

SONY®

DME PROCESSOR PACK

MVE-8000A-C

MULTI FORMAT DME PROCESSOR

MVE-8000A

MKE-8020A MKE-8021A MKE-8040A HK-PSU02 BZDM-8560

OPERATION MANUAL English

1st Edition (Revised 3)

WARNING

To reduce the risk of fire or electric shock, do not expose this apparatus to rain or moisture.

To avoid electrical shock, do not open the cabinet. Refer servicing to qualified personnel only.

THIS APPARATUS MUST BE EARTHED.

AVERTISSEMENT

Afin de réduire les risques d'incendie ou d'électrocution, ne pas exposer cet appareil à la pluie ou à l'humidité.

Afin d'écartier tout risque d'électrocution, garder le coffret fermé. Ne confier l'entretien de l'appareil qu'à un personnel qualifié.

CET APPAREIL DOIT ÊTRE RELIÉ À LA TERRE.

WARNUNG

Um die Gefahr von Bränden oder elektrischen Schlägen zu verringern, darf dieses Gerät nicht Regen oder Feuchtigkeit ausgesetzt werden.

Um einen elektrischen Schlag zu vermeiden, darf das Gehäuse nicht geöffnet werden. Überlassen Sie Wartungsarbeiten stets nur qualifiziertem Fachpersonal.

DIESES GERÄT MUSS GEERDET WERDEN.



This symbol is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the appliance.

WARNING: THIS WARNING IS APPLICABLE FOR USA ONLY.

If used in USA, use the UL LISTED power cord specified below.
DO NOT USE ANY OTHER POWER CORD.

Plug Cap	Parallel blade with ground pin (NEMA 5-15P Configuration)
Cord	Type SJT, three 16 or 18 AWG wires
Length	Minimum 1.5m (4 ft. 11 in.), Less than 2.5m (8 ft. 3 in.)
Rating	Minimum 10A, 125V

Using this unit at a voltage other than 120V may require the use of a different line cord or attachment plug, or both. To reduce the risk of fire or electric shock, refer servicing to qualified service personnel.

WARNING: THIS WARNING IS APPLICABLE FOR OTHER COUNTRIES.

1. Use the approved Power Cord (3-core mains lead) / Appliance Connector / Plug with earthing-contacts that conforms to the safety regulations of each country if applicable.
2. Use the Power Cord (3-core mains lead) / Appliance Connector / Plug conforming to the proper ratings (Voltage, Ampere).

If you have questions on the use of the above Power Cord / Appliance Connector / Plug, please consult a qualified service personnel.

AVERTISSEMENT

1. Utilisez un cordon d'alimentation (câble secteur à 3 fils)/ fiche femelle/fiche mâle avec des contacts de mise à la terre conformes à la réglementation de sécurité locale applicable.
2. Utilisez un cordon d'alimentation (câble secteur à 3 fils)/ fiche femelle/fiche mâle avec des caractéristiques nominales (tension, ampérage) appropriées.

Pour toute question sur l'utilisation du cordon d'alimentation/ fiche femelle/fiche mâle ci-dessus, consultez un technicien du service après-vente qualifié.

WARNUNG

1. Verwenden Sie ein geprüftes Netzkabel (3-adriges Stromkabel)/einen geprüften Geräteanschluss/einen geprüften Stecker mit Schutzkontakten entsprechend den Sicherheitsvorschriften, die im betreffenden Land gelten.
2. Verwenden Sie ein Netzkabel (3-adriges Stromkabel)/einen Geräteanschluss/einen Stecker mit den geeigneten Anschlusswerten (Volt, Ampere).

Wenn Sie Fragen zur Verwendung von Netzkabel/ Geräteanschluss/Stecker haben, wenden Sie sich bitte an qualifiziertes Kundendienstpersonal.

For the customers in the U.S.A.

This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

You are cautioned that any changes or modifications not expressly approved in this manual could void your authority to operate this equipment.

All interface cables used to connect peripherals must be shielded in order to comply with the limits for a digital device pursuant to Subpart B of Part 15 of FCC Rules.

(MKE-8020A/8021A/8040A, HK-PSU02 only)

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

For customers in Canada (MKE-8020A/8021A/8040A, HK-PSU02 only)

This Class A digital apparatus complies with Canadian ICES-003.

Pour les utilisateurs au Canada (MKE-8020A/8021A/8040A, HK-PSU02 uniquement)

Cet appareil numérique de la classe A est conforme à la norme NMB-003 du Canada.

For the customers in Europe (MVE-8000A only)

This product with the CE marking complies with both the EMC Directive and the Low Voltage Directive issued by the Commission of the European Community.

Compliance with these directives implies conformity to the following European standards:

- EN60950-1: Product Safety
- EN55103-1: Electromagnetic Interference(Emission)
- EN55103-2: Electromagnetic Susceptibility(Immunity)

This product is intended for use in the following Electromagnetic Environment: E4 (controlled EMC environment, ex. TV studio).

Pour les clients en Europe (MVE-8000A uniquement)

Ce produit portant la marque CE est conforme à la fois à la Directive sur la compatibilité électromagnétique (EMC) et à la Directive sur les basses tensions émises par la Commission de la Communauté Européenne.

La conformité à ces directives implique la conformité aux normes européennes suivantes:

- EN60950-1: Sécurité des produits
- EN55103-1: Interférences électromagnétiques (émission)

- EN55103-2: Sensibilité électromagnétique (immunité)

Ce produit est prévu pour être utilisé dans l'environnement électromagnétique suivants: E4 (environnement EMC contrôlé, ex. studio de télévision).

Für Kunden in Europa (nur MVE-8000A)

Dieses Produkt besitzt die CE-Kennzeichnung und erfüllt die EMV-Richtlinie sowie die Niederspannungsrichtlinie der EG-Kommission.

Angewandte Normen:

- EN60950-1: Sicherheitsbestimmungen
- EN55103-1: Elektromagnetische Verträglichkeit (Störaussendung)
- EN55103-2: Elektromagnetische Verträglichkeit (Störfestigkeit)

Für die folgenden elektromagnetischen Umgebungen: E4 (kontrollierter EMV-Bereich, z.B. Fernsehstudio).

For the customers in Europe (MKE-8020A/8021A/8040A, HK-PSU02 only)

This product with the CE marking complies with the EMC Directive issued by the Commission of the European Community.

Compliance with this directive implies conformity to the following European standards:

- EN55103-1: Electromagnetic Interference (Emission)
- EN55103-2: Electromagnetic Susceptibility (Immunity)

This product is intended for use in the following Electromagnetic Environment: E4 (controlled EMC environment, ex. TV studio)

Pour les clients en Europe (MKE-8020A/8021A/8040A, HK-PSU02 uniquement)

Ce produit portant la marque CE est conforme à la Directive sur la compatibilité électromagnétique (EMC) émise par la Commission de la Communauté européenne.

La conformité à cette directive implique la conformité aux normes européennes suivantes:

- EN55103-1: Interférences électromagnétiques (émission)
- EN55103-2: Sensibilité électromagnétique (immunité)

Ce produit est prévu pour être utilisé dans l'environnement électromagnétique suivant: E4 (environnement EMC contrôlé, ex. studio de télévision)

Für Kunden in Europa (nur MKE-8020A/8021A/8040A, HK-PSU02)

Dieses Produkt besitzt die CE-Kennzeichnung und erfüllt die EMV-Richtlinie der EG-Kommission.

Angewandte Normen:

- EN55103-1: Elektromagnetische Verträglichkeit (Störaussendung)
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Für die folgende elektromagnetische Umgebung: E4 (kontrollierter EMV-Bereich, z.B. Fernsehstudio)

For the customers in Europe

The manufacturer of this product is Sony Corporation, 1-7-1 Konan, Minato-ku, Tokyo, Japan.

The Authorized Representative for EMC and product safety is Sony Deutschland GmbH, Hedelfinger Strasse 61, 70327

Stuttgart, Germany. For any service or guarantee matters please refer to the addresses given in separate service or guarantee documents.

This apparatus shall not be used in the residential area.

Pour les clients en Europe

Le fabricant de ce produit est Sony Corporation, 1-7-1 Konan, Minato-ku, Tokyo, Japon.

