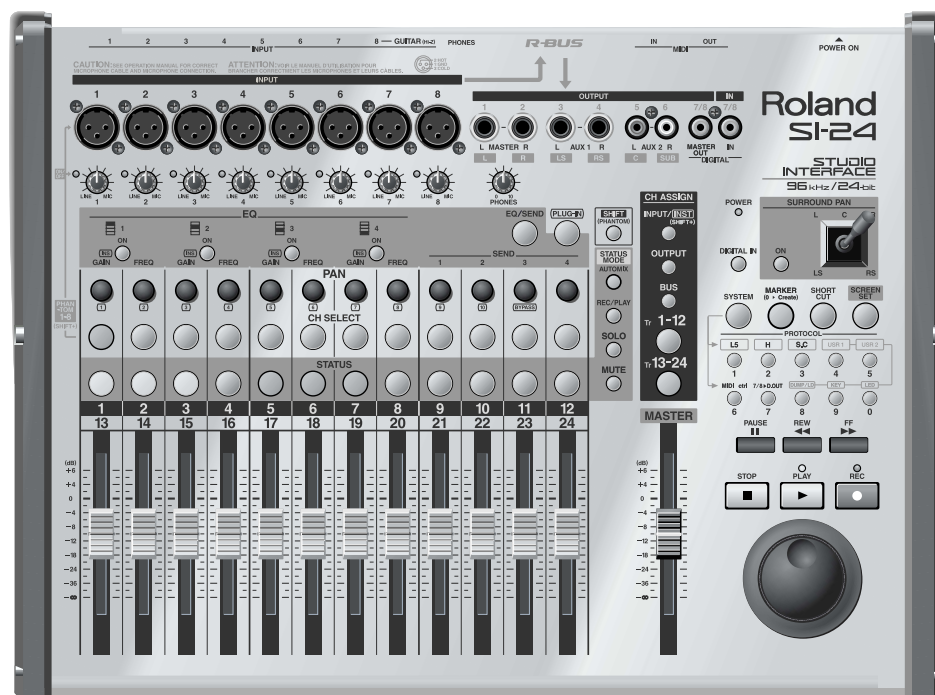


SI-24

STUDIO INTERFACE 96 kHz/24-bit

Owner's Manual





Before using this unit, carefully read the sections entitled: "IMPORTANT SAFETY INSTRUCTIONS" (Owner's Manual p. 2), "USING THE UNIT SAFELY" (Owner's Manual p. 3), and "IMPORTANT NOTES" (Owner's Manual p. 5). These sections provide important information concerning the proper operation of the unit. Additionally, in order to feel assured that you have gained a good grasp of every feature provided by your new unit, Owner's Manual should be read in its entirety. The manual should be saved and kept on hand as a convenient reference.

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Roland Web Site <http://www.roland.co.jp/>

	CAUTION RISK OF ELECTRIC SHOCK DO NOT OPEN	
ATTENTION: RISQUE DE CHOC ELECTRIQUE NE PAS OUVRIR		
CAUTION: TO REDUCE THE RISK OF ELECTRIC SHOCK, DO NOT REMOVE COVER (OR BACK). NO USER-SERVICEABLE PARTS INSIDE. REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.		



The lightning flash with arrowhead symbol, within an equilateral triangle, is intended to alert the user to the presence of uninsulated "dangerous voltage" within the product's enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons.



The exclamation point within an equilateral triangle is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the product.

INSTRUCTIONS PERTAINING TO A RISK OF FIRE, ELECTRIC SHOCK, OR INJURY TO PERSONS.

