

SONY



MVS-6000

Multi-Format Video Switcher

The MVS-6000 is an affordable and highly featured vision switcher for SD or Multi format video switching. It can cater for production needs starting at 15 inputs / 24 outputs 1ME (Mix Effect Bus) up to 49 inputs / 24 outputs and 2.5ME. This is a new addition to the family of MVS-8000 & DVS-9000 switchers. The MVS-6000 utilizes the latest technologies such as a newly developed image processor, internal digital multi-effects (DME), clip transition effects, Side Flags, internal format convertor and multi-format operation, all packed into a compact frame.

The MVS-6000 can also be upgraded to multi-format configurations by licence key. Customers can start with a standard-definition (SD) configuration and, with no change in hardware, easily upgrade to multi-format configurations according to their growing needs. The all-new CCP-6000 Series is an easy-to-use control panel that can be operated in combination with a standard VGA monitor and a mouse, which greatly expands operational flexibility. The CCP-6000 also includes the newly developed Multi-Function FlexiPad module that further saves space whilst completing existing operational requirements.

Features

Built-in Format Converter

One of the unique and very powerful features of MVS-8000G Series and MVS-6000 Switchers is that a format conversion capability can be incorporated simply by adding the MKS-8450G Format Converter Board. This option provides up-conversion and downconversion between HD (1080i and 720P) and SD (480i and 576i), and cross-conversion between 1080i and 720P at both inputs and outputs. By adding the MKS-8450G Format Converter Board, format conversion for eight inputs and two outputs becomes available.

Customizable Control Panel

The MVS-8000G Series, MVS-6000, and DVS-9000 Series share the same control panels, which have

been designed with special care and attention. A lineup of three control panels is available: the customizable CCP-8000 Series and two simple and practical control panels, the CCP-6000 Series and CCP-9000 Series.

Creative M/E Functionality

Each M/E on the MVS-6000 is equipped with four keyers*, allowing sophisticated layering from a single M/E. Separate from the main fader, each keyer has its own auto-transition controls, which allow users to insert or remove keys on an individual basis with independent wipes, DME wipes, and dissolves. For further flexibility, each keyer in every M/E also offers chroma keying and color vector keying, eliminating restrictions of selectable key types. These fully featured M/Es allow total interoperability of effects on all M/Es.

*The Simple P/P only has two keyers and does not support chroma keying.

Colour Correction Function*

Two-channel full-featured Primary and Secondary Colour Correction is optionally available for the MVS-6000.

The MVS-6000 also allows, the Colour Corrector to be applied to the video outputs of the internal M/E or P/P banks.** This ability allows studio monitors placed, for example, beside newscasters to provide true colour reproduction when included in the camera shot.

* For the MVS-6000, both an optional Frame Memory Board MKS-8442G and Colour Corrector Software BZS-6420 are required.

** This function causes 1H delay.

Resizer Function

The Resizer function in the MVS-6000, allows superb simple 2D DME effects to be supported through two out of four M/E keyers. This function can be activated for DME wipe transition, and keyframes too. A variety of effects - such as Wipe, and Defocus - can be applied to resized images. All these effects can be created without the use of

an external DME, bringing great advantages for both simple operation and minimized system cost.

Enhanced Frame Memory System

The MVS-6000 provides a high-capacity "frame memory system" that enables video frames to be captured and stored as still images. The system also allows a sequence of frames to be recorded as a video clip (called a "frame memory clip"). The frame memory system for the MVS-6000 system consists of a single, optional MKS-8442G Frame Memory Board.

Programmable Macros

Having a dedicated button for each function on the MVS-6000 is handy, but this switcher takes operational convenience a step further. The MVS-6000 makes it easy to program macros. Using the multi-function FlexiPad module, users can simply record operational sequences, then store and assign them to any desired button.

Macros are extremely useful in live environments when time is critical and there is no tolerance for making operational mistakes. Not only can macros record complex panel operational sequences, but menu operation can also be recorded as a macro.

Macros can be edited either directly from the control panel or by using the touch-screen menu display. Once programmed, macros can be executed in several ways. In addition to the easy Recall/Run from the FlexiPad module macros can be triggered via the panel or on a timeline to execute automatically in a sequence.

