

SONY[®]

AUDIO MONITOR SPEAKER SYSTEM

AMS-100

ANALOG MODULE
BKAM-101

AES/EBU MODULE
BKAM-102

SDI MODULE
BKAM-103

INSTALLATION MANUAL
1st Edition

⚠ 警告

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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可能性があります。
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⚠ 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 manuel 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.

Attention-when the product is installed in Rack:

- 1. Prevention against overloading of branch circuit**
When this product is installed in a rack and is supplied power from an outlet on the rack, please make sure that the rack does not overload the supply circuit.
- 2. Providing protective earth**
When this product is installed in a rack and is supplied power from an outlet on the rack, please confirm that the outlet is provided with a suitable protective earth connection.
- 3. Internal air ambient temperature of the rack**
When this product is installed in a rack, please make sure that the internal air ambient temperature of the rack is within the specified limit of this product.
- 4. Prevention against achieving hazardous condition due to uneven mechanical loading**
When this product is installed in a rack, please make sure that the rack does not achieve hazardous condition due to uneven mechanical loading.

AMS-100 (SY) Serial No. 10001 and Higher
BKAM-101 (SY) Serial No. 10001 and Higher
BKAM-102 (SY) Serial No. 10001 and Higher
BKAM-103 (SY) Serial No. 10001 and Higher

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Section 1 Installation

1-1. Power Supply

1-1-1. Power Specifications

Power voltage	AC 100 to 240 V \pm 10 %
Current consumption	25 W
Inrush current	20 A

1-1-2. Power Cord

WARNING

Use the specified power cord only when connecting.
Never use a injured power cord.

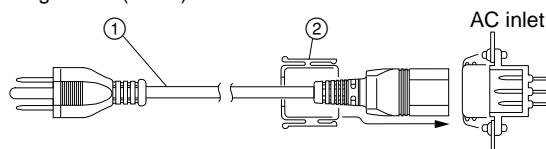
Note

Ground the unit safely.

If the unit is used in the area except above, please consult with local Sony's sales/service office.

Power code for the customer in the U.S.A. and Canada.

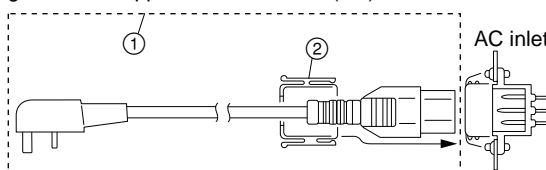
- ① Power cord (approx. 2.4 m) Δ 1-557-377-11
- ② Plug holder (Black) 2-990-242-01



Power code for the customer in the United Kingdom.

- ① Power cord set (approx. 2.4 m) Δ DK-2401 (UK)
- ② Plug holder (Black) 2-990-242-01

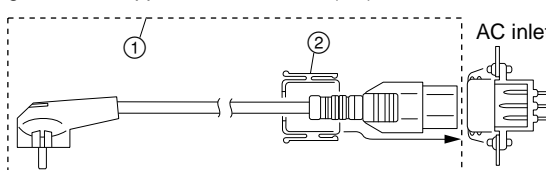
Plug holder is supplied with DK-2401 (UK).



