SONY

CENTER CONTROL PANEL PACK

CCP-9000A-C

1 M/E CONTROL PANEL

MKS-9011A

2 M/E CONTROL PANEL

MKS-9012A

HK-PSU11

MKS-8011

MKS-8031TB

MKS-8032

MKS-8033

MKS-8035

MKS-8041

MKS-8075

SWC-5002

SWC-5005

SWC-5010

MEMORY STICK ™

INSTALLATION MANUAL

1st Edition (Revised 2)

⚠警告

このマニュアルは，サービス専用です。
お客様が，このマニュアルに記載された設置や保守，点検，修理などを行うと感電や火災，人身事故につながることがあります。
危険をさけるため，サービストレーニングを受けた技術者のみご使用ください。

⚠ WARNING

This manual is intended for qualified service personnel only.
To reduce the risk of electric shock, fire or injury, do not perform any servicing other than that contained in the operating instructions unless you are qualified to do so. Refer all servicing to qualified service personnel.

⚠ WARNUNG

Die Anleitung ist nur für qualifiziertes Fachpersonal bestimmt.
Alle Wartungsarbeiten dürfen nur von qualifiziertem Fachpersonal ausgeführt werden. Um die Gefahr eines elektrischen Schlages, Feuergefahr und Verletzungen zu vermeiden, sind bei Wartungsarbeiten strikt die Angaben in der Anleitung zu befolgen. Andere als die angegeben Wartungsarbeiten dürfen nur von Personen ausgeführt werden, die eine spezielle Befähigung dazu besitzen.

⚠ AVERTISSEMENT

Ce manual est destiné uniquement aux personnes compétentes en charge de l’entretien. Afin de réduire les risques de décharge électrique, d’incendie ou de blessure n’effectuer que les réparations indiquées dans le mode d’emploi à moins d’être qualifié pour en effectuer d’autres. Pour toute réparation faire appel à une personne compétente uniquement.

HK-PSU11	Serial No. 10001 and Higher
MKS-8011	Serial No. 10001 and Higher
MKS-8031TB	Serial No. 10001 and Higher
MKS-8032	Serial No. 10001 and Higher
MKS-8033	Serial No. 10001 and Higher
MKS-8035	Serial No. 10001 and Higher
MKS-8041	Serial No. 10001 and Higher
MKS-8075	Serial No. 10001 and Higher
MKS-9011A	Serial No. 10001 and Higher
MKS-9012A	Serial No. 20001 and Higher
SWC-5002	Serial No. 10001 and Higher
SWC-5005	Serial No. 10001 and Higher
SWC-5010	Serial No. 10001 and Higher

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

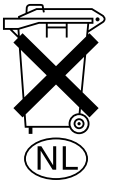
WARNING
This unit has no power switch.
When installing the unit, incorporate a readily accessible disconnect device in the fixed wiring, or connect the power cord to a socket-outlet which must be provided near the unit and easily accessible, so that the user can turn off the power in case a fault should occur.

WARNUNG
Dieses Gerät hat keinen Netzschalter.
Beim Einbau des Geräts ist daher im Festkabel ein leicht zugänglicher Unterbrecher einzufügen, oder das Netzkabel mu*ß* mit einer in der Nähe des Geräts befindlichen, leicht zugänglichen Wandsteckdose verbunden werden, damit sich bei einer Funktionsstörung die Stromversorgung zum Gerät jederzeit unterbrechen lä*ß*t.

For the customers in the Netherlands
Voor de klanten in Nederland

Hoe u de batterijen moet verwijderen, leest u in de Onderhoudshandleiding.

Gooi de batterij niet weg maar lever deze in als klein chemisch afval (KCA).



Für Kunden in Deutschland

Entsorgungshinweis: Bitte werfen Sie nur entladene Batterien in die Sammelboxen beim Handel oder den Kommunen. Entladen sind Batterien in der Regel dann, wenn das Gerät abschaltet und signalisiert “Batterie leer” oder nach längerer Gebrauchsdauer der Batterien “nicht mehr einwandfrei funktioniert”. Um sicherzugehen, kleben Sie die Batteriepole z.B. mit einem Klebestreifen ab oder geben Sie die Batterien einzeln in einen Plastikbeutel.

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Manual Structure

1. Installation

2. Service Overview

Manual Structure

Purpose of this manual

This manual is the installation manual of Center Control Panel Pack CCP-9000A-C and the optional units.
This manual is intended for use by trained system and service engineers, and describes the information on installing the CCP-9000A-C.

Related manuals

The following manuals are prepared for CCP-9000A-C and the optional units.

- **Operation Manual (Supplied with CCP-9000A-C)**
  This manual describes the overview, system connection example and specifications of options of CCP-9000A-C.

- **User's Guide (Volume 1, Volume 2) (Supplied with CCP-9000A-C)**
  This manual describes the application and operation of CCP-9000A-C.

- **Maintenance Manual (Available on request)**
  This manual describes the detailed service information.
  If this manual is required, please contact your local Sony Sales Office/Service Center.

- **"Semiconductor Pin Assignments" CD-ROM (Available on request)**
  This "Semiconductor Pin Assignments" CD-ROM allows you to search for semiconductors used in B&P Company equipment.
  The maintenance manual contains a complete list of semiconductors and their ID Nos., and thus should be used together with the CD-ROM.
  Part number: 9-968-546-XX

Contents

This manual is organized by following sections.

Section 1 Installation

This section describes the operating environment, power supply, installation space, installation of option, installing on the control console, connectors, input and output signals of connectors, checking upon completion of installation, and system configuration.

Section 2 Service Overview

This section describes the troubleshooting and periodic inspection and maintenance.

Section 1
Installation

1-1. Operating Environment (Common)

Operating guaranteed temperature : +5 °C to +40 °C
Performance guaranteed temperature : +10 °C to +35 °C
Operating humidity : 10 % to 90 %
Storage temperature : −20 °C to +60 °C
Mass

MKS-9011A :	Approx. 10.0 kg
MKS-9012A :	Approx. 11.5 kg
MKS-8011 :	Approx. 2.5 kg
MKS-8031TB :	Approx. 0.7 kg
MKS-8032 :	Approx. 0.8 kg
MKS-8033 :	Approx. 0.7 kg
MKS-8035 :	Approx. 0.6 kg
MKS-8041 :	Approx. 0.4 kg
MKS-8075 :	Approx. 0.9 kg

Prohibited locations for installation

- Areas where the unit will be exposed to direct sunlight or any other strong lights.
- Dusty areas
- Areas subject to vibration.
- Areas with strong electric or magnetic fields.
- Areas near heat sources.
- Areas where is subject to electrical noise.
- Areas subject to static electricity.

Ventilation

The inside of the MKS-9011A/9012A is cooled by a fan. The power supply can be damaged if the exhaust vent (on the rear) and air intake (on the front) are blocked or the fan is stopped.
Therefore, leave a blank space of more than 10 cm in the front and back of the MKS-9011A/9012A.

1-2. Power Supply

Power specifications

A switching regulator is used for the power supply of MKS-9011A/9012A. A voltage within the range of 100 V to 240 V can be used without changing the supply voltage.

Power requirements: AC 100 to 240 V ±10 %
Power frequency: 50/60 Hz
Current consumption

MKS-9011A:	1.0 - 0.6 A
MKS-9012A:	1.0 - 0.6 A

Note

As the inrush current at turn-on is a maximum 21.5 A (at 100 V) /52 A (at 240 V), the capacity of the AC power source must be commensurate with this load.
If the capacity of the AC power is not adequately large, the AC power source breaker will operate or the unit will abnormally operate.

Recommended power cord

This unit does not come with a power cord.
To get a power cord, please contact your local Sony Sales Office/Service Center.

WARNING

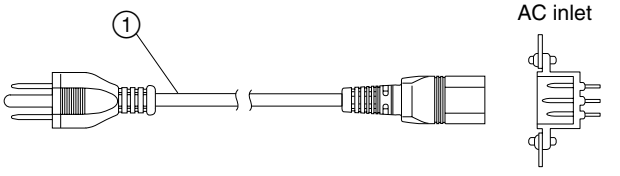
- Use the approved Power Cord (3-core mains lead)/ Appliance Connector/Plug with earthing-contacts that conforms to the safety regulations of each country if applicable.
- Use the Power Cord (3-core mains lead)/Appliance Connector/Plug conforming to the proper ratings (Voltage, Ampere).

If you have questions on the use of the above Power Cord/ Appliance Connector/Plug, please contact your local Sony Sales Office/Service Center.

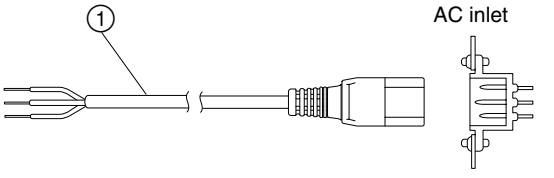
WARNING

- Never use an injured power cord.

For customers in the U.S.A. and Canada
① Power cord, 125 V 10 A (2.4 m) : ⚠ 1-557-377-11



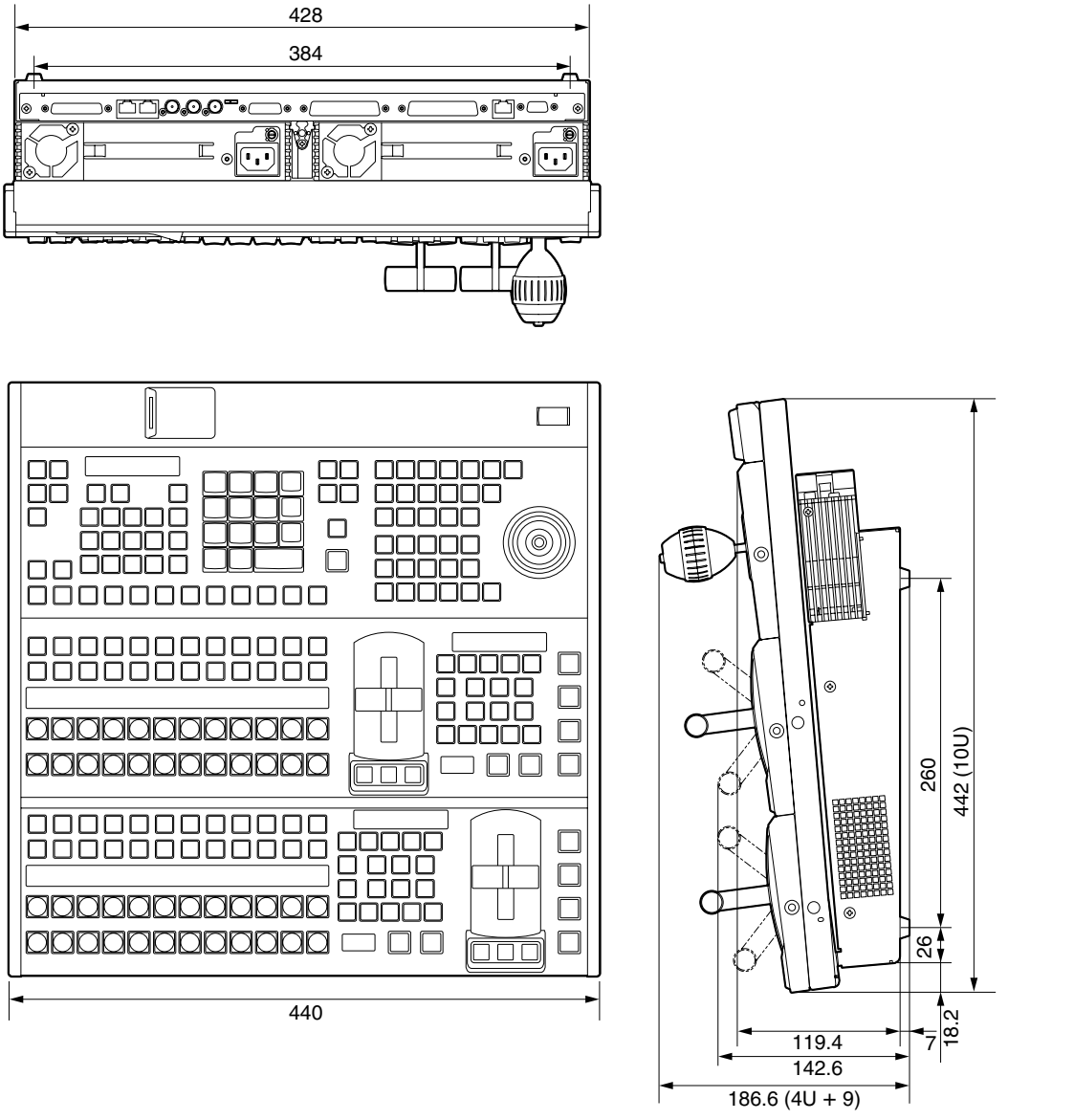
For customers in the all European countries
① Power cord, 250 V 10 A (2.4 m) : ⚠ 1-782-929-22



