# SONY

# CENTER CONTROL PANEL PACK

# **CCP-8000**

MKS-8010A	MKS-8011A	MKS-8013A	MKS-8014A
MKS-8015A	MKS-8017A	MKS-8018A	MKS-8019A
MKS-8020A	MKS-8021A	MKS-8021ASC	MKS-8022A
MKS-8022ASC	MKS-8023A	MKS-8023AB	MKS-8024A
MKS-8025MS	MKS-8026A	MKS-8027A	MKS-8028A
MKS-8030A	MKS-8031AJS	MKS-8031ATB	MKS-8032A
MKS-8033A	MKS-8034ADK	MKS-8034AFB	MKS-8035A
MKS-8036A	MKS-8040	MKS-8041	MKS-8042
MKS-8075A	MKS-8076	HK-PSU02	



OPERATION MANUAL 2nd Edition (Revised 3)

English

## **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.

#### For the customers in the USA

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.

#### (Except for HK-PSU02)

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.

#### (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 the customers in Canada (HK-PSU02 only)

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

## Pour les utilisateurs au Canada (HK-PSU02 uniquement)

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



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 1.5 m (4 ft 11 in), Less than 2.5 m

(8 ft 3 in)

Rating Minimum 10 A, 125 V

Using this unit at a voltage other than 120 V 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.

- 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.
- 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.

# **WARNUNG:** DIESE WARNUNG GILT FÜR ANDERE LÄNDER.

- Verwenden Sie Netzkabel (dreiadrig), Geräteanschlüsse und Netzkabelstecker mit Masseleitung, die den Sicherheitsrichtlinien des jeweiligen Landes entspricht.
- Verwenden Sie Netzkabel (dreiadrig), Geräteanschlüsse und Netzkabelstecker mit Masseleitung, die den vor Ort herrschenden Spannungsanforderungen (Spannung, Stromstärke) entsprechen.

Bei Frage über die Eignung und Sicherheit von Netzkabeln (dreiadrig), Geräteanschlüssen und Netzkabelsteckern wenden Sie sich bitte an einen qualifizierten Elektrotechniker.

# **AVERTISSEMENT:** CET AVERTISSEMENT EST VALABLE POUR LES AUTRES PAYS.

- 1. Utiliser un cordon d'alimentation approuvé (conducteur d'alimentation 3 âmes)/connecteur d'appareil/prise avec contacts de mise à la terre conforme aux règles de sécurité de chaque pays si applicable.
- 2. Utiliser un cordon d'alimentation approuvé (conducteur d'alimentation 3 âmes)/connecteur d'appareil/prise conforme aux valeurs nominales (tension, ampérage) correctes.

S'adresser à un personnel de service qualifié pour toute question concernant l'emploi du cordon d'alimentation/connecteur d'appareil/prise ci-dessus.

### 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.

### **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'écarter 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.

#### For the customers in Europe (MKS-8010A only)

This product with the CE marking complies with both the EMC Directive (89/336/EEC) and the Low Voltage Directive (73/23/ EEC) 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).

#### Für Kunden in Europa (nur MKS-8010A)

Dieses Produkt besitzt die CE-Kennzeichnung und erfüllt die EMV-Richtlinie (89/336/EWG) sowie die

Niederspannungsrichtlinie (73/23/EWG) 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)

#### Pour les clients européens (MKS-8010A uniquement)

Ce produit portant la marque CE est conforme à la fois à la Directive sur la compatibilité électromagnétique (EMC) (89/ 336/CEE) et à la Directive sur les basses tensions (73/23/ CEE) 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 suivant: E4 (environnement EMC contrôlé ex. studio de télévision).

For the customers in Europe (MKS-8011A/8013A/8014A/ 8015A/8017A/8018A/8019A/8020A/8021A/8021ASC/ 8022A/8022ASC/8023A/8023AB/8024A/8025MS/8026A/ 8027A/8028A/8030A/8031AJS/8031ATB/8032A/8033A/ 8034ADK/8034AFB/8035A/8036A/8040/8041/8075A/8076 only)

This product with the CE marking complies with the EMC Directive (89/336/EEC) 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).

Für Kunden in Europa (nur MKS-8011A/8013A/8014A/ 8015A/8017A/8018A/8019A/8020A/8021A/8021ASC/ 8022A/8022ASC/8023A/8023AB/8024A/8025MS/8026A/ 8027A/8028A/8030A/8031AJS/8031ATB/8032A/8033A/ 8034ADK/8034AFB/8035A/8036A/8040/8041/8075A/8076)

Dieses Produkt besitzt die CE-Kennzeichnung und erfüllt die EMV-Richtlinie (89/336/EWG) der EG-Kommission.

Angewandte Normen:

- EN55103-1: Elektromagnetische Verträglichkeit (Störaussendung)
- EN55103-2: Elektromagnetische Verträglichkeit (Störfestigkeit).

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

Pour les clients européens (MKS-8011A/8013A/8014A/ 8015A/8017A/8018A/8019A/8020A/8021A/8021ASC/ 8022A/8022ASC/8023A/8023AB/8024A/8025MS/8026A/ 8027A/8028A/8030A/8031AJS/8031ATB/8032A/8033A/ 8034ADK/8034AFB/8035A/8036A/8040/8041/8075A/8076 uniquement)

Ce produit portant la marque CE est conforme à la Directive sur la compatibilité électromagnétique (EMC) (89/336/CEE) 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).

#### For the customers in Europe (HK-PSU02 only)

This product with the CE marking complies with the EMC Directive (89/336/EEC) 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(s):

E1 (residential), E2 (commercial and light industrial), E3 (urban outdoors) and E4 (controlled EMC environment, ex. TV studio).

#### Für Kunden in Europa (nur HK-PSU02)

Dieses Produkt besitzt die CE-Kennzeichnung und erfüllt die EMV-Richtlinie (89/336/EWG) der EG-Kommission. Angewandte Normen:

- EN55103-1: Elektromagnetische Verträglichkeit (Störaussendung)
- EN55103-2: Elektromagnetische Verträglichkeit (Störfestigkeit),

für die folgenden elektromagnetischen Umgebungen: E1 (Wohnbereich), E2 (kommerzieller und in beschränktem Maße industrieller Bereich), E3 (Stadtbereich im Freien) und E4 (kontrollierter EMV-Bereich, z.B. Fernsehstudio).

#### Pour les clients européens (HK-PSU02 seulement)

Ce produit portant la marque CE est conforme à la Directive sur la compatibilité électromagnétique (EMC) (89/336/CEE) 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 les environnements électromagnétiques suivants:
   E1 (résidentiel), E2 (commercial et industrie légère),
   E3 (urbain extérieur) et E4 (environnement EMC contrôlé, ex. studio de télévision).

#### **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.

#### Für Kunden in Deutschland (nur MKS-8010A)

Wenn Sie das Gerät entsorgen wollen, wenden Sie sich bitte an das nächste Sony-Kundendienstzentrum. Der eingebaute Akku muß als chemischer Sondermüll entsorgt werden.

#### For Customers in Taiwan only (MKS-8010A only)



廢電池請回收

#### For the customers in the USA (MKS-8011A only)

This product (fluorescent lamp in the liquid crystal display) contains mercury. Disposal of this product may be regulated if sold in the United States. For disposal or recycling information, please contact your local authorities or the Electronics Industries Alliance (www.eiae.org http://www.eiae.org)

#### For the State of California, USA only (MKS-8010A only)

Perchlorate Material - special handling may apply, See <a href="https://www.dtsc.ca.gov/hazardouswaste/perchlorate">www.dtsc.ca.gov/hazardouswaste/perchlorate</a>
Perchlorate Material : Lithium battery contains perchlorate.