Le représentant autorisé pour EMC et la sécurité des produits est Sony Deutschland GmbH, Hedelfinger Strasse 61, 70327 Stuttgart, Allemagne. Pour toute question concernant le service ou la garantie, veuillez consulter les adresses indiquées dans les documents de service ou de garantie séparés.

Ne pas utiliser cet appareil dans une zone résidentielle.

Für Kunden in Europa

Der Hersteller dieses Produkts ist Sony Corporation, 1-7-1 Konan, Minato-ku, Tokyo, Japan.

Der autorisierte Repräsentant für EMV und Produktsicherheit ist Sony Deutschland GmbH, Hedelfinger Strasse 61, 70327 Stuttgart, Deutschland. Bei jeglichen Angelegenheiten in Bezug auf Kundendienst oder Garantie wenden Sie sich bitte an die in den separaten Kundendienst- oder Garantiedokumenten aufgeführten Anschriften.

Dieser Apparat darf nicht im Wohnbereich verwendet werden.

For the customers in Europe, Australia and New Zealand

WARNING

This is a Class A product. In a domestic environment, this product may cause radio interference in which case the user may be required to take adequate measures.

Pour les utilisateurs en Europe, Australie et Nouvelle-Zélande

AVERTISSEMENT

Il s'agit d'un produit de Classe A. Dans un environnement domestique, cet appareil peut provoquer des interférences radio, dans ce cas l'utilisateur peut être amené à prendre des mesures appropriées.

Für Kunden in Europa, Australien und Neuseeland

WARNUNG

Dies ist eine Einrichtung, welche die Funk-Entstörung nach Klasse A besitzt. Diese Einrichtung kann im Wohnbereich Funkstörungen verursachen; in diesem Fall kann vom Betreiber verlangt werden, angemessene Maßnahmen durchzuführen und dafür aufzukommen.

Periodic inspections

To guarantee safe long-term operation, periodic inspections are recommended. Please contact your Sony representative for detailed information about the content and cost of periodic inspections.

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Overview

The Sony MVE-8000A-C DME Processor Pack is a multifunction digital video effects unit for use in a system configured around an MVS-8000/8000A/8000G Multi Format Switcher System.

The MVE-8000A-C is a generic name of the DME processor unit having option boards installed in it.

Features

Multi format support

This unit supports both HDTV and SDTV signal formats, and the installation of the BZDM-8560 DME upgrade software makes it possible to support dual link connections (4:2:2 YCbCr). Signal formats can be selected from the center control panel for the MVS-8000/8000A/8000G system without exchanging expansion boards so that the following various formats can be easily used.

Single link

SDTV formats: 480i/59.94, 576i/50

HDTV formats: 1080i/50, 1080i/59.94, 1080i/60, 1080p/23.976sF, 1080p/24sF, 1080p/25sF, 1080p/29.97sF, 1080p/30sF, 720p/59.94

Dual link

HDTV formats: 1080p/50, 1080p/59.94

Rich variety of effects

The unit supports a wide variety of effects and functions such as 3D linear transforms (including expand and reduce) and borders. The effects and functions supported are as follows.

- 3D linear transforms (expand, reduce, move, rotate)
- Border / Crop
- Defocus / Blur
- Multi-move
- Color modifiers (sepia, monochrome, negative, posterization, solarization, contrast)
- Mosaic
- Freeze
- Lighting
- Trail
- Background
- Graphics display
- Drop shadow(2-channel effect)
- Combiner (2-channel effect in dual link mode)
- Brick (3-channel effect, but not available in dual link mode)

Up to four DME channels in a single unit

DME boards can be installed to enable up to four independent DME channels in a single unit, for space savings and energy efficiency. Because there are multiple internal channels, up to 4-channel effects can be applied without making any special connections.

In dual link mode the number of available channels is restricted up to 2.

Linked operation with switcher processor

This unit is connected to the MVS-8000/8000A/8000G Multi Format Switcher Processor by a special interface, which allows DME wipes, processed keys and a wide variety of other DME effects to be used as if they were switcher functions. All DME operations can be controlled from the MVS-8000/8000A/8000G system's center control panel.

Optional backup power supply

Installation of an optional HK-PSU02 Power Supply Unit provides backup power in addition to the power supply unit supplied as standard equipment. This reduces the risk of power trouble and increases the reliability of live broadcast systems.

Overview of the MVE-8000A-C Components

MVE-8000A Multi Format DME Processor

This is a cabinet (size: EIA 2RU) in which to install option boards to provide multi-format DME processing capabilities.

The option boards are as follows.

Board name	Maximum installable number of boards
MKE-8020A	1 set ^{a)}
MKE-8021A	1 set ^{a)}
MKE-8040A	2 boards ^{b)}

a) At least one of either set is required.

b) At least one board is required.

MKE-8020A MVS Interface Board

This board provides the dedicated video signal interface for the MVS-8000/8000A/8000G Multi Format Switcher Processor.

MKE-8021A Input/Output Board

This board enables input and output of video signals via an SDI interface.

MKE-8040A Effects Board

This board enables 2-channel DME effects. Up to two boards can be installed to provide 2-channel DME effects. In dual link mode this board enables only 1-channel DME effects. But two channel DME effects still can be executed by using two boards.

HK-PSU02 Power Supply Unit

A backup power supply unit. By installing one backup unit in the MVE-8000A, you can back up the system's power supply.

BZDM-8560 DME upgrade software

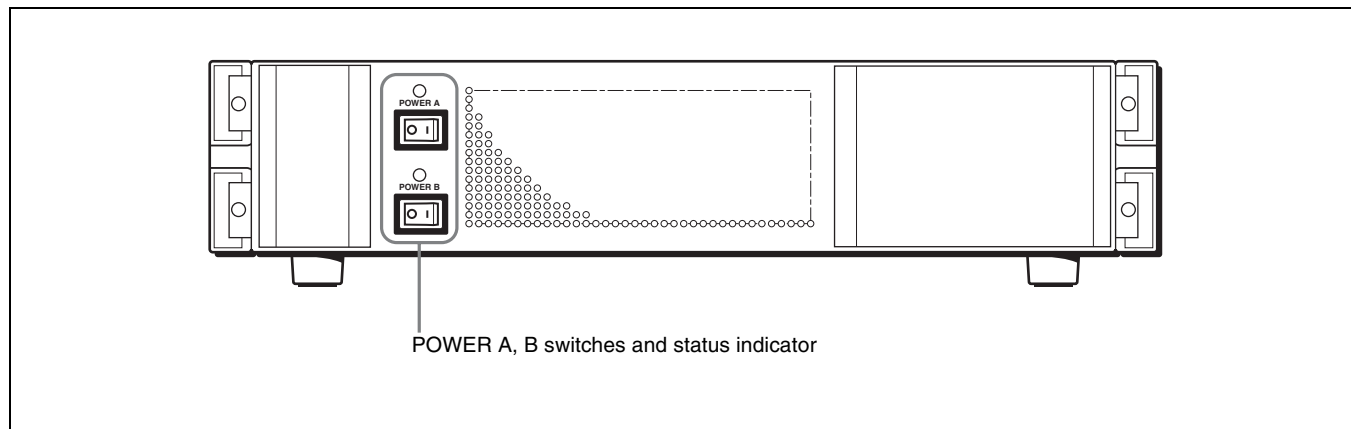
This upgrade software makes possible for the MVE-8000A multi-format DME processor to support dual link connections. With the software being installed a dual link creating and editing system in 1080p/59.94 or 1080p/50 format can be established. The software supports both MKE-8020A MVS Interface Board and MKE-8021A Input/Output Board allowing the installation of up to two channels of effects boards, so that connecting the two MVE-8000A cabinets makes it possible to use 4-channel DME effects.

Optional accessories

RMM-10 Rack Mount Kit

Location and Function of Parts

Front Panel



Power A, B switches and status indicators

The POWER switches turn the unit on and off. The unit is powered on when the POWER switches are on the “I” side, and powered off when the POWER switches are on the “O” side. The status indicators light in green when the unit is powered on.