1-3. Installation Space

1-3-1. External Dimensions

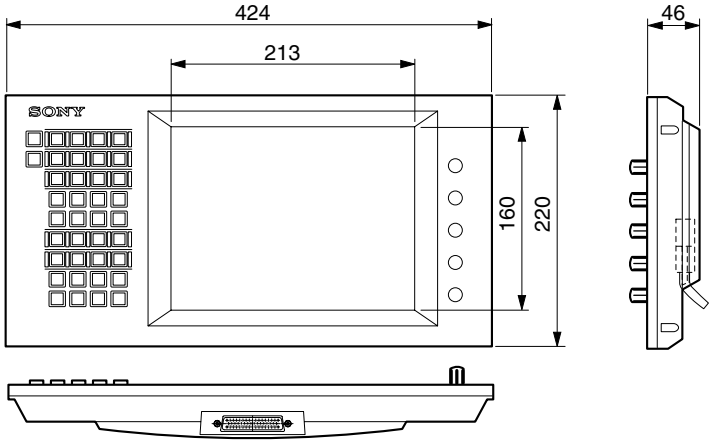
Center control panel MKS-9012A



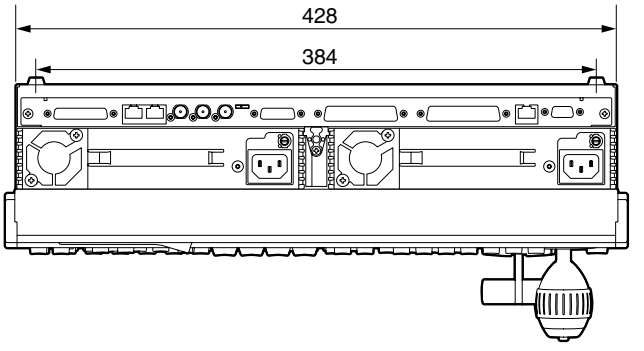
Unit : mm

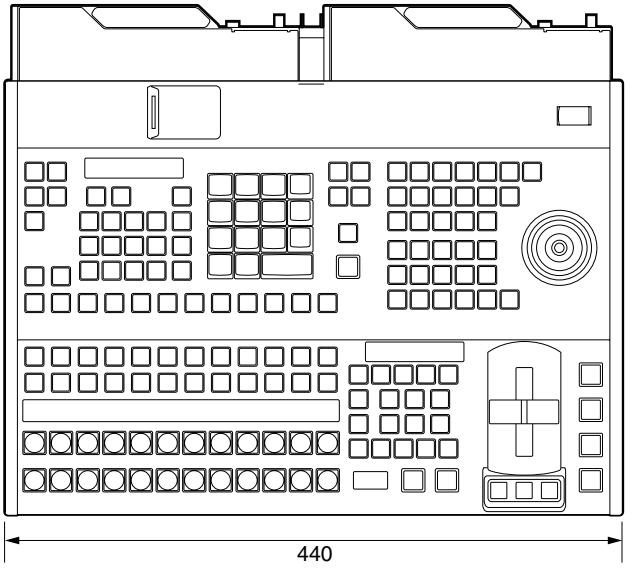
Center control panel MKS-9011A/Menu panel MKS-8011

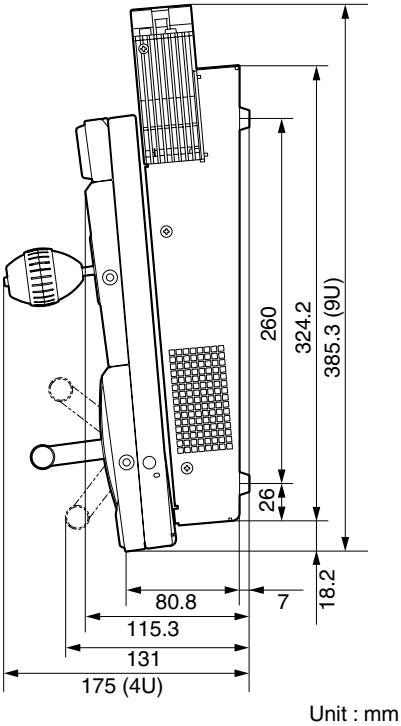
MKS-8011



MKS-9011A

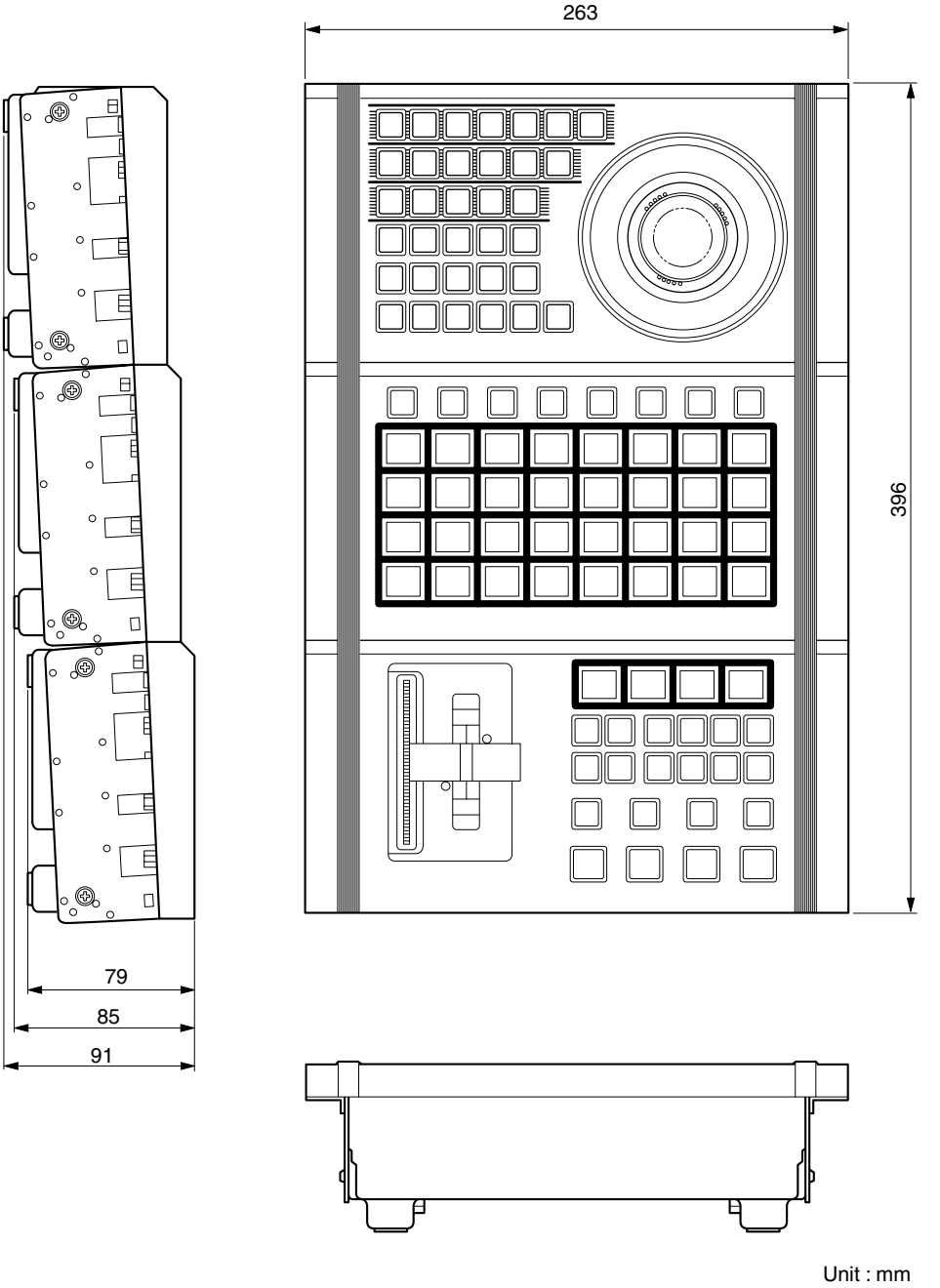






Unit : mm

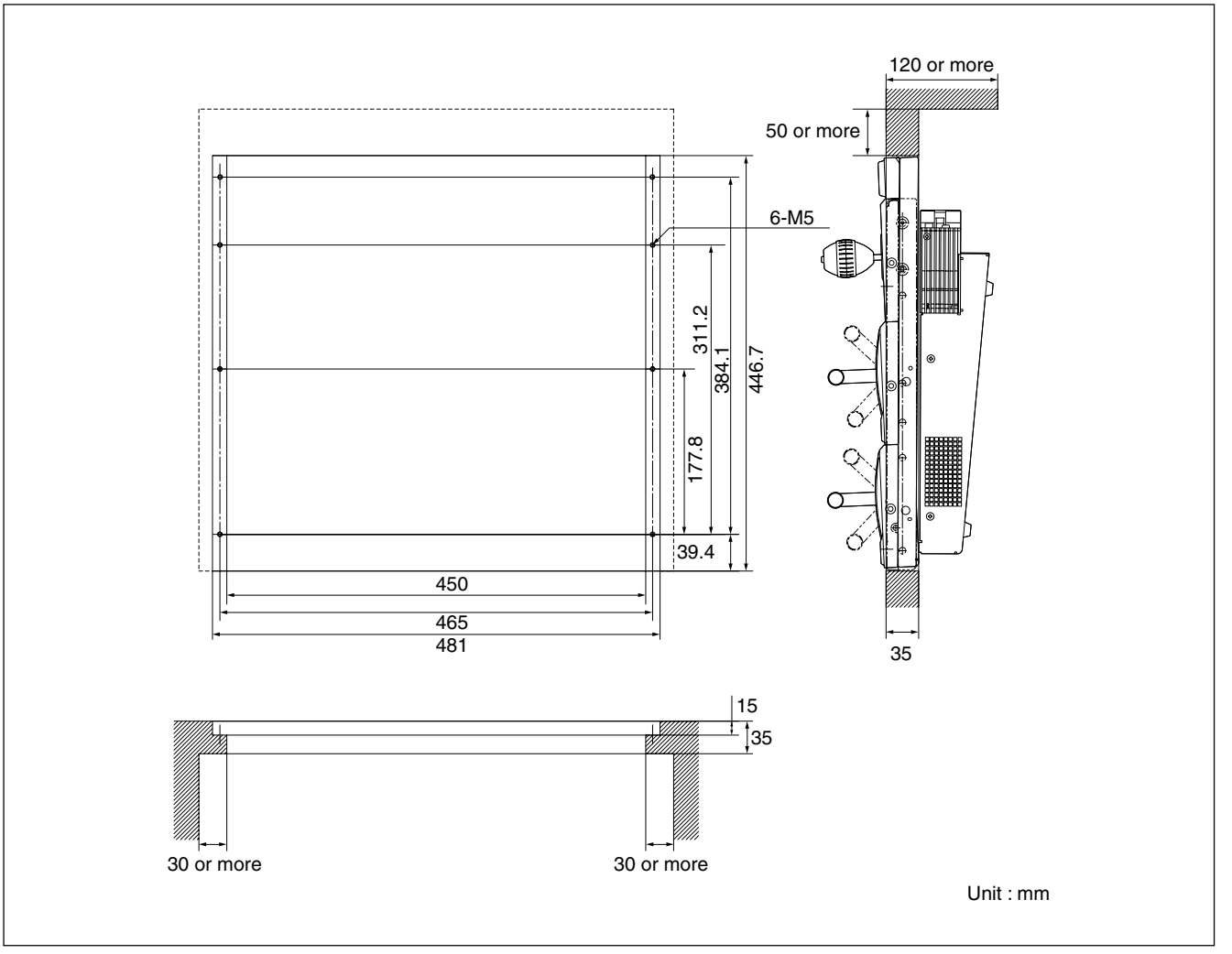
Extension adaptor MKS-8075



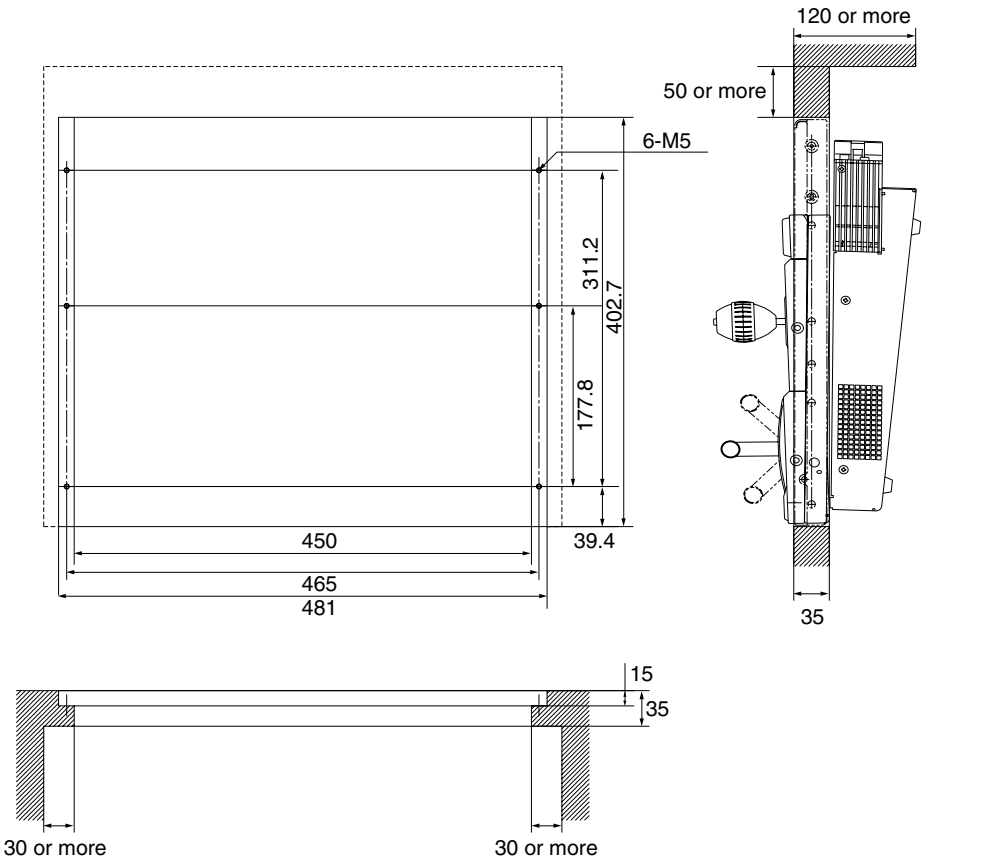
1-3-2. Installation Space

When the control panel is recessed into a control console or similar, make holes as shown below into the control console with the following dimensions.

Center control panel MKS-9012A



Center control panel MKS-9011A



Unit : mm

1-4. Installing on the Control Console

1-4-1. MKS-9011A

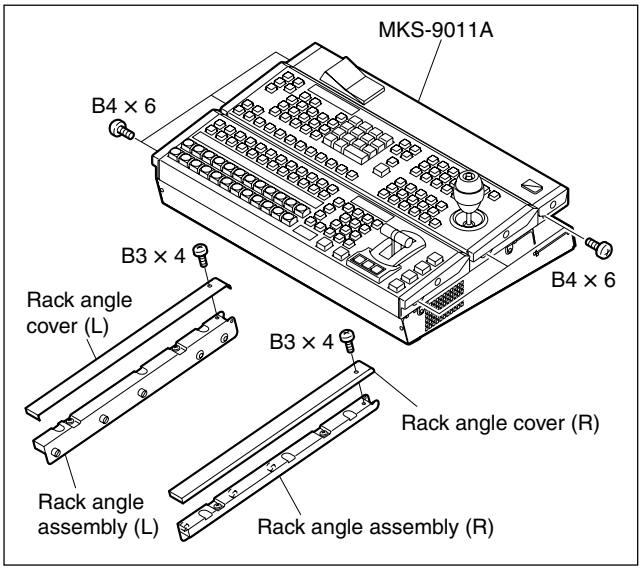
CAUTION

Be sure to install the MKS-9011A on the control console by two or more persons. Installing it by one person may cause backache.