# **Table of Contents**

Ove	rview	7
	Features	7
	Units and Modules	7
	Optional Accessories	9
Loca	ation and Function of Parts	10
	MKS-8010A Front Panel	10
	MKS-8010A Rear Panel	
	MKS-8011A Menu Panel	
	Main Panel	
	AUX Panel	
	MKS-8025MS "Memory Stick"/USB Module	
	MKS-8075A Extension Adaptor	
	MKS-8076 Memory Card/USB Adaptormple System Configuration	
	MVS-8000A System Configuration	
	Center Control Panel Connection	
	hanging Button Labels	
	usting Fader Torque	
	er Supply Unit Status Indicators	
	e of the Control Panel	
Abo	ut a "Memory Stick"	20
	What Is "Memory Stick"?	.20
1	Types of "Memory Stick"	.20
	Available Types of "Memory Stick"	.21
	Note on "Memory Stick PRO"	.21
	Notes on "Memory Stick Duo"	.21
	Before Using a "Memory Stick"	.21
	About Formatting "Memory Stick"	.21
	Caution When Formatting "Memory Stick" on a Personal	
	Computer	. 22
	When the Status Indicator Is Lit or Flashing	. 22
	Precautions	. 22
Spe	cifications	22
-	Center Control Panel	
	Main Panel	
	AUX panel	
	MKS-8010A System Control Unit	
	MKS-8011A Menu Panel	
	MKS-8013A 32 AUX Bus Module	
	MKS-8014A 24 AUX Bus Module	
	MKS-8015A 16 AUX Bus Module	
	MKS-8017A 32 XPT Module	. ∠೨

MKS-8018A 24 XPT Module	25
MKS-8019A 16 XPT Module	25
MKS-8020A Standard Transition Module	25
MKS-8021A Simple Transition Right Module	25
MKS-8021ASC Simple Transition Compact Right Module.	
MKS-8022A Simple Transition Left Module	25
MKS-8022ASC Simple Transition Compact Left Module	26
MKS-8023A Compact Key Transition Module	26
MKS-8023AB Compact Key Transition Module	26
MKS-8024A Flexi Pad Module	26
MKS-8025MS "Memory Stick"/USB Module	26
MKS-8026A 10 Key Pad Module	26
MKS-8027A Compact Transition Right Module	26
MKS-8028A Compact Transition Left Module	27
MKS-8030A Key Frame Module	27
MKS-8031AJS Joystick Module	27
MKS-8031ATB Track Ball Module	27
MKS-8032A DSK Fader Module	27
MKS-8033A Utility/Shotbox Module	27
MKS-8034ADK DSK/FTB Module	27
MKS-8034AFB FTB Module	27
MKS-8035A Key Control Module	28
MKS-8036A Device Control Module	28
MKS-8040 Blank Panel (1/3)	28
MKS-8041 Blank Panel (1/2)	28
MKS-8042 Blank Panel (1/6)	28
MKS-8075A Extension Adaptor	28
MKS-8076 Memory Card/USB Adaptor	29
HK-PSU02 Power Supply Unit	29

## **Overview**

The CCP-8000 Center Control Panel Pack provides control panels for operation of a MVS-8000 Multi Format Switcher system. It has a wide range of application, being usable in studios and the ENG and OB vans of large-scale live production systems as well as in postproduction editing systems.

"Center control panel" refers to the control panel as a whole, which is comprised of the following three elements.

#### **Main Panel**

The main panel, comprised of various types of operation modules, provides the operating controls of the system. It can be freely laid out, with variable numbers of M/E banks (2 to 4) and cross-point buttons (24 or 32) and variable layout of the auxiliary bus module. Operation modules can be mounted in the MKS-8075A Extension Adaptor and MKS-8076 Memory Card/USB Adaptor for installation apart from the main panel. The auxiliary bus module can also be removed from the main panel and used as an AUX panel.

#### Menu Panel

The menu panel provides a GUI interface for making system settings.

#### System Control Unit

The system control unit provides control functions for the center control panel as a whole. It also supplies power to the various panels.

#### **Features**

#### Free control panel layout

The modular configuration of the center control panel allows operation modules to be freely laid out in the way that best meets your requirements.

# Intuitive, easy-to-use man-machine interface

The Flexi Pad<sup>TM</sup> and shotbox sections feature LCD display buttons that can display the names of registered effects or graphics for registered patterns. Registered effects are evident at a glance, a significant advantage in live situations where decisions must be made instantly. The menu control block features a large, touch-sensitive LCD panel for speedy menu operations.

# Special features for mid- and large-scale live switcher systems

The center control panel was designed with many features for live operation, such as shotbox functions, source name display on cross-point buttons, the ability to recall snapshots and other effect memory settings directly on the Flexi Pad<sup>TM</sup>, and redundant power supply.

#### Powerful external device control

The center control panel can control devices such as Sony routing switchers and IF processors. Control of devices such as VTRs and DDRs can be linked to timelines of switchers and DME.

#### Generous storage capacity

The center control panel has an internal hard disk drive for storage of settings and still pictures from switcher frame memory. They can also be storage to "Memory Sticks" and other memory cards.

#### **Units and Modules**

#### MKS-8010A System Control Unit

A system control unit to provide control functions for the center control panel as a whole and supply power to the various panels.

#### MKS-8011A Menu Panel

A menu operation panel equipped with a 10.4-inch color LCD touch screen.

#### MKS-8013A 32 AUX Bus Module

An auxiliary bus control module with 32 cross-point buttons.

#### MKS-8014A 24 AUX Bus Module

An auxiliary bus control module with 24 cross-point buttons.

#### MKS-8015A 16 AUX Bus Module

An auxiliary bus control module with 16 cross-point buttons.

#### MKS-8017A 32 XPT Module

An M/E or PGM/PST bank cross-point module with 32 cross-point buttons.

#### MKS-8018A 24 XPT Module

An M/E or PGM/PST bank cross-point module with 24 cross-point buttons.

#### MKS-8019A 16 XPT Module

An M/E or PGM/PST bank cross-point module with 16 cross-point buttons.

#### MKS-8020A Standard Transition Module

A transition operation module for an M/E bank or the PGM/PST bank. Comprised of a transition operation section and a key transition operation section.

# MKS-8021A Simple Transition Right Module

A transition operation module for an M/E bank or the PGM/PST bank. Comprised of a transition operation section with a split fader and a Flexi Pad section. The fader lever is at a different position than on the MKS-8022A.

# MKS-8021ASC Simple Transition Compact Right Module

A transition operation module for an M/E bank or the PGM/PST bank. Comprised of a transition operation section with a split fader and a Flexi Pad section. The fader lever is at a different position than on the MKS-8022ASC.

### MKS-8022A Simple Transition Left Module

A transition operation module for an M/E bank or the PGM/PST banks. Comprised of a transition operation section with a split fader and a Flexi Pad section. The fader lever is at a different position than on the MKS-8021A.

# MKS-8022ASC Simple Transition Compact Left Module

A transition operation module for an M/E bank or the PGM/PST bank. Comprised of a transition operation section with a split fader and a Flexi Pad section. The fader lever is at a different position than on the MKS-8021ASC.

# MKS-8023A Compact Key Transition Module

A key transition operation module for 2-keyer transitions. Used in combination with the MKS-8021A or MKS-8022A.

# MKS-8023AB Compact Key Transition Module

A key transition operation module for 2/4-keyer transitions. Used in combination with the MKS-8021A/8021ASC/8022A/8022ASC.

#### MKS-8024A Flexi Pad Module

An operation module for Flexi Pad operations. Used in combination with the MKS-8020A.

#### MKS-8025MS "Memory Stick"/USB Module

A module equipped with a "Memory Stick" slot and three DEVICE connectors.

#### MKS-8026A 10 Key Pad Module

A numeric keypad module.

# MKS-8027A Compact Transition Right Module

A transition operation module for an M/E bank or the PGM/PST bank. Features a simple key transition operation section. A compact module that fits in 1/2 rack width.

# MKS-8028A Compact Transition Left Module

Identical to the MKS-8027A, but with the fader lever on the left side.

#### MKS-8030A Key Frame Module

A module for key frame operations.

#### MKS-8031AJS Joystick Module

A module for DME operations using a joystick and for switcher wipe positioner operations.

#### MKS-8031ATB Track Ball Module

A module for DME operations using a track ball and for switcher wipe positioner operations.

#### MKS-8032A DSK Fader Module

An operation module for fader lever operations on four downstream keys.

#### MKS-8033A Utility/Shotbox Module

An operation module to provide buttons that may be used as utility buttons or shotbox recall buttons.

#### MKS-8034ADK DSK/FTB Module

An operation module for operations on two downstream keys and for fade to black and preview selector operations. (This module is the MKS-8034AFB module with the addition of controls for DSK operations.)