Clip Transition effects

With simple settings the MVS-6000 provides Clip Transition effects that enable transition, together with audio, using a frame memory clip. When doing a clip transition, a computer-generated image such as a logo moves across the picture, from one side to the other, while the transition is performed behind it. This Clip Transition effect is beneficial for sports broadcasting operations at, for example, football and basketball games.

This sophisticated effect can be performed with simple settings. The user is required only to select a frame memory clip, and determine two points: the start and stop point of backgrounds to meet the clip movement.

Various types of transition such as Mix, Wipe, DME Wipe, and Preset Colour Mix can be applied in a background transition according to the motion of the clip. This transition can be operated both backwards and forwards with the fader lever. In

addition, a Clip Transition can be performed with audio when using the Auto Transition button.

Benefits

Flexibility for Today and Tomorrow

The MVS-6000 Production Switcher provides users with a flexible solution to select between a standard definition (SD) and multi-format configuration. The MVS-6000 selectively supports the more commonly used signal formats as shown below:

High definition
1080i/59.9 , 50
720P/59.9 , 50
Standard-definition
480i/59.9
576i/50

Scalable Configurations

The processor of the MVS-6000 can be configured to suit the exact needs of each particular user in terms of operation, resolution, frame rate, number of I/Os, number of M/E banks, and more. The MVS-6000 can also be upgraded as user needs grow, simply by installing the appropriate option board.

Sophisticated Digital Multi-Effects

The MVS-6000 Switcher Processor offers two channels capable of internal Digital Multi-Effects (DME) with the installation of the MKS-6470 DME Board Set. The MVS-6000 supports frequently used DME patterns such as 3D Linear Transformation, Video Modify, Freeze, Light/Trail, Input/Output effect, Digital SKETCH, Metal, and Glow. Due to these features, the MVS-6000 is extremely user friendly as well as being an affordable system.

Easy and Efficient Operation

The MVS-6000 Switcher has a large colour touch-screen menu for efficient and intuitive system control. Button indications have also been greatly enhanced over previous generation switchers. Crosspoint source-name displays, FlexiPad, and Shot Box™ buttons all incorporate a backlit three-colour LCD indicator to which preset pattern icons or text can be imported and displayed. These indicators help to keep the operator informed at all times of crosspoint and button assignments. Optional remote-control panels, such as AUX Bus Remote, Keyer Remote (Universal Control Panel), and M/E Remote panels, allow convenient operating environments for live use.

Technical Specifications

-- General --

Power requirements:	100-240 V AC \pm 10%, 50/60 Hz
Power consumption:	7 to 3 A
Operating temperature:	5°C to 40°C (41°F to 104°F)
Storage temperature:	-20°C to 60°C (-4°F to 140°F)
Operating humidity:	10% to 90% (No condensation)
Dimensions (W x H x D):	482 x 176 x 520 mm (19 x 7 x 20 1/2 inches)
Mass:	26 kg (57 lb 5 oz) (fully loaded)
Primary inputs:	Max. 49, BNC x 1 each, SMPTE292M (HDTV), SMPTE259M-C (SDTV)
Assignable outputs:	24 OUT 1, 2, 13 to 16 : BNC x 2 each OUT 3 to 12, 17 to 24, FC1, 2 : BNC x 1 each SMPTE292M (HDTV), SMPTE259M-C (SDTV)
Monitor outputs:	Max. 8, BNC x 2 each, SMPTE292M (HDTV), SMPTE259M-C (SDTV)
Control LAN:	RJ-45 x 1, 100BASE-TX
Data LAN:	RJ-45 x 1, 100BASE-TX
Remote 1, 2	D-sub 9-pin, RS-422A
GPI:	D-sub 25-pin, TTL level inputs x 8, relay contact outputs x 4, open collector outputs x 4
FM Data:	RJ-45 x 1, 100BASE-TX
FM Device:	Complies with IEEE 1394
Built-in DME	DME Control LAN: RJ-45 x 1, 100BASE-TX DME Data LAN: RJ-45 x 1, 100BASE-TX Remote 3, 4: D-sub 9-pin, RS-422A GPI: D-sub 25-pin, TTL level inputs x 8