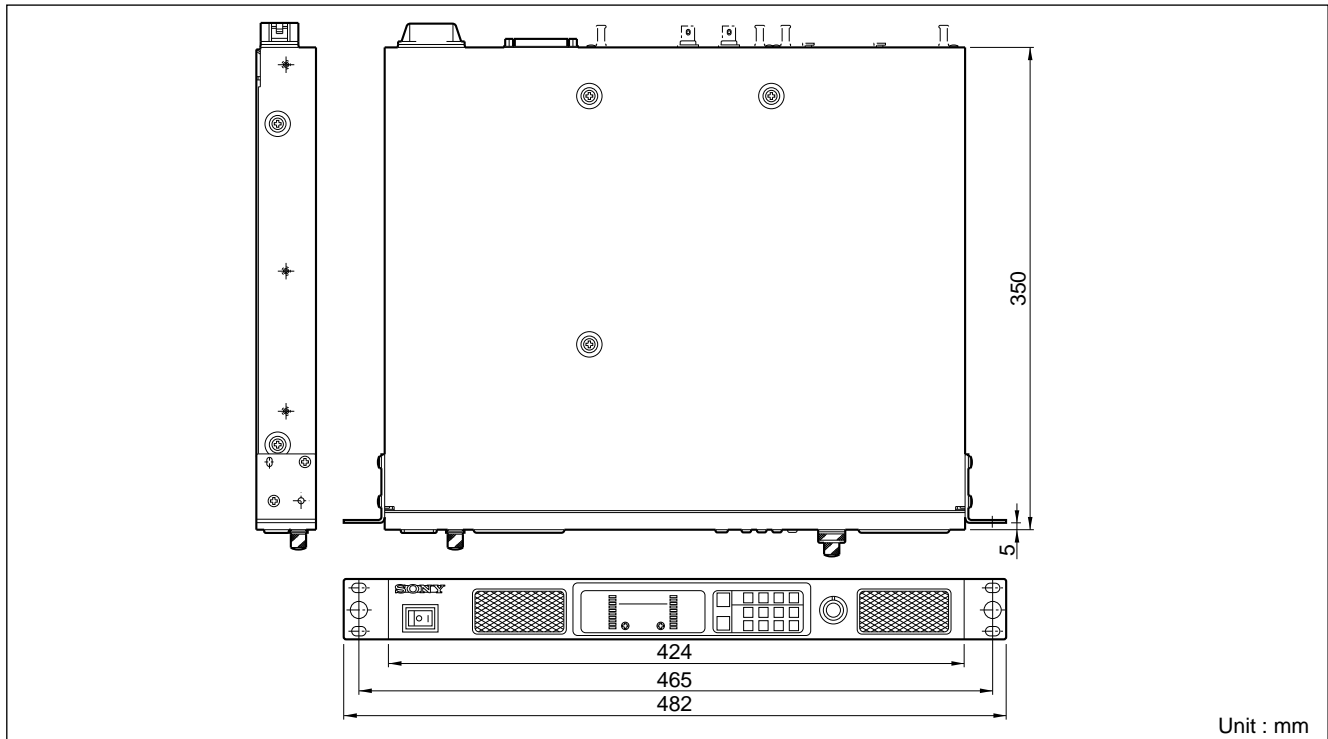
Power code for the customer in Europe except the United Kingdom.

- ① Power cord set (approx. 2.4 m) Δ DK-2401 (AE)
- ② Plug holder (Black) 2-990-242-01

Plug holder is supplied with DK-2401 (AE).



1-2. Dimensions



1-3. Installation of Boards

The optional boards (BKAM-101/102/103) can be installed in any slots of the AMS-100.

Installation of optional boards

1. Turn off the power of the AMS-100.
2. Remove the blank panel on the rear panel after removing its two retainer screws.

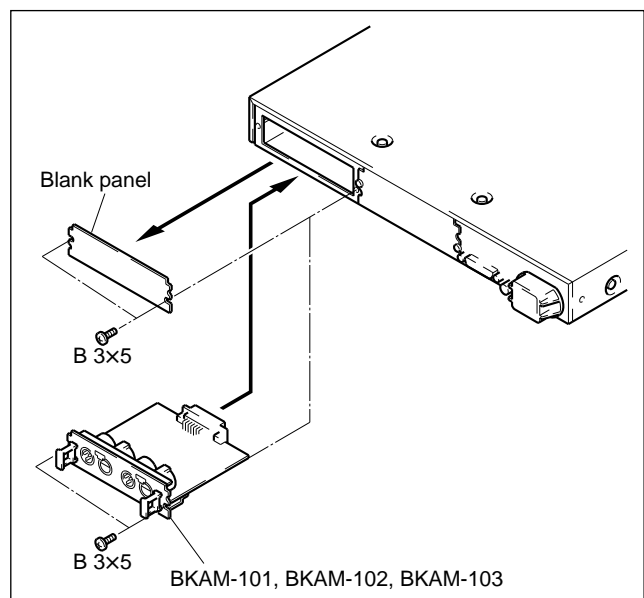
Note

Do not discard the removed blank panel.

