

3 MVS-8000A/ASF

Overview

ICO Service Training

Outline of the MVS-8000A/SF

The MVS-8000A and the MVS-8000ASF are small-sized/low-priced multi-format switcher processors, inheriting the architecture of the current model MVS-8000.



MVS-8000A: 8 RU
80 (max.) IN, 48 (max.) + 8 (monitors) OUT
2, 2.5, 3, 3.5, 4 M/E



MVS-8000ASF: 4 RU
34 (max.) IN, 24 (max.) OUT
1, 1.5, 2, 2.5 M/E

MVS-8000A/SF Options

- **MKS-8210A:** Mix/Effect Board
- **MKS-8160A:** 24-output Board (MVS-8000A only)
- **MKS-8162A:** 12-output Connector Board (MVS-8000ASF only)
- **MKS-8440A:** Frame Memory Board
- **BZS-8250:** Simple P/P Software

The same options that have been used in the MVS-8000/SF are also used in the MVS-8000A/SF.

- **MKS-8170M:** DME Interface Board
- **MKS-8420M:** Color Correction Board
- **MKS-8101M:** 8-Monitor Output Board
- **MKS-8110M:** 17-Input Board
- **MKS-8111M:** 12-Input Board
- **HK-PSU04:** Power Supply Unit

Differences between the MVS 8000A/SF and the MVS 8000/SF

•Downsizing and lower power consumption

MVS-8000A: 8 U/approx. 1200 W (The minimum number of power supply unit: 2 units)

MVS-8000ASF: 4 U/approx. 600 W approx. (The minimum number of power supply unit: 1 unit)

•Addition of the simple Mix/Effect functions using the simple P/P software.

The functions of simple P/P of the MVS-8000A/SF are equivalent to those of the DVS-9000.

•Function enhancement of the Frame Memory board (The software does not support the enhanced functions at present.)

Memory capacity of approx. 16 times is built-in and the nonvolatile memory is installed, but neither are enabled yet.

The external hard disk connection terminal (IEEE1394) to save picture data is equipped.

→ FM DEVICE

The LAN terminal to transfer picture data is equipped. → FM DATA LAN

Differences between the MVS 8000A/ASF and the MVS 8000/SF

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- **Circuit board configuration**

M/E Block Consists of 4 boards → 1 board configuration

OUT Block Consists of 8-CH/board x 6 boards → 24-CH/board x 2 boards configuration

(Board configuration on the rear side is 12-CH/board x 4 boards)

FM Block Consists of 2 boards → 1 board configuration

- **Removal of the EXT (S-BUS) terminal from the MVS-8000 rear chassis. FM DATA and FM DEVICE terminal are newly added to the MVS-8000A/ASF rear chassis.**

Common Points with the MVS-8000

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- All of the functions that have been supported by the MVS-8000 are fully supported by the MVS-8000 A/SF.
- Power supply unit: A common power unit HK-PSU04 is used.
- The following circuit boards that have been used in the MVS-8000 are also used in the MVS-8000A/SF:
CNI-22, CNI-23 and CNO-24.
- DME IF and Color Corrector Options that have been used in the MVS-8000 can be used in the MVS-8000A/SF:
MKS-8170M and MKS-8420M.

Common Points with the MVS-8000

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- **Common CPU modules are used.** (CPU-DR or DT and CPU-DK)
- **Application software**
The same version control as that of the current model, MVS/DVS.
- **System configuration**
Peripheral devices (panel and DCU) that have been used in the MVS-8000 system can also be used in the MVS-8000A/SF.