IMPORTANT SAFETY INSTRUCTIONS SAVE THESE INSTRUCTIONS

WARNING - When using electric products, basic precautions should always be followed, including the following:

1. Read these instructions.
2. Keep these instructions.
3. Heed all warnings.
4. Follow all instructions.
5. Do not use this apparatus near water.
6. Clean only with a dry cloth.
7. Do not block any of the ventilation openings. Install in accordance with the manufacturers instructions.
8. Do not install near any heat sources such as radiators, heat registers, stoves, or other apparatus (including amplifiers) that produce heat.
9. Do not defeat the safety purpose of the polarized or grounding-type plug. A polarized plug has two blades with one wider than the other. A grounding type plug has two blades and a third grounding prong. The wide blade or the third prong are provided for your safety. When the provided plug does not fit into your outlet, consult an electrician for replacement of the obsolete outlet.
10. Protect the power cord from being walked on or pinched particularly at plugs, convenience receptacles, and the point where they exit from the apparatus.
11. Only use attachments/accessories specified by the manufacturer.
12. Never use with a cart, stand, tripod, bracket, or table except as specified by the manufacturer, or sold with the apparatus. When a cart is used, use caution when moving the cart/apparatus combination to avoid injury from tip-over.
13. Unplug this apparatus during lightning storms or when unused for long periods of time.
14. Refer all servicing to qualified service personnel. Servicing is required when the apparatus has been damaged in any way, such as power-supply cord or plug is damaged, liquid has been spilled or objects have fallen into the apparatus, the apparatus has been exposed to rain or moisture, does not operate normally, or has been dropped.




For the U.K.

WARNING: THIS APPARATUS MUST BE EARTHED

IMPORTANT: THE WIRES IN THIS MAINS LEAD ARE COLOURED IN ACCORDANCE WITH THE FOLLOWING CODE.
GREEN-AND-YELLOW: EARTH, BLUE: NEUTRAL, BROWN: LIVE

As the colours of the wires in the mains lead of this apparatus may not correspond with the coloured markings identifying the terminals in your plug, proceed as follows:



The wire which is coloured GREEN-AND-YELLOW must be connected to the terminal in the plug which is marked by the letter E or by the safety earth symbol  or coloured GREEN or GREEN-AND-YELLOW.



The wire which is coloured BLUE must be connected to the terminal which is marked with the letter N or coloured BLACK.

The wire which is coloured BROWN must be connected to the terminal which is marked with the letter L or coloured RED.







USING THE UNIT SAFELY

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

About  WARNING and  CAUTION Notices









 WARNING	Used for instructions intended to alert the user to the risk of death or severe injury should the unit be used improperly.
 CAUTION	Used for instructions intended to alert the user to the risk of injury or material damage should the unit be used improperly. * Material damage refers to damage or other adverse effects caused with respect to the home and all its furnishings, as well to domestic animals or pets.

About the Symbols








	The  symbol alerts the user to important instructions or warnings. The specific meaning of the symbol is determined by the design contained within the triangle. In the case of the symbol at left, it is used for general cautions, warnings, or alerts to danger.
	The  symbol alerts the user to items that must never be carried out (are forbidden). The specific thing that must not be done is indicated by the design contained within the circle. In the case of the symbol at left, it means that the unit must never be disassembled.
	The  symbol alerts the user to things that must be carried out. The specific thing that must be done is indicated by the design contained within the circle. In the case of the symbol at left, it means that the power-cord plug must be unplugged from the outlet.

ALWAYS OBSERVE THE FOLLOWING

WARNING

- Before using this unit, make sure to read the instructions below, and the Owner's Manual. 
- Do not open or perform any internal modifications on the unit. 
- Do not attempt to repair the unit, or replace parts within it (except when this manual provides specific instructions directing you to do so). Refer all servicing to your retailer, the nearest Roland Service Center, or an authorized Roland distributor, as listed on the "Information" page. 
- Never use or store the unit in places that are:
 - 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 
 - Humid; or are
 - Exposed to rain; or are
 - Dusty; or are
 - Subject to high levels of vibration.
- Make sure you always have the unit placed so it is level and sure to remain stable. Never place it on stands that could wobble, or on inclined surfaces. 
- The unit should be connected to a power supply only of the type described in the operating instructions, or as marked on the bottom of unit. 
- Use only the attached power-supply cord. 