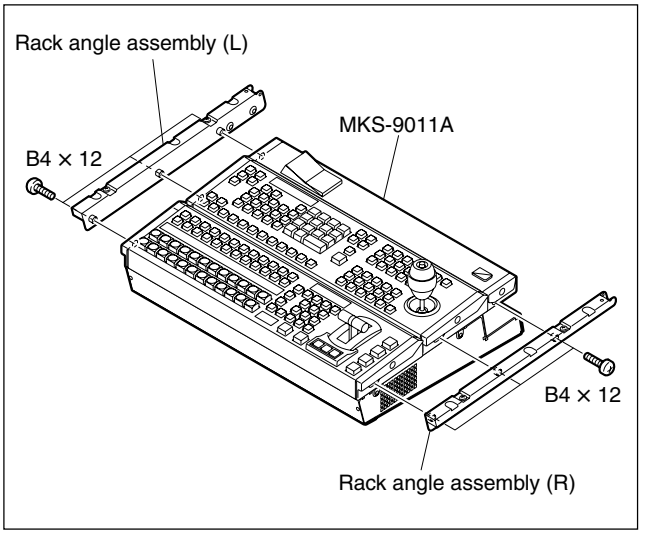
The following parts supplied with the MKS-9011A are required to install the MKS-9011A on the control console.

- Rack angle assembly (L) (R)
- Blank panel
- Screw B4 × 12 (6)
- Screw B5 × 8 (6)
- Screw B3 × 6 (4)

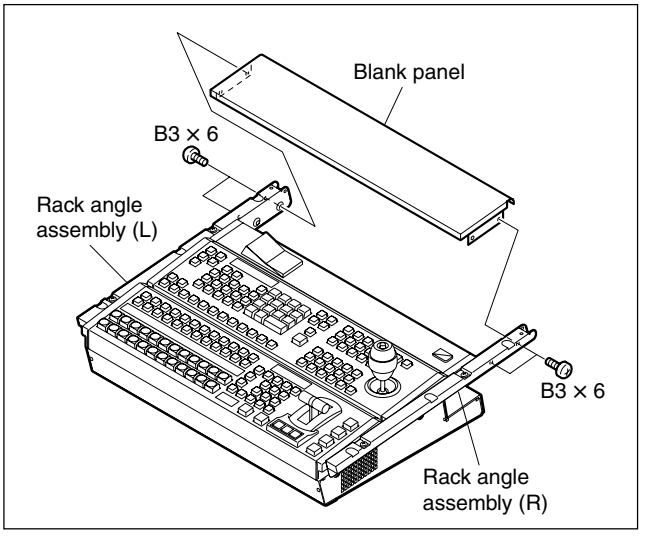
1. Remove the six screws (B4 × 6) of the MKS-9011A.
2. Remove the screws (B3 × 4) from the rack angle assembly (L) and the rack angle assembly (R) respectively, and remove the rack angle cover (L) and the rack angle cover (R).



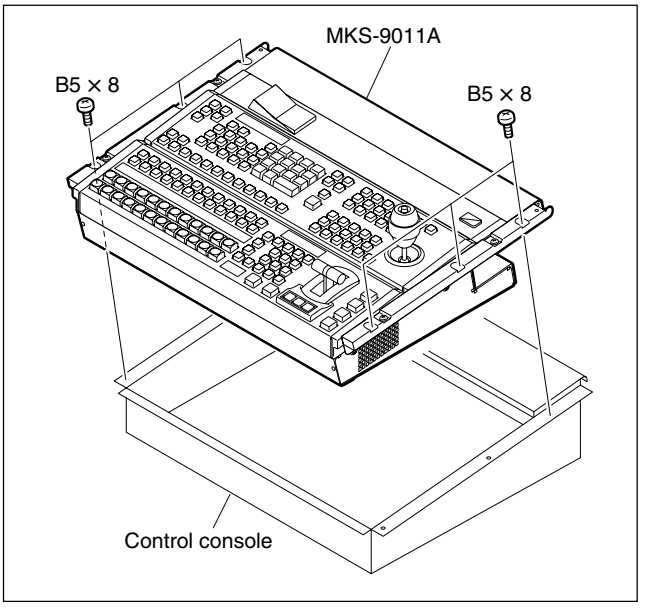
3. Install the rack angle assembly (L) and the rack angle assembly (R) on the MKS-9011A using the supplied six screws (B4 × 12).



4. Install the blank panel on the rack angle assemblies with the supplied four screws (B3 × 6).



5. Install the MKS-9011A on the control console with the supplied six screws (B5 × 8).

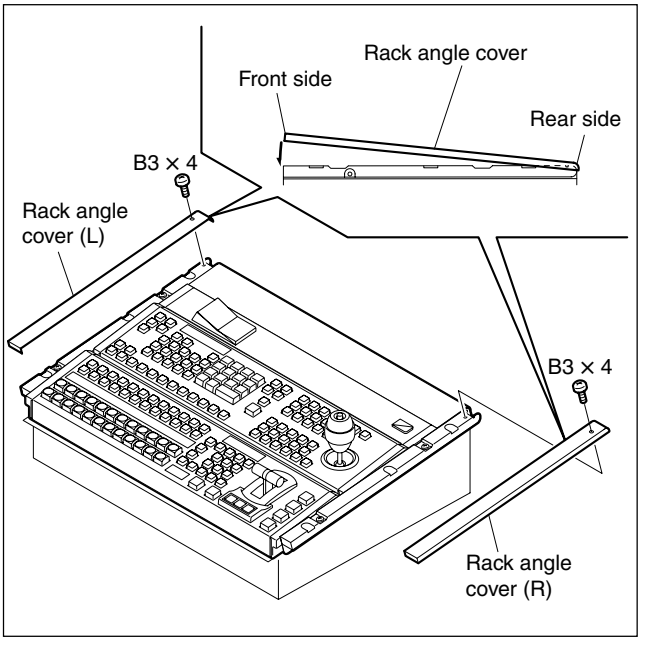


6. Install the rack angle cover (L) and the rack angle cover (R) removed in step 2 on the rack angle assembly (L) and the rack angle assembly (R) respectively.

Note

Fit the covers on the rear side first and push them on the front side lightly to install.

7. Tighten the rack angle cover (L) and the rack angle cover (R) using the screws removed in step 2.



1-4-2. MKS-9012A

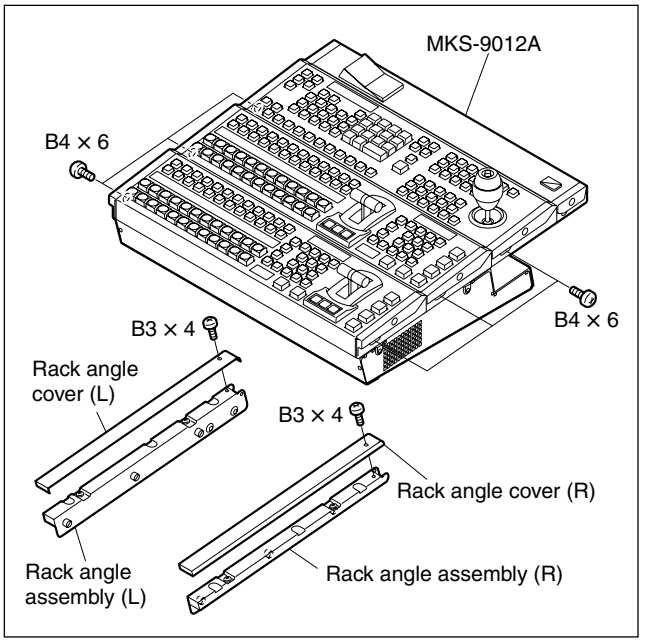
CAUTION

Be sure to install the MKS-9012A on the control console by two or more persons. Installing it by one person may cause backache.

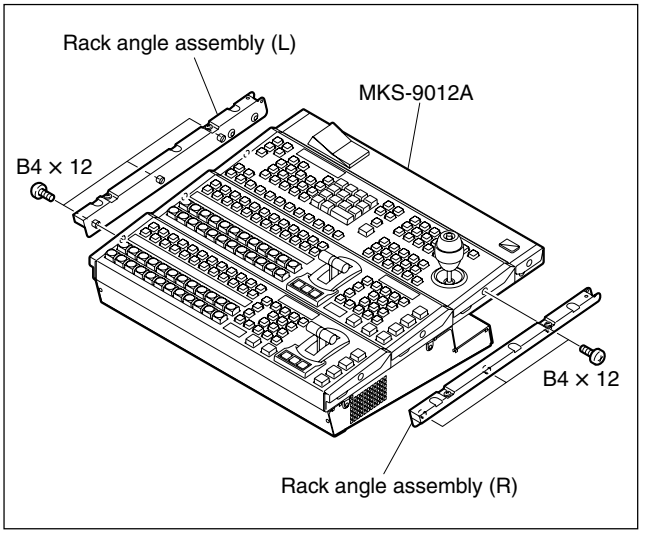
The following parts supplied with the MKS-9012A are required to install the MKS-9012A on the control console.

- Rack angle assembly (L) (R)
- Blank panel (2)
- Screw B4 × 12 (6)
- Screw B5 × 8 (6)
- Screw B5 × 20 (2)

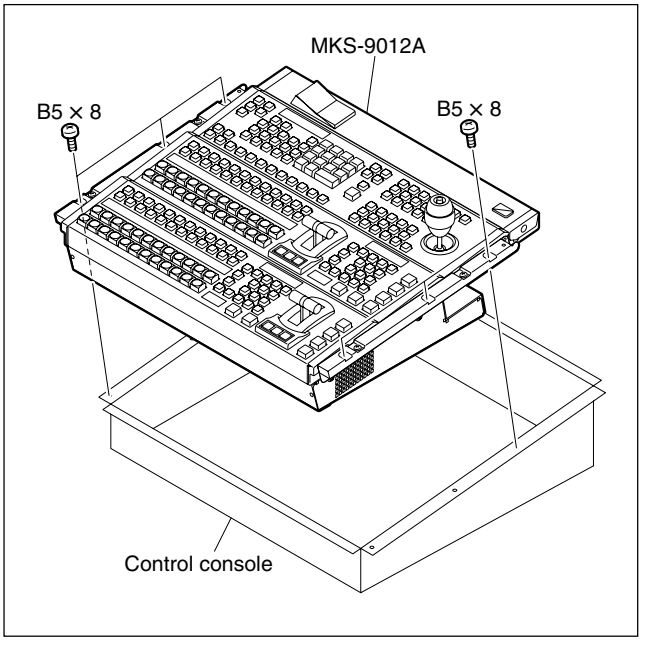
1. Remove the six screws (B4 × 6) of the MKS-9012A.
2. Remove the screws (B3 × 4) from the rack angle assembly (L) and the rack angle assembly (R) respectively, and remove the rack angle cover (L) and the rack angle cover (R).



3. Install the rack angle assembly (L) and the rack angle assembly (R) on the MKS-9012A with the supplied six screws (B4 × 12) .



4. Install the MKS-9012A on the control console with the supplied six screws (B5 × 8).

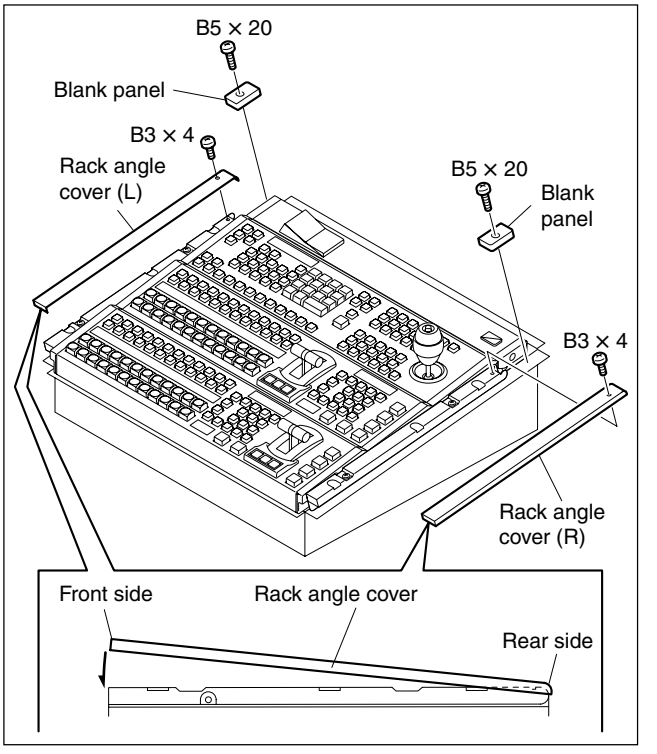


5. Install the rack angle cover (L) and the rack angle cover (R) removed in step 2 on the rack angle assembly (L) and the rack angle assembly (R) respectively.

Note

Fit the covers on the rear side first and push them on the front side lightly to install.

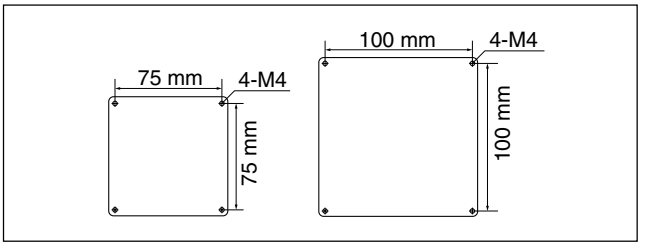
6. Tighten the rack angle cover (L) and the rack angle cover (R) using the screws removed in step 2.
7. Install the blank panels on the control console with the supplied two screws (B5 × 20).



1-5. Installing the Menu Panel

The menu panel MKS-8011 can be installed to the monitor arm compliant with VESA Standard using the adapter supplied with CCP-9000A-C. See the dimensions for installation below.