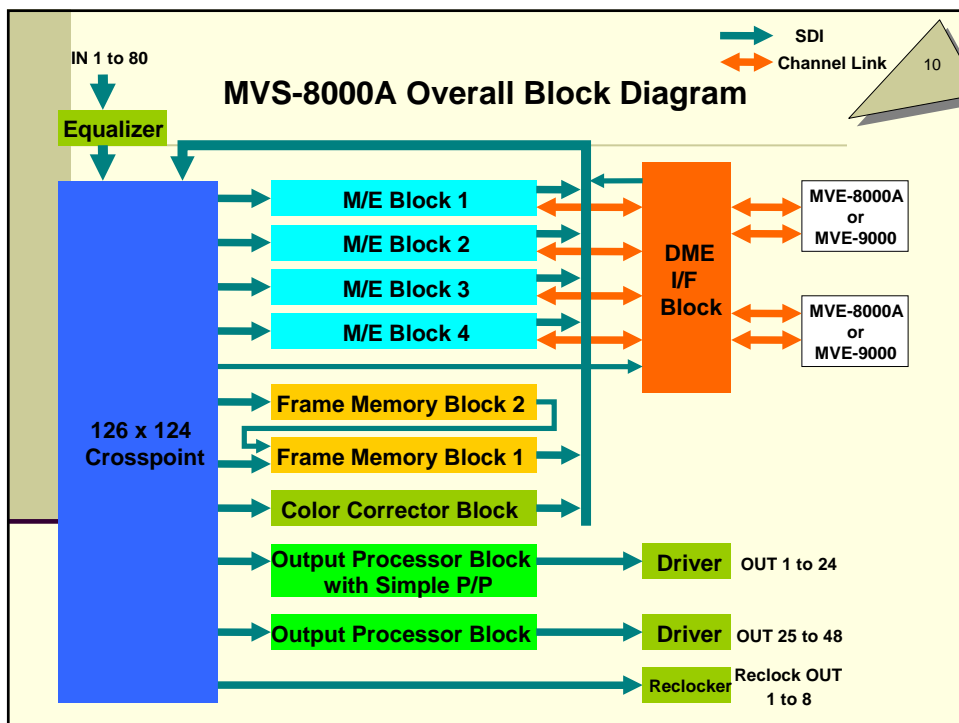
Others

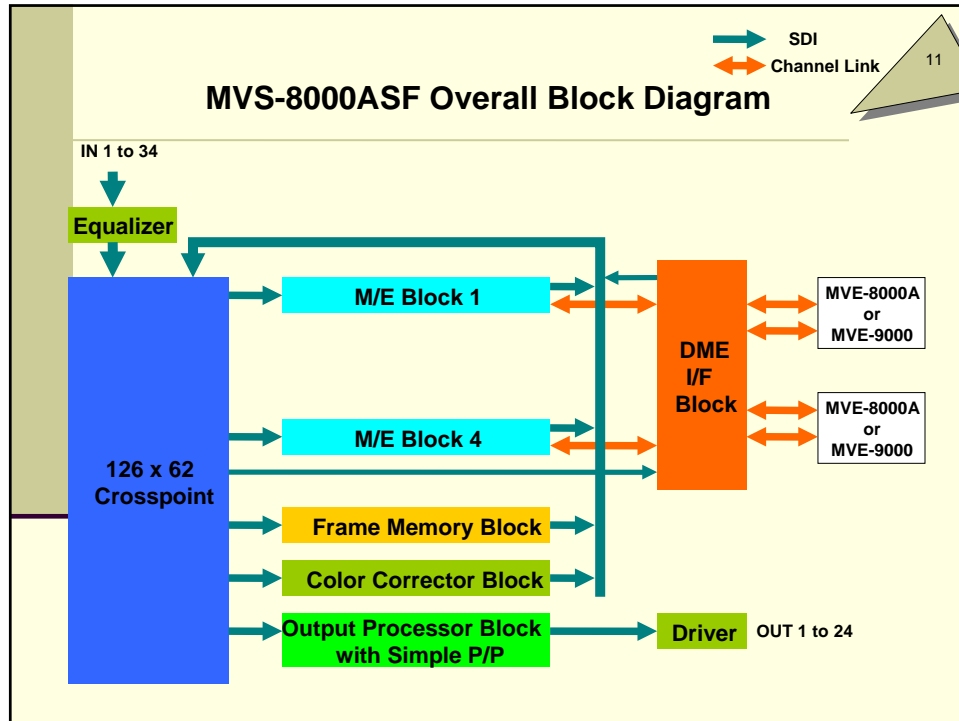
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Extension Board

EX-840 A-8329-371-A The extension board that has been used in MVS/DVS is also used in MVS-8000A & ASF.

MVS-8000A/SF Outline





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Input Blocks

- CNI-22: 17-Input Board (MKS-8110M)**
 The same board that has been used in the MVS-8000 Multi is used in this machine.
 In the MVS-8000A and MVS-8000ASF, one board is equipped as the standard installation.
 Four boards can be installed in the MVS-8000A at maximum.
 Two boards can be installed in the MVS-8000ASF at maximum.
- CNI-23: Additional 12-Input Board (MKS-8111M)**
 The same board that has been used in the MVS-8000 Multi is used in this machine. This board can be installed in the MVS 8000A only.

