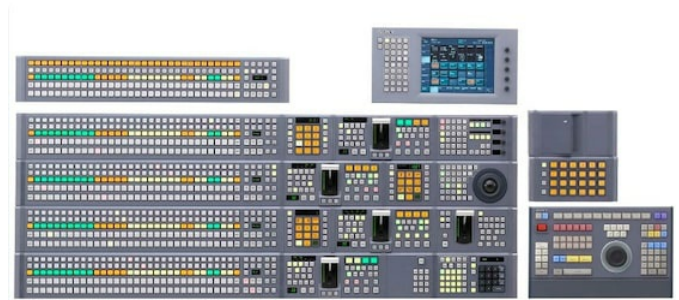# MVS-8000X

4K, HD, 3G, SD Multi- Format Production Switcher Processor

Overview

The powerful MVS-8000X heads up Sony's live production switcher range

With up to 180 inputs, 68 outputs and 40 full-function keyers, the MVS-8000X can easily handle even the biggest live events, in the production format you choose, from SD up to full 4K UHDTV.

The MVS-8000X system consists of a 10RU high processor frame and at least one control panel. 3G signal processing supports full 1080p production and allows 4k operation with the appropriate software option. Up to 4 control panels can interface to a single processor, allowing economical multi-control room installations. Larger control surfaces have their own 1U electronics unit, keeping the operator's panel fan-free, quiet and cool.

Every MVS-8000X includes 8 full-function keyers*, each with its own 2.5D resizer as standard, on each M/E bank. The system architecture is very flexible, with multiple user-definable program outputs and aux busses.

Software options include Colour Correction and expanded Multi Program outputs.

Additional hardware options include internal Frame Memories, high quality Format Conversion and powerful Device Control,

plus DME interface to control the MVE-8000A effects processor.

For the operator, the unrivalled ergonomics of the MVS user interface means no difficult learning curve when moving up from previous models of switcher. Macros, effect timelines and snapshot memories make it easy to save and recall complex setups or sequences. A range of control panels is available, including compact and rack-mounted options. Whichever panel design you choose, you can be confident that it has been honed by the hands-on experience of vision mixers and TDs worldwide for over two decades.

For the system specifier, the modular control panels and generous range of options makes it easy to configure a studio with exactly the features you need. Each MVS-8000X is individually configured to the customer's specification, from a 2M/E 24-input compact desk up to a 5M/E 180-input powerhouse. Sony's proven quality, combined with dependable after-sales support and software upgrades, makes the MVS-8000X an excellent long-term investment.

*8 keyers in 1080i modes, 4 keyers in 1080p modes.

Built-in features

• Multiformat SD to full 4k UHDTV support
• Flexible scalable architecture from 24 to 180 inputs, up to 68 configurable outputs
• Up to 40 full-function keyers with 2.5D resizer on every keyer
• Ergonomic modular control panels with user-assignable functions
• Intuitive operation with one-button macro recall

Optional features

• Internal Frame Memory - store and instantly recall over 2000 frames in HD
• Device Control - connect and automate up to 24 external

devices e.g. server channels, VTRs, audio processors etc.
• Full RGB Colour Correction on up to 16 inputs
• DME interface for full 3D effects – requires MVE 8000 or MVE 9000 effects unit

This product contains pre-installed software and requires the purchase of licence keys to activate some functions.

Features

MVS-8000X processor frame
The MVS-8000X multiformat processor frame can be configured to suit the exact needs of each particular user by installing the appropriate option boards from the list below. Build your own switcher from 2 to 5 M/E banks, and upgrade the hardware as your needs grow. Key Feature:

• 10 RU frame Accommodates up to 180 inputs and 68 outputs.
• 3G signal processing supports 1080p and 3D modes.
• Multi control room capability – up to 4 panels can control one processor, with resources allocated separately.
• Up to 5 M/E banks, six customisable outputs per bank including preview, key preview, clean and semi-clean outputs.
• Multi Program 2 software option provides dual operation (main/sub) for each bank, giving up to 10 banks with separate keys and backgrounds plus preview.
• 8 full-function keyers per M/E bank in 1080i mode, 4 per bank in 1080p.
• 2.5D resizer on every key 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.
• Frame Memory option gives over 2000 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.

