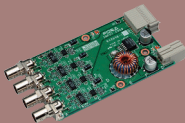


DVE-1000HS card provides 2-channel DVE effects for SD formats and 1-channel DVE effects for HD formats. Up to two DVE-1000HS cards can be installed. (One card is provided with each package as a standard feature.)

HVS-1000CC Color corrector for primary

This option adds color correction functions to the primary. It can assign color correction for up to 2-channels to M/E Buses other than KEY1 and KEY2. (The color correction can be set either for each bus or for each input.)

HVS-1000HSDI Digital 4-input expansion card



This unit allows 4 x HD/SD-SDI inputs to be expanded at a time. A maximum of 2-cards can be added, for expansion to a total of 16-inputs.

HVS-1000HSDO Digital 3-output expansion card



This unit adds 3 x AUX outputs. One card can be added.

HVS-ARCNET ARCNET connection card



This interface unit is used to connect HANABI peripheral devices such as HVS-AUX16. 1-card of this type can be added.

HVS-1000PSM Redundant power supply for main unit



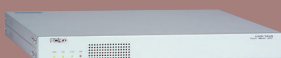
This unit makes the main unit power supply redundant.

HVS-AUX16 AUX control panel



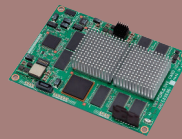
A maximum of 4 x AUX switch units can be connected. (Optional HVS-ARC-NET is required for connection.)

HVS-TALR Tally relay unit



This unit is a contact output-type tally relay unit. It contains 64 independent output circuits. A single tally relay unit can provide 32 separate R-TALLY/G-TALLY outputs.

DVE-1000HSA HD/SD Realistic 3D DVE card (Advanced type)



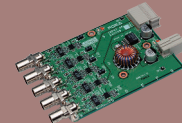
DVE-1000HSA card delivers realistic 3-Dimensional effects. (It cannot be used together with the DVE-1000HS card. An upgrade from the DVE1000HS is required for installation.)

HVS-KYCC Keyer & color corrector card



This keyer card comes with color correction functions. Up to 2-cards can be installed. (HVS-1000CC is required for installation. Card useable for KEY1 and KEY2.)

HVS-1000HSCR Expansion card with four digital inputs and a utility input



This unit adds 4 x HD/SD-SDI inputs and one utility input. One expansion card of this type can be added.

HVS-KEYER Keyer expansion card



This unit (with its edge, shadow and chroma key functions) is used to add keyers. Up to 2-cards can be installed for keyer expansion.

HVS-ED100 Editing control software

This software program is used to support the GVG-100 and BVS-3000 editing protocols. (Provided as a standard feature with the editing package).

HVS-1000PSO Redundant power unit for OU



This unit makes the OU power supply redundant.

HVS-AUXRK AUX panel extension kit



This kit provides an extension for connecting a separate HVS-AUX16 panel to the main unit. The maximum extension distance is 5-meters.

HVS-TALOC Tally open collector unit



This unit is an open collector-type tally unit. It contains 64 independent output circuits. A tally open collector unit can provide 32 separate R-TALLY/G-TALLY outputs.