Adapter installation dimensions (compliant with VESA Standard)



The following parts supplied with CCP-9000A-C are required to install the menu panel.

Note

Use the specified accessories when installing the menu panel.

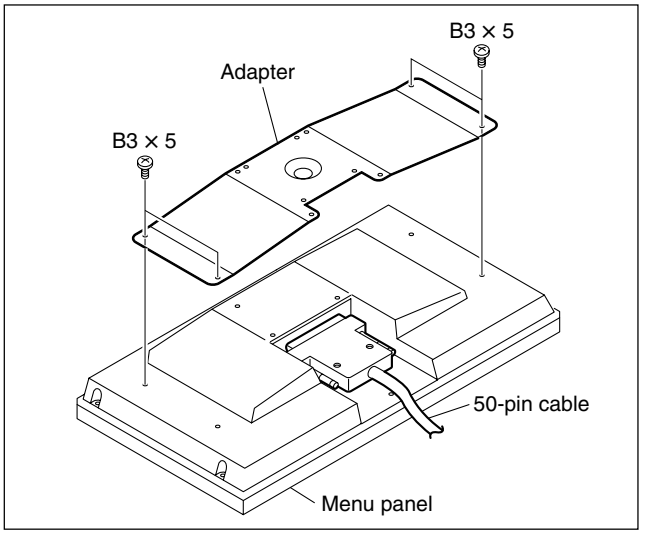
- Adapter
- 50-pin cable
- Screws B3 × 5 (4)
- Screws B4 × 8 (4)

Installation

Note

Connect the 50-pin cable attached to the menu panel, and then perform the following steps.

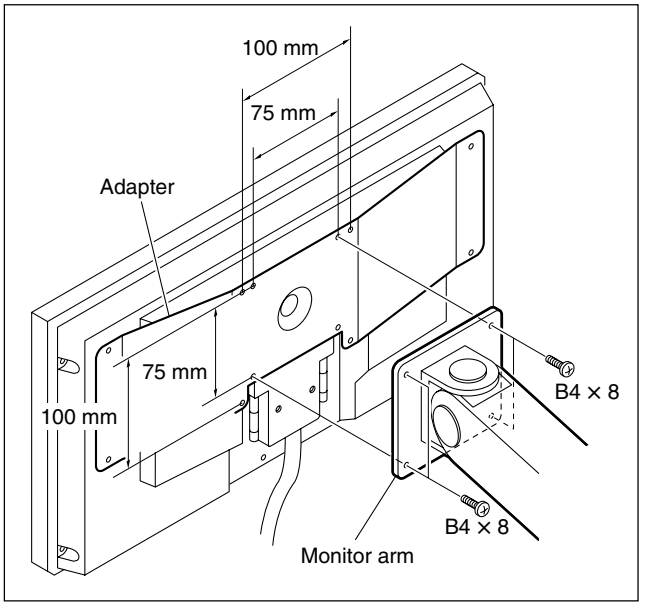
1. Install the adapter to the menu panel with the attached four screws (B3 × 5).



2. Install a commercially available monitor arm to the adapter with the attached four screws (B4 × 8).

Note

For installation of monitor arm, refer to its operation manual.



1-6. Installation of Options

The CCP-9000A-C system is comprised of the following models according to the system to be used, and shipped from the factory.

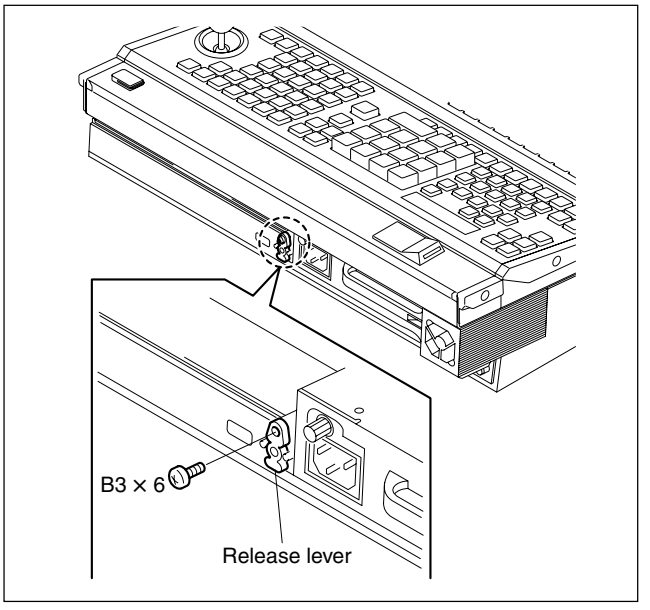
Model name	
MKS-9011A	1 M/E CONTROL PANEL
MKS-9012A	2 M/E CONTROL PANEL
HK-PSU11	POWER SUPPLY UNIT
MKS-8011	MENU PANEL
MKS-8031TB	TRACK BALL MODULE
MKS-8032	DSK FADER MODULE
MKS-8033	UTILITY/SHOTBOX MODULE
MKS-8035	KEY CONTROL MODULE
MKS-8041	BLANK PANEL (1/2)
MKS-8075	EXTENSION ADAPTOR
SWC-5002	PANEL CABLE (2 m)
SWC-5005	PANEL CABLE (5 m)
SWC-5010	PANEL CABLE (10 m)

1-6-1. Installing HK-PSU11

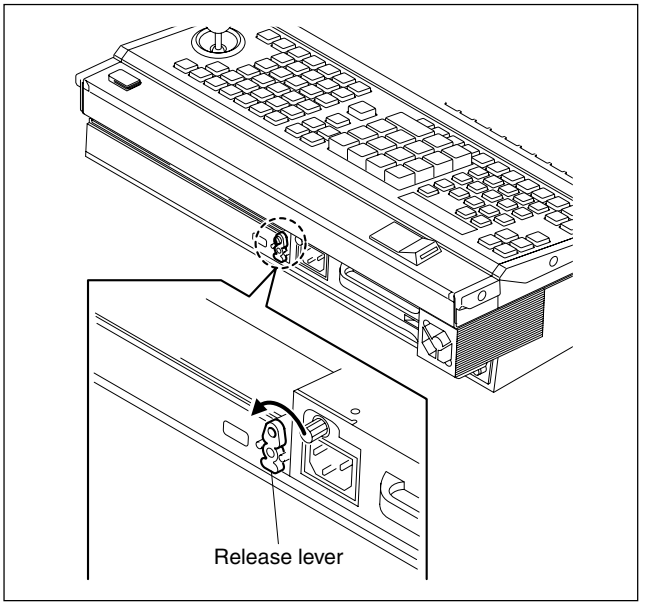
Note

Before installing the HK-PSU11, be sure to unplug the power cord, and confirm that the power is off.

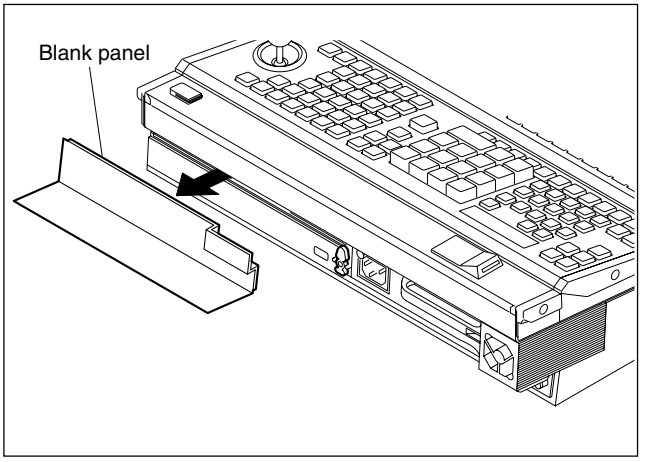
1. Remove the screw which secures the release lever.



2. Turn the release lever counterclockwise.



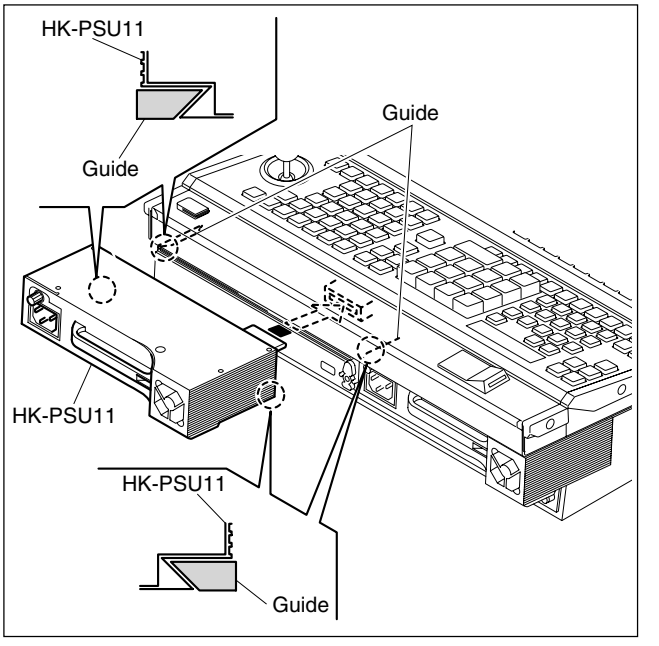
3. Remove the blank panel.



Note

Store the removed blank panel in a safe place.

4. Insert the HK-PSU11 securely along the guides.

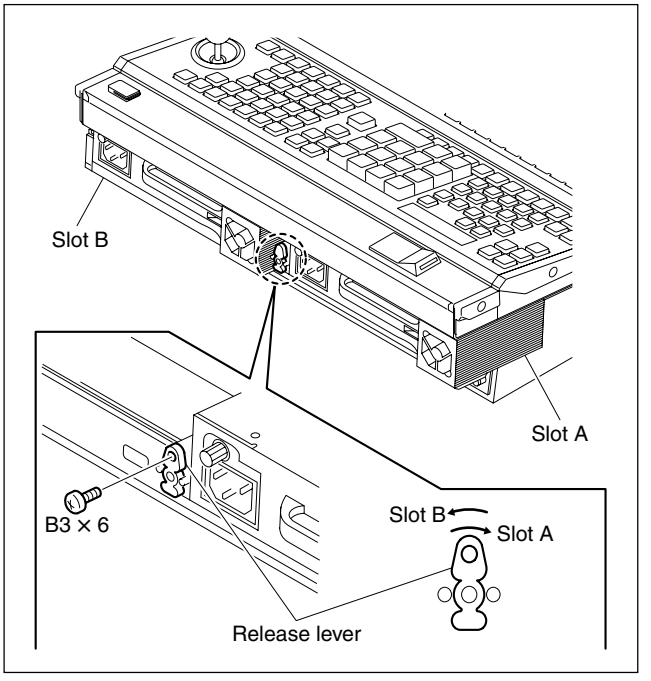


5. Secure the release lever with the screw removed in step 1 to lock the HK-PSU11.

Note

Removal

1. Remove the screw which secures the release lever.
2. Turn the release lever in either of the following direction.
   To remove the HK-PSU11 on slot A : ↺
   To remove the HK-PSU11 on slot B : ↺
3. Remove the HK-PSU11.



1-6-2. Installation to MKS-8075 (Extension Adaptor)

CAUTION

Be sure to disconnect the power cord before starting to install modules.
If installation of modules is started with the POWER switch left on, it may cause electrical shock damage printed circuit boards.

Applicable modules

- MKS-8031TB Track Ball Module
- MKS-8032 DKS Fader Module
- MKS-8033 Utility/Shotbox Module
- MKS-8035 Key Control Module

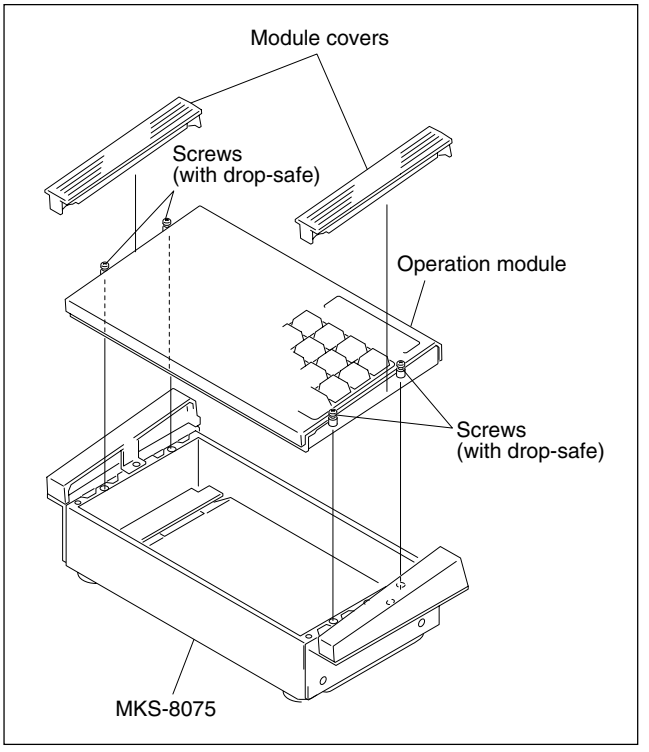
Installation

1. Remove the module cover on both sides of the operation module that you want to remove, as shown.
2. Loosen the four screws (with drop-safe) fixing the operation module.
3. Remove the operation module by holding the two screws on the sides of the operation module.
4. Fit the operation module that you want to install into the position as described in step 3. Fix the operation module by tightening the four screws (with drop-safe) on both sides.

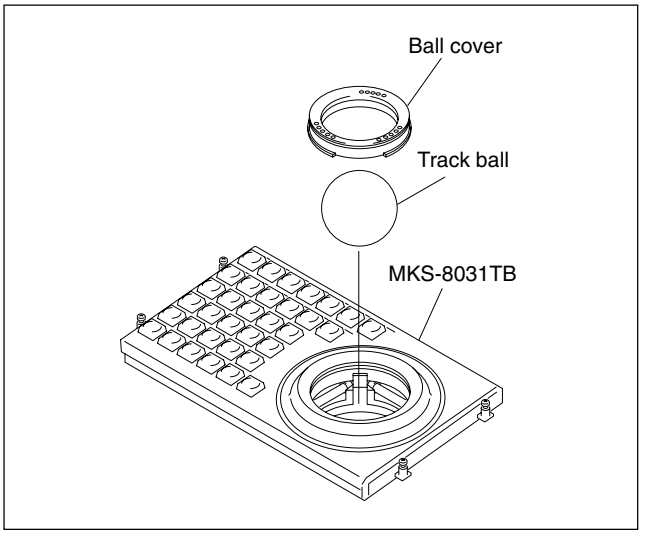
5. Install the module covers.