Depending on the system’s configuration when shipped, there may be no optional HK-PSU02 Power Supply Unit installed. In this case, the only available POWER switch is A (there is no switch B).

The unit is powered on when either of the two POWER switches (A or B) is turned on.

With an HK-PSU02 unit installed, the system continues to function normally as long as either of the two power supply units is operating normally.

Caution

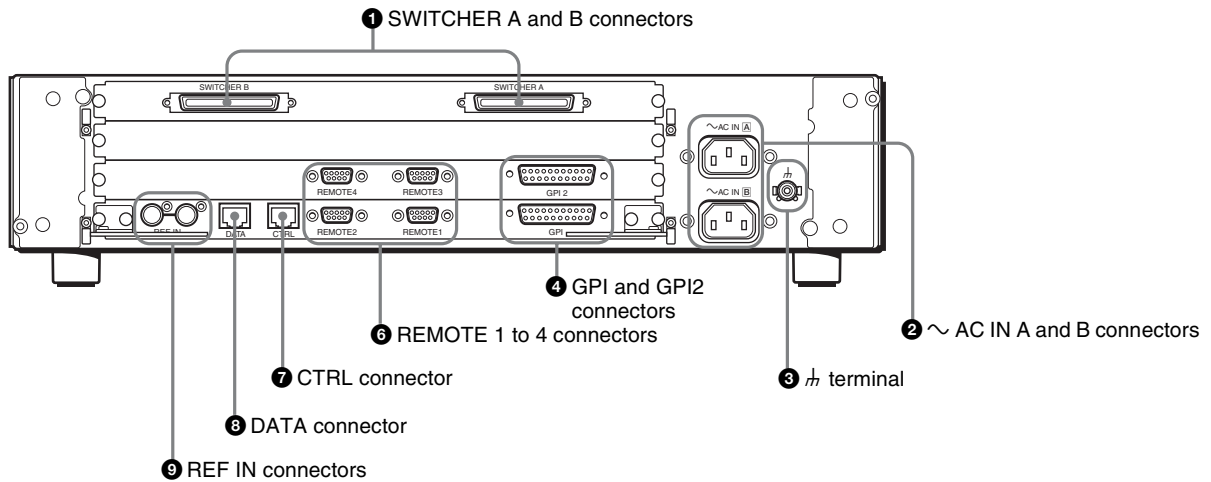
When installing the HK-PSU02 in your unit, be sure to contact your Sony service representative.

Note

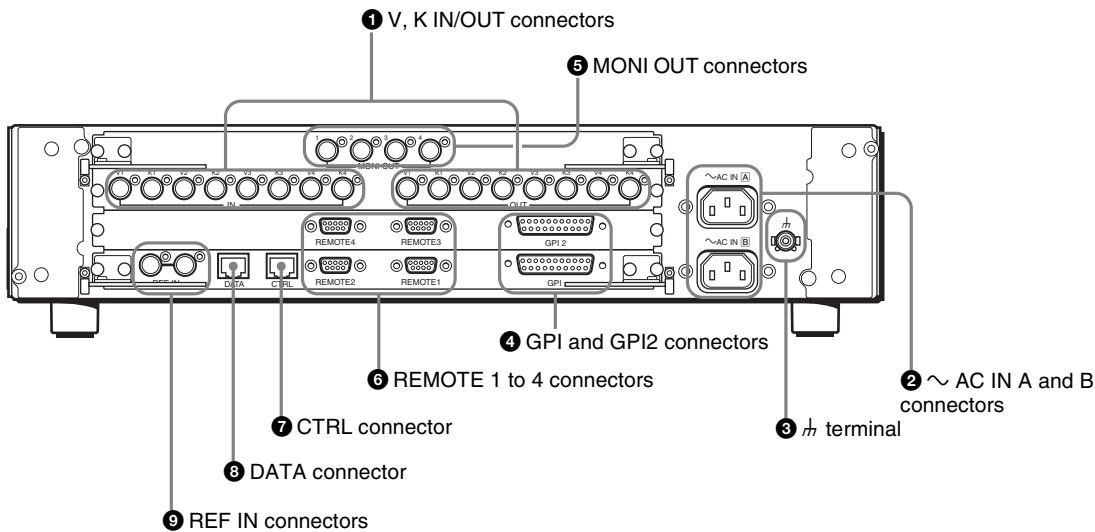
If a status indicator does not light when you turn a POWER switch on, there may be a fault in the power circuits. Turn the POWER switch off and contact your Sony service representative.

Rear Panel

This figure shows the rear panel when one MKE-8020A is installed in the unit.



This figure shows the rear panel when one MKE-8021A is installed in the unit.



1 SWITCHER (switcher I/O) A and B connectors (MDR 68-pin) (MKE-8020A)

Connect with the supplied special cable to the DME 1A and 1B connectors of the MVS-8000/8000A/8000G Multi Format Switcher Processor.

Each connector handles two channels of video signal input and output. Therefore, when this unit is configured for one or two channels (with one MKE-8040A board installed), you do not need to connect the SWITCHER B connector. If you are connecting a second MVE-8000A Multi Format DME Processor to the MVS-8000/8000A/8000G, connect

the SWITCHER A and B connectors on the second processor to the DME 2A and DME 2B connectors on the MVS-8000/8000A/8000G.

1 V, K IN/OUT (video and key input and output) connectors (BNC type) (MKE-8021A)

Used for SDI interface input and output of video signals between this unit and the switcher or external video devices.

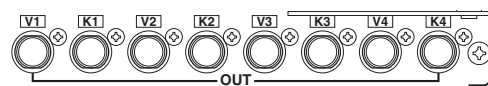
In dual link mode input/output signals are assigned to the connectors as follows.

V, K IN Connectors



Connector	Input signal
V1	Link-A video signal of channel 1
K1	Link-A key signal of channel 1
V2	Link-B video signal of channel 1
K2	Link-B key signal of channel 1
V3	Link-A video signal of channel 2
K3	Link-A key signal of channel 2
V4	Link-B video signal of channel 2
K4	Link-B key signal of channel 2

V, K OUT Connectors



Connector	Output signal
V1	Link-A video signal of channel 1
K1	Link-A key signal of channel 1
V2	Link-B video signal of channel 1
K2	Link-B key signal of channel 1
V3	Link-A video signal of channel 2
K3	Link-A key signal of channel 2
V4	Link-B video signal of channel 2
K4	Link-B key signal of channel 2

② ~ AC IN (AC power input) A and B connectors (3-pin)

Connect to 100 to 240 V AC power supply with the optional AC power cord.

③ ⏏ (signal ground) terminal

Connect to the system ground.

④ GPI (General Purpose Interface) and GPI2 connectors (D-sub, 25-pin)

Connect to external devices for input and output of trigger signals. Up to sixteen inputs and sixteen outputs are possible, with input and output conditions set on the center control panel.

⑤ MONI OUT (monitor output) connectors (BNC type) (MKE-8021A)

Used to output system channel video keys and graphics to a monitor.

In dual link mode output signals are assigned to the connectors as follows.



Connector	Output signal
MONI 1	Link-A video or key signal of channel 1, or Link-A video or key signal of channel 2
MONI 2	Link-B signal to be paired with the output signal of MONI 1
MONI 3	Link-A video or key signal of channel 1, or Link-A video or key signal of channel 2
MONI 4	Link-B signal to be paired with the output signal of MONI 3

⑥ REMOTE 1 to 4 connectors (D-sub 9-pin, RS-422A)

Connect to control this unit from a BVE-9100 or other editing control system.

In dual link mode, if the Editor Port Setting of the DME is set to Independ, the REMOTE3 and REMOTE4 connectors are not available.

⑦ CTRL (control) connector (RJ-45)

Connect to an Ethernet switch*.

The MVS-8000/8000A/8000G Multi Format Switcher Processor and the MVS-8000/8000A/8000G system's center control panel are connected in the same way to the Ethernet switch to form a network for exchange of signals between the devices.

This network is used primarily to control the various devices from the center control panel.

* Ethernet is a trademark of XEROX Corporation.

For information about Ethernet switches that can be used in an MVS system, contact your Sony service representative.

For detailed information about setting up the Ethernet switch, refer to the documentation supplied with the switch.

