



Setup Guide



Thank you, and congratulations on your choice of the XI-MADI expansion interface.

Installing this expansion interface card in professional audio equipment from Roland makes it possible to expand audio input and output using MADI (Multichannel Audio Digital Interface).

For information on devices on which the XI-MADI expansion interface can be installed, check the Roland website.

<http://proav.roland.com>

Main Features

MADI (Multichannel Audio Digital Interface) is a transmission standard for digital audio standardized by AES. An extension of the AES/EBU standard for stereo (two-channel) transmission, it permits transmission of up to 64 channels over a single cable.

The main features of the XI-MADI are as follows.

• Equipped with two types of MADI connectors: optical and BNC

Optical and BNC (coaxial) MADI connectors are provided. You can select separate connectors for both MADI 1 and MADI 2.

- * When signals on the same channel are input via both the optical connector and the BNC connector, the BNC input takes priority.
- * Once optical input has been selected, the system does not switch to BNC as long as an optical signal continues to be input.
- * Depending on the equipment in which the XI-MADI is installed, locking input to optical or BNC might be possible.

• Support for redundant main and backup transmission

Using a MADI 1 connector as main and a MADI 2 connector as backup is possible. In the event of a problem with the main connection, the system automatically switches to the backup connection.

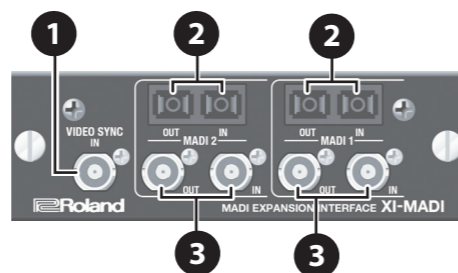
- * Redundant transmission uses either all-optical or all-BNC connections. Redundant transmission combining optical with BNC is not supported.

• Equipped with a VIDEO SYNC IN connector

A VIDEO SYNC IN connector allowing black-burst signal input is provided. Selecting the VIDEO SYNC IN connector as the clock source enables synchronization with video equipment.

- * For information on the equipment in which the XI-MADI can be installed, check the following Roland website.
- <http://proav.roland.com>

Panel Descriptions



No.	Name	Explanation
1	VIDEO SYNC IN connector	This is for input of a black-burst signal. Here you connect a black-burst generator or other such external source device when synchronizing the XI-MADI-compatible device to video equipment.
2	MADI IN/OUT connectors 1, 2 (optical)	These are optical-type connectors for MADI input and output. * When no cable is used, attach the connector cap to prevent entry by dust or other foreign matter. The unit is shipped from the factory with the connector caps attached to the connectors. About optical cables • Use multi-mode fiber-optic cable having a core diameter or 50/125 μm or 62.5/125 μm. • Cable length can be up to 2,000 meters per cable. • Use SC connectors compliant with ISO/IEC 9314-3.
3	MADI IN/OUT connectors 1, 2 (coaxial)	These are BNC-type connectors for MADI input and output. About coaxial cables • Use cables whose impedance is 75 Ω. • Cable length can be up to 100 meters per cable. • Use BNC-type connectors compliant with IEC 60169-8. • Canare L-5C2VS cable or equivalent is recommended.

Installing the Expansion interface

Install the expansion interface on a compatible device.

Important Notes on Handling

To avoid the risk of damage to internal components that can be caused by static electricity, please carefully observe the following whenever you handle the expansion interface.

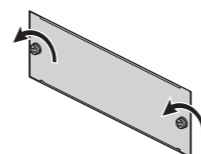
- Before you touch the expansion interface, always first grasp a metal object (such as a water pipe), so you are sure that any static electricity you might have been carrying has been discharged.
- When handling the expansion interface, grasp it only by the panel or the expansion interface's edges. Avoid touching any of the electronic components or connectors.
- Before you connect any cables, make sure they do not carry a static electricity charge. Such charges can be transmitted, for example, if the other end of the cable has been in contact with a carpet (or other object) where there is a static electricity buildup.
- Save the bag in which the expansion interface was originally shipped, and put the expansion interface back into it whenever you need to store or transport it.

Installing

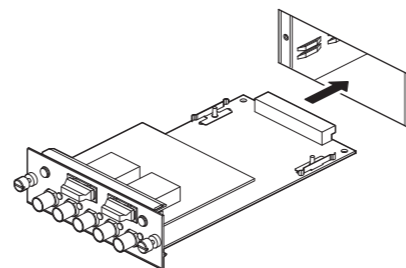
NOTE

- Before installing the expansion interface, you must first always turn off the unit where installing and unplug its power cord from the power outlet.
- When restarting the device with the expansion interface installed, wait several seconds before turning on the power.