Note

For MKS-8031TB, installation of the track ball is required after the module is installed in steps 1 to 5. Install the track ball by following the procedure below.



6. Rotate the ball cover counterclockwise to release the lock. Then remove the ball cover.
7. Install the track ball and the ball cover.
8. Rotate the ball cover clockwise until it is locked.



1-6-3. How to Connect the MKS-8075

Structure of MKS-8075 (Extension adaptor)

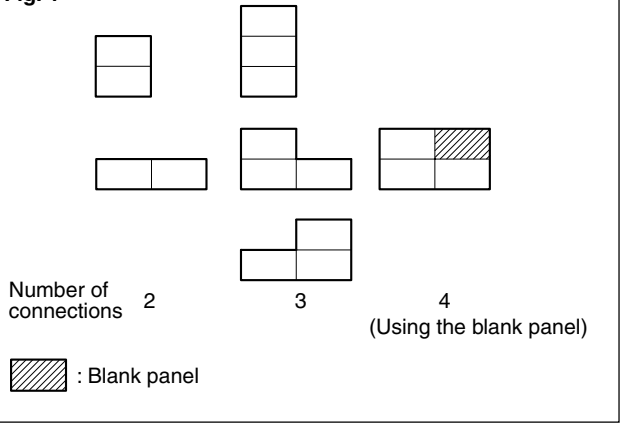
Adaptor case :	1
Screw (BV3 × 10) :	4
Connecting plate A :	1
Connecting plate B :	1
Connecting plate C :	2
Panel cover (L) :	1
Panel cover (R) :	1
Cable (D-sub 50-pin):	1

Notes

- A maximum of three extension adaptors (maximum of four when using the blank panel) can be connected either horizontally, or vertically.
  (Up to two extension adaptors can be connected horizontally.)
  (For an example of connection, refer to Fig. 1.)
- There are three methods of vertical connection as described below. (Refer to Fig. 2 (on page 1-16).)
  Method A : Install the extension adaptors on the panel so that they have differences in height like a flight of steps and with the same outside appearance as that of the main panel.
  Method B : Install the extension adaptors flat on the panel with no difference in height.
  (In such a case as installed on tabletop)
  Method C : Install the extension adaptors in the rack.
  (Horizontal connection is also required.)

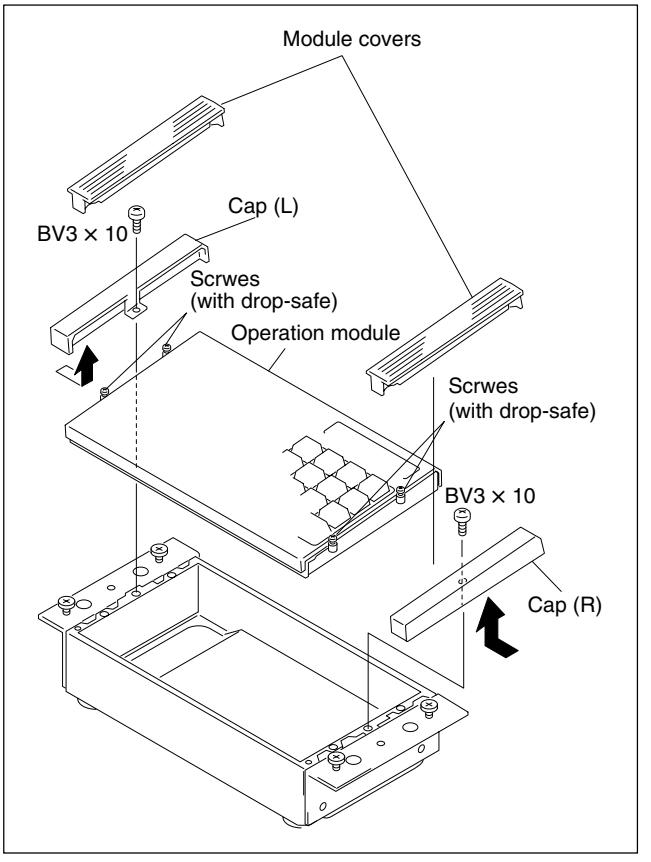
- When extension adaptors are installed using both horizontal and vertical connections, be sure to perform the vertical connections first then perform the horizontal connections.
- When the vertical connection (A) is selected, be sure to secure all of the side panels with screws. Never place the connected extension adaptors on it a table top. (The fixing method is same as that of the main panel.)

Fig. 1

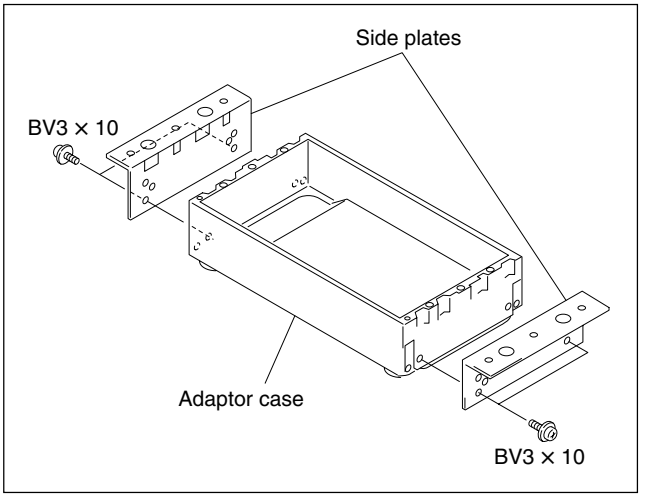


Connecting procedure

1. Remove the module covers. Remove the screws (BV3 × 10) fixing the caps (L) and (R), and remove the caps in the direction of the arrow.
2. Loosen the four screws (with drop-safe) fixing the operation module.
3. Hold the two screws (with drop-safe) in the front of the both sides of the operation module, and remove the operation module.



4. Remove the screws (BV3 × 10) fixing the side plates to the adaptor case, and remove the side plates.

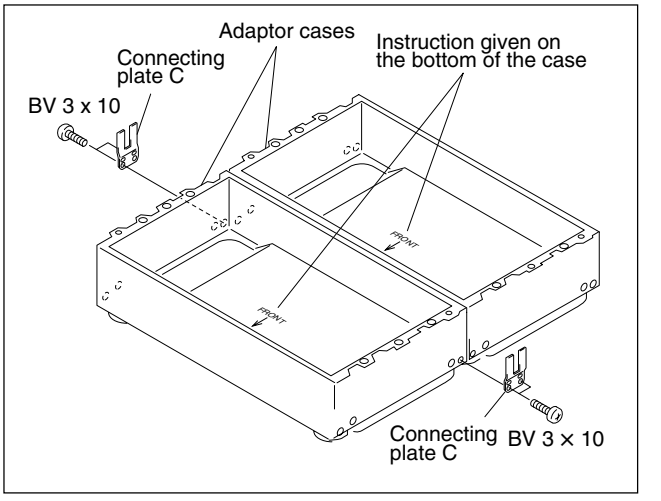


When the Vertical connection is selected

(1) Connect the adaptor cases together.
(Be careful of the direction of the adaptor cases. See the instruction given on the bottom of the adaptor case.)

(2) Fix the right sides and left sides of the adaptor cases as shown in the illustration using the two pieces of the connecting plate C.

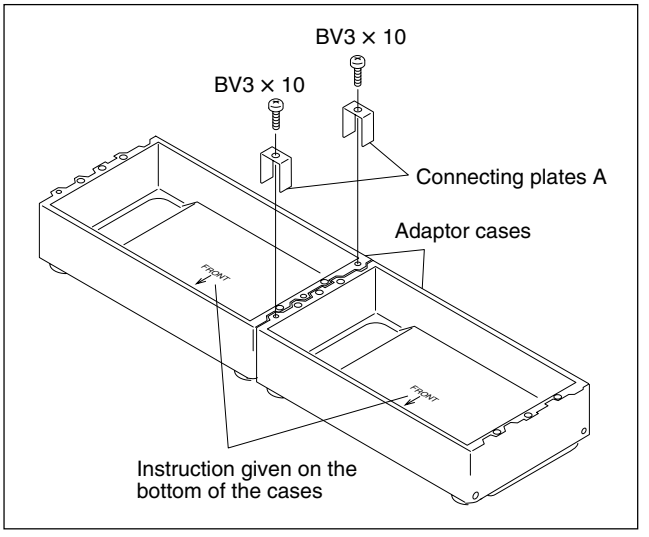
- When fixing the adaptor cases, you can select either the flat connection or the connection like a flight of steps.
- When selecting the connection like steps of the connection method (A), (see Fig. 2 (on page 1-16).) the two screws are secured with one notch offset each other.
- When the flat connection method (B, C) is selected, (see Fig. 2 (on page 1-16).) the two screws are secured in the same height.



When the Horizontal connection is selected

(1) Connect the adaptor cases together.
(Be careful of the direction of the adaptor cases. See the instruction given on the bottom of the adaptor case.)

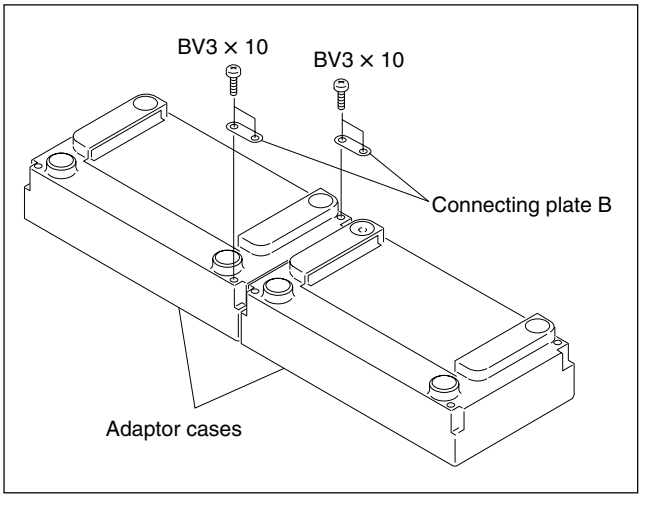
(2) Fix the top plate of the adaptor cases at the locations shown in the illustration using the two connecting screws and the two connecting plates A for every two adaptor cases.



(3) Fix the bottom plate of the adaptor cases at the locations shown in the illustration using the 4 connecting screws (BV3 × 10) and 2 of the connecting plates B for every 2 adaptor cases.

Note

When the Vertical connection (A) is selected, there are several locations where the connecting plate B cannot be fixed.

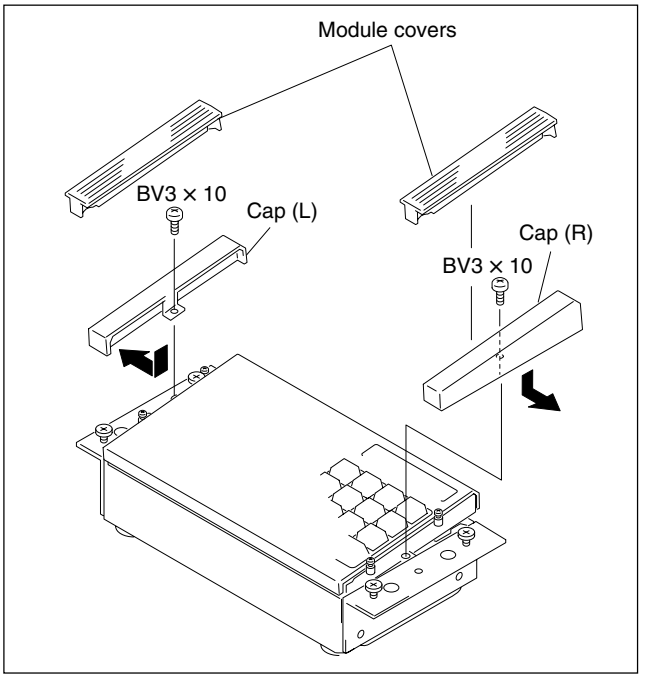


5. Install the side panel.

Note

The screw positions that fix the side panel are different in the connection methods (A), (B) and (C) respectively. (Refer to Fig. 2 (on page 1-16).)

6. Install the operation module and fix it by tightening the four screws on the sides.
7. For connection methods (A) and (B) (Refer to Fig. 2 (on page 1-16).), install the caps (L) and (R), and the module cover in the direction of the arrow.



For connection method (C) (Refer to Fig. 2 (on page 1-16).), remove the four stepped screws and install the panel covers (L) and (R).