For more information about Ethernet switch connectors, see "MVS-8000/8000A System Configuration" on page 12.

⑧ DATA connector (RJ-45)

Connect to an Ethernet switch.

The MVS-8000/8000A/8000G Multi Format Switcher Processor and the MVS-8000/8000A/8000G system's center control panel are connected in the same way to the Ethernet switch to form a network for exchange of signals between the devices.

This network is used primarily for exchange of various types of data (key frame effects, snapshots, etc.).

CAUTION

- When you connect the CTRL or DATA connector to peripheral device, use a shielded-type cable to prevent malfunction due to radiation noise.

- For safety, do not connect the connector for peripheral device wiring that might have excessive voltage to the following ports.
 - CTRL connector
 - DATA connector
- Follow the instructions for the above ports.

ATTENTION

Par mesure de sécurité, ne raccordez pas le connecteur pour le câblage de périphériques pouvant avoir une tension excessive aux ports suivants.

- CTRL connecteur
- DATA connecteur

Suivez les instructions pour les ports ci-dessus.

VORSICHT

Aus Sicherheitsgründen nicht mit einem Peripheriegerät-Anschluss verbinden, der zu starke Spannung für diese Buchse haben könnte.

- Buchse CTRL
- Buchse DATA

Folgen Sie den Anweisungen für die oben aufgeführten Buchsen.

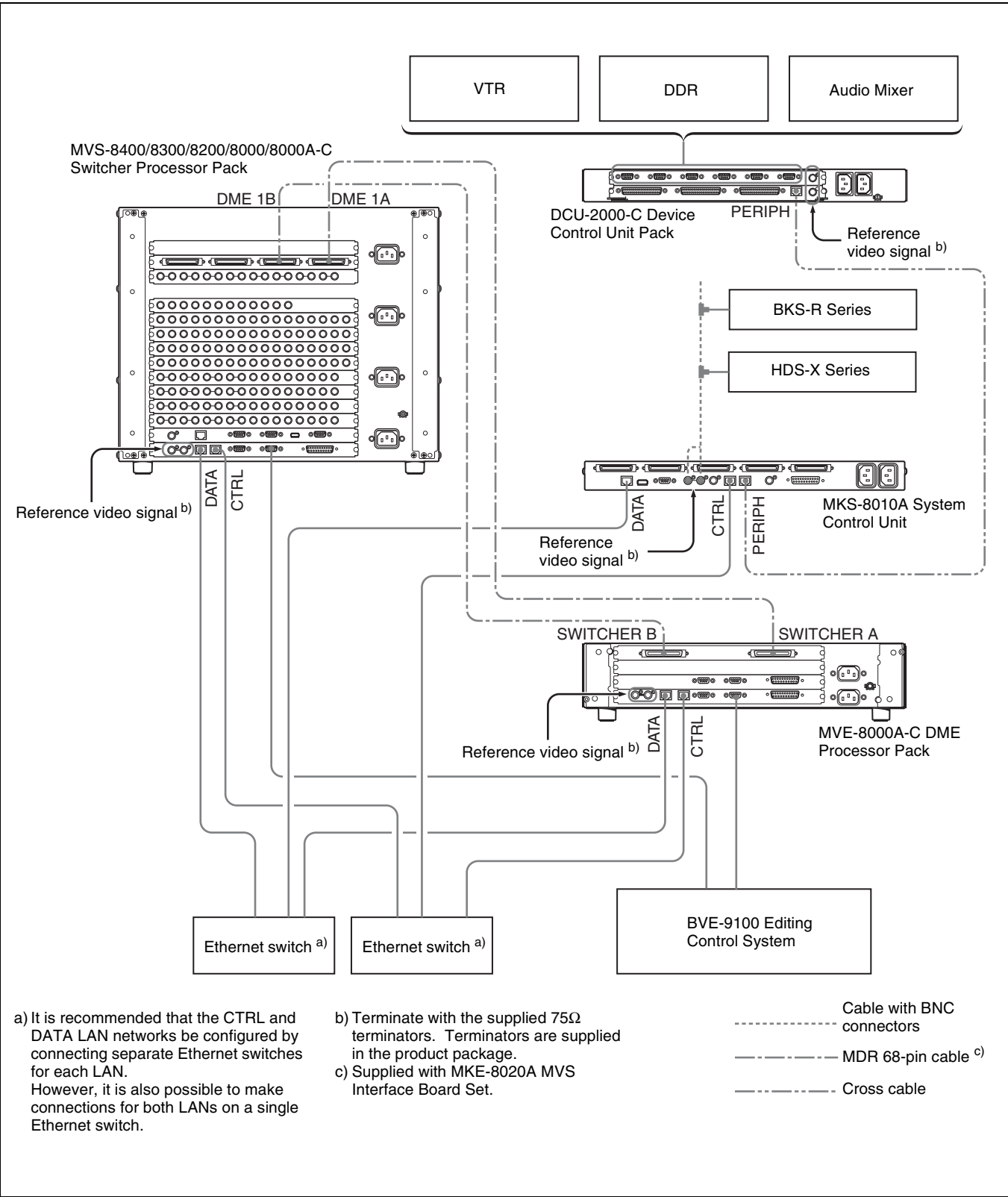
9 REF IN (reference video signal input) connectors (BNC type)

If you wish to synchronize this unit to an external reference signal, input the reference signal. For an HDTV system, input an HD tri-level sync signal, black burst signal, or analog sync signal. For an SDTV system, input a black burst signal or analog sync signal.

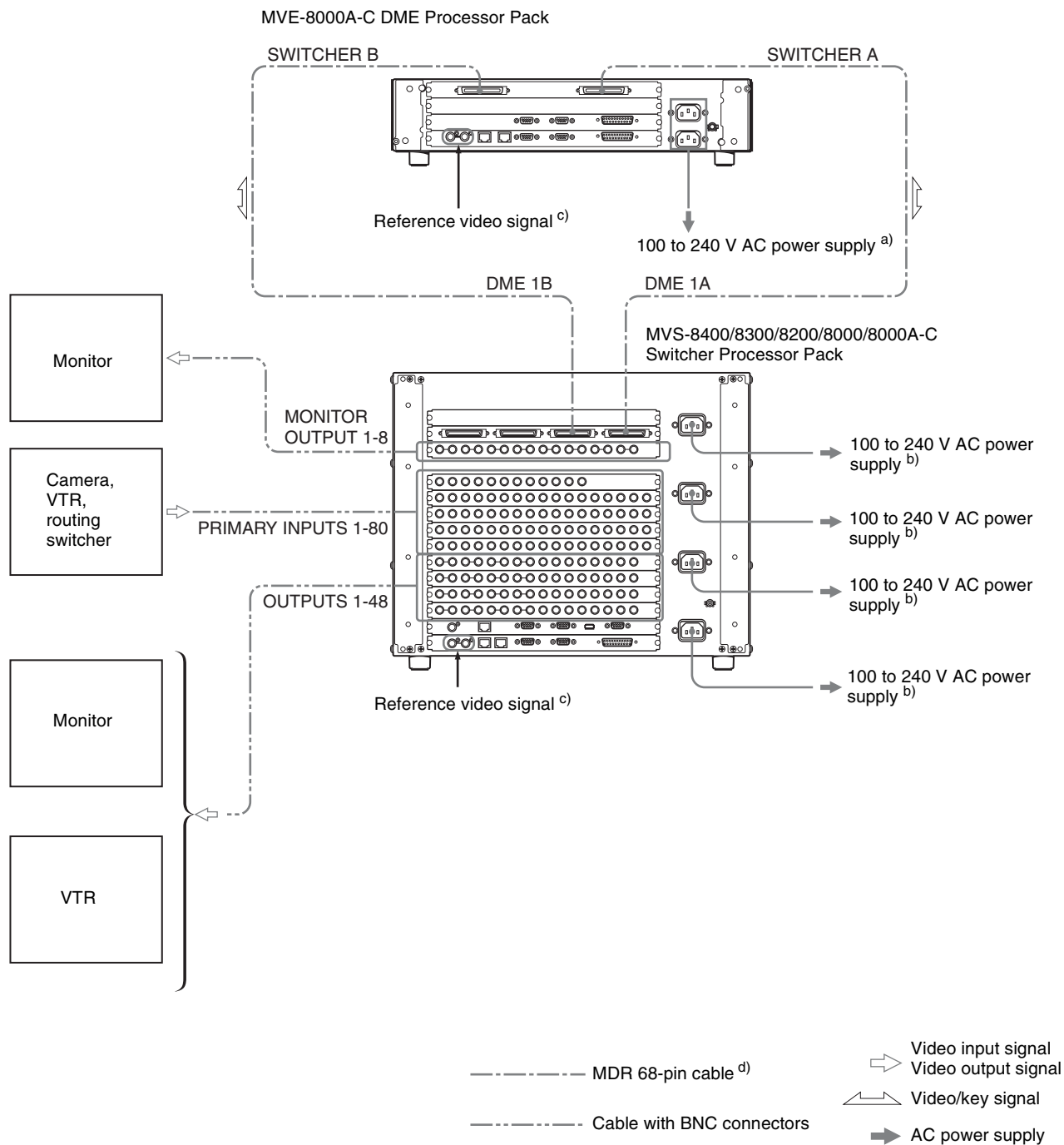
The two connectors have a loop-through configuration. Signal input to one connector can be output from the other connector. If you will not be using the loop-through output, be sure to terminate the unused connector with the supplied 75Ω terminator.