1. Loosen the EXPANSION SLOT mounting screws (2) on the device where you're installing, and detach the panel cover.

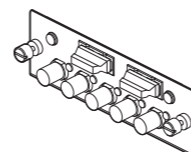


2. Insert the expansion interface into the EXPANSION SLOT.



- * Do not touch any of the expansion interface pathways or connection terminals.
- * Never use excessive force when installing a expansion interface. If it doesn't fit properly on the first attempt, remove the expansion interface and try again.

3. Secure the expansion interface in place using the mounting screws (2).

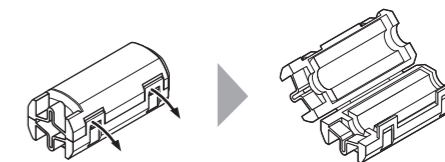


Attaching Ferrite Cores

Attach ferrite cores to cables connected to the MADI IN/OUT connectors (coaxial) or VIDEO SYNC IN connector.

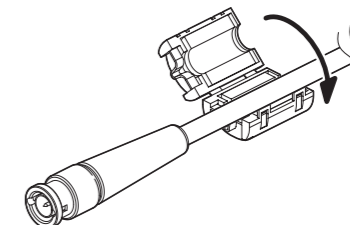
- * The ferrite cores are needed to prevent electromagnetic noise. Be sure to attach ferrite cores to any cables connected to the MADI IN/OUT connectors (coaxial) or the VIDEO SYNC IN connector.

1. Open an included ferrite core by spreading apart the tabs at two places.



2. Attach the ferrite core at a location near the plug base.

Close the ferrite core by pressing down on each tab until it clicks into place.



MEMO

Connect the plug at the end where the ferrite core is attached to the connector on the other device.

Main Specifications

Channels	Up to 64 channels input/output x 2 (48 kHz, 44.1 kHz, 64 ch mode)	
	Up to 32 channels input/output x 2 (96 kHz, 64 ch mode)	
Signal Processing	Sampling Frequency	96 kHz, 48 kHz, 44.1 kHz
	MADI channel mode	64 ch, 56 ch
Data Length	24 bits	
Connectors	Coaxial MADI IN (1, 2) connectors	BNC type
	Coaxial MADI OUT (1, 2) connectors	BNC type
	Optical MADI IN/OUT (1, 2) connectors	SC duplex multi mode type (*1)
	VIDEO SYNC IN connector	BNC type
	USB COMPUTER port (Inside of the panel, updates only)	USB type B
Power Consumption	7.0 W	
Dimensions	120 (W) x 185 (D) x 40 (H) mm	
	4-3/4 (W) x 7-5/16 (D) x 1-5/8 (H) inches	
	* Protruding parts not included.	
Weight	250 g 9 oz	
Operation Temperature	+5 to +40 degrees Celsius	
	+41 to +104 degrees Fahrenheit	
Accessories	Setup Guide, Ferrite core x 5	

(*1): For single mode type, consult your Roland vendor.

* In the interest of product improvement, the specifications and/or appearance of this unit are subject to change without prior notice.

USING THE UNIT SAFELY

INSTRUCTIONS FOR THE PREVENTION OF FIRE, ELECTRIC SHOCK, OR INJURY TO PERSONS

About WARNING and CAUTION Notices

Table with 2 columns: Symbol (Warning/Caution) and Description of the notice.

About the Symbols

Table with 2 columns: Symbol (Warning, Prohibited, Prohibited with plug) and Description of the symbol.

ALWAYS OBSERVE THE FOLLOWING

WARNING

Do not disassemble or modify by yourself. Do not carry out anything unless you are instructed to do so in the Setup Guide.

Do not repair or replace parts by yourself. Refer all servicing to your retailer, the nearest Roland Service Center, or an authorized Roland distributor.

Do not use or store in the following types of locations

- Subject to temperature extremes (e.g., direct sunlight in an enclosed vehicle, near a heating duct, on top of heat-generating equipment); or are Damp (e.g., baths, washrooms, on wet floors); or are Exposed to steam or smoke; or are Subject to salt exposure; or are Exposed to rain; or are Dusty or sandy; or are Subject to high levels of vibration and shakiness; or are Placed in a poorly ventilated location.

Do not allow foreign objects or liquids to enter unit; never place containers with liquid on unit

Do not place containers containing liquid (e.g., flower vases) on this product. Never allow foreign objects (e.g., flammable objects, coins, wires) or liquids (e.g., water or juice) to enter this product. Doing so may cause short circuits, faulty operation, or other malfunctions.