SWC-5005 50-pin Panel Cable (5 m/16 ft) SWC-5010 50-pin Panel Cable (10 m/33 ft) RMM-10 Rack Mount Kit

#### MKS-8034AFB FTB Module

An operation module for fade to black and preview selector operations.

#### MKS-8035A Key Control Module

An operation module for key adjustments and other operations.

#### MKS-8036A Device Control Module

An operation module for disk recorder/VTR control operations.

#### MKS-8040 Blank Panel (1/3)

A blank panel to fill parts of the main panel which are not filled by the modules in its current configuration.

#### **MKS-8041 Blank Panel (1/2)**

A blank panel to fill parts of the main panel which are not filled by the modules in its current configuration.

#### **MKS-8042 Blank Panel (1/6)**

A blank panel to fill parts of the main panel which are not filled by the modules in its current configuration.

#### MKS-8075A Extension Adaptor

An adaptor which allows modules to be installed apart from the main panel.

#### MKS-8076 Memory Card/USB Adaptor

An adaptor that allows the MKS-8025MS to be installed apart from the main panel.

# HK-PSU02 Power Supply Unit (on MKS-8010A)

A backup power supply unit. The MKS-8010A is supplied standard with one power unit. Installing an HK-PSU02 gives two power units.

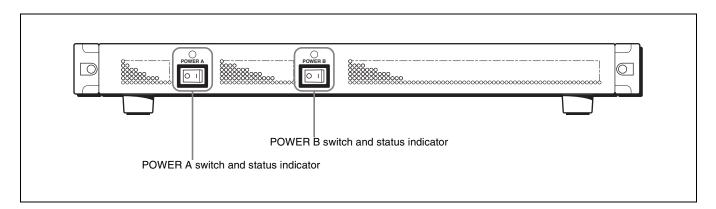
This allows a backup system to be constructed which will operate normally even if one of the power supply units fails.

## **Optional Accessories**

SWC-5002 50-pin Panel Cable (2 m/7 ft)

## **Location and Function of Parts**

#### **MKS-8010A Front Panel**



#### POWER A and 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 "l" 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 configuration of your unit, an optional Backup Power Supply Unit may not be installed. In this case, there is no POWER B switch indicator.

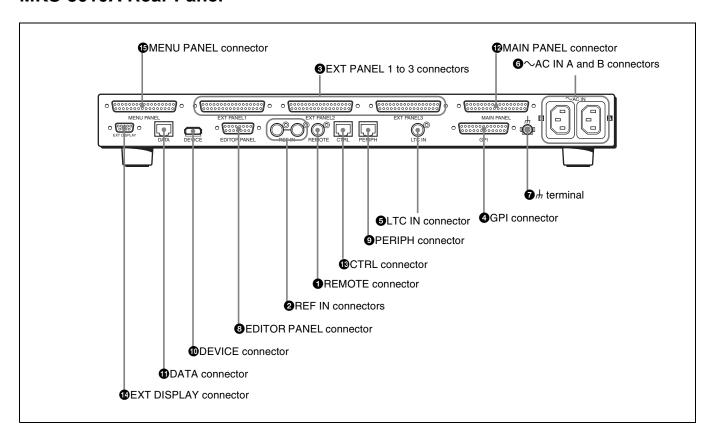
#### Caution

Before installing an optional Backup Power Supply Unit 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.

#### MKS-8010A Rear Panel



#### **1** REMOTE connector (BNC type)

Connect this connector with a BNC cable to an S-BUS data link via a T bridge.

An S-BUS data link is a single signaling circuit (S-BUS) to which multiple devices can be connected to exchange data

Connecting devices such as HDS-X3000 series routing switchers and remote panels to an S-BUS data link enables the following kinds of control.

- Returning to the S-BUS, tally data created by this unit on the basis of data received from other devices
- Switching the cross-points of a routing switcher from the center control panel
- Switching the cross-points of a switcher from the remote panel
- Displaying on the center control panel source names set on a routing switcher

# **2** REF IN (reference 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  $75\Omega$  terminator.

# **3** EXT (extension) PANEL 1 to 3 connectors (D-sub 50-pin, special interface)

Connect to the MKS-8075A Extension Adaptors and AUX panels to install operation modules apart from the center control panel.

# **4** GPI (General Purpose Interface) connector (D-sub 25-pin)

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

# **5** LTC IN (longitudinal timecode input) connector (BNC type)

Connect to a timecode generator.

# **⑤** ∼ 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 cords.

Depending on the configuration of your unit, the Backup Power Supply Unit may not be installed. In that case, the AC IN B connector is not used.

#### Caution

For information about installing, contact your Sony service representative.

#### **7** ★ (signal ground) terminal

Connect to the system ground.

# **8** EDITOR PANEL connector (D-sub 15-pin, RS-422A)

This connector is reserved for future system expansion.

#### **9** PERIPH (peripheral) connector (RJ-45)

Connect to the DCU-8000 Device Control Unit Pack with a cross cable to enable communications with the DCU-8000.

#### Note

An Ethernet switch is required to connect two or more DCU-8000 Device Control Units.

#### **10** DEVICE connector (USB Type A)

Connect to the HOST connector of the main panel, AUX panel or the MKS-8076 Memory Card/USB Adaptor.

#### **1** DATA connector (RJ-45)

Connect to an Ethernet switch.\*

The MVS-8000A/8000ASF Switcher Processor, the MVE-8000A DME Processor and other devices can be 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.) and still pictures of frame memory.

\* 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 Ethernet switch.

# **MAIN PANEL connector (D-sub 50-pin, special interface)**

Connect to the SCU connector of the main panel.

#### **13** CTRL (control) connector (RJ-45)

Connect to an Ethernet switch.

The MVS-8000A/8000ASF Switcher Processor, the MVE-8000A DME Processor and other devices 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.

# **&** EXT (extension) DISPLAY connector (high-density D-sub 15-pin, analog RGB)

This connector is reserved for future system expansion.

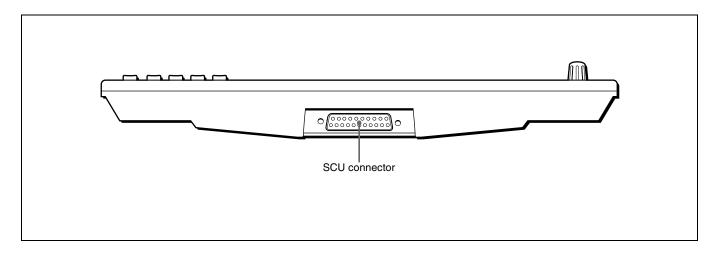
# **(B)** MENU PANEL connector (D-sub 50-pin, special interface)

Connect to the menu panel.

#### Caution

- For safety, do not connect the connector for peripheral device wiring that might have excessive voltage to the following ports.
  - PERIPH (peripheral) connector
  - DATA connector
  - CTRL (control) connector Follow the instructions for the above ports.
- When you connect the LAN cable of the unit to peripheral device, use a shielded-type cable to prevent malfunction due to radiation noise.

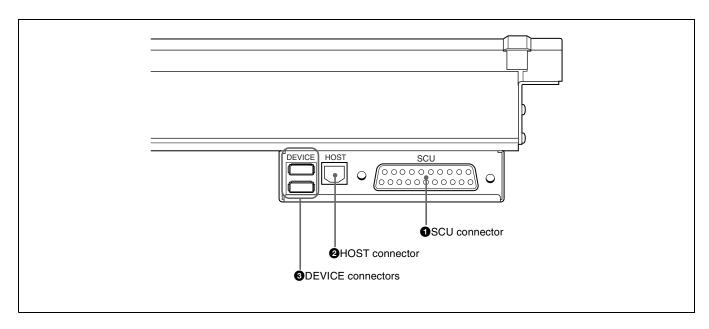
### MKS-8011A Menu Panel



# SCU (system control unit) connector (D-sub 50-pin, special interface)

Connect to the MENU PANEL connector of the MKS-8010A System Control Unit.

#### **Main Panel**



# **1** SCU (system control unit) connector (D-sub 50-pin, special interface)

Connect to the MAIN PANEL connector of the MKS-8010A System Control Unit.