Output Block

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- **CNO-25: 12 Output Connector Board (MKS-8160A & MKS-8162A)**

Two boards for MVS-8000A and one board for MVS-8000ASF are equipped as standard installation.

Four boards can be installed in the MVS-8000A at maximum.

Two boards can be installed in the MVS-8000ASF at maximum.

- **CNO-24: 8-Monitor Output Board (MKS-8161M)**

The same board that has been used in the MVS-8000 Multi is used in this machine. This board can be installed in the MVS 8000A only.

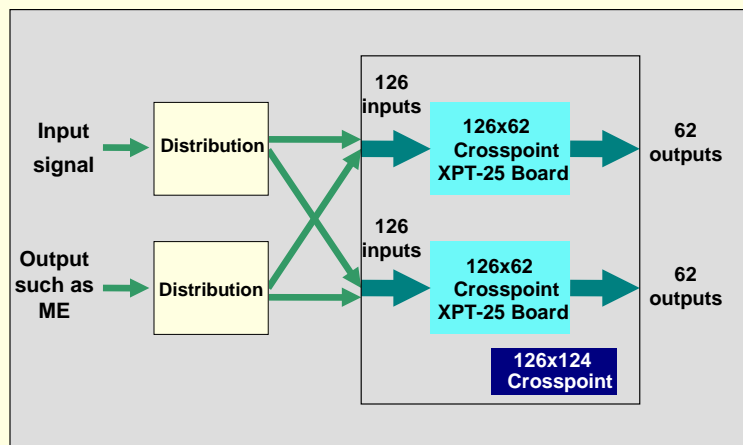
Crosspoint Block

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1) XPT-25: Newly designed.

2) MVS-8000A: Using two pieces of the XPT-25 board.

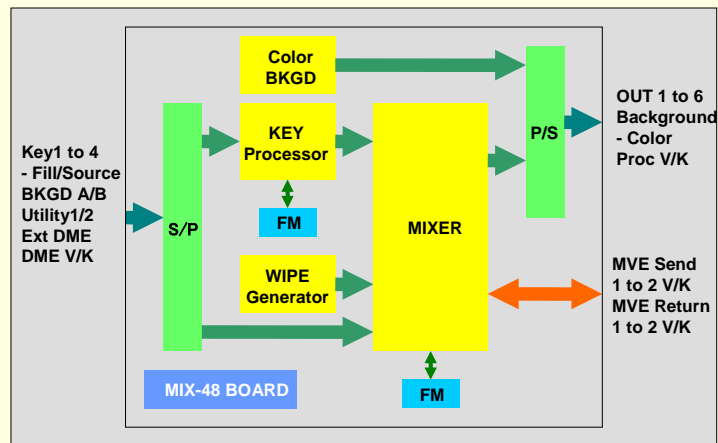
MVS-8000ASF: Using a single piece of the XPT-25 board.



M/E Block

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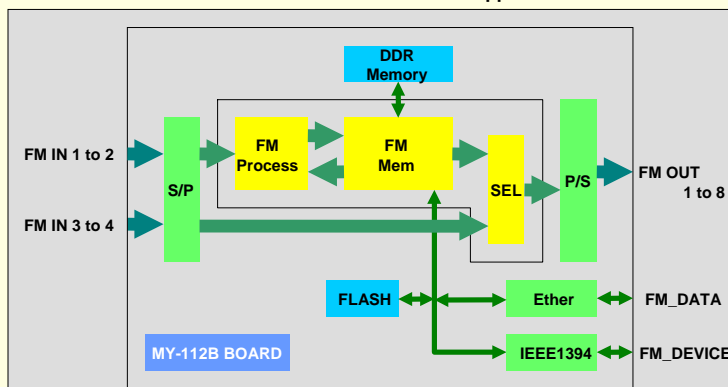
- 1) MIX-48A: Mix/Effect Board (MKS-8210A):
Newly designed. The M/E function is realized by a single MIX-48A board.
- 2) All of the functions of the MVS-8000 are fully supported.