Example System Configuration (MKE-8020A Installed)

MVS-8000/8000A System Configuration



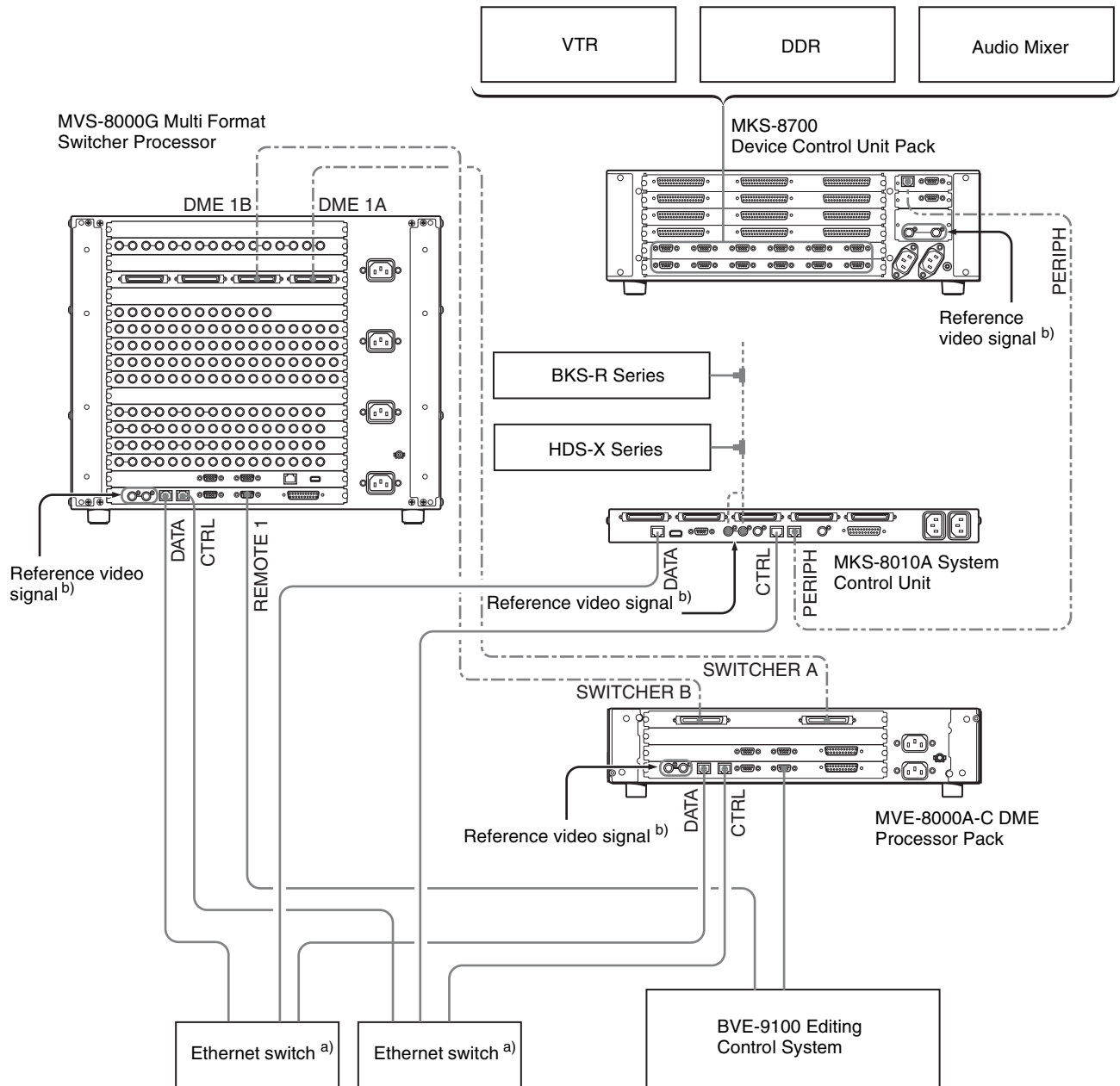
Flow of Video Signals



- a) For the AC power cord of this unit, refer to "Accessories not supplied" (see page 21) in this manual.
- b) For the AC power cord of the MVS-8000/8000A, refer to "Accessories not supplied" in the MVS-8400/8300/8200/8000/8000A-C Operation Manual.

- c) Terminate with the supplied 75Ω terminators. Terminators are supplied in the product package.
- d) Supplied with MKE-8020A MVS Interface Board Set.

MVS-8000G System Configuration



a) It is recommended that the CTRL and DATA LAN networks be configured by connecting separate Ethernet switches for each LAN. However, it is also possible to make connections for both LANs on a single Ethernet switch.

b) Terminate with the supplied 75Ω terminators. Terminators are supplied in the product package.

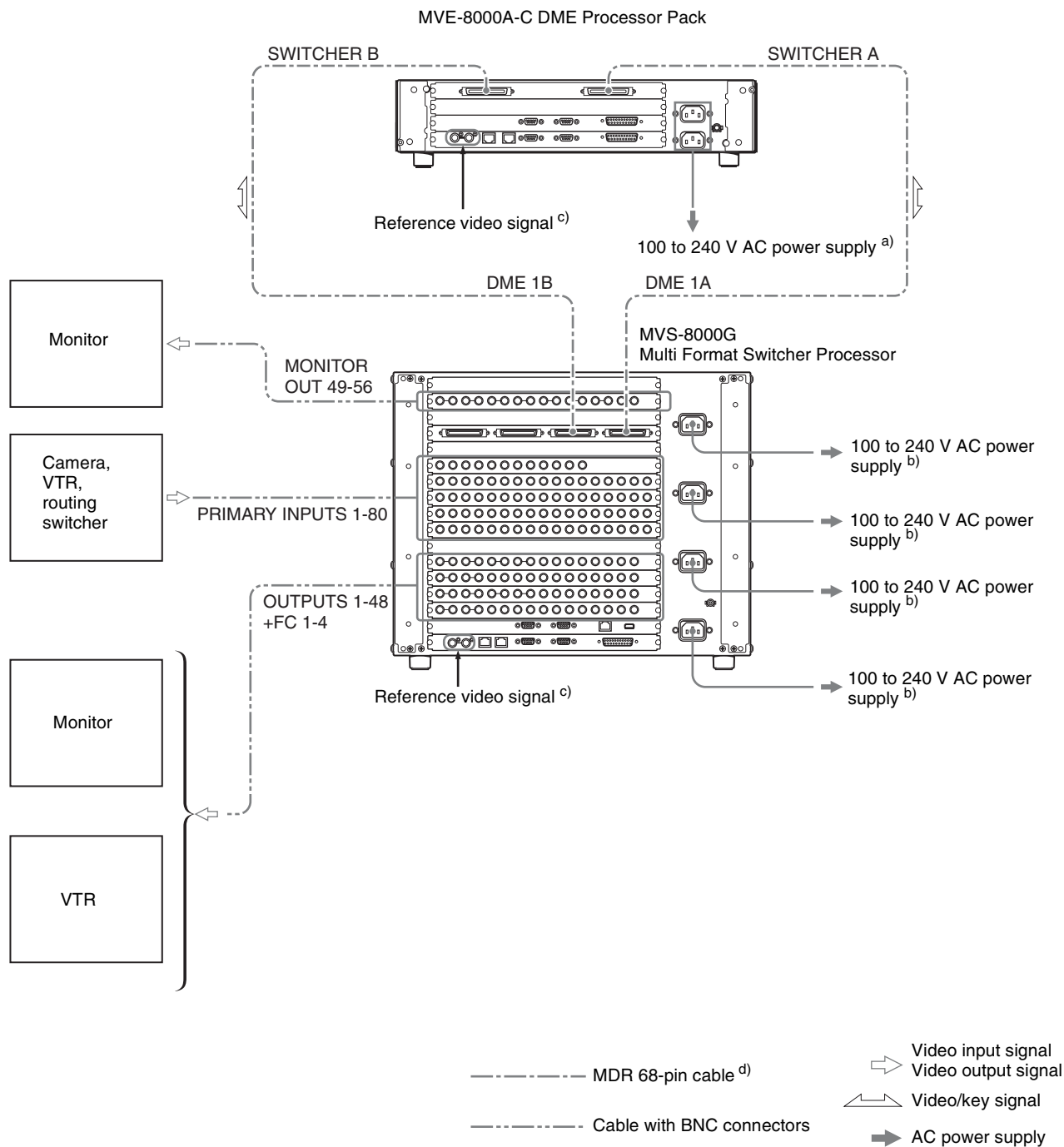
c) Supplied with MKE-8020A MVS Interface Board Set.