#### **2** HOST connector (USB Type B)

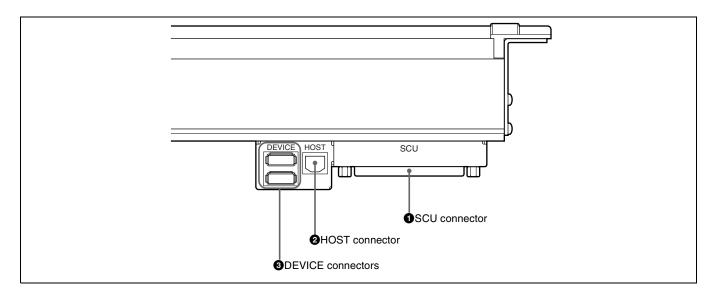
Connect to the DEVICE connector of the MKS-8010A System Control Unit.

#### **3** DEVICE connectors (USB Type A)

Connect to external devices with USB connectors.

For connectable devices, contact your Sony service representative.

#### **AUX Panel**



# **1** SCU (system control unit) connector (D-sub 50-pin, special interface)

Connect to one of the EXT PANEL 1 to 3 connectors of the MKS-8010A System Control Unit.

#### **2** HOST connector (USB Type B)

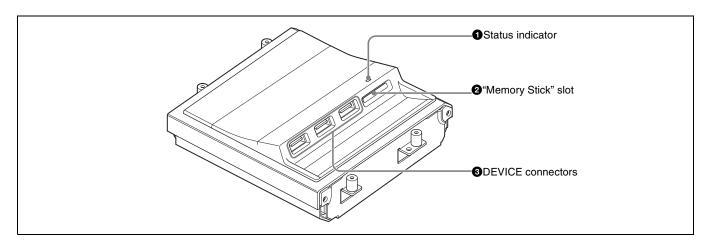
Connect to the DEVICE connector of the MKS-8010A System Control Unit.

#### **3** DEVICE connectors (USB Type A)

Connect to external devices with USB connectors.

For connectable devices, contact your Sony service representative.

## MKS-8025MS "Memory Stick"/USB Module



#### **1** Status indicator

Data is being read from or written to a "Memory Stick" when the status indicator is lit or flashing.

#### Note

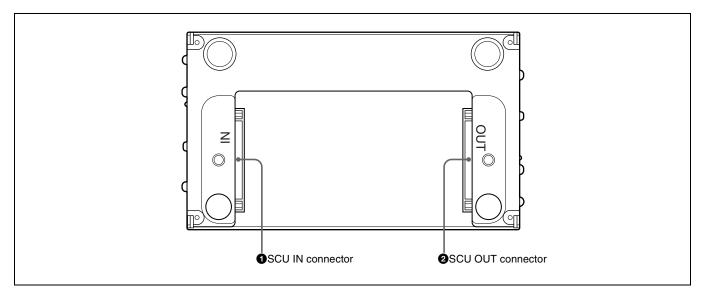
Do not power the unit off or remove a "Memory Stick" when the status indicator is lit or flashing.

#### 2 "Memory Stick" slot

A slot to insert "Memory Sticks."

See "About a "Memory Stick"" (page 20) for more information about "Memory Sticks."

## MKS-8075A Extension Adaptor



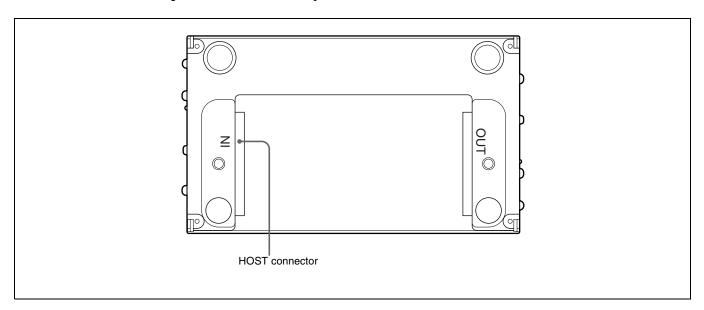
# **1** SCU IN (system control unit input) connector (D-sub 50-pin, special interface)

Connect to one of the EXT PANEL 1 to 3 connectors of the MKS-8010A System Control Unit or to the SCU OUT connector of the MKS-8075A.

# **2** SCU OUT (system control unit output) connector (D-sub 50-pin, special interface)

Connect to the SCU IN connector of the MKS-8075A.

## MKS-8076 Memory Card/USB Adaptor

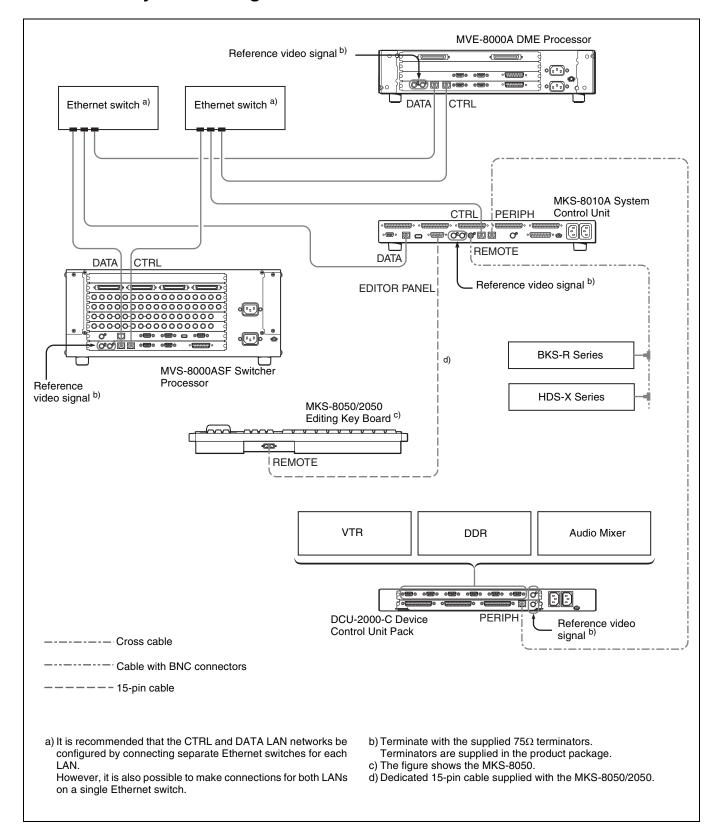


#### **HOST connector (USB Type B)**

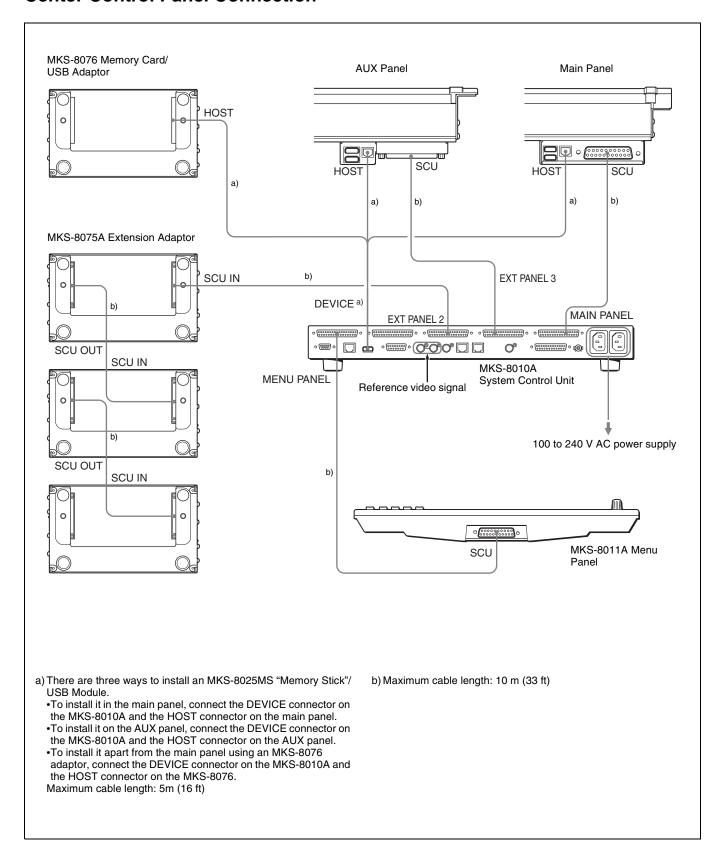
Connect to the DEVICE connector of the MKS-8010A System Control Unit.