Frame Memory Block

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- 1) MY-112B: Frame Memory Board (MKS-8440A)
Newly designed. This Frame Memory block consists of a single MY-112 board.
- 2) All of the functions of the MVS-8000 are fully supported.
- 3) Two MY-112B boards can be installed in the MVS-8000A.
- 4) The large memory capacity (approx. 16 times) is built-in. The non-volatile memory (equivalent to four HDs) is built-in.
- 5) The dedicated LAN terminal to image data is built-in. The IEEE1394 terminal for connecting external hard disk is built-in. This software does not support the above items 3 to 5 at present.



Output Processor Block

1) OUT-28/A: Newly designed 24-CH output processor is realized by a single board.

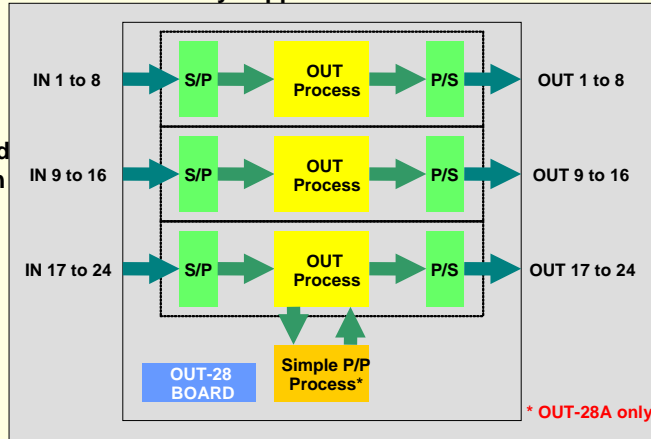
MKS-8160A (24-Output Board Set): OUT-28 board + CNO-25 board x 2

2) All functions of the MVS-8000 are fully supported.

3) The Simple P/P function can be added to the OUT-28A board (Std install). To be realized it must be installed in slot 12.

(Supported by Key Code)

4) OUT-28 (MKS-8160A) does not have the Simple P/P function.



Description of Simple P/P

BZS-8250: Simple P/P Software

Outline:

This function realizes the simplified PP/DSK on the OUT-28A board by addition of the software option BZS-8250. The outputs are assigned to the OUT 17 to 24.

Function: (Same function as Simple P/P of the DVS-9000)

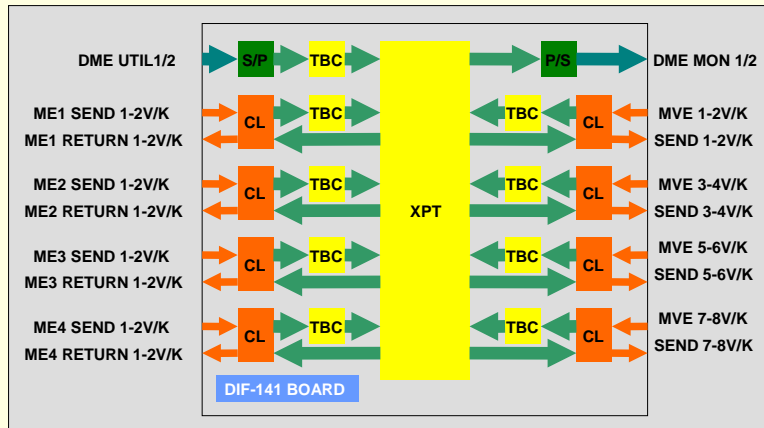
- Simplified DSK of two channels.
Key Type: Luminance Key, Linear Key
Modifier: Clean Mode, Key Edge Position, Invert, Show Key
Auto/Self/Sprit Mode
- FTB (Fade To Black)
- Common Transition
CUT, MIX, WIPE (Standard Pattern #1 to 24), Super MIX, NAM, Preset Color MIX
- Local Transition
CUT, MIX
- Process

MODE	Simple P/P	DSK
OUT-17	PGM(P/P OUT1)	PGM1
OUT-18	PGM(P/P OUT1)	PGM1
OUT-19	PVW(P/P OUT2)	PVW1
OUT-20	CLEAN(P/P OUT3)	PVW2
OUT-21	KEY PVW(P/P OUT4)	CLEAN1
OUT-22	PST	CLEAN2
OUT-23	EDITPVW	EDITPVW
OUT-24	AUX1	AUX1