--- Cable with BNC connectors

— MDR 68-pin cable ^{c)}

···· Cross cable

Flow of Video Signals



a) For the AC power cord of this unit, refer to "Accessories not supplied" (see page 21) in this manual.

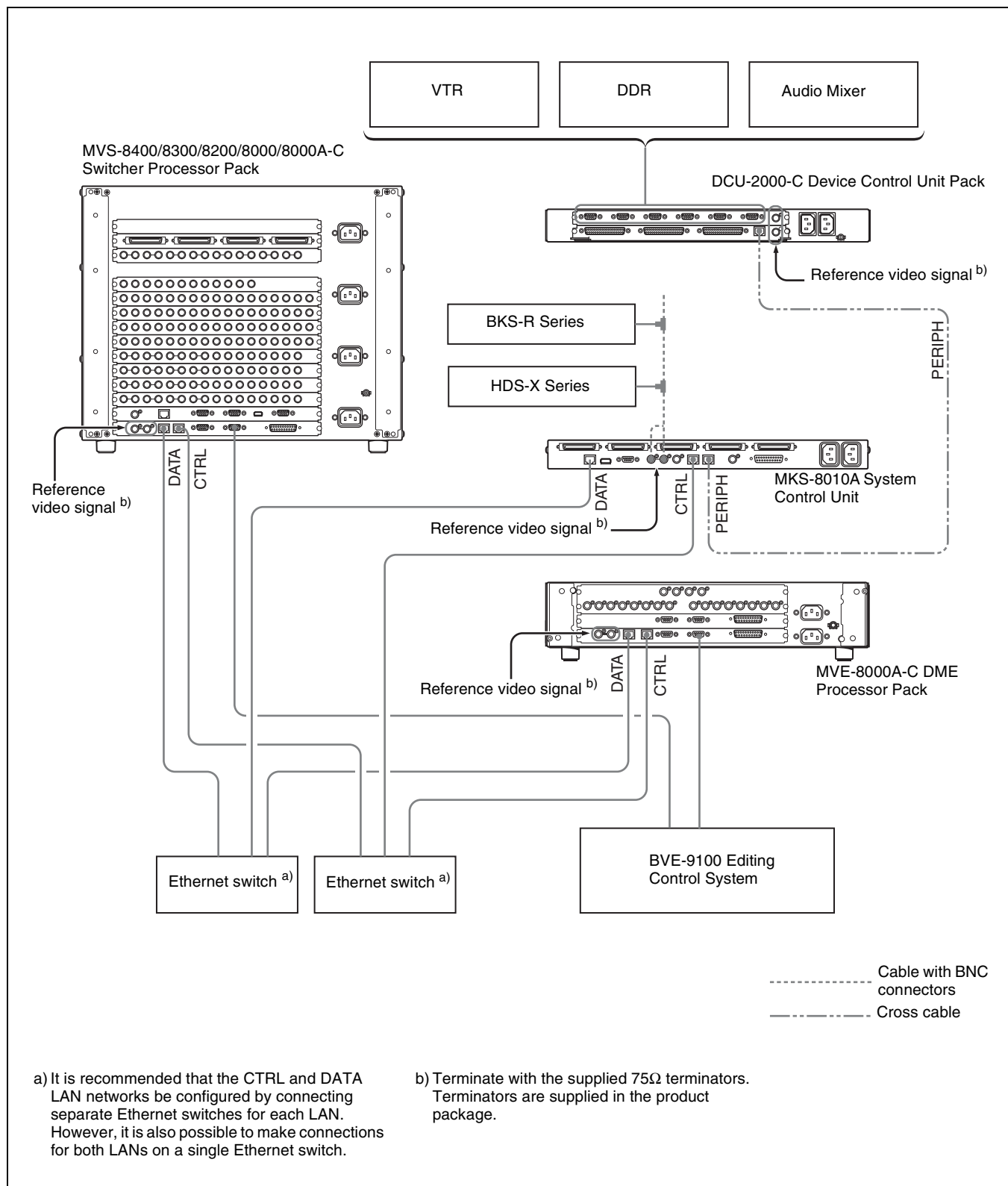
b) For the AC power cord of the MVS-8000G, refer to "Accessories not supplied" in the MVS-8000G-C Operation Manual.

c) Terminate with the supplied 75Ω terminators. Terminators are supplied in the product package.

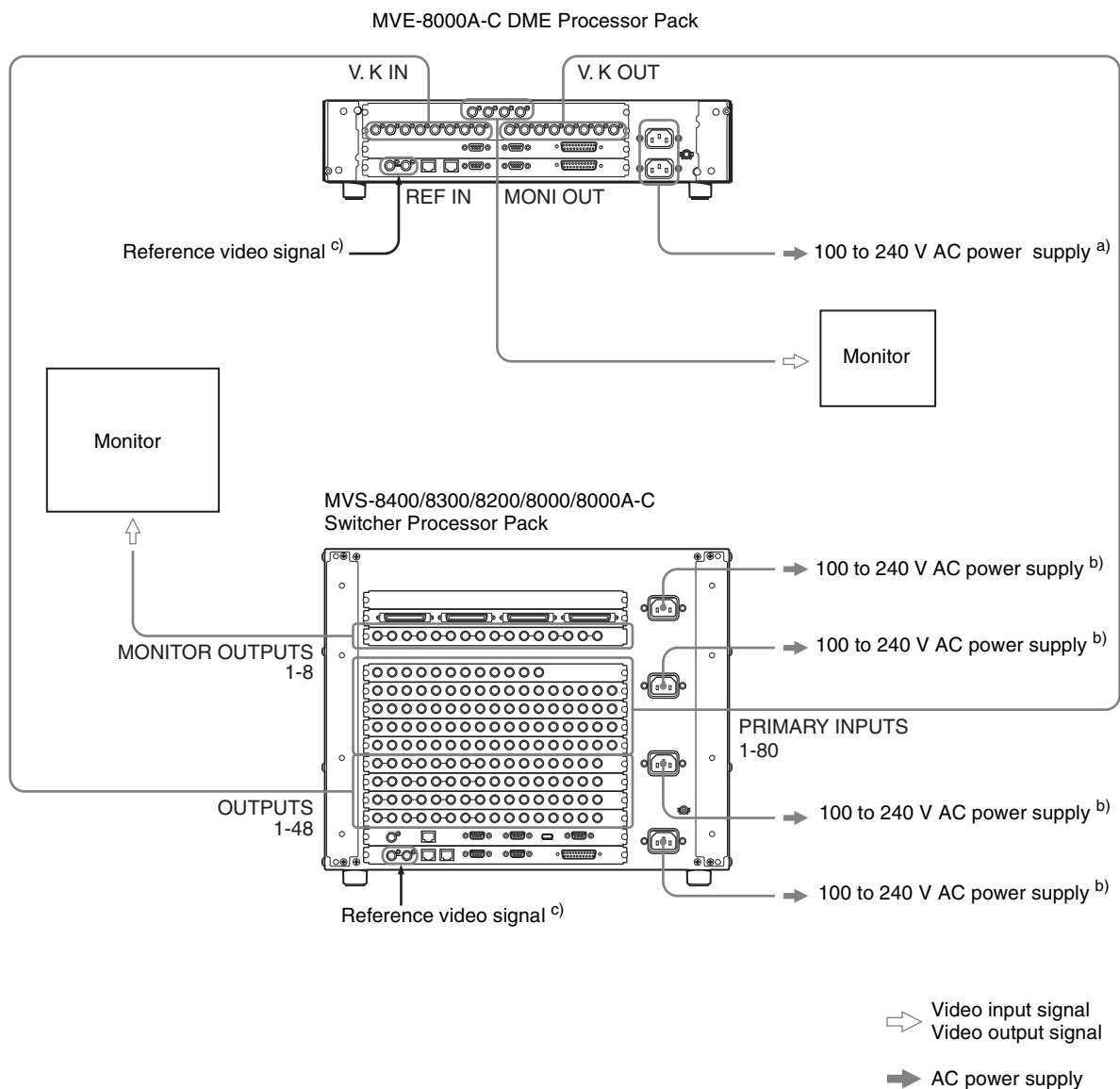
d) Supplied with MKE-8020A MVS Interface Board Set.