# **Example System Configuration**

## **MVS-8000A System Configuration**



### **Center Control Panel Connection**



The number of modules that can be connected to a single MKS-8010A System Control Unit is as follows. (The maximum number of adaptors that can be connected on 1 channel is 8.)

Model	Module name	Max. modules
MKS-8013A/ 8014A/8015A	32, 24, 16 AUX Bus Module	2
MKS-8026A	10 Key Pad Module	1
MKS-8030A	Key Frame Module	1
MKS-8031AJS	Joystick Module	1
MKS-8031ATB	Track Ball Module	1
MKS-8033A	Utility/Shotbox Module	2
MKS-8035A	Key Control Module	4
MKS-8032A	DSK Fader Module	4
MKS-8036A	Device Control Module	1

However, it is not possible to connect four Key Control Modules and a 10 Key Pad Module on one channel. You can also connect a keyboard, mouse, pen tablet and other devices with USB connectors to the DEVICE connectors of the main panel regardless of whether an MKS-8025MS has been installed in the main panel or installed apart from the main panel using an MKS-8076 adaptor, or to the DEVICE connectors of a module to operate the MKS-8025MS.

Contact your Sony service representative for more information about connectable devices.

#### Note

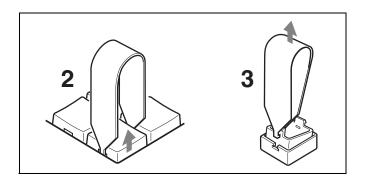
To make connections to the EXT PANEL 1, 2 and 3 connectors, MAIN PANEL connector, and MENU PANEL connector on the MKS-8010A System Control Unit, always use the cables supplied in the package, or SWC-5005 or SWC-5010 cables.

# **Exchanging Button Labels**

A button top puller is supplied with the center control panel.

After changing a pattern assigned to a numeric button, you can use the following procedure to exchange the button label.

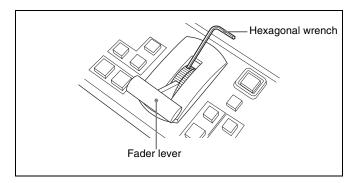
- Write the new pattern on one of the supplied exchange labels.
- **2** Grip the holes on the button sides with the supplied button top puller and remove the button.
- **3** Grip the slots on the sides of the white button cap with the button top puller, so that the cap flexes slightly, and remove the cap.
- 4 Remove the old label and insert the new label.
- **5** Replace the button cap.
- **6** Replace the button in its original location.



# **Adjusting Fader Torque**

You can adjust faders without removing them from the center control panel or operation modules (Single fader only).

Proceed as follows to adjust faders.



- 1 Pull the fader lever to an upright position between the two holes on the fader cover.
- 2 Insert a hexagonal screwdriver or a hexagonal wrench (4 mm sides) into one or both of the holes and rotate to adjust the torque.

#### **Rotate clockwise:**

Fader lever operation becomes firmer.

#### **Rotate counterclockwise:**

Fader lever operation becomes freer.

#### Note

For a split fader, you cannot make adjustment from the control panel surface. To make adjustment, it is necessary to use the two holes provided in the back side of the module.

If you want split fader torque to be adjusted, consult your Sony service representative.

#### Single fader modules

MKS-8020A Standard Transition Module

MKS-8030A Key Frame Module

MKS-8032A DSK Fader Module

MKS-8027A Compact Transition Right Module

MKS-8028A Compact Transition Left Module

#### Split fader modules

MKS-8021A Simple Transition Right Module

MKS-8022A Simple Transition Left Module

MKS-8021ASC Simple Transition Compact Right

Module

MKS-8022ASC Simple Transition Compact Left Module

# **Power Supply Unit Status Indicators**

The power supply unit status indicators show 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	Llt	Power supply unit fan fault	Exchange the fan unit
_	Not lit	Power supply unit fault	Exchange the power supply unit

## **Care of the Control Panel**

Clean the control panel unit, switches, and fader levers, by gently wiping with a soft dry cloth.

In the event of excessive grime, moisten the cloth with a little cold or lukewarm water, and wipe gently.

#### Note

Wring out all surplus water from the cloth before use, to prevent any surplus water from penetrating the panel. Moisture inside the panel can cause it to fail.

Never use organic solvents, cleaners, or other chemicals. Do not wipe with excessive force, as this may scratch the panel.

# **About a "Memory Stick"**

### What Is "Memory Stick"?

"Memory Stick" is a new compact, portable and versatile IC (Integrated Circuit) recording medium with a data capacity that exceeds a floppy disk.

"Memory Stick" is specially designed for exchanging and sharing digital data among "Memory Stick" compatible products. Because it is removable, "Memory Stick" can also be used for external data storage.

"Memory Stick" is available in two sizes: standard size and compact "Memory Stick Duo" size. Once attached to a Memory Stick Duo adapter, "Memory Stick Duo" turns to the same size as standard "Memory Stick" and thus can be used with products compliant with standard "Memory Stick."

## Types of "Memory Stick"

"Memory Stick" is available in the following six types to meet various requirements in functions.

#### "Memory Stick-R"

Stored data are not overwritten. You can write data to "Memory Stick-R" with "Memory Stick-R" compatible products only. Copyright protected data that requires MagicGate copyright protection technology cannot be written to "Memory Stick-R."

#### • "Memory Stick"

Stores any type of data except copyright-protected data that requires the MagicGate copyright protection technology.

## "MagicGate Memory Stick"

Equipped with the MagicGate copyright protection technology.

#### "Memory Stick-ROM"

Stores pre-recorded, read-only data. You cannot record on "Memory Stick-ROM" or erase the pre-recorded data.

#### "Memory Stick PRO"

Equipped with the MagicGate copyright protection technology, designed for use only with equipment compatible with "Memory Stick PRO."

### "Memory Stick" (with memory select function)

Equipped with the multiple memories (128 MB). You can select the memory to use with the memory selects switch on the back of the "Memory Stick." You cannot use different memories simultaneously or continuously.

## **Available Types of "Memory Stick"**

You can use various types of "Memory Stick," "Memory Stick PRO" and "MagicGate Memory Stick" with your product. However, because your product does not support the MagicGate standards, data recorded with your product is not subject to MagicGate copyright protection.

## Note on "Memory Stick PRO"

You can use "Memory Stick PRO" (up to 1GB) with your product.

## Notes on "Memory Stick Duo"

- To use "Memory Stick Duo" with your product, attach it to the Memory Stick Duo adapter before inserting it into your product.
- Be sure to attach "Memory Stick Duo" to the adapter with the correct orientation.
- Be sure to insert the Memory Stick Duo adapter with the correct orientation. Otherwise, the product may be damaged.
- Do not insert the Memory Stick Duo adapter without "Memory Stick Duo" attached. Doing so may result in malfunction of the product.

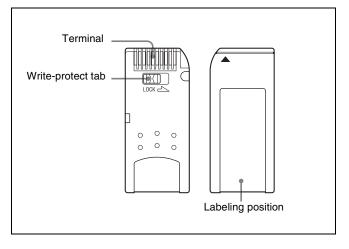
### Note on data read/write speed

Data read/write speed may vary depending on the combination of the "Memory Stick" and "Memory Stick" compliant product you use.

#### What is MagicGate?

MagicGate is copyright protection technology that uses encryption technology.

## Before Using a "Memory Stick"



- When you set the "Memory Stick" erasure prevention switch to "LOCK," data cannot be recorded, edited, or erased.
- The position and shape of the write-protect tab may differ depending on the "Memory Stick" being used.
- Use a sharp object, such as a ballpoint pen, to move the "Memory Stick Duo" erasure prevention switch.
- Data may be damaged if:
  - You remove the "Memory Stick" or turn off the unit while it is reading or writing data.
  - You use the "Memory Stick" in a location subject to the effects of static electricity or electric noise.
- We recommend that you make a backup copy of important data that you record on the "Memory Stick."