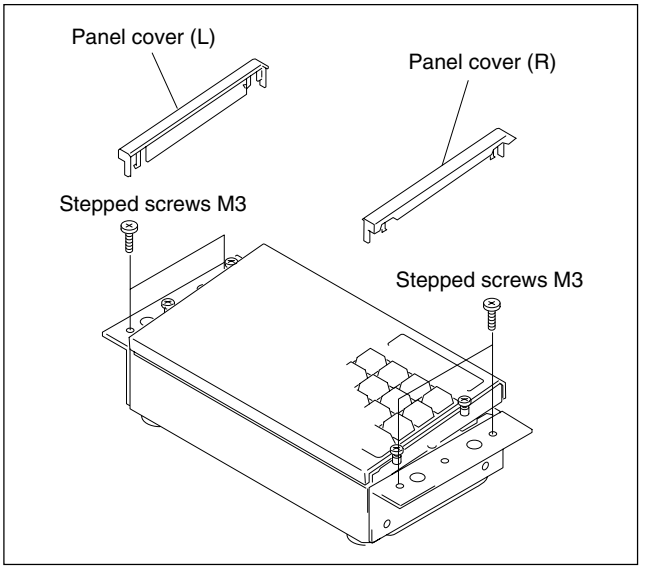
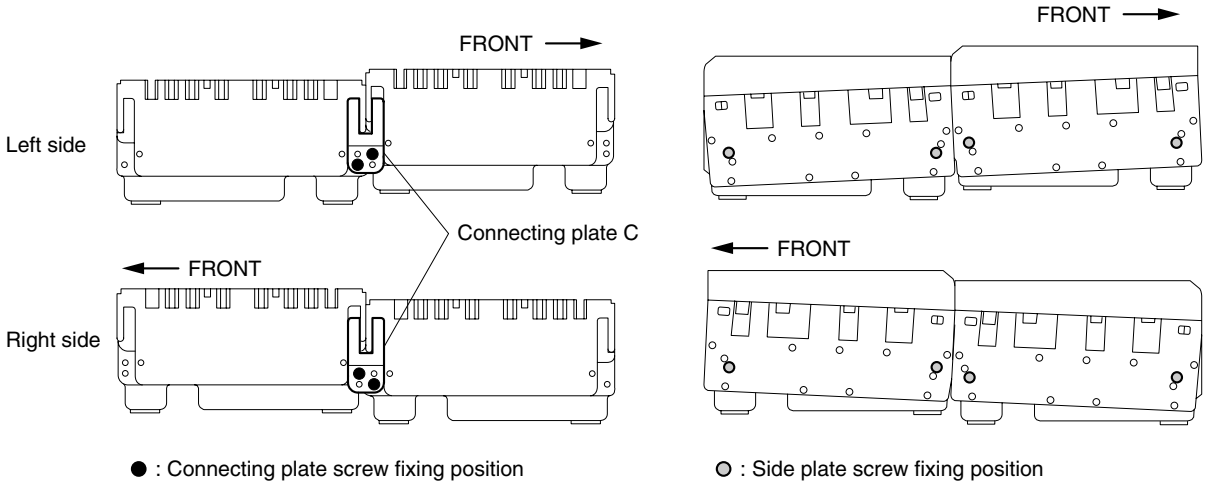
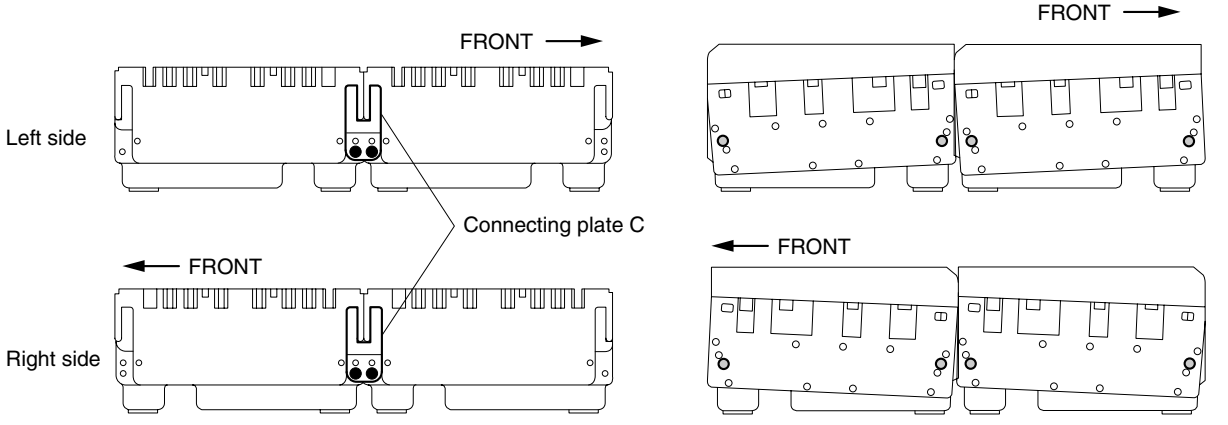


Fig. 2 : Side panel installation methods



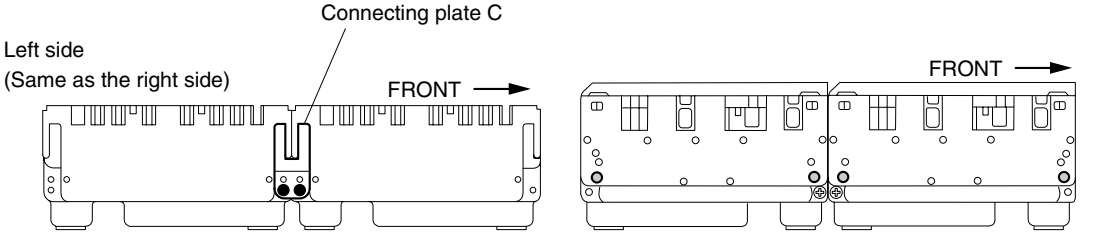
● : Connecting plate screw fixing position ○ : Side plate screw fixing position

Connection method (A)



● : Connecting plate screw fixing position ○ : Screw fixing position

Connection method (B)



● : Connecting plate screw fixing position ○ : Screw fixing position

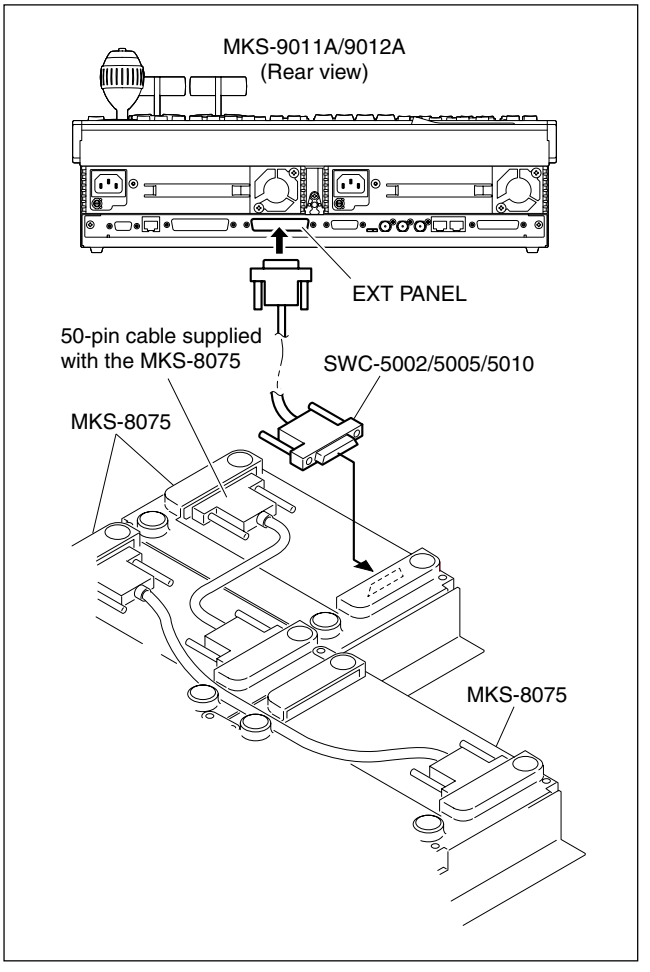
Connection method (C)

1-6-4. How to Connect the Cables

Parts used

- 50-pin cable supplied with the MKS-8075
- SWC-5002 Panel cable (2 m)
- SWC-5005 Panel cable (5 m)
- SWC-5010 Panel cable (10 m)

1. Connect the EXT PANEL connector of the control panel MKS-9011A/9012A to the SCU IN connector of the MKS-8075 using the panel cable SWC-5002/5005/5010.
2. Connect the SCU OUT connector of the MKS-8075 to the SCU IN connecor of the adjacent MKS-8075 using the 50-pin cable supplied with the MKS-8075, as shown in the illustration.



1-6-5. Rack Mounting the MKS-8075 (Extension Adaptor)

The MKS-8075 can be mounted in a 19-inch standard rack. To mount it in a rack, use the recommended rack mount parts and follow the procedure described below.

Note

In order to rack mount the MKS-8075, the following conditions must be met.

- Two or more adaptors must be configured to the two rows as shown in the illustration by connecting them horizontally together.
- Number of adaptors connected must be either 2 or 4.
- The connection method C (flat) must be used.
- For the connection method, refer to "1-6-3. How to Connect the MKS-8075".

Tools required

- Screws (RK5 × 16) for rack mounting
- Ornamental washers for rack mount
  (Sony part No.: 2-297-913-01)
  When 2 adaptors are connected : Each 4 pcs
  When 4 adaptors are connected : Each 8 pcs

Precautions for rack mounting

WARNING

- To prevent the rack from falling or moving, fix the rack on a flat and steady floor using bolts or other fixings. If the rack falls due to the weight of the equipment, it may cause death or injury.
- Be sure to use the side panels of the adaptor itself for rack mounting.
  If not, injury may result and the equipment may fall due to insufficient strength.
- After rack mounting, be sure to tighten the screws on the side panels and fix the unit in the rack.

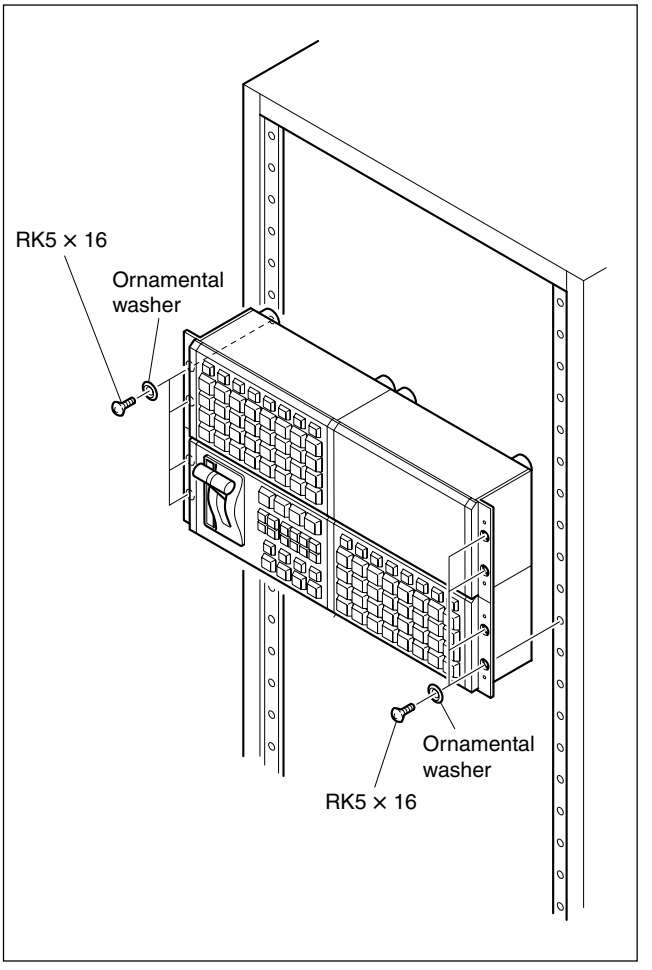
CAUTION

When mounting the unit in the rack, note the following:

- Be sure to mount in the rack with two persons or more.
- Mount in the rack in a stable position.

Rack mounting procedures

Install the adaptor into the rack using rack mounting screws (RK5 × 16) and ornamental washers as shown in the illustration.
(The illustration below shows the configuration when 4 adaptors are installed.)



1-7. Matching Connectors and Cables

Use the following connectors, cables or equivalents when connecting cables to the unit.

Model name	Panel indication	Connector name	Matching connector and cable	
			Name	Sony part No.
MKS-9011A/9012A	EXT PANEL MENU PANEL	D-sub 50-pin, Female	Use the dedicated cable*1 specified by Sony Corp.	
	GPI	D-sub 25-pin, Female	D-sub 25-pin, Male Connector 25-pin, Male Junction Shell 25-pin	 1-566-356-11*2 1-563-377-11
	EXT DISPLAY	D-sub Miniature 15-pin, Female	Use the display cable that is commercially available on market.	
	EDITOR PANEL		Use the dedicated cable, supplied with the Editing Keyboard.	
	REMOTE LTC IN	BNC, 75 Ω	BNC, 75 Ω Belden 8281 coaxial cable	
	REF IN	BNC, 75 Ω	BNC, 75 Ω Belden 8281 coaxial cable (SDTV system) or Belden 1694A coaxial cable (HDTV system)	
	CTRL PERIPH DATA	RJ-45 modular jack*3	–	
	DEVICE	USB Type A receptacle	Use the cable supplied or the USB cable that is commercially available on market. (with plug) (5 m or less)	
MKS-8011	SCU	D-sub 50-pin, Male	Use the dedicated cable*1 specified by Sony Corp.	
MKS-8075	SCU IN	D-sub 50-pin, Male	Use the dedicated cable, supplied with the MKS-8075 or dedicated cable*1 specified by Sony Corp.	
	SCU OUT	D-sub 50-pin, Female		

*1 : SWC-5002 (2 m)
SWC-5005 (5 m)
SWC-5010 (10 m)

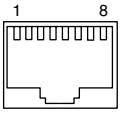
*2 : The following crimp contact is required for the plug.
AWG#18 to #22: 1-566-493-11
AWG#22 to #24: 1-564-774-11
AWG#24 to #28: 1-564-775-11

*3 : Conforms to IEEE 802.3 Ethernet 100BASE-TX standard.

1-8. Input/Output Signals of Connectors

Input and output signals of the connectors on the rear panel are as follows.

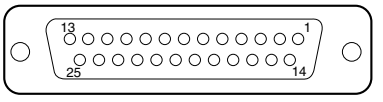
CTRL/DATA/PERIPH : 100BASE-TX, RJ-45 (8-pin)



– EXT VIEW –

Pin No.	Signal Name	Function
1	TX+	Transmitted data (+)
2	TX–	Transmitted data (–)
3	RX+	Received data (+)
4	–	No connection
5	–	No connection
6	RX–	Received data (–)
7	–	No connection
8	–	No connection

GPI : (D-sub 25-pin, Female)
INPUT × 8, TTL
OUTPUT × 4, relay contacts 30 V 0.1 A
(resistive load)
OUTPUT × 4, open collector 30 V rated voltage



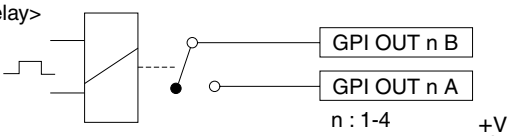
— EXT VIEW —

Pin No.	Signal Name	Function
1	GND	Ground
2	GND	Ground
3	GPI IN 2	General-purpose input
4	GPI IN 4	
5	GPI IN 6	
6	GPI IN 8	
7	GPI OUT 1B	General-purpose relay
8	GPI OUT 2B	output (B)(∗1)
9	GPI OUT 3B	
10	GPI OUT 4B	
11	GPI OUT 6	General-purpose open collector
12	GPI OUT 8	output (B)(∗2)
13	GPI OUT COM	Ground for open collector output
14	GND	Ground
15	GPI IN 1	General-purpose input
16	GPI IN 3	
17	GPI IN 5	
18	GPI IN 7	
19	GPI OUT 1A	General-purpose relay output (A)(∗1)
20	GPI OUT 2A	
21	GPI OUT 3A	
22	GPI OUT 4A	
23	GPI OUT 5	General-purpose open collector
24	GPI OUT 7	output (∗2)
25	GPI OUT COM	Ground for open collector output

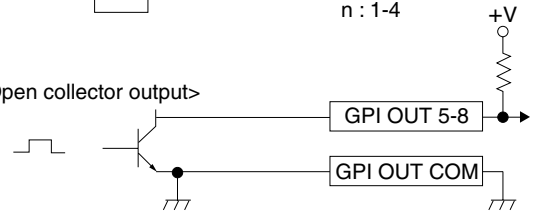
Note

A and B of the same number constitute a pair of relay contacts.