3. Slide the optional board along the guide rails into the unit.
4. Secure the optional board in the AMS-100 with the screws supplied with the optional board.

Note

If there is any unused slot without a cover, install the cover you have just removed there.



1-4. Rack Mounting

The AMS-100 can be mounted in a 19-inch standard rack.

Note

- If the AMS-100 or the peripheral equipment is mounted in a 19-inch standard rack, it is recommended to install a ventilation fan to prevent a temperature rise in the rack. Make sure that all the units in the rack should be operated within the temperature range of 5°C to 40°C.
- Connect the enough long cables on the rear panel, considering that the AMS-100 is pulled out.
- Be sure to fix the rack to the floor with bolts. This will prevent the rack from falling when the unit is pulled out from the rack.

Required parts

- Rack mount rail (RMM-30)
 - Rail with bracket : 2 pcs.
 - Screw (B5×8) : 4 pcs.
 - Screw (PWH4×10) : 2 pcs.
 - Plate nut : 2 pcs.
- Screw for inner rail (B4×8) : 6 pcs.
- Screw for rack mounting (RK5×16) : 4 pcs.
- Washer for rack mounting : 4 pcs.
(Sony part number : 2-297-913-00)

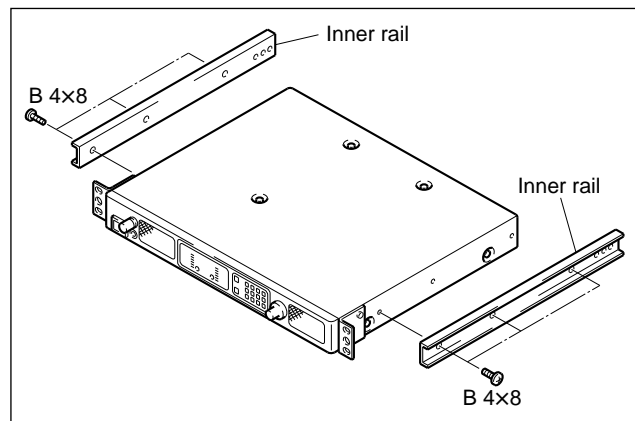
CAUTION

Be sure to use the RMM-30 rack mount rail.

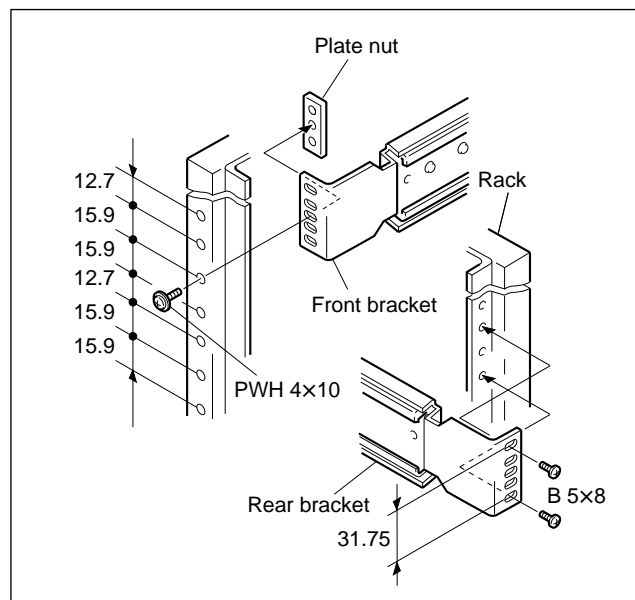
If a rack mount rail other than the RMM-30 is used, the AMS-100 may be dropped by insufficient strength of the rack mount rail. This may cause a injury.