#### **Notes**

- Do not attach anything other than the supplied label to the "Memory Stick" labeling position.
- Attach the label so that it does not stick out beyond the labeling position.
- Do not write forcefully on the "Memory Stick Duo" memo area.
- Carry and store the "Memory Stick" in its case.
- Do not touch the connector of the "Memory Stick" with anything, including your finger or metallic objects.
- Do not strike, bend, or drop the "Memory Stick."
- Do not disassemble or modify the "Memory Stick."
- Do not allow the "Memory Stick" to get wet.
- Do not use or store the "Memory Stick" in a location that is:
  - Extremely hot, such as in a car parked in the sun
  - Under direct sunlight
  - Very humid or subject to corrosive substances

## **About Formatting "Memory Stick"**

When "Memory Sticks" are shipped from the factory, they are already formatted to a special standard. When you

format "Memory Stick," we recommend formatting them on this product.

# Caution When Formatting "Memory Stick" on a Personal Computer

Pay attention on the following points when formatting "Memory Stick" on a personal computer. Operation of "Memory Stick" formatted on a personal computer is not guaranteed on this product. To use a "Memory Stick" that has been formatted on a personal computer, the "Memory Stick" must be reformatted on this product. If it is not reformatted, all data stored on the "Memory Stick" will be lost.

For information about how to format "Memory Sticks," refer to "Formatting memory cards" in "Device maintenance (Maintenance menu)" of "Chapter 16 Engineering Setup" in Volume 2 of the Users's Guide for an MVS-8000 system (for CCP-8000) or a DVS-9000 system (for CCP-8000). (Read "Memory Sticks" wherever the manual refers to "memory cards.")

# When the Status Indicator Is Lit or Flashing

This indicates that data is being read or written. Do not subject the unit to vibrations or strong shocks at this time. Also, do not power the unit off or remove a "Memory Stick" when the indicator is lit or flashing. Doing so can lead to the loss of data.

#### **Precautions**

- To prevent data loss, make backups of data frequently. In no event will Sony be liable for any loss of data.
- Unauthorized recording may be contrary to the provisions of copyright law.
- The "Memory Stick" application software may be modified or changed by Sony without prior notice.
- "Memory Stick Duo" and MEMORY STICK Duo are the trademarks of Sony Corporation.
- "Memory Stick" and are the trademarks of Sony Corporation.
- "MagicGate Memory Stick" and MAGICGATE are the trademarks of Sony Corporation.
- "Memory Stick-ROM" and MEMORY STICK-ROM are the trademarks of Sony Corporation.
- "Memory Stick PRO" and MEMORY STICK PRO are the trademarks of Sony Corporation.
- "Memory Stick R" and MEMORY STICK-R are the trademarks of Sony Corporation.

# **Specifications**

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

Design and specifications are subject to change without notice

#### **Center Control Panel**

The center control panel is comprised of the main panel, the System Control Unit (MKS-8010A), the menu panel (MKS-8011A), and operation modules. The required operation modules are installed in the main panel at the factory.

The following accessories are center control panel accessories.

#### **Accessories supplied**

 $75\Omega$  terminator (1)

T bridge (1)

Button top puller (1)

50-pin cables\*

Name plates\*\*

USB cable (5 m/16 ft) (1)

Track ball (1)

Switch cover 12 (20)

Switch cover 15 (20)

Self-lighting switch chip (1)

Hexagonal wrench (1)

Operation Manual (1)

Installation Manual (1)

User's Guide (2)

Software License Agreement (1)

- \* The number depends on the system configuration.
- \*\* The number and type depend on the system configuration.

When purchased together with the center control panel, the MKS-8075A Extension Adaptor and MKS-8076 Memory Card/USB Adaptor are supplied with the same accessories as when purchased separately (see page 28).

#### Main Panel

Main panel specifications vary according to the system configuration. The following shows specifications for typical configurations.

#### General

Power requirements

12 V DC

Power consumption Max. 10 A

Operating temperature

5°C to 40°C (41°F to 104°F)

Performance temperature

10°C to 35°C (50°F to 95°F)

Storage temperature

 $-20^{\circ}$ C to  $+60^{\circ}$ C ( $-4^{\circ}$ F to  $+140^{\circ}$ F)

Operating humidity

10% to 90%

Dimensions\* (w/h/d)

Example 1: (32 crosspoint buttons, 4 M/

E): 1443×98×528 mm (56<sup>7</sup>/<sub>8</sub>×3<sup>7</sup>/<sub>8</sub>×20<sup>7</sup>/<sub>8</sub> inches)

Example 2: (32 crosspoint buttons, 3 M/

E):  $1223 \times 95 \times 528$  mm  $(48^{1}/_{4} \times 3^{3}/_{4} \times 20^{7}/_{8}$  inches)

Example 3: (32 crosspoint buttons, 2 M/

E):  $1443 \times 92 \times 396 \text{ mm}$  $(56^7/_8 \times 3^5/_8 \times 15^5/_8 \text{ inches})$ 

Example 4: (32 crosspoint buttons, 2 M/

E):  $1223 \times 92 \times 396 \text{ mm}$   $(48^{1}/_{4} \times 3^{5}/_{8} \times 15^{5}/_{8} \text{ inches})$ 

Example 5: (24 crosspoint buttons, 4 M/

E):  $1291 \times 98 \times 528$  mm  $(50^{7}/_{8} \times 3^{7}/_{8} \times 20^{7}/_{8}$  inches)

Example 6: (24 crosspoint buttons, 3 M/

E):  $1071 \times 98 \times 528$  mm  $(42^{1}/_{4} \times 3^{7}/_{8} \times 20^{7}/_{8}$  inches)

Example 7: (24 crosspoint buttons, 2 M/

E):  $1291 \times 92 \times 396$  mm  $(50^{7}/_{8} \times 3^{5}/_{8} \times 15^{5}/_{8}$  inches)

Example 8: (24 crosspoint buttons, 2 M/

E):  $1071 \times 92 \times 396$  mm  $(42^{1}/_{4} \times 3^{5}/_{8} \times 15^{5}/_{8}$  inches)

Mass\* Example 1: Approx. 30 kg (66 lb 2 oz)

Example 2: Approx. 26 kg (57 lb 5 oz)

Example 3: Approx. 23 kg (50 lb 11 oz)

Example 4: Approx. 19 kg (41 lb 14 oz)

Example 5: Approx. 28 kg (61 lb 11 oz)

Example 6: Approx. 23 kg (50 lb 11 oz)

Example 7: Approx. 21 kg (46 lb 4 oz)

Example 8: Approx. 16 kg (35 lb 4 oz)

\* Dimensions and mass vary depending on the configuration. The above examples give dimensions (w/h/d) and mass for typical configurations.

For details, refer to the Installation Manual.

#### **Control connectors**

SCU D-sub 50-pin, female

HOST USB Type B DEVICE USB Type A (2)

Maximum supply current 400 mA

## **AUX** panel

AUX panel specifications vary according to the system configuration. The following shows specifications for typical configurations.

#### General

Dimensions\*(w/h/d)

Example 1: (32 crosspoint buttons):

783×82×132 mm

 $(30^7/_8 \times 3^1/_4 \times 5^1/_4 \text{ inches})$ 

Example 2: (24 crosspoint buttons):

630×82×132 mm

 $(24^7/_8 \times 3^1/_4 \times 5^1/_4 \text{ inches})$ 

Mass\* Example 1: Approx. 5.0 kg (11 lb)

Example 2: Approx. 4.0 kg (8 lb 13 oz)

\* Dimensions and mass vary depending on the configuration. The above examples give dimensions (w/h/d) and mass for typical configurations.