DME IF Block

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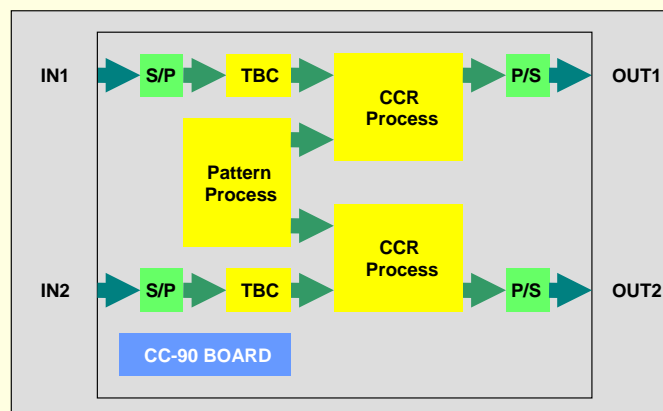
- 1) The DIF-141 board (MKS-8170M) that has been used in the MVS-8000/SF is used in this model.
- 2) All functions of the MVS-8000 are fully supported.



CCR Block

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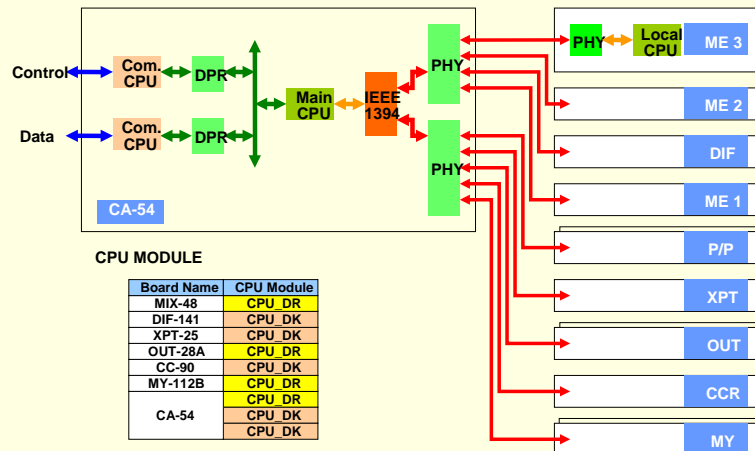
- 1) The CC-90 board (MKS-8420M) has been used in the MVS-8000/SF is used in this model.
- 2) All functions of MVS-8000 are fully supported.



Control Structure

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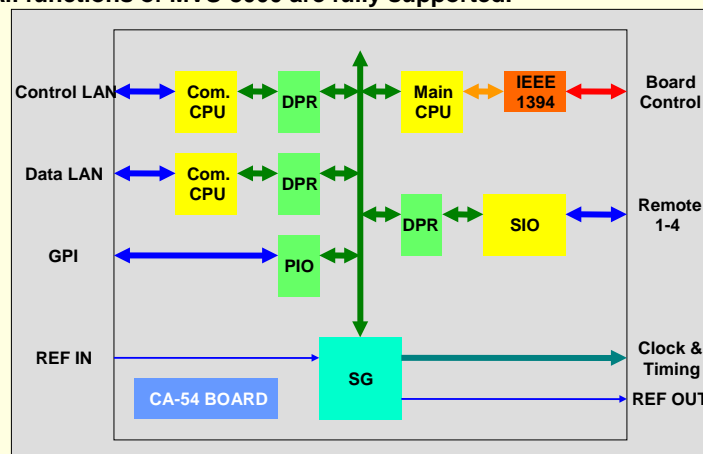
- Each block contains the local CPU on respectively.
- The communication with external equipment is realized by the COM CPU.
- The main CPU and Com CPU are communicating through the dual port RAM.
- The Main CPU and each local CPU are communicated using the IEEE 1394.



CA-54 board

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- 1) The CA-54 board is also using what is being used in MVE-9000. It is modified so that the serial number of EEPROM on the mother board can be accessed.
- 2) All functions of MVS-8000 are fully supported.



Installing the Simple P/P Software

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The function of Simple P/P becomes valid when the install key is entered from the panel. (this is the same way as in the DVS-9000/SF)

Procedure: (This procedure is not required when the install key is preinstalled at CTO shipment.)