Procedures

1. Turn off the power.
2. Attach the inner rails to the unit using the six screws (B4×8) supplied with the RMM-30.



3. Temporarily fix the front and rear brackets to the rack by running in but not tightening the four screws (B5×8) and two screws (PWH4×10) supplied with the RMM-30.



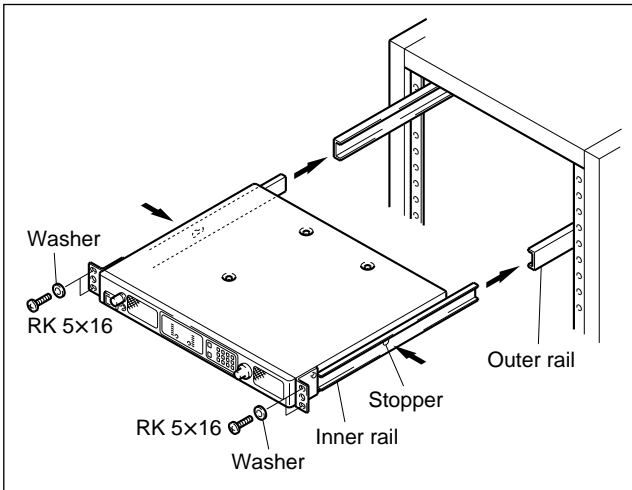
—To be continued on the next page.—

4. To mount the unit on the rack, while pressing the stoppers of the inner rails, slide the inner rails fully into the outer rails.
5. After confirming that the unit can be moved smoothly, tighten the six screws run in but not tightened in procedure 3.

Note

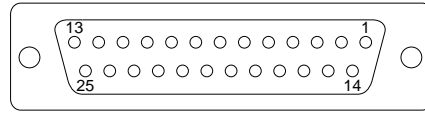
To tighten the front brackets to the rack, slide the unit from the rack toward you about 20 mm.

6. After mounting the unit on the rack, fix the unit to the rack with the four screws (RK5×16) and four washers.



1-5. Pin Assignment of Connectors

REMOTE (D-sub 25-pin, Female)



–External View–

Pin No.	Signal
1	REM-A IN
2	REM-B IN
3	REM-CH.SELECT L1 IN
4	REM-CH.SELECT L2 IN
5	REM-CH.SELECT R1 IN
6	REM-CH.SELECT R2 IN
7	GND
8	MONITOR OUT 2(H)
9	MONITOR OUT 2(C)
10	MONITOR OUT 1(H)
11	MONITOR OUT 1(C)
12	REM-GROUP SEL. 1 IN
13	REM-GROUP SEL. 2 IN
14	STS-A OUT
15	STS-B OUT
16	STS-CH. SELECT L1 OUT
17	STS-CH. SELECT L2 OUT
18	STS-CH. SELECT R1 OUT
19	STS-CH. SELECT R2 OUT
20	STS-GROUP SEL. 1 OUT
21	MONITOR OUT 2(G)
22	REM-ENABLE 2 IN
23	MONITOR OUT 1(G)
24	STS-GROUP SEL. 2 OUT
25	REM-ENABLE 1 IN

1-6. Matching Connectors and Cables

When connecting cables to various connectors on the rear panel at the time of installing or servicing, connect the following connectors/cables or their equivalents.

Connector	Matching Connector/cable	
Panel indication	Connector/Cable	Sony Part No.
REMOTE	D-sub 25-pin, male	1-566-356-11
AUDIO IN 1	XLR 3-pin, male	1-508-084-00 (*1)
	XLR 3-pin, female	1-508-083-00 (*2)
AUDIO IN 2	XLR 3-pin, male	1-508-084-00 (*1)
	XLR 3-pin, female	1-508-083-00 (*2)
DIGITAL AUDIO IN	XLR 3-pin, female	1-508-083-00 (*2)
	BNC 75 Ω, male	1-560-370-12
	5C-2V cable (*3)	
SDI IN	BNC 75 Ω, male	1-560-370-12
SDI OUT	5C-2V cable (*3)	