Example System Configuration (MKE-8021A Installed)

MVS-8000/8000A System Configuration



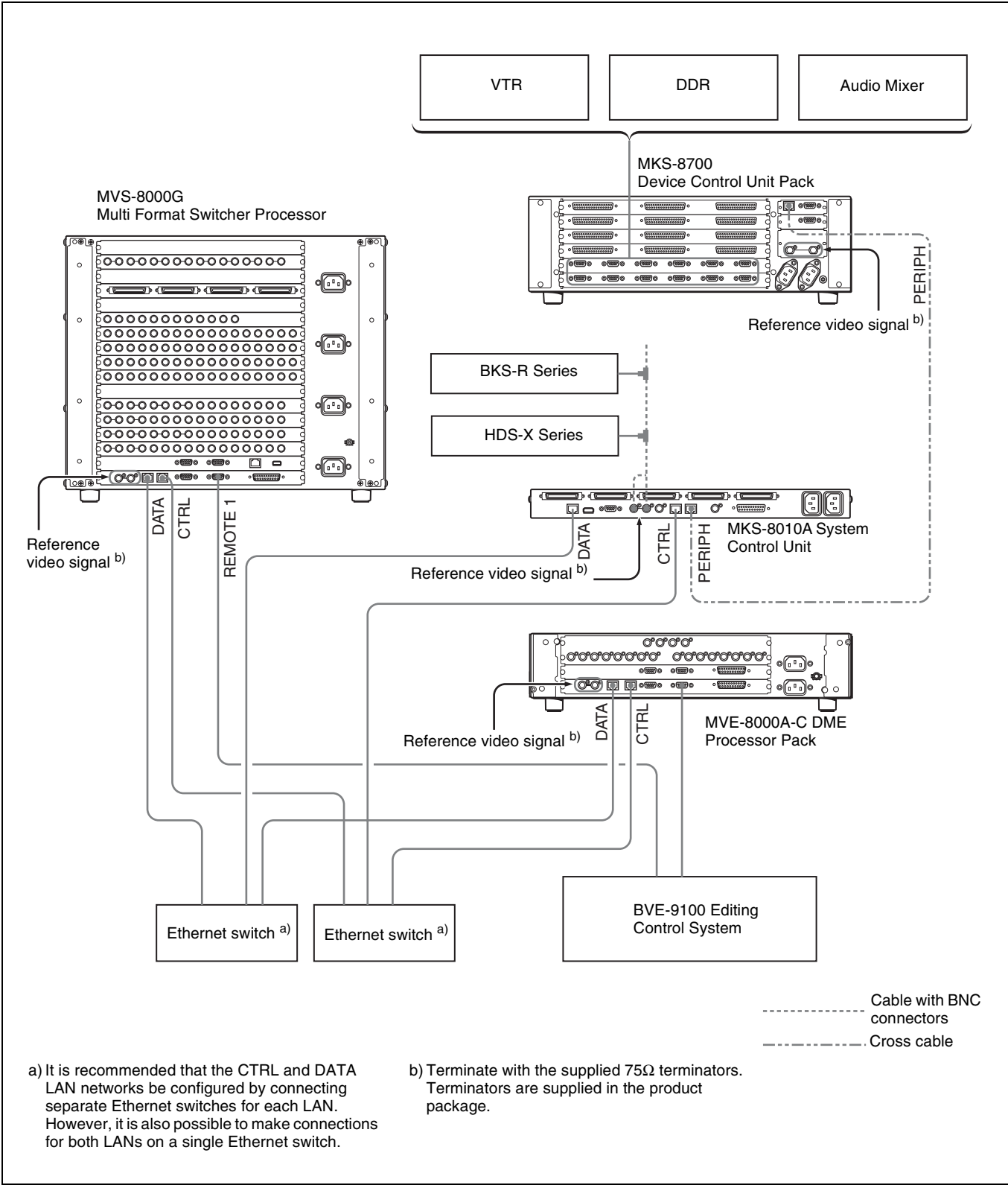
Flow of Video Signals



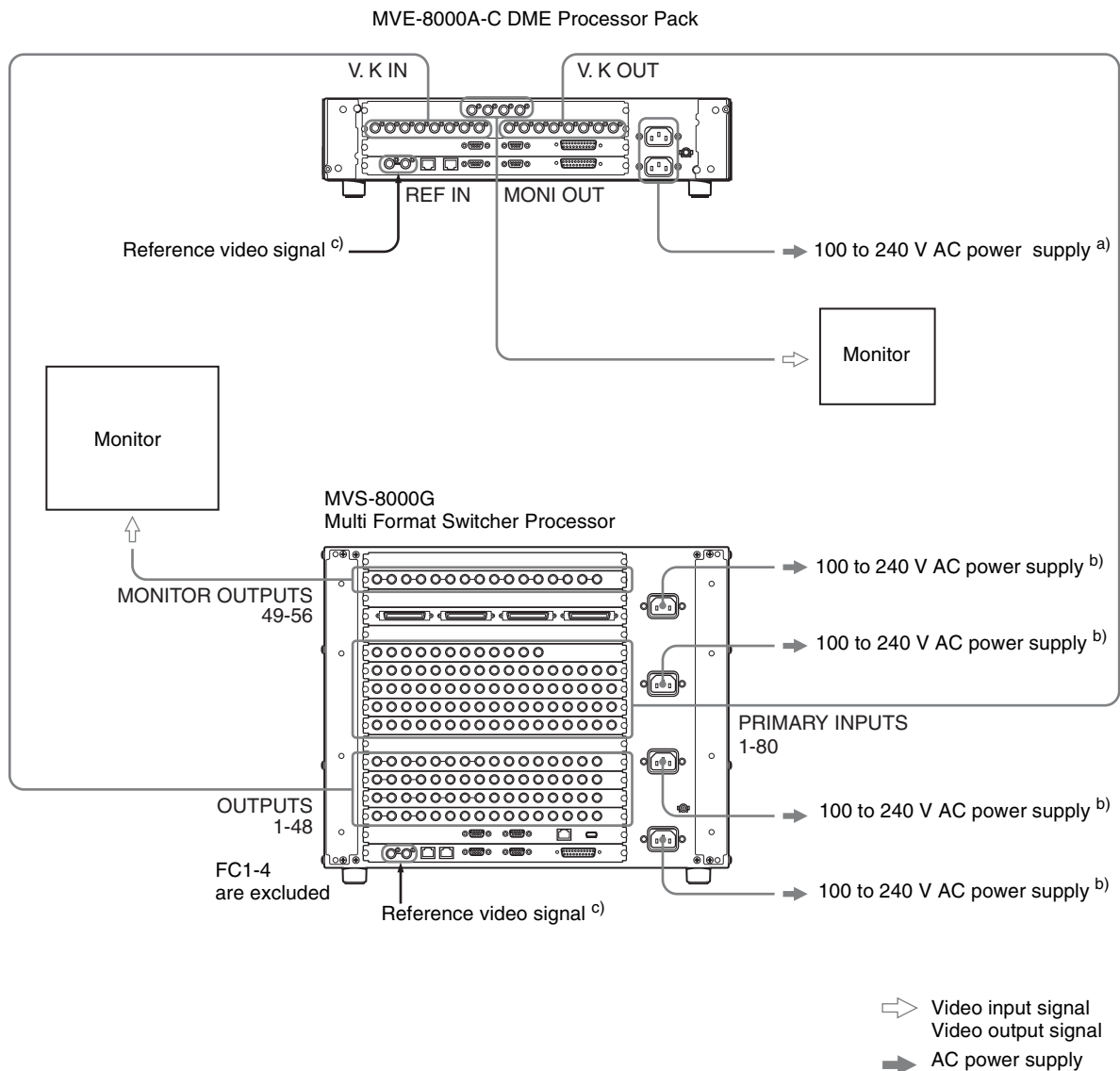
- a) For the AC power cord of this unit, refer to "Accessories not supplied" (*see page 21*) in this manual.
- b) For the AC power cord of the MVS-8000/8000A, refer to "Accessories not supplied" in the MVS-8400/8300/8200/8000/8000A-C Operation Manual.