1. Purchase the software purchase key.
2. Check the machine unique ID number to acquire the install key.
You can find the machine unique ID number by operation from the panel, select License for the device in question in page 7316. Unique Device ID is displayed at the top of the menu. A SONY Technical Specialist, SSE, or POSC can obtain the License Key.
3. Follow the instruction on the System User's Guide to set the install key from the panel.

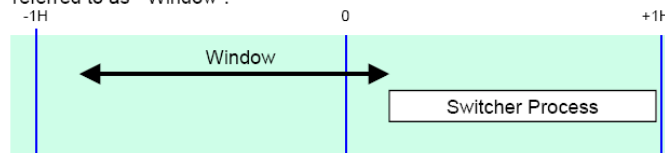
Timing Window

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Window

The last output signal of switcher is set with 1 H delay to the reference signal at the end of the process.

The range of the phase, in which the primary input signal can be output, is referred to as "Window".



Window Delay Direction = 1H – Process Delay Amount

Window Advance Direction = Window Maximum Width – Window Delay Direction

*) The Window Maximum Width is 1H normally.
In case of 1080-line only, it is 2K sample.

Since the delay of process in MVS-8000/DVS-9000 is longer than any other models, Window is moved forward(toward Advance Direction).

Timing Window (cont)

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Factors of the Process Delay

Followings are the factors, which decide the amount of Process Delay, and the Setup Method.

item	V2.2x	V3.00
Video Format	Setup by "SETUP"	Setup by "SETUP"
Multi Format Opt.	CA-44 S101 BIT2 (*)	Automatic Detection
CCR Opt.	MVS-8000: CA-44 S101 BIT6 (*) DVS-9000: BZS-9420 Key Code	MVS-8000: Automatic Detection DVS-9000: BZS-9420 Key Code Also, Use Detection by M/E
Number of M/E	4M/E fixed	Detection of the number of the MIX board and BZS-9250 Key Code
Window Keep	CA-44 S101 BIT1	CA-44 S101 BIT1

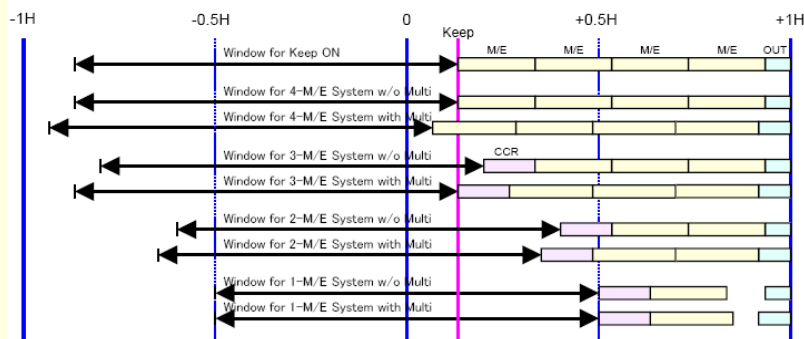
(*) Bit-Switch Setting of the CA-44 board is valid irrespective of existence of the boards.

Timing Window (cont)

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How to decide the Window location (V3.00)

(1) In case of 1080/576/480



In the system with 1M/E, the delay of Window should be within the range of +0.5H, so that the Window will not be delayed too much.

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Timing Window (cont)

Re-Entry Restrictions(V3.00)

1) In case of Window Keep ON

Number of M/E	Multi Format	CCR*	1080/576/480	720
1	No	No	No Restriction	No Restriction
		Yes	No Restriction	No Restriction
	Yes	No	No Restriction	No Restriction
		Yes	No Restriction	No Restriction
2	No	No	No Restriction	No Restriction
		Yes	No Restriction	No Restriction
	Yes	No	No Restriction	No Restriction
		Yes	No Restriction	No Restriction
3	No	No	No Restriction	No Restriction
		Yes	No Restriction	Restriction from the 3 rd bank
	Yes	No	No Restriction	Restriction from the 3 rd bank
		Yes	Restriction from the 3 rd bank	Restriction from the 2nd bank
4	No	No	No Restriction	Restriction from the 3 rd bank
		Yes	Restriction from the 3 rd bank	Restriction from the 2nd bank
	Yes	No	Restriction from the 4th bank	Restriction from the 3 rd bank
		Yes	Restriction from the 3 rd bank	Restriction from the 2nd bank

CCR* : Yes→ CCR is used in M/E bank, No→ CCR is not used in M/E bank.

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Questions?

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