WARNING

- Do not excessively twist or bend the power cord, nor place heavy objects on it. Doing so can damage the cord, producing severed elements and short circuits. Damaged cords are fire and shock hazards! 
- This unit, either alone or in combination with an amplifier and headphones or speakers, may be capable of producing sound levels that could cause permanent hearing loss. Do not operate for a long period of time at a high volume level, or at a level that is uncomfortable. If you experience any hearing loss or ringing in the ears, you should immediately stop using the unit, and consult an audiologist. 
- Do not allow any objects (e.g., flammable material, coins, pins); or liquids of any kind (water, soft drinks, etc.) to penetrate the unit. 

- In households with small children, an adult should provide supervision until the child is capable of following all the rules essential for the safe operation of the unit. 
- Protect the unit from strong impact. (Do not drop it!) 
- Do not force the unit's power-supply cord to share an outlet with an unreasonable number of other devices. Be especially careful when using extension cords—the total power used by all devices you have connected to the extension cord's outlet must never exceed the power rating (watts/amperes) for the extension cord. Excessive loads can cause the insulation on the cord to heat up and eventually melt through. 

⚠ WARNING

- Before using the unit in a foreign country, consult with your retailer, the nearest Roland Service Center, or an authorized Roland distributor, as listed on the "Information" page.



⚠ CAUTION

- The unit should be located so that its location or position does not interfere with its proper ventilation.



- Always grasp only the plug on the power-supply cord when plugging into, or unplugging from, an outlet or this unit.



- Try to prevent cords and cables from becoming entangled. Also, all cords and cables should be placed so they are out of the reach of children.



- Never climb on top of, nor place heavy objects on the unit.



- Never handle the power cord or its plugs with wet hands when plugging into, or unplugging from, an outlet or this unit.



- Before moving the unit, disconnect the power plug from the outlet, and pull out all cords from external devices.



- Before cleaning the unit, turn off the power and unplug the power cord from the outlet (Refer to "Turning the power off" p. 16).



- Whenever you suspect the possibility of lightning in your area, pull the plug on the power cord out of the outlet.



- Should you remove a ground screw, make sure to put them in a safe place out of children's reach, so there is no chance of them being swallowed accidentally.



- Avoid using the unit immediately after it has been moved to a location with a level of temperature and humidity that is greatly different than its former location. Rapid changes in the environment can cause condensation to form inside the unit, which will adversely affect the operation of the unit and/or damage it. When the unit has been moved, allow it to become accustomed to the new environment (allow a few hours) before operating it.



IMPORTANT NOTES

In addition to the items listed under “IMPORTANT SAFETY INSTRUCTIONS” and “USING THE UNIT SAFELY” on pages 2 and 3–4, please read and observe the following:

Power Supply

- Do not use this unit on the same power circuit with any device that will generate line noise (such as an electric motor or variable lighting system).
- Before connecting this unit to other devices, turn off the power to all units. This will help prevent malfunctions and/or damage to speakers or other devices.

Placement

- Using the unit near power amplifiers (or other equipment containing large power transformers) may induce hum. To alleviate the problem, change the orientation of this unit; or move it farther away from the source of interference.
- This device may interfere with radio and television reception. Do not use this device 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.
- Do not expose the unit to direct sunlight, place it near devices that radiate heat, leave it inside an enclosed vehicle, or otherwise subject it to temperature extremes. Excessive heat can deform or discolor the unit.
- To avoid possible breakdown, do not use the unit in a wet area, such as an area exposed to rain or other moisture.

Maintenance

- For everyday cleaning wipe the unit with a soft, dry cloth or one that has been slightly dampened with water. To remove stubborn dirt, use a cloth impregnated with a mild, non-abrasive detergent. Afterwards, be sure to wipe the unit thoroughly with a soft, dry cloth.
- Never use benzine, thinners, alcohol or solvents of any kind, to avoid the possibility of discoloration and/or deformation.