WARNING

Turn off the unit if an abnormality or malfunction occurs

Immediately turn the unit off, and request servicing by your retailer, the nearest Roland Service Center, or an authorized Roland distributor, as listed on the "Information" when: Objects have fallen into, or liquid has been spilled onto the unit; or If smoke or unusual odor occurs; or The unit has been exposed to rain (or otherwise has become wet); or The unit does not appear to operate normally or exhibits a marked change in performance.

Be cautious to protect children from injury

Always make sure that an adult is on hand to provide supervision and guidance when using the unit in places where children are present, or when a child will be using the unit.

Do not drop or subject to strong impact

Otherwise, you risk causing damage or malfunction.

Turn the unit off before installing expansion interfaces

Before installing the expansion interface (XI-MADI), you must first always turn off the unit where installing and unplug its power cord from the power outlet.

CAUTION

Route all cables in such a way as to prevent them from getting entangled

Injury could result if someone were to trip on a cable and cause the unit to fall or topple.

Avoid climbing on top of the unit, or placing heavy objects on it

Otherwise, you risk injury as the result of the unit toppling over or dropping down.

Disconnect all cords/cables before moving the unit

Damage or malfunction may result if you fail to disconnect all cables before moving the unit.

Install expansion interface(s) only in specified units

Install the expansion interface only into the specified unit (a device compatible with the XI-MADI). Remove only the specified screws during the installation.

Keep small items out of the reach of children

To prevent accidental ingestion of the parts listed below, always keep them out of the reach of small children.

- Included Parts Ferrite core Connector cap Screws

IMPORTANT NOTES

Placement

- This unit may interfere with radio and television reception. Do not use this unit in the vicinity of such receivers. Noise may be produced if wireless communications devices, such as cell phones, are operated in the vicinity of this unit. Such noise could occur when receiving or initiating a call, or while conversing. Should you experience such problems, you should relocate such wireless devices so they are at a greater distance from this unit, or switch them off.

When moved from one location to another where the temperature and/or humidity is very different, water droplets (condensation) may form inside the unit. Damage or malfunction may result if you attempt to use the unit in this condition. Therefore, before using the unit, you must allow it to stand for several hours, until the condensation has completely evaporated.

- Do not place containers or anything else containing liquid on top of this unit. Also, whenever any liquid has been spilled on the surface of this unit, be sure to promptly wipe it away using a soft, dry cloth.

Maintenance

- Never use benzine, thinners, alcohol or solvents of any kind, to avoid the possibility of discoloration and/or deformation.

Additional Precautions

- Use a reasonable amount of care when using the unit's buttons, sliders, or other controls; and when using its jacks and connectors. Rough handling can lead to malfunctions.

- When disconnecting all cables, grasp the connector itself—never pull on the cable. This way you will avoid causing shorts, or damage to the cable's internal elements.

- To prevent malfunction and equipment failure, always turn down the volume, and turn off all the units before making any connections.

Intellectual Property Right

- MMP (Moore Microprocessor Portfolio) refers to a patent portfolio concerned with microprocessor architecture, which was developed by Technology Properties Limited (TPL). Roland has licensed this technology from the TPL Group. This product contains eParts integrated software platform of eSOL Co.,Ltd. eParts is a trademark of eSOL Co., Ltd. in Japan. Roland is an either registered trademark or trademark of Roland Corporation in the United States and/or other countries.

- Company names and product names appearing in this document are registered trademarks or trademarks of their respective owners.

For the USA

FEDERAL COMMUNICATIONS COMMISSION RADIO FREQUENCY INTERFERENCE STATEMENT

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation.

- Reorient or relocate the receiving antenna. Increase the separation between the equipment and receiver. Connect the equipment into an outlet on a circuit different from that to which the receiver is connected. Consult the dealer or an experienced radio/TV technician for help.

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.

This equipment requires shielded interface cables in order to meet FCC class B limit. Any unauthorized changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

For Canada

CAN ICES-3 (B)/NMB-3 (B)

For Korea

사용자 안내문

Table with 2 columns: 기종별 (Model) and 사용자 안내문 (User Manual). Entry: B 급 기기 (가정용 방송통신기자재) 이 기기는 가정용(B 급) 전자파적합기기로서 주로 가정에서 사용하는 것을 목적으로 하며, 모든지역에서 사용할 수 있습니다.

For C.A. US (Proposition 65)

WARNING

This product contains chemicals known to cause cancer, birth defects and other reproductive harm, including lead.