(*1) : ITT Cannon XLR-3-12C or equivalent

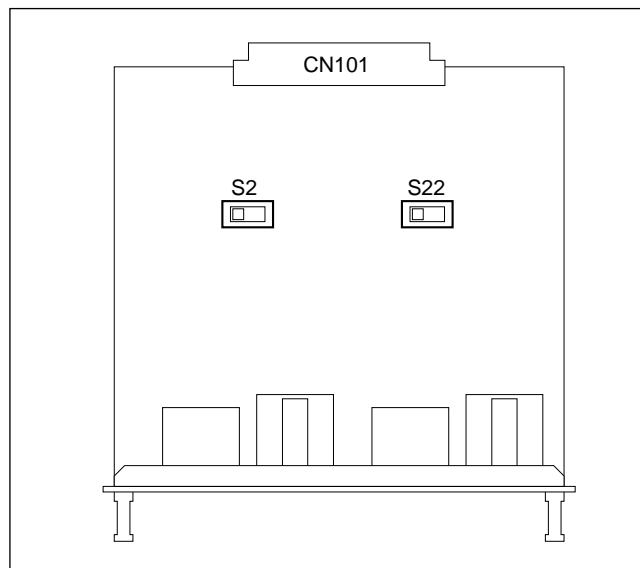
(*2) : ITT Cannon XLR-3-11C or equivalent

(*3) : 5C-2V coaxial cable (max. 200 m)

It is recommended to use the 5C-2V coaxial cable made by Fujikura America Inc./Fujikura Europe Ltd. (FEL) or equivalent.

1-7. Internal Switches

1-7-1. AL-42 Board (BKAM-101)



S2: CH-1 input level select switch

To select the input level of CH-1.

Factory setting : +4 dB

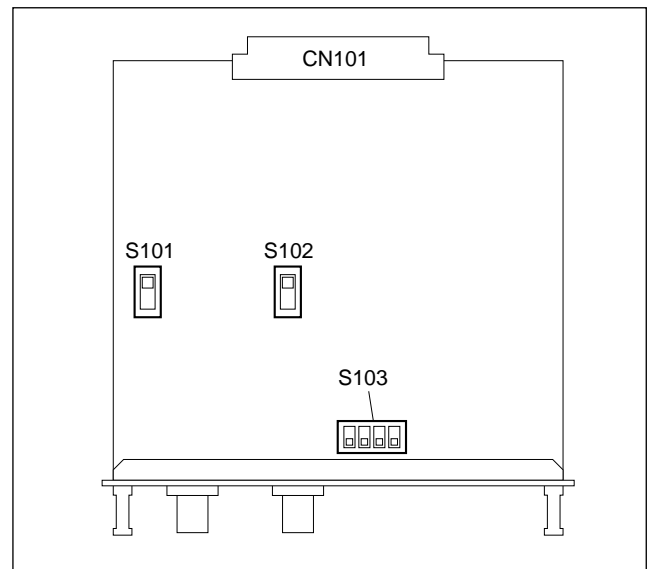
S22: CH-2 input level select switch

To select the input level of CH-2.

Factory setting : +4 dB

AMS-100

1-7-2. SDI-43 Board (BKAM-103)



S101 : Free-run adjustment select switch for the serial decoder

Used during free-run adjustment of the serial decoder:

OFF : Normal operation

ON : For free-run adjustment

Factory setting : OFF

S102 : Video system select switch

To select the video system (525/625).

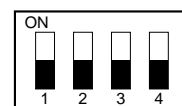
(Effective for 4:2:2 component serial video signal mode)

525 : For a 525 video system

625 : For a 625 video system

Factory setting : 525

S103 : Mode select switch



(■ Indicates the switch lever position.)

S103-1 : D1/D2 system selector

To select the video system used:

OFF (D1) : 4:2:2 component serial video signal

ON (D2) : 4fsc composite serial video signal

S103-2, -3, -4 : For factory-adjustment use only.

Note

Do not change the factory presetting of these switches.