MVS-8000X processor frame (Contd)
• Format Converter option allows 8 or 16 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.
• Full RGB Colour Correction on all inputs and aux bus outputs, allowing correction by source and/or by destination, e.g. in-vision monitors.
• 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.
• Networking functions: The MVS-8000X system units are interconnected using two Ethernet-based networks: Control LAN and Data LAN. Separation of control and data messages ensures that time-critical actions such as transitions and tallies are never slowed down by data traffic. Network File Support allows users to load graphics files from remote locations.

Switcher processor options

- MKS-8110X - 20 Input Board
- MKS-8160X - Output Processor Board Set
- MKS-8170X - DME Interface Board Set
- MKS-8180X - Cross Point Board Set
- MKS-8210X - Mix/Effect Board
- MKS-8440X - Frame Memory Board Set
- MKS-8450X - Format Converter Board
- HK-PSU05 - Power Supply Unit
- BZS-8200X - Multi-program 2 Software
- BZS-8420X - Colour Corrector Software
- BZS-8560X - Upgrade Software for 3D or 1080p
- BZS-8570X - 4K software upgrade

MVS-8000X Control Panels

Four different panels, each built to the user's specification, can be used to control the MVS-8000X processor:

- ICP-7000X latest generation modular panel with user-customisable flexipad areas.
- CCP-8000 popular modular panel with either 3 or 4 rows of buttons.
- CCP-6000 fixed configuration panel in 2 or 3 row versions.
- CCP-9000 19" rack mount panel available in 1 or 2 M/E versions.

ICP-7000X Series modules

- PWS-100SC1 - Switcher Control Station
- MKS-X7011 - Menu panel
- MKS-X7017 - 36 XPT Module
- MKS-X7018 - 28 XPT Module
- MKS-X7019 - 20 XPT Module
- MKS-X7020 - Standard Transition Module
- MKS-X7024 - Flexipad Module
- MKS-X7026 - 10 Key Pad Module
- MKS-X7031TB - Trackball Module
- MKS-X7033 - Utility/Shotbox Module
- MKS-X7035 - Key Control Module

- MKS-X7040 - Blank Panel (1/3)
- MKS-X7041 - Blank Panel (1/2)
- MKS-X7045 - Extension Adaptor
- MKS-X2700 - System Interface Unit
- MKS-X7700 - System Interface Unit
- MKS-X7701 – Tally/GPI Output Board
- MKS-X7702 – Serial Interface Board

CCP-8000 Series modules
- MKS-8017A - 32 XPT Module
- MKS-8013A - 32 AUX BUS Module
- MKS-8018A - 24 XPT Module
- MKS-8014A - 24 AUX BUS Module
- MKS-8019A - 16 XPT Module
- MKS-8015A - 16 AUX BUS Module
- MKS-8020A - Standard Transition Module
- MKS-8021A - Simple Transition Right Module
- MKS-8021ASC - Simple Transition Compact R Module
- MKS-8022A - Simple Transition Left Module
- MKS-8022ASC - Simple Transition Compact L Module
- MKS-8023AB - Compact Key Transition Module
- MKS-8027A - Compact Transition Right Module
- MKS-8028A - Compact Transition Left Module
- MKS-8026A - 10-Key PAD Module
- MKS-8030A - Key Frame Module
- MKS-8031ATB - Track Ball Module
- MKS-8031AJS - Joystick Module
- MKS-8036A - Device Control Module
- MKS-8025MS - Memory Stick™/USB Module
- MKS-8011A - Menu Panel
- MKS-8032A - DSK Fader Module
- MKS-8033A - Utility/Shot Box Module
- MKS-8035A - Key Control Module
- MKS-8024A - Flexi-Pad Module
- MKS-8034ADK - DSK/FTB Module

- MKS-8034AFB - FTB Module
- MKS-8041 - Blank Panel (1/2)
- MKS-8040 - Blank Panel (1/3)
- MKS-8042 - Blank Panel (1/6)
- MKS-8010B - System Control Unit
- HK-PSU02 - Backup Power Supply Unit
- SWC-5002 - Panel Cable
- SWC-5005 - Panel Cable
- SWC-5010 - Panel Cable
- MKS-8075A - Extension Adaptor
- MKS-8076 - Memory Card USB Adaptor