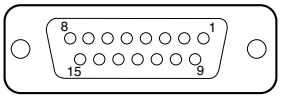
(∗1) <Relay>



(∗2) <Open collector output>



EDITOR PANEL: RS-422A (D-sub 15-pin, Female) <CONTROLLER>(*3)



— EXT VIEW —

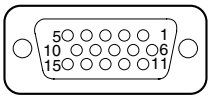
Pin No.	Signal name	Function
1	GND	Ground
2	RX–	Received data (–)
3	TX+	Transmitted data (+)
4	GND	Ground
5	–	No connection
6	+12 V	+12 V
7	+12 V	+12 V
8	+12 V	+12 V
9	–	No connection
10	RX+	Received data (+)
11	TX–	Transmitted data (–)
12	GND	Ground
13	GND	Ground
14	GND	Ground
15	GND	Ground

(*3) <CONTROLLER> : A controlling device

DEVICE : USB Type A

Pin No.	Signal Name	Function
1	+5 V	USB Vcc
2	D–	USB–
3	D+	USB+
4	GND	Ground

EXT DISPLAY : (High-density D-sub 15-pin, analog RGB, Female) to External Display



– EXT VIEW –

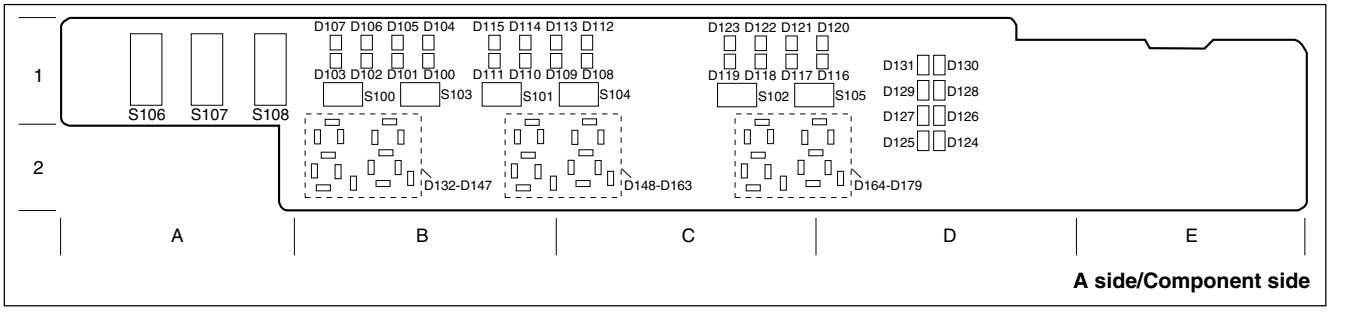
Pin No.	Signal Name	Function
1	RED	Video red
2	GREEN	Video green
3	BLUE	Video blue
4	–	No connection
5	GND	Ground
6	GND	Ground
7	GND	Ground
8	GND	Ground
9	–	No connection
10	GND	Ground
11	–	No connection
12	–	No connection
13	HSYNC	Horizontal sync
14	VSYNC	Vertical sync
15	–	No connection

1-9. Description of On-board Switches and LEDs

Note

The number shown in the parentheses ( ) indicates the address on the circuit board.

FP-141 board



<LED>

D100 to D103 (B-1) : MAIN CPU status LED

Main CPU module status indication.
Used only for production in the assembly factory.

D104 (B-1) : SIO ACT

Flashes while the communication with the equipment that is connected to the EDITOR PANEL connector is in progress.

D105 (B-1) : SBUS ACT

Lit while the communication with the equipment that is connected to the REMOTE connector is in progress.

D106 (B-1) : LAN ACT

Lit while the communication between the main CPU module and the MPU-302B board is in progress.

D107 (B-1) : LAN 100M

Lit while the 100 Mb/s communication with MENU CPU is in progress.

D108 (C-1) to D115 (B-1) : C01 to C08

CTRL connector communication IC status indication.
Used only for production in the assembly factory.

D116 (D-1) to D123 (C-1) : C11 to C18

PERIPH connector communication IC status indication.
Used only for production in the assembly factory.

D124 (D-2) : SBUS CH1

Lit when an equipment is connected to the REMOTE connector.

D125 (D-2) : SBUS RUN

Displays the status of the circuit for processing a signal in the REMOTE connector. Lit during a normal operation.

D126 (D-2) : SBUS TX

Flashes while transmitting the communication data to an equipment that is connected to the REMOTE connector.

D127 (D-2) : SBUS RX

Flashes while receiving the communication data from the equipment that is connected to the REMOTE connector.

D128 (D-1) : HD

Lit when the reference signal that is input via the REF IN connector is an HD signal.

D129 (D-1) : REF OK

REF IN signal presence/absence status indication.
Lit when the reference signal is input via the REF IN connector.

D130 (D-1) : MCONFIG

Lit when the direct configuration mode is performed.
Used only for production in the assembly factory.

D131 (D-1) : USER

Used only for production in the assembly factory.

D132 to D147 (B-2) : MAIN CPU status LED

Main CPU module status indication.
Displays the initialization steps of the main CPU module at power-on.
"A0" is displayed when the initialization is completed and the main CPU is booted correctly.

D148 (C-2) to D163 (B-2) : COM0 CPU status LED

CTRL LAN control IC status indication.
Displays the initialization steps of the COM0 CPU at power-on. LED flashes rotatively when the initialization is completed and the COM0 CPU is booted correctly.

D164 (D-2) to D179 (C-2) : COM1 CPU status LED

PERIPH LAN control IC status indication.
Displays the initialization steps of the COM1 CPU at power-on. LED flashes rotatively when the initialization is completed and the COM1 CPU is booted correctly.

<Switch>

S100 (B-1) : MAIN RESET switch

Reset switch for the entire this control panel.

S101 (B-1) : C0-RESET switch

Independent reset switch for the CTRL LAN control IC.

S102 (C-1) : C1-RESET switch

Independent reset switch for the PERIPH LAN control sub CPU.

S103 (B-1) : Monitor reset switch for the main CPU

Reset switch that is used during maintenance of the main CPU from the TERMINAL pin (CN101).

S104 (C-1) : Monitor reset switch for the COM0 CPU

Reset switch that is used during maintenance of the CTRL LAN control IC from the TERMINAL pin (CN102).

S105 (D-1) : Monitor reset switch for the COM1 CPU

Reset switch that is used during maintenance of the PERIPH LAN control IC from the TERMINAL pin (CN103).

S106 (A-1) : Unit ID setting switch for LAN

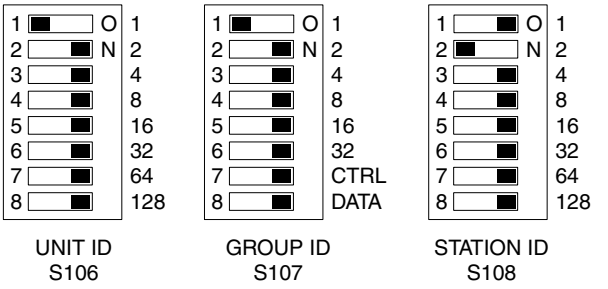
Sets the unit ID for connecting LAN. Do not change the setting.
Factory setting :
Bit 1 : OFF
Bits 2 to 8 : ON

S107 (A-1) : Group ID setting switch for LAN

Sets the group ID for connecting LAN.
Factory setting and in standard use :
Bit 1 : OFF
Bits 2 to 8 : ON

S108 (A-1) : STATION ID

Sets the station ID for connecting SBUS. Used to connect the external routing switcher to the REMOTE connector.
Factory setting :
Bit 1 and bits 3 to 8 : ON
Bit 2 : OFF



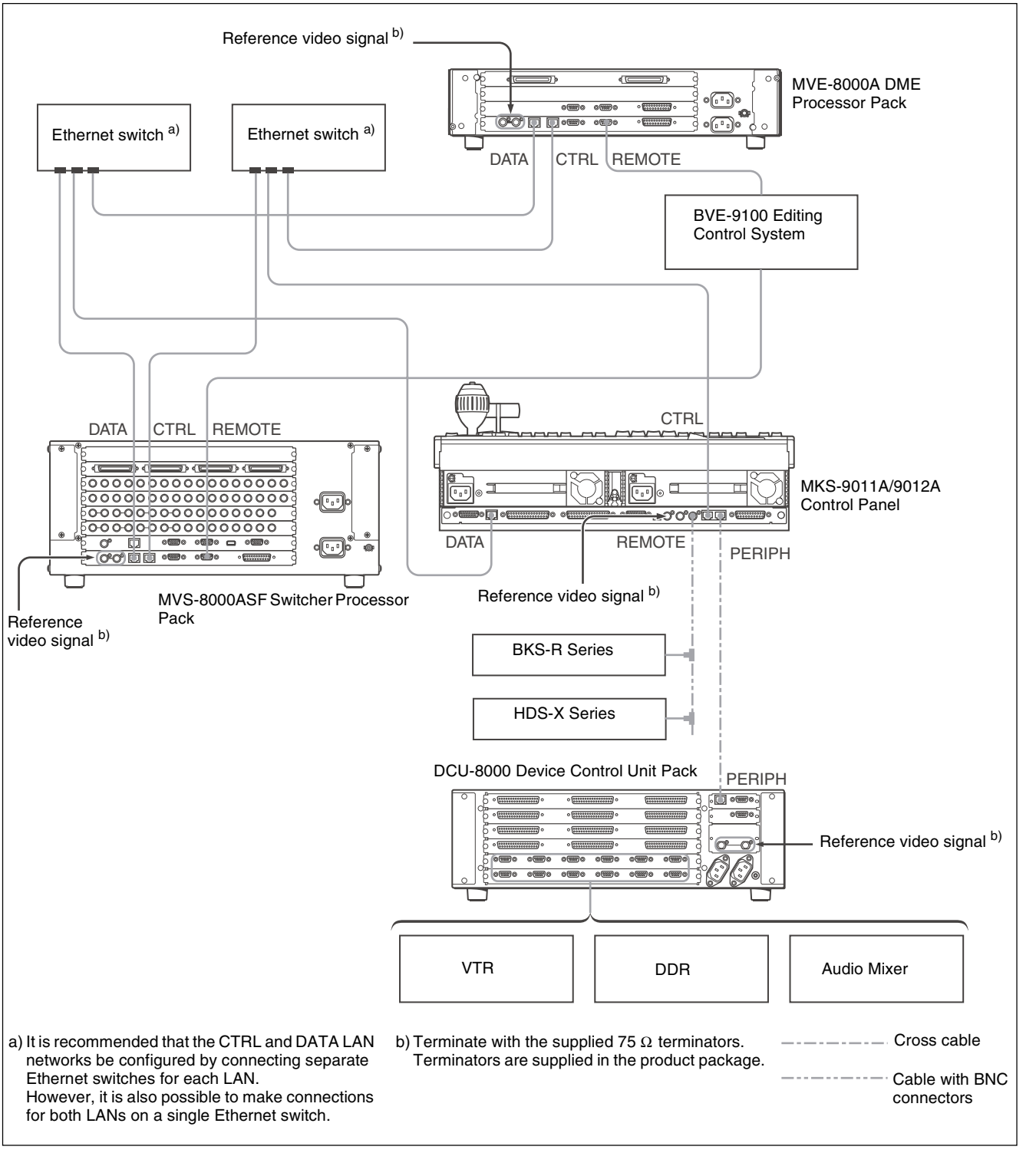
(■ indicates a knob position.)

1-10. System Connection

1-10-1. System Connection of the MVS-8000A Series

Configure the MVS-8000A series system connection referring to the connection example as shown below.