Additional Precautions

- Please be aware that the contents of memory can be irretrievably lost as a result of a malfunction, or the improper operation of the unit. To protect yourself against the risk of losing important data, we recommend that you periodically save a backup copy of important data you have stored in the unit's memory on a storage device (e.g., hard disk or MO disk).

- Unfortunately, it may be impossible to restore the contents of data that was stored on a storage device (e.g., hard disk or MO disk) once it has been lost. Roland Corporation assumes no liability concerning such loss of data.
- 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 connecting / 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.
- A small amount of heat will radiate from the unit during normal operation.
- To avoid disturbing your neighbors, try to keep the unit's volume at reasonable levels. You may prefer to use headphones, so you do not need to be concerned about those around you (especially when it is late at night).
- When you need to transport the unit, package it in the box (including padding) that it came in, if possible. Otherwise, you will need to use equivalent packaging materials.
- Use a cable from Roland to make the connection. If using some other make of connection cable, please note the following precautions.
 - Some connection cables contain resistors. Do not use cables that incorporate resistors for connecting to this unit. The use of such cables can cause the sound level to be extremely low, or impossible to hear. For information on cable specifications, contact the manufacturer of the cable.

Copyright

- When exchanging audio signals through a digital connection with an external instrument, this unit can perform recording without being subject to the restrictions of the Serial Copy Management System (SCMS). This is because the unit is intended solely for musical production, and is designed not to be subject to restrictions as long as it is used to record works (such as your own compositions) that do not infringe on the copyrights of others. (SCMS is a feature that prohibits second-generation and later copying through a digital connection. It is built into MD recorders and other consumer digital-audio equipment as a copyright-protection feature.)
- Do not use this unit for purposes that could infringe on a copyright held by a third party. We assume no responsibility whatsoever with regard to any infringements of third-party copyrights arising through your use of this unit.

- * Microsoft and Windows are registered trademarks of Microsoft Corporation.
- * Windows® 98 is known officially as: “Microsoft® Windows® 98 operating system.”
- * Windows® 2000 is known officially as: “Microsoft® Windows® 2000 operating system.”
- * Windows® Me is known officially as: “Microsoft® Windows® Millennium Edition operating system.”
- * Windows® XP is known officially as: “Microsoft® Windows® XP operating system.”
- * Apple and Macintosh are registered trademark of Apple Computer, Inc.
- * MacOS is a trademark of Apple Computer, Inc.
- * OMS is a registered trademark of Opcode Systems, Inc.
- * Logic RPC Pro, Logic 5, and EASI are trademark of Emagic Soft-und Hardware GmbH.
- * Pro Tools is a registered trademark of Digidesign, Inc.
- * HUI is a trademark of Mackie Designs, Inc.
- * Cubase, Cubase VST, and ASIO are trademark of Steinberg Media Technologies AG.
- * All product names mentioned in this document are trademarks or registered trademarks of their respective owners.

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Before you begin

Check the contents of the package

- SI-24
- Owner's manual (this document)
- Power supply cable
- Pro Tools mode labels (*)

Main features of the SI-24

The SI-24 supports R-BUS. When R-BUS is used to connect the SI-24 to a computer in which an RPC-1 is installed, you can transfer eight channels (IN/OUT) of digital audio, and control applications via MIDI.

■ Dedicated channel editing functionality

The SI-24 provides twelve knobs and four buttons for editing the equalizer, send level, and pan of each channel. This allows rapid and direct operation.

■ Moving faders

The SI-24 has thirteen moving faders (including the MASTER fader) for optimal operability.

■ Joystick controller

A dedicated joystick is provided for surround control.