#### **Control connectors**

SCU D-sub 50-pin, female

HOST USB Type B
DEVICE USB Type A (2)

Maximum supply current 400 mA

## MKS-8010A System Control Unit

#### General

Power requirements

100 to 240 V AC, 50/60 Hz

Current consumption

100 V: 3.3 A, 240 V: 1.4 A

Peak inrush current

(1) Power ON, current probe method:

14 A (100 V), 65 A (240 V)

(2) Hot switching inrush current, measured in accordance with European standard EN55103-1:

31 A (230 V)

Operating temperature

5°C to 40°C (41°F to 104°F)

Performance guaranteed temperature

10°C to 35°C (50°F to 95°F)

Storage temperature

 $-20^{\circ}$ C to  $+60^{\circ}$ C ( $-4^{\circ}$ F to  $+140^{\circ}$ F)

Operating humidity

10% to 90%

Dimensions (w/h/d, excluding projections)

 $440\times44\times520 \text{ mm } (17^3/_8\times1^3/_4\times20^1/_2)$ 

inches)

Mass Approx. 11 kg (24 lb 4 oz)

#### Reference input

**REF IN** BNC type,  $75\Omega$ , with loop-through

> output HDTV systems:

> > HD tri-level sync/SDTV analog black

burst/SDTV analog sync

SDTV systems:

Analog black burst/analog sync

#### **Control connectors**

**CTRL RJ-45** 

Complies with 100Base-TX standard

**DATA** 

Complies with 100Base-TX standard

PERIPH **RJ-45** 

Complies with 100Base-TX standard

MAIN PANEL D-sub 50-pin, female MENU PANEL D-sub 50-pin, female

EXT PANEL 1, 2, 3

D-sub 50-pin, female

**DEVICE** USB Type A

Maximum supply current 2 A

**REMOTE** BNC type,  $75\Omega$ 

S-BUS

Data transfer rate: 312/1250 Kbps

**GPI** D-sub 25-pin, female

TTL inputs: 8

Relay contact outputs: 4 (30 V AC/DC,

0.1 A)

Open collector outputs: 4

LTC IN BNC type,  $75\Omega$ 

**EDITOR PANEL** 

D-sub 15-pin, female

Complies with RS-422A standard Data transfer rate: 38.4 Kbps

## Video output

**EXT DISPLAY** 

High-density D-sub 15-pin, female

Analog RGB

**AC** input

AC IN A, B 3-pin AC connector

#### **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.: 1-782-929-21)

#### MKS-8011A Menu Panel

#### General

Power requirements

12 V DC

Power consumption

Max. 1 A

Dimensions (w/h/d, excluding projections)

424×46×220 mm

 $(16^3/_4 \times 1^{13}/_{16} \times 8^3/_4 \text{ inches})$ 

Approx. 2.3 kg (5 lb 1 oz) Mass

#### **Control connectors**

**SCU** D-sub 50-pin, female

#### **Accessories supplied**

Operation and Installation Guide (1)

(supplied only when product is purchased separately)

#### MKS-8013A 32 AUX Bus Module

Power requirements

12 V DC

Power consumption

Max. 3 A

Dimensions (w/d, excluding projections)

 $740 \times 132 \text{ mm } (29^{1}/_{4} \times 5^{1}/_{4} \text{ inches})$ 

Approx. 2.3 kg (5 lb 1 oz) Mass

Accessories supplied

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

purchased separately)

#### MKS-8014A 24 AUX Bus Module

Power requirements

12 V DC

Power consumption

Max. 3 A

Dimensions (w/d, excluding projections)

 $588 \times 132 \text{ mm } (23^{1}/_{4} \times 5^{1}/_{4} \text{ inches})$ 

Approx. 1.8 kg (3 lb 15 oz)

Accessories supplied

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

purchased separately)

#### MKS-8015A 16 AUX Bus Module

Power requirements

12 V DC

Power consumption

Max. 3 A

Dimensions (w/d, excluding projections)

 $436 \times 132 \text{ mm } (17^{1}/_{4} \times 5^{1}/_{4} \text{ inches})$ 

Mass Approx. 1.2 kg (2 lb 10 oz)

Accessories supplied

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

purchased separately)

#### MKS-8017A 32 XPT Module

Power requirements

12 V DC

Power consumption

Max. 3 A

Dimensions (w/d, excluding projections)

 $740 \times 132 \text{ mm } (29^{1}/_{4} \times 5^{1}/_{4} \text{ inches})$ 

Approx. 2.2 kg (4 lb 13 oz) Mass

Accessories supplied

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

purchased separately)

#### MKS-8018A 24 XPT Module

Power requirements

12 V DC

Power consumption

Max. 3 A

Dimensions (w/d, excluding projections)

 $588 \times 132 \text{ mm } (23^{1}/_{4} \times 5^{1}/_{4} \text{ inches})$ 

Approx. 1.7 kg (3 lb 11 oz) Mass

Accessories supplied

Operation and Installation Guide (1)

(supplied only when product is purchased separately)

#### MKS-8019A 16 XPT Module

Power requirements

12 V DC

Power consumption

Max. 3 A

Dimensions (w/d, excluding projections)

 $436 \times 132 \text{ mm } (17^{1}/_{4} \times 5^{1}/_{4} \text{ inches})$ 

Approx. 1.2 kg (2 lb 10 oz) Mass

Accessories supplied

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

purchased separately)

## **MKS-8020A Standard Transition** Module

Power requirements

12 V DC

Power consumption

Max. 1 A

Dimensions (w/d, excluding projections)

 $293 \times 132 \text{ mm } (11^{5}/_{8} \times 5^{1}/_{4} \text{ inches})$ 

Approx. 0.9 kg (1 lb 15 oz) Mass

Accessories supplied

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

purchased separately)

## MKS-8021A Simple Transition Right Module

Power requirements

12 V DC

Power consumption

Max. 1 A

Dimensions (w/d, excluding projections)

 $293 \times 132 \text{ mm } (11^{5}/_{8} \times 5^{1}/_{4} \text{ inches})$ 

Mass Approx. 0.8 kg (1 lb 12 oz)

Accessories supplied

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

purchased separately)

## MKS-8021ASC Simple Transition **Compact Right Module**

Power requirements

12 V DC

Power consumption

Max. 1 A

Dimensions (w/d, excluding projections)

 $220 \times 132 \text{ mm } (8^3/_4 \times 5^1/_4 \text{ inches})$ 

Approx. 0.75 kg (1 lb 10 oz) Mass

Accessories supplied

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

purchased separately)

## MKS-8022A Simple Transition Left Module

Power requirements

12 V DC

Power consumption

Max. 1 A

Dimensions (w/d, excluding projections)

 $293 \times 132 \text{ mm } (11^{5}/_{8} \times 5^{1}/_{4} \text{ inches})$ 

Approx. 0.8 kg (1 lb 12 oz) Mass

Accessories supplied

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

purchased separately)

# MKS-8022ASC Simple Transition Compact Left Module

Power requirements

12 V DC

Power consumption

Max. 1 A

Dimensions (w/d, excluding projections)

 $220 \times 132 \text{ mm } (8^3/_4 \times 5^1/_4 \text{ inches})$ 

Mass Approx. 0.75 kg (1 lb 10 oz)

Accessories supplied

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

purchased separately)

# MKS-8023A Compact Key Transition Module

Power requirements

12 V DC

Power consumption

Max. 0.5 A

Dimensions (w/d, excluding projections)

 $147 \times 132 \text{ mm } (5^{7}/_{8} \times 5^{1}/_{4} \text{ inches})$ 

Mass Approx. 0.4 kg (14 oz)

Accessories supplied

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

purchased separately)

# MKS-8023AB Compact Key Transition Module

Power requirements

12 V DC

Power consumption

Max. 0.5 A

Dimensions (w/d, excluding projections)

 $147 \times 132 \text{ mm } (5^{7}/_{8} \times 5^{1}/_{4} \text{ inches})$ 

Mass Approx. 0.4 kg (14 oz)

Accessories supplied

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

purchased separately)

#### MKS-8024A Flexi Pad Module

Power requirements

12 V DC

Power consumption

Max. 1 A

Dimensions (w/d, excluding projections)

 $147 \times 132 \text{ mm } (5^7/_8 \times 5^1/_4 \text{ inches})$ 

Mass Approx. 0.5 kg (1 lb 1 oz)

Accessories supplied

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

purchased separately)

# MKS-8025MS "Memory Stick"/USB Module

#### General

Power requirements

5 V DC

Power consumption

Max. 1 A

Dimensions (w/d, excluding projections)

 $147 \times 132 \text{ mm } (5^7/_8 \times 5^1/_4 \text{ inches})$ 

Mass Approx. 0.5 kg (1 lb 1 oz)

"Memory Stick" Slot

"Memory Stick" (1) (8 to 128 MB)

#### **Control connectors**

DEVICE USB Type A (3)

Maximum supply current 400 mA

#### **Accessories supplied**

Operation and Installation Guide (1)

(supplied only when product is purchased separately)

## MKS-8026A 10 Key Pad Module

Power requirements

12 V DC

Power consumption

Max. 1 A

Dimensions (w/d, excluding projections)