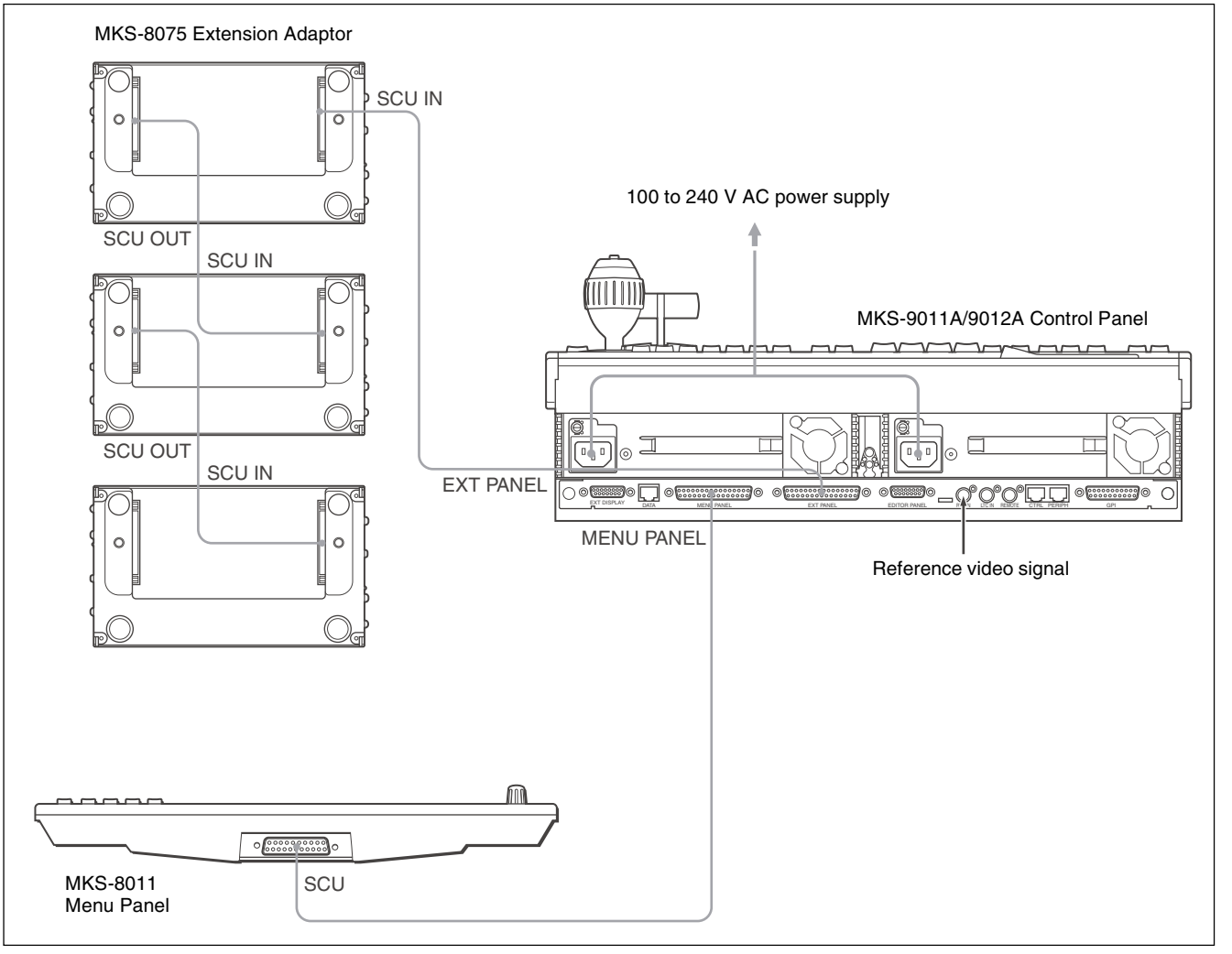
Connection example



1-10-2. Connecting the Center Control Panel

Connect the center control panel such as MKS-9011A/9012A, MKS-8011 and others referring to the following connection example.

Connection example



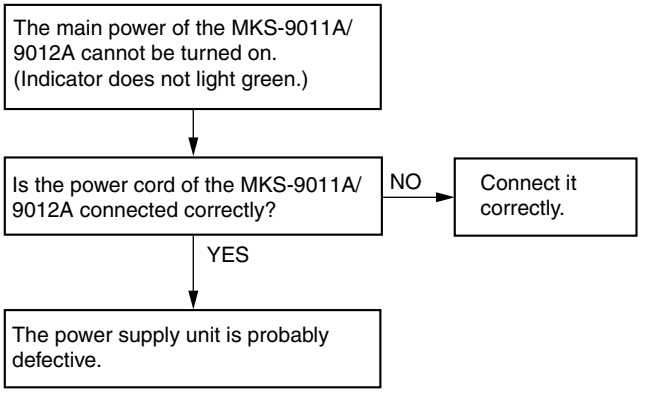
Section 2
Service Overview

2-1. Troubleshooting

2-1-1. Center Control Panel MKS-9011A/ 9012A

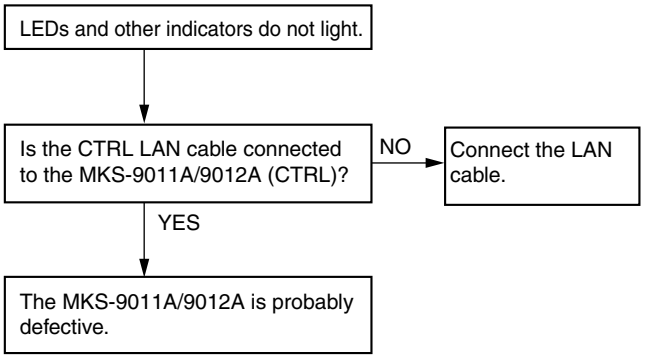
The main power cannot be turned on. (Indicator does not light green.)

Flow 1



LEDs and other indicators do not light.

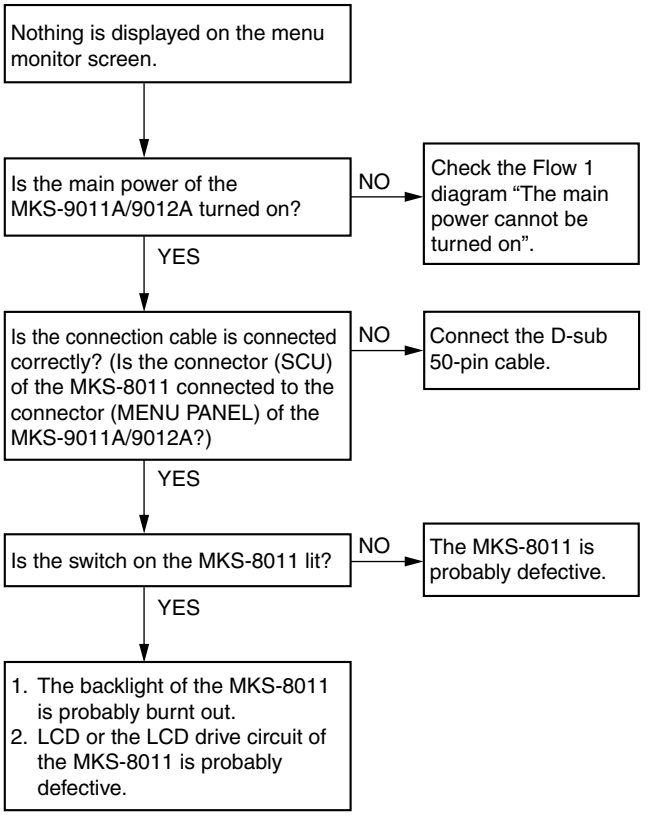
Flow 2



2-1-2. Menu Panel MKS-8011

Nothing is displayed on the menu monitor screen

Flow 3



2-2. Periodic Inspection and Maintenance

2-2-1. Cleaning

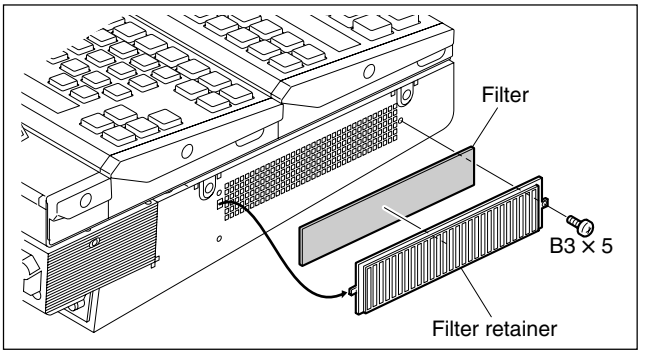
Filter

The filter on the rear of the filter retainer can easily accumulate dust. Be sure to remove dust by cleaning as follows.

1. Remove the screw and remove the filter retainer.
2. Remove dust accumulated on the filter with a vacuum cleaner.

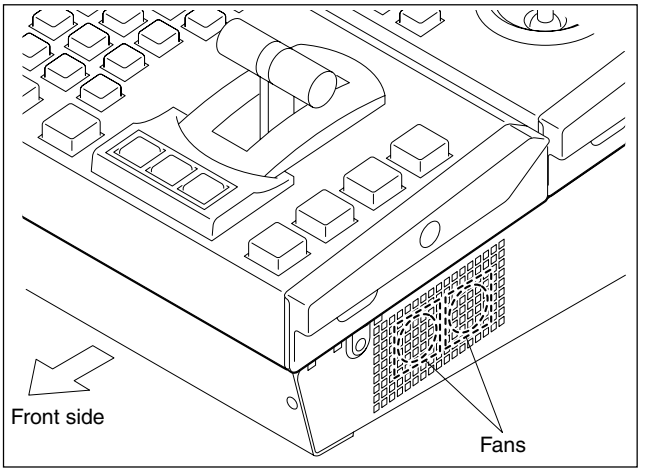
   Note

   Cleaning the filter by washing in water is recommended when there is a heavy accumulation of dust.
   Be sure to dry the filter completely after it has been washed.



Fan

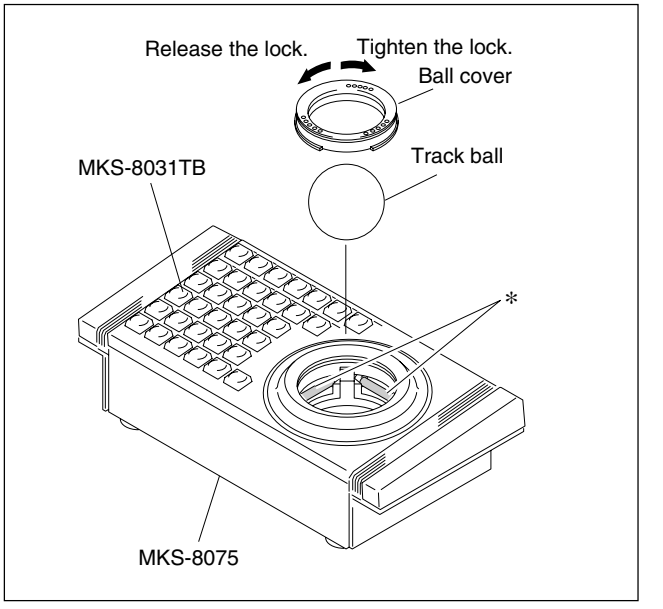
Control panel is air-cooled by the fans (on right side). If dust has accumulated in the intake of the fan, air is prevented from flowing smoothly and this may result in a temperature rise inside the machine. This may have an adverse effect on performance and the life of the machine.
Cleaning of the fan every month is recommended.
Contact your local Sony Sales Office/Service Center for information on cleaning the fan.



Track ball (MKS-8031TB)

If the track ball becomes dirty, it may result in adverse effects, typically the image does not move even though the track ball is manipulated.
Cleaning the track ball every month is recommended.

1. Rotate the ball cover counterclockwise and release the lock. Then remove the ball cover.
2. Remove the track ball.
3. Clean the track ball and the portion shown by the asterisk (*) in the illustration with a soft cloth.
4. Install the track ball and the ball cover.
5. Rotate the ball cover clockwise until it is locked.



2-3. About the Data Backup Capacitor

A large capacitor is mounted on the CA-57 board of MKS-9011A/9012A to back up the data of setup, shot box, time line, and macro, etc.
Leave the main power of the MKS-9011A/9012A turned on for two hours or longer to charge this capacitor.
The data is backed up for three days when the capacitor is fully charged under normal operating temperature/humidity.
However, this time length changes depending on the surrounding environment.
Be sure to save the important data into the external media.

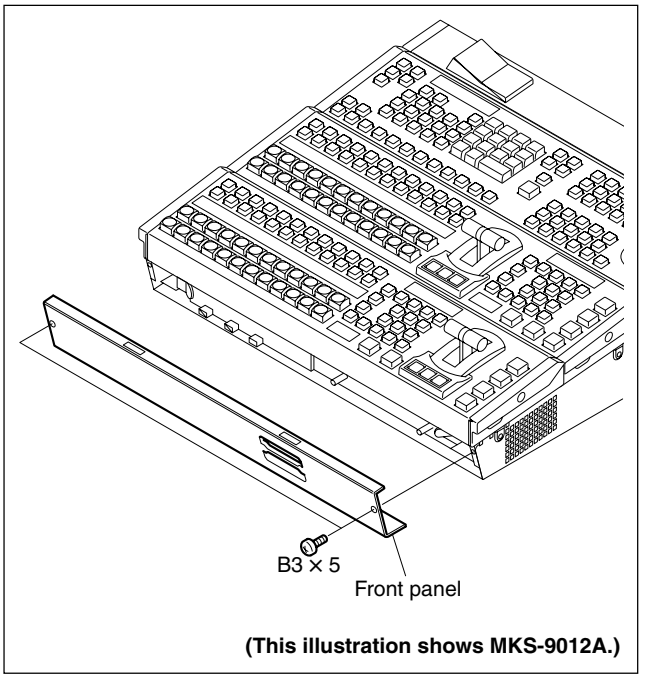
2-4. Removing/Reinstalling Front Panel

WARNING

Be sure to unplug the power cord before removing/reinstalling the front panel.
Performing the procedure with the power on may cause electric shock or damage to the boards.

Removal

1. Remove the two screws and remove the front panel.



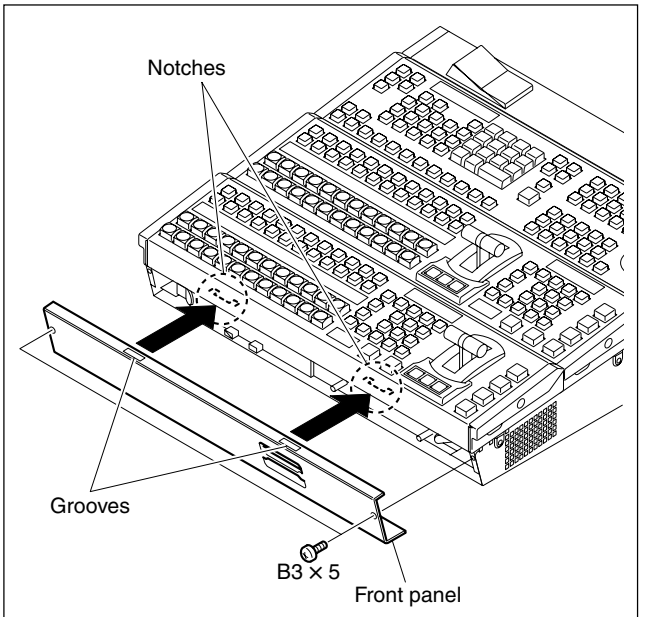
(This illustration shows MKS-9012A.)

Reinstallation

1. Install the front panel in the reverse order of removal.

Note

Fit the notches in the chassis into the grooves in the front panel, then attach the front panel.



(This illustration shows MKS-9012A.)

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