Factory setting : all OFF

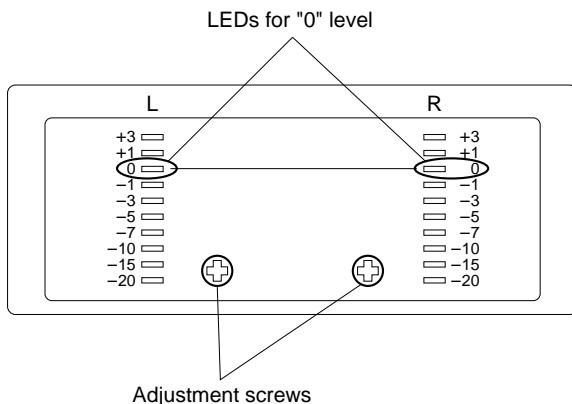
1-8. Input Level Meter Adjustment

Preparation

- Input the reference signal to the unit:
When the BKAM-101 is attached : +4 dBm
When the BKAM-102 is attached : -20 dB FS
- Turn on the power of the unit and select the slot and the channel to which the reference signal is to be input on the INPUT SELECT operation panel.
(For details on operation, refer to the Operation Manual.)
- Let the unit warm up for about 10 minutes.

Adjustment procedures

1. Press and hold the button corresponding to the desired slot for 3 seconds or more on the INPUT SELECT operation panel to enter Adjustment mode.
2. Check that the LED for the channel you are selecting starts blinking.
3. Perform the following adjustment.
Adj. point : Adjustment screw L/input level meter
Adjustment screw R/input level meter
Specification : The LEDs for "0" level start blinking.



Setting after adjustment

To return from Adjustment mode, press any button on the INPUT SELECT operation panel.

1-9. Related manuals

Besides this Installation Manual, the following manuals are available for the AMS-100.

- **Operation Manual (Supplied with the AMS-100)**
This manual explains the overview of the AMS-100, and the system configuration examples.
- **Maintenance Manual (available on request)**
This manual describes information that premise the service based on parts replacement (adjustments, board layouts, schematic diagrams, parts list, etc.).
If this manual is required, contact your local Sony Sales Office/Service Center.

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SAFETY CHECK-OUT

After correcting the original service problem, perform the following safety checks before releasing the set to the customer :

Check the metal trim, "metallized" knobs, screws, and all other exposed metal parts for AC leakage. Check leakage as described below.

LEAKAGE TEST

The AC leakage from any exposed metal part to earth ground and from all exposed metal parts to any exposed metal part having a return to chassis, must not exceed 3.5 mA. Leakage current can be measured by any one of three methods.

1. A commercial leakage tester, such as the Simpson 229 or RCA WT-540A. Follow the manufacturers' instructions to use these instruments.
2. A battery-operated AC milliammeter. The Data Precision 245 digital multimeter is suitable for this job.
3. Measuring the voltage drop across a resistor by means of a VOM or battery-operated AC voltmeter. The "limit" indication is 5.25 V, so analog meters must have an accurate low-voltage scale. The Simpson 250 and Sanwa SH-63Trd are examples of a passive VOM that is suitable. Nearly all battery operated digital multimeters that have a 20 V AC range are suitable. (See Fig. A)

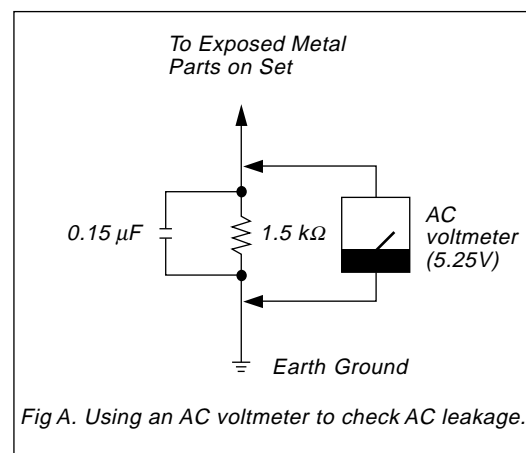


Fig A. Using an AC voltmeter to check AC leakage.

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