MVS-3000A

Compact and flexible SD / HD video switcher

Overview

The compact MVS-3000A brings top-end performance to a mid-range switcher

Hugely popular since its introduction in 2013, the MVS-3000A offers the same intuitive operation and menu structure as the larger MVS-7000X and MVS-8000X, but in a compact and affordable 2 M/E package. It's ideally suited to smaller studios, university media departments, small to mid-sized OB vehicles and stadium operations, but it's also being used by larger broadcasters to extend the capability of existing studios. The fixed-configuration panel has 2 M/E banks and offers 32 inputs and 16 outputs in SD or HD modes. Each M/E bank has 4 keyers, with the first two keyers including a 2.5D resizer that can resize, reposition and x-rotate or y-rotate the image.

The MVS-3000A system consists of a 4RU high processor frame and a choice of 16 or 24-button panels (see Features section for details). SD (480i & 576i) and HD (720p & 1080i) modes are supported. Setup is fast and easy, with just a single Ethernet cable connecting the panel to the processor.

The MVS-3000A is impressively equipped as standard, with internal Frame Memories, two fully configurable multiviewers, with a choice of 4, 10 or 16-way split, full RGB colour correction on all inputs and aux bus outputs, and integrated device control

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for servers, disk recorders etc. Thanks to this generous standard specification, there are just two hardware options – internal 3D Effects and high quality Format Conversion.

The renowned MVS user interface makes the MVS-3000A simple to use for new and experienced operators alike. Snapshots, effect timelines and macros are interchangeable with the larger MVS-7000X and MVS-8000X. The compact panels have OLED name displays for excellent visibility and viewing angles, with user-customisable source colour display integrated in each source button.

Small spaces no longer mean that you have to compromise on features or quality. The MVS-3000A delivers everything you expect from an MVS series switcher, in a compact and elegant design at a very affordable price.

Built-in features

• Multiformat SD and HD support
• 32 inputs and 16 configurable outputs
• 8 keyers with 2.5D resizer on half of them
• Ergonomic control panels with user-assignable functions
• Intuitive operation with one-button macro recall
• Internal Frame Memory - store and instantly recall over 1000 frames in HD
• Device Control - connect and automate 4 external devices e.g. server channels, VTRs, audio processors etc.
• Full RGB Colour Correction on all inputs and aux bus outputs

Optional features

• Internal DME – 2 channels of 3D effects
• Format Converter – 8 channels of high quality signal conversion with frame delay and frame synchronise mode

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Features

MVS-3000A processor frame

The MVS-3000A SD/HD processor frame can accommodate two expansion boards: a 2 channel 3D DME, and a Format Converter for up, down and cross-conversion. Key features:

• 4 RU frame with 32 inputs and 16 outputs.
• Supports SD (480i & 576i) & HD (1080i & 720p) modes.
• 2 M/E banks, each with 4 keyers, four customisable outputs per bank including program, preview, key preview and clean outputs.
• 2.5D resizer on the first two keyers of each bank offers resize, reposition, aspect, X rotate or Y rotate, plus advanced defocus, mosaic & mask capability. Resizer works on all key modes including chromakey.
• Independent key transition allows individual wipe, mix or DME transition on every key.
• Built-in Multi-viewers: two independently configurable outputs provide 4, 10 or 16-way split, with names and tally indicators.
• Aux mix allows dissolves on aux busses without using M/E resources.
• Internal Frame Memory stores over 1000 frames (in HD) of instant-access internal storage for both individual frames (stills) and sequences (clips). Graphics files can be imported via USB or network connections. Embedded audio is supported.
• Clip Transition menu enables fast and intuitive setup of graphics wipes using the Frame Memory. Background transitions including wipes and DME effects are memorised and are instantly recallable via macros with just one keystroke.
• Integrated Device Control allows 4 external devices to be controlled directly from the switcher. Clip management is also provided, allowing different server clips to be recalled and played back as part of a switcher timeline or macro. Multiple protocols are supported including VDCP, Odetics and P2.

MVS-3000A processor frame (Contd)

• Full RGB Colour Correction on all inputs and aux bus outputs,

allowing correction by source and/or by destination, e.g. in-vision monitors.