- c) Terminate with the supplied 75Ω terminators. Terminators are supplied in the product package.

MVS-8000G System Configuration



Flow of Video Signals



- a) For the AC power cord of this unit, refer to "Accessories not supplied" (*see page 21*) in this manual.
- b) For the AC power cord of the MVS-8000/G, refer to "Accessories not supplied" in the MVS-8000G-C Operation Manual.

- c) Terminate with the supplied 75Ω terminators. Terminators are supplied in the product package.

Power Supply Unit Status Indicator

The power supply unit status indicator shows the status of the power supply unit during operation and when the unit is powered on. Whenever a power error is detected, it is reflected immediately by the indicator.

Meaning of status indicator displays

Indicator color	Status	Description	Steps to take
Green	Lit	Operating normally	–
Red	Lit	Power supply unit fan fault	Exchange the fan unit
–	Not lit	Power supply unit fault	Exchange the power unit

Specifications

The following specifications show the reference performance for this unit and individual option boards.

Design and specifications are subject to change without notice.

MVE-8000A Multi Format DME Processor

General

Power requirements

100 to 240 V AC, 50/60 Hz

Power consumption

2.8 to 1.2 A

Peak inrush current

(1) Power ON, current probe method:

15 A (100 V), 66 A (240 V)

(2) Hot switching inrush current, measured in accordance with

European standard EN55103-1: 50 A (230 V)

Performance temperature

5°C to 40°C (41°F to 104°F)

Operating temperature

10°C to 35°C (50°F to 95°F)

Storage temperature

–20°C to +60°C (–4°F to +140°F)

Operating humidity

10% to 90%

Dimensions (w/h/d, excluding projections)

440×87.5×520 mm

(17 ³/₈ × 3 ¹/₂ × 20 ¹/₂ inches)

Mass

Approx. 16 kg (35 lb 4 oz)

(when equipped with all installable option boards)

Reference input

REF IN

BNC type, 75Ω with loop-through output

Single link mode

HDTV systems: HD tri-level sync /

SDTV analog black burst / SDTV

analog sync

SDTV systems: Analog black burst /

analog sync

Dual link mode

HD tri-level sync / SDTV analog black

burst / SDTV analog sync

Control connectors

CTRL	RJ-45 Complies with 100 Base-TX standard
DATA	RJ-45 Complies with 100 Base-TX standard
REMOTE 1 to 4	D-sub 9-pin, female Complies with RS-422A standard Data transfer rate: 38.4 Kbps
GPI, GPI2	D-sub 25-pin, female TTL inputs: 8 Relay contact outputs: 4 (30 V AC/DC, 0.1 A) Open collector outputs: 4

AC input

AC IN A, B	3-pin AC connector
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System Delay

1 frame	(in other than 720p/1080p format)
2 frames	(in 720p/1080p format)

Accessories supplied

75Ω terminator (1)
Operation Manual (1)
Installation Manual (1)

Accessories not supplied

AC power cord (for USA and Canada only) (125 V 10 A
2.4 m (8 ft)) (Part No.: 1-557-377-11)
AC power cord (for Europe only) (250 V 10 A 2.4 m
(8 ft)) (Part No.: 1-782-929-22)

MKE-8020A MVS Interface Board

General

Dimensions (w/d)	278×94 mm (11×3 ³ / ₄ inches)
Mass	Approx. 1 kg (2 lb 3 oz)

Video signal inputs and outputs

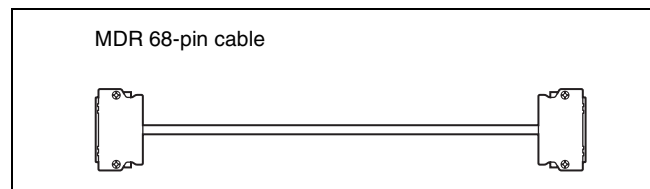
SWITCHER A, SWITCHER B

Connectors	MDR 68-pin
Signal format	LVDS (special format)

Accessories supplied

Operation and Installation Guide (1)
(supplied only when product is purchased separately)

MDR 68-pin cables (Part No.:1-823-450-11) (2)



Cable holder (1)

MKE-8021A Input/Output Board

General

Power requirements	12 V DC
Power consumption	Approx. 2 A
Dimensions (w/d)	278×94 mm (11×3 ³ / ₄ inches)
Mass	Approx. 1 kg

Video signal inputs and outputs

IN V1 to V4, IN K1 to K4, OUT V1 to V4, OUT K1 to K4, MONI OUT

Connector	BNC type
Inputs/Outputs	Inputs: 8, Outputs: 12
Signal format	HD: SMPTE 292M, SMPTE 372M SD: SMPTE 259M-C
Signal level	0.8 Vp-p ±10%
Signal transfer rate	HD: 1.5 Gbps SD: 270 Mbps
Return loss	15dB
Cable length	HD: 100 m (5C-FB cable, BELDEN1694 or equivalent) SD: 200 m (5C-2V cable, BELDEN8281 or equivalent)

Accessories not supplied

Operation and Installation Guide (1) (supplied only when product is purchased separately)

MKE-8040A Effects Board

Power requirements	12 V DC
Power consumption	Approx. 5 A

Dimensions (w/d) 317×380 mm (12 1/2×15 inches)
Mass Approx. 2 kg (4 lb 6 oz)
Accessories supplied
Operation and Installation Guide (1)
(supplied only when product is
purchased separately)

HK-PSU02 Power Supply Unit

Power requirements 100 to 240 V AC, 50/60 Hz
Power consumption 100 V: 10 A, 240 V: 5 A
Peak inrush current
(1) Power ON, current probe method:
110 A (100 V), 220 A (240 V)
(2) Hot switching inrush current,
measured in accordance with
European standard EN55103-1: 40 A
(230 V)
Output power 12 V DC ±0.5 V
Secondary power supply
Max. 60 A
Dimensions (w/h/d) 94×83×396 mm (3 3/4×3 3/8×15 5/8 inches)
Mass Approx. 3 kg (6 lb 9 oz)
Accessories supplied
Operation and Installation Guide (1)
(supplied only when product is
purchased separately)

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<http://pro.sony.com.cn>

MVE-8000A
(SY)
3-855-821-04 (1)



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<http://www.sony.net/>

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