CCP-6000 Series options
- CCP-6324 - 3 M/E Control Panel (24 XPT)
- CCP-6224 - 2 M/E Control Panel (24 XPT)

CCP-9000 Series options
- MKS-9012A – Rack mountable 2 M/E Control Panel (12 XPT)
- MKS-9011A - Rack mountable 1 M/E Control Panel (12 XPT)

Remote Panels
- MKS-8080 - AUX BUS Remote Panel
- MKS-8082 - AUX BUS Remote Panel
- UCP-8060 - Universal Control Panel

MVS-8000X additional options
A comprehensive range of hardware and software options is available to control a range of peripheral devices, both from Sony and third-party manufacturers.

3D DME Effects
The MVS-8000X interfaces directly with the MVE-8000A external effects processor for up to 8 channels of 3D effects. DME processor options:

- MVE-8000A - Multi-Format DME Processor (4RU)
- MKE-8020A - MVS Interface Board

• MKE-8021A - Input/Output Board (for SDI)
• MKE-8040A - Effects Board (2CH)
• HK-PSU02 - Power Supply Unit
• BZDM-8560 - DME Upgrade Software (1080p/59.94, 50, Dual-link, 3D)

External Device Control

Up to 18 external devices such as disk recorders can be controlled directly from the switcher control panel, 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-8000X 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

Plug-in Editor

The plug-in editor option uses an external dedicated keyboard (2 versions are available) and software to control the switcher for linear editing. Plug-in editor options:

• BZS-8050 - Editing Control Software
• MKS-8050 - Editing Keyboard
• MKS-2050 - Editing Keyboard

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 Requirements	AC 100 V to 240 V, ±10%, 50/60 Hz
Power Consumption	15 A to 6.5 A (fully loaded)
Operating Temperature	5°C to 40°C 41°F to 104°F
Storage Temperature	-20°C to +60°C -4°F to +140°F
Dimensions (W x H x D) *[1]	440 x 443 x 497 mm 17 3/8 x 17 1/2 x 19 5/8 inches
Mass	Approx. 58 kg (fully loaded) Approx. 127 lb 14 oz (fully loaded)

Input/Output

Maximum Number of Inputs	BNC (x20) for Premium inputs BNC (x144) for Primary inputs 20 for DME 16 for Format converter
	BNC (x48) for Outputs

Maximum Number of Outputs	BNC (x20) for ME outputs BNC (x4) for Duplicate outputs for OUT23/24/47/48, 20 for DME BNC (x4) for Format Converter BNC (x4) for Multi Viewer (2 x 2)

Reference

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

Control

Control LAN	RJ-45 (x1), 100BASE-TX
Data LAN	RJ-45 (x1), 100BASE-TX
Remote 1 to 4	D-sub 9-pin (x1), RS-422A
GPI	D-sub 25-pin, TTL level inputs (x8), relay contact outputs (x4), open collector outputs (x4)
FM Data	RJ-45 (x1), 100BASE-TX
FM Device	USB-type A (x2), USB 2.0

Supplied Accessories

Supplied Accessories	75Ω terminator (1)
	Brackets (4)
	Support angles (2)
	Rack fittings (2)
	Screws (+B4×10) (8)
	Screws (+PSW4×10) (8)
	Screws (+B4×6) (6)
	Operation Manual (1)
	Installation Manual (1)

Notes

Note	[*1] The values for dimensions are approximate.
	Environmental notice for customers in the USA (MKS-8011A and UCP-8060) Lamp in this product contains mercury. Disposal of these materials may be regulated due to environmental considerations. For disposal or recycling information, please contact your local authorities or see www.sony.com/mercury for additional information.

Related products

PVM-X300

30-inch 4K TRIMASTER™ LCD professional monitor

BVM-F250A

24.5-inch TRIMASTER EL™ OLED reference monitor with wide viewing angle

PVM-X550

55-inch 4K TRIMASTER EL™ OLED high grade picture monitor

BVM-X300 V2

30-inch 4K TRIMASTER EL™ OLED critical reference monitor

PVM-A250 v2.0

25-inch TRIMASTER EL™ OLED high grade picture monitor

Gallery