• Internal 3D DME option provides 2 channels of high-quality 3D effects without the need for external devices.

• Format Converter option allows 8 channels of internal conversion between HD and SD signals, plus cross conversion between 1080i and 720p signals.

• Frame synchronisation and delay mode also allows up to 8 frames delay for virtual studio applications.

• One-touch macros: multiple keystroke operations can be simply automated and recalled with a single button press. The intuitive on-screen menu offers online, real-time preview and editing of macros, plus offline editing mode. Macros can be recalled from the flexipad, or can be attached to most of the control panel buttons for supreme operator flexibility.

• Intelligent tally functions: all MVS switchers provide an intelligent and multi-functional tally system. Multiple red and green tallies can easily be configured on the switcher system.

• Network File Support allows users to load graphics files from remote locations.

Switcher processor options
• MKS-6550 - Format Converter Board
• MKS-6570 – Internal 2ch 3D DME Board

MVS-3000A Control Panels
Any of the following panels can be used to control the MVS-3000A processor:

• ICP-3016 16 button 2M/E control panel (3 row layout)
• ICP-3000 24 button 2M/E control panel (3 row layout)
• ICP-6520 24 button 2M/E control panel (2 row layout)
• ICP-6511 touchscreen menu

MVS-3000A further options
Peripherals from the Sony MVS system range are supported,

including remote panels and expanded device control units.

Remote panels
• MKS-8080 1RU aux bus remote panel
• MKS-8082 3RU aux bus remote panel

Expanded Device Control
In addition to the 4 external devices directly controlled by the switcher, up to 18 additional external devices such as disk recorders can be controlled with the addition of a device control unit (DCU). Clip management is also provided, allowing different server clips to be recalled and played back as part of a switcher timeline or macro. The MVS-3000A supports multiple control protocols including VDCP, Odetics, Sony serial, P2, ESAM etc. DCU options:

• MKS-8700 - Device Control Unit controls up to 18 devices (3RU)
• MKS-2700 - Device Control Unit controls up to 6 devices (1RU)
• MKS-8701 - Tally/GPI Output Board
• MKS-8702 - Serial Interface Board
• HK-PSU01 - Backup Power Supply Unit

System Management Software
System Manager runs on a separate Windows PC, allowing remote operation of the menu system, transfer of graphics between switchers and remote monitoring of diagnostics plus further functionality.

• BZPS-8000 - System Management Software
• BZPS-8000L - System Management Software (Standalone type)
• BZPS-8001 - Switcher Setup Software
• BZPS-8002 - PFV-SP Setup Software

Specifications General

Power requirement	AC 100 V to 240 V, ±10% 50/60 Hz
Power consumption	4 A to 1.7 A
Operating temperature	5C to 40C (41F to 104F)
Storage temperature	-20C to +60 C (-4F to +140F)
Operating humidity	10% to 90% (Non-condensing)
Dimensions (W x H x D)	482 x 176 x 486 mm (19 x 7 x 19 1/4 inches)
Mass	19 kg (41 lb 14 oz) (fully loaded)

Video inputs/outputs

Primary inputs	32, BNC (x1 each) SMPTE292M (HDTV), SMPTE259M-C (SDTV)
Assignable outputs	16, BNC (x1 each) SMPTE292M (HDTV), SMPTE259M-C (SDTV)

Supported Formats

HD	1080/59.94i, 1080/50i, 1080/23.976PsF, 1080/24PsF,

	720/59.94p, 720/50p
SD	480/59.94i, 576/50i

Reference	
Reference input	BNC (x2), 75 Ω with loop-through output HD tri-level sync or Analog black burst

Control	
MVS LAN	RJ-45 (x1), 1000BASE-T
Remote 1 to 4	D-sub 9-pin (x1), RS-422A
Remote S1 to S2	D-sub 9-pin (x1), RS-422A
S-BUS	BNC (x1), S-BUS
Serial Tally	D-sub 9-pin (x1), RS-422A
Tally / GPI	D-sub 25-pin (x3), TTL level inputs (x18), open collector outputs (x48)
FM Device	USB-type A (x1), USB 2.0

Related products

MVS-6530

Mid-range SD / HD
video switcher with 3
M/E

Gallery