 $220 \times 132 \text{ mm } (8^3/_4 \times 5^1/_4 \text{ inches})$ 

Mass Approx. 0.6 kg (1 lb 5 oz)

Accessories supplied

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

purchased separately)

# MKS-8027A Compact Transition Right Module

Power requirements

12 V DC

Power consumption

Max. 0.7 A

Dimensions (w/d, excluding projections)

 $220 \times 132 \text{ mm } (8^3/_4 \times 5^1/_4 \text{ inches})$ 

Mass Approx. 0.6 kg (1 lb 5 oz)

Accessories supplied

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

# MKS-8028A Compact Transition Left Module

Power requirements

12 V DC

Power consumption

Max. 0.7 A

Dimensions (w/d, excluding projections)

 $220 \times 132 \text{ mm } (8^3/_4 \times 5^1/_4 \text{ inches})$ 

Mass Approx. 0.6 kg (1 lb 5 oz)

Accessories supplied

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

purchased separately)

## MKS-8030A Key Frame Module

Power requirements

12 V DC

Power consumption

Max. 1 A

Dimensions (w/d, excluding projections)

 $220 \times 132 \text{ mm } (8^3/_4 \times 5^1/_4 \text{ inches})$ 

Mass Approx. 0.6 kg (1 lb 5 oz)

Accessories supplied

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

purchased separately)

## MKS-8031AJS Joystick Module

Power requirements

12 V DC

Power consumption

Max. 1 A

Dimensions (w/d, excluding projections)

 $220 \times 132 \text{ mm } (8^3/_4 \times 5^1/_4 \text{ inches})$ 

Mass Approx. 0.6 kg (1 lb 5 oz)

Accessories supplied

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

purchased separately)

### MKS-8031ATB Track Ball Module

Power requirements

12 V DC

Power consumption

Max. 1 A

Dimensions (w/d, excluding projections)

 $220 \times 132 \text{ mm } (8^3/_4 \times 5^1/_4 \text{ inches})$ 

Mass Approx. 0.7 kg (1 lb 8 oz)

Accessories supplied

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

purchased separately)

#### MKS-8032A DSK Fader Module

Power requirements

12 V DC

Power consumption

Max. 1 A

Dimensions (w/d, excluding projections)

 $220 \times 132 \text{ mm } (8^3/_4 \times 5^1/_4 \text{ inches})$ 

Mass Approx. 0.7 kg (1 lb 8 oz)

Accessories supplied

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

(supplied only when product

purchased separately)

## MKS-8033A Utility/Shotbox Module

Power requirements

12 V DC

Power consumption

Max. 1.5 A

Dimensions (w/d, excluding projections)

 $220 \times 132 \text{ mm } (8^3/_4 \times 5^1/_4 \text{ inches})$ 

Mass Approx. 0.7 kg (1 lb 8 oz)

Accessories supplied

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

purchased separately)

## MKS-8034ADK DSK/FTB Module

Power requirements

12 V DC

Power consumption

Max. 0.5 A

Dimensions (w/d, excluding projections)

 $147 \times 132 \text{ mm } (5^7/_8 \times 5^1/_4 \text{ inches})$ 

Mass Approx. 0.4 kg (14 oz)

Accessories supplied

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

purchased separately)

## MKS-8034AFB FTB Module

Power requirements

12 V DC

Power consumption

Max. 0.5 A

Dimensions (w/d, excluding projections)

 $147 \times 132 \text{ mm } (5^7/_8 \times 5^1/_4 \text{ inches})$ 

Mass Approx. 0.3 kg (10 oz)

Accessories supplied

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

purchased separately)

## MKS-8035A Key Control Module

Power requirements

12 V DC

Power consumption

Max. 1 A

Dimensions (w/d, excluding projections)

 $220 \times 132 \text{ mm } (8^3/_4 \times 5^1/_4 \text{ inches})$ 

Mass Approx. 0.6 kg (1 lb 5 oz)

Accessories supplied

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

purchased separately)

#### MKS-8036A Device Control Module

Power requirements

12 V DC

Power consumption

Max. 1 A

Dimensions (w/d, excluding projections)

 $220 \times 132 \text{ mm } (8^3/_4 \times 5^1/_4 \text{ inches})$ 

Mass Approx. 0.8 kg (1 lb 12 oz)

Accessories supplied

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

purchased separately)

## MKS-8040 Blank Panel (1/3)

Power requirements

12 V DC

Power consumption

Max. 0.1 A

Dimensions (w/d, excluding projections)

 $147 \times 132 \text{ mm } (5^7/_8 \times 5^1/_4 \text{ inches})$ 

Mass Approx. 0.4 kg (14 oz)

Accessories supplied

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

purchased separately)

## MKS-8041 Blank Panel (1/2)

Power requirements

12 V DC

Power consumption

Max. 0.1 A

Dimensions (w/d, excluding projections)

 $220 \times 132 \text{ mm } (8^3/_4 \times 5^1/_4 \text{ inches})$ 

Mass Approx. 0.4 kg (14 oz)

Accessories supplied

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

purchased separately)

## **MKS-8042 Blank Panel (1/6)**

Dimensions (w/d, excluding projections)

 $81 \times 132 \text{ mm } (3^{1}/_{4} \times 5^{1}/_{4} \text{ inches})$ 

Mass Approx. 0.17 kg (5 oz)

Accessories supplied

Operation and Installation Guide (1) (Module cover and fixing screws) (supplied only when product is

purchased separately)

## MKS-8075A Extension Adaptor

#### General

Power requirements

12 V DC

Power consumption

Max. 0.5 A

Dimensions (w/h/d, excluding projections)

263×79×132 mm

 $(10^3/_8 \times 3^1/_8 \times 5^1/_4 \text{ inches})$ 

Mass Approx. 0.6 kg (1 lb 5 oz)

#### **Control connectors**

EXT IN D-sub 50-pin, male EXT OUT D-sub 50-pin, female

## **Accessories supplied**

50-pin cable (1)

Connecting panel A (2)

Connecting panel B (1)

Connecting panel C (1)

Connecting screws (+BV 3×10) (4)

Panel cover (L) (1)

Panel cover (R) (1)

50-pin connector termination plate (1)

50-pin connector termination plate fitting screw (+PSW

 $2.6 \times 5$ ) (2)

Operation and Installation Guide (1)

(supplied only when product is purchased separately)

# MKS-8076 Memory Card/USB Adaptor

#### General

Power requirements

5 V DC

Power consumption

Max. 1A

Dimensions (w/h/d, excluding projections)

263×79×132 mm

 $(10^3/_8 \times 3^1/_8 \times 5^1/_4 \text{ inches})$ 

Mass Approx. 0.6 kg (1 lb 5 oz)

#### **Control connectors**

HOST USB Type B

#### **Accessories supplied**

Connecting panel A (2)

Connecting panel B (1)

Connecting panel C (1)

Panel cover (L) (1)

Panel cover (R) (1)

Connecting screws (+BV 3×10) (4)

Operation and Installation Guide (1)

(supplied only when product is purchased separately)

## **HK-PSU02 Power Supply Unit**

Operating temperature

 $+5^{\circ}$ C to  $+40^{\circ}$ C ( $+41^{\circ}$ F to  $+104^{\circ}$ F)

Storage temperature

 $-20^{\circ}$ C to  $+60^{\circ}$ C ( $-4^{\circ}$ F to  $+140^{\circ}$ F)

Operating humidity

10% to 90% (no moisture condensation)

Dimensions (w/h/d, excluding projections)

 $94\times40.1\times393.1 \text{ mm } (3^3/_4\times1^5/_8\times15^1/_2)$ 

inches)

Mass Approx. 1.5 kg (3 lb 5 oz)

Accessories supplied

Installation Guide (1)

The material contained in this manual consists of information that is the property of Sony Corporation and is intended solely for use by the purchasers of the equipment described in this manual.

Sony Corporation expressly prohibits the duplication of any portion of this manual or the use thereof for any purpose other than the operation or maintenance of the equipment described in this manual without the express written permission of Sony Corporation.

#### For Customer in China

根据中华人民共和国信息产业部第39号令《电子信息产品污染控制 管理办法》及标准中要求的"有毒有害物质或元素名称及含量"等 信息,本产品相关信息请参考以下链接:

http://pro.sony.com.cn

(WW)