Specifications

	HD mode	SD mode
Standard	1080/60i, 59.94i, 50i, 24p, 24sF, 23.98p, 23.98sF, 720/60p, 50p, 59.94p (Selectable at menu) (Other formats to be released)	525/60 (NTSC), 625/50 (PAL) (selectable at menu)
Signal processing	4:2:2:4 digital component, 10-bit	
Video Input	8 standard inputs, optionally expandable to 16 inputs plus 1 Utility input	
Reference Input	HD SDI: 1.485Gbps or 1.485/1.001Gbps, 75Ω, BNC	Digital component: 270Mbps, 75Ω, BNC
	Tri-level Sync: ±0.3Vp-p or BB: 0.429Vp-p (NTSC) /0.45Vp-p (PAL) 75Ω or loopthrough, 1ea., BNC	BB: 0.429Vp-p (NTSC) /0.45Vp-p (PAL), 75Ω or loopthrough, 1ea., BNC
Video Output	5 standard outputs, optionally expandable to 8 outputs	
Reference Output	HD SDI: 1.485Gbps or 1.485/1.001Gbps, 75Ω, BNC	Digital component: 270Mbps, 75Ω, BNC
	Tri-level Sync: ±0.3Vp-p or BB: 0.429Vp-p (NTSC) /0.45Vp-p (PAL) 75Ω, 1ea., BNC	BB: 0.429Vp-p (NTSC) /0.45Vp-p (PAL), 75Ω, 1ea., BNC
I/O Delay	1H (when DVE option not applied to output), 1 frame +1H (KEY1, KEY2), 1 more additional frame when DVE applied to output	
Memory Device	Memory card (compact flash card)	
Interfaces	OU: 1ea., 15-pin D-sub (female)	
	RS-422: 1ea., 9-pin D-sub (female) (for tally unit, etc)	
	GPI IN: 1ea., 15-pin D-sub (female)	
	GPI/TALLY OUT: 1ea., 25-pin D-sub (female)	
	EDITOR: 1ea., 9-pin D-sub (female)	
	ALARM: 1ea., 9-pin D-sub (female)	
	ARCNET: 75Ω, 1ea., BNC (optional for HANABI series)	
	NETWORK: Ethernet 10/100BASE-T 1ea., RJ-45 (optional)	
Temperature / Humidity	0°C - 40°C / 30% - 90% (no condensation)	
Power	100VAC - 240VAC 50/60Hz	
Consumption	Standard	Approx. 165VA (at 100VAC), Approx. 170VAC (at 240VAC)
	Full option	Approx. 265VA (at 100VAC), Approx. 270VAC (at 240VAC)
Dimensions / Weight	MU: 430 (W) x 88 (H) x 503 (D) mm EIA 2RU / Approx. 15kg (full option: Approx. 18kg)	
	HVS-1000EOU: 430 (W) x 162.6 (H) x 310 (D) mm / Approx. 6.5kg (full option: Approx. 7kg)	
	HVS-1000LOU: 430 (W) x 131.7 (H) x 310 (D) mm / Approx. 6.5kg (full option: Approx. 7kg)	
Accessories	MU: User's Manual / AC Cable / Rack mount brackets	
	OU: AC Cable / Connection cable / Memory Card	
Options*	HVS-1000HSDI: Digital 4-input expansion card	
	HVS-1000HSCR: Expansion card with 4-digital inputs and 1-utility input	
	HVS-1000HSDO: Digital 3-output expansion card	
	HVS-KEYER: Keyer expansion card	
	HVS-ARCNET: ARCNET connection card	
	DVE-1000HS*1: HD/SD switchable DVE card (2.5D type)	
	DVE-1000HSA*2: HD/SD Realistic 3D DVE card (Advanced type)	
	HVS-1000CC: Primary color corrector	
	HVS-KYCC: Keyer & color corrector card	
	HVS-1000PSM: Redundant power supply for main unit	
	HVS-1000PSO: Redundant power unit for OU	
	HVS-AUX16*3: AUX control panel	
	HVS-AUXRK: AUX panel extension kit	
	HVS-TALR*4: Tally relay unit	
	HVS-TALOC*4: Tally open collector unit	
HVS-ED100*5: Editing control software		

*1: 1-card comes as a standard feature with each package.

*2: An upgrade from the DVE1000HS is required to install the DVE-1000HSA card.

*3: HVS-ARCNET is required when HVS-AUX16 is used.

*4: Up to 5 x HVS-TALR and HVS-TALOC units can be connected altogether.

*5: This comes as a standard feature with the TYPE-E package.

* For details on the options, refer to the page on the right.

Configuration of Options