2036-1 Nakagawa, Hosoe-cho, Kita-ku, Hamamatsu, Shizuoka 431-1304, JAPAN



For China

有关产品中所含有害物质的说明

本资料就本公司产品中所含的特定有害物质及其安全性予以说明。本资料适用于 2007 年 3 月 1 日以后本公司所制造的产品。

环保使用期限

此标志适用于在中国国内销售的电子信息产品，表示环保使用期限的年限。所谓环保使用期限是指在自制造日起的规定期限内，产品中所含的有害物质不致引起环境污染，不会对人身、财产造成严重的不良影响。环保使用期限仅在遵照产品使用说明书，正确使用产品的条件下才有效。不当的使用，将会导致有害物质泄漏的危险。

产品中有害有毒物质或元素的名次及含量

Table with 2 columns: 部件名称 (Component Name) and 有毒有害物质或元素 (Toxic Substances/Elements) with sub-columns for Lead, Mercury, Cadmium, etc.

O: 表示该有毒有害物质在该部件所有均质材料中的含量均在 SJ/T11363-2006 标准规定的限量要求以下。X: 表示该有毒有害物质至少在该部件的某一均质材料中的含量超出 SJ/T11363-2006 标准规定的限量要求。

For the USA

DECLARATION OF CONFORMITY Compliance Information Statement

Model Name : XI-MADI
Type of Equipment : Audio Interface Module
Responsible Party : Roland Corporation U.S.
Address : 5100 S. Eastern Avenue Los Angeles, CA 90040-2938
Telephone : (323) 890-3700

For EU Countries



This symbol indicates that in EU countries, this product must be collected separately from household waste, as defined in each region.

Dieses Symbol bedeutet, dass dieses Produkt in EU-Ländern getrennt vom Hausmüll gesammelt werden muss gemäß den regionalen Bestimmungen.

Ce symbole indique que dans les pays de l'Union européenne, ce produit doit être collecté séparément des ordures ménagères selon les directives en vigueur dans chacun de ces pays.

Questo simbolo indica che nei paesi della Comunità europea questo prodotto deve essere smaltito separatamente dai normali rifiuti domestici, secondo la legislazione in vigore in ciascun paese.

Este símbolo indica que en los países de la Unión Europea este producto debe recogerse aparte de los residuos domésticos, tal como esté regulado en cada zona.

Este símbolo indica que nos países da UE, a recolha deste produto deverá ser feita separadamente do lixo doméstico, de acordo com os regulamentos de cada região.

Dit symbool geeft aan dat in landen van de EU dit product gescheiden van huishoudelijk afval moet worden aangeboden, zoals bepaald per gemeente of regio.

Detta symbol angiver, at i EU-lande skal dette produkt opsamles adskilt fra husholdningsaffald, som defineret i hver enkelt region.

Detta symbolet indikerer at produktet må behandles som spesialavfall i EU-land, iht. til retningslinjer for den enkelte regionen, og ikke kastes sammen med vanlig husholdningsavfall.

Symbolen anger att i EU-länder måste den här produkten kasseras separat från hushållsavfall, i enlighet med varje regions bestämmelser.

Tämä merkintä ilmaisee, että tuote on EU-maissa kerättävä erillään kotitalousjätteistä kunkin alueen voimassa olevien määräysten mukaisesti.

Ez a szimbólum azt jelenti, hogy az Európai Unióban ezt a terméket a háztartási hulladéktól elkülönítve, az adott régióban érvényes szabályozás szerint kell gyűjteni.

Symbol oznacza, że zgodnie z regulacjami w odpowiednim regionie, w krajach UE produktu nie należy wyrzucać z odpadami domowymi.

Tento symbol udává, že v zemích EU musí být tento výrobek sbírán odděleně od domácího odpadu, jak je určeno pro každý region.

Tento symbol vyjadruje, že v krajinách EÚ sa musí zber tohto produktu vykonávať oddelene od domového odpadu, podľa nariadení platných v konkrétnej krajine.

See sümbol näitab, et EL-i maades tuleb see toode olempriigüst eraldi koguda, nii nagu on igas piirkonnas määratletud.

Šis simbolis rodo, kad ES šalyse šis produktas turi būti surenkamas atskirai nuo buitinių atliekų, kaip nustatyta kiekviename regione.

Šis simbols norāda, ka ES valstīs šo produktu jāievāc atsevišķi no mājaismniecības atkritumiem, kā noteikts katrā reģionā.

Ta simbol označuje, da je treba proizvod v državah EU zbirati ločeno od gospodinskih odpadkov, tako kot je določeno v vsaki regiji.

To σύμβολο αυτό υποδηλώνει ότι στις χώρες της Ε.Ε. το συγκεκριμένο προϊόν πρέπει να συλλέγεται χωριστά από τα υπόλοιπα οικιακά απορρίμματα.