■ A full array of connectors

- The eight analog inputs support a wide range of input sensitivities, ranging from line level (+4 dB) to mic level (-50 dB). The eight XLR connectors can provide phantom power, allowing condenser mics that require external power to be directly connected. A high impedance phone jack (GUITAR) is also provided for directly connecting a guitar.
- Six phone jack analog outputs are provided. In addition to MASTER jacks (stereo) and AUX1 jacks (stereo), the SI-24 provides RCA phono type AUX2 jacks (stereo).
- Coaxial type digital I/O connectors (IN and OUT) are provided, allowing consumer digital audio devices (such as electronic musical instruments, DAT recorders, or the Roland VS series) to be digitally connected.
- All inputs and outputs support up to 24-bit/96 kHz sampling for high audio quality.
- MIDI connectors (IN, OUT) are provided. When the SI-24 is connected to your computer via R-BUS, the SI-24's MIDI connectors can be used as a MIDI interface for your computer (channel 2-16 only).
If "MIDI control" (p. 29) is turned on, you can control your computer or MIDI devices via the MIDI connectors.

- * If the protocol (p. 25) is set to "Pro Tools mode," the button and knob functions will differ in some ways from the panel. If you are using "Pro Tools mode," you will find it convenient to use the SI-24 with the Pro Tools mode labels affixed. For details, refer to "Putting Pro Tools mode labels" (p. 38).



In order to use the SI-24 to handle audio, or to transfer audio to and from your computer, you must connect it to a computer in which an R-BUS interface card (RPC-1) is installed.

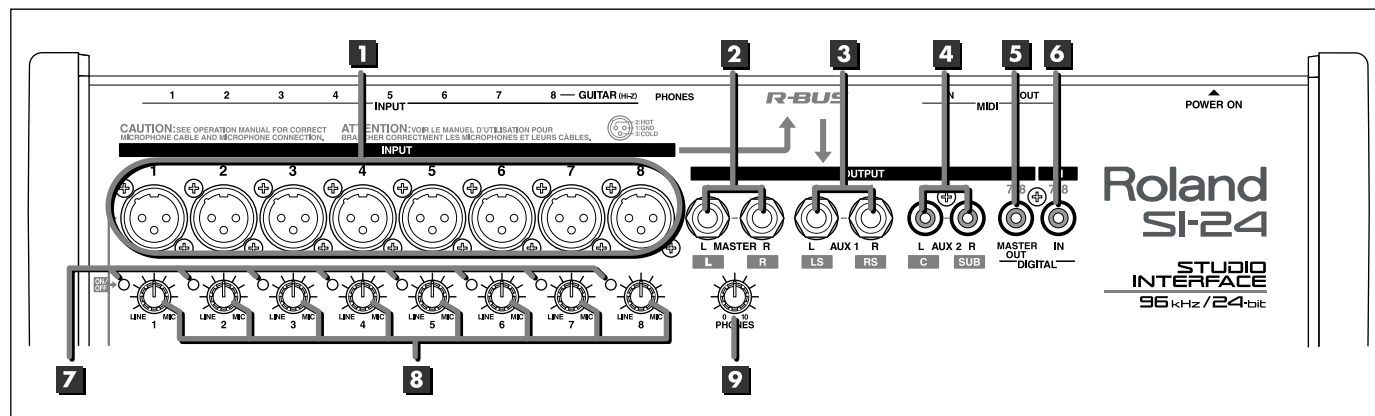


SI-24 cannot be used as MIDI interface on some applications.

Panel Description

Top panel

Input/output section



1 INPUT jacks 1–8/XLR type

Devices with XLR type plugs can be connected to these jacks. The audio that is input to INPUT 1–8 of the SI-24 will be sent to “R-Bus In 1–8” of the RPC-1.

Phantom power can be supplied to each jack.

→ For details, refer to “Using phantom power” (p. 16).

NOTE

Do not connect a plug to both the XLR and phone jacks for an identically numbered INPUT.

2 MASTER jacks

These are analog audio output jacks.

They will output “R-Bus Out 1” and “R-Bus Out 2” of the RPC-1. Use the MASTER fader to adjust the volume.

3 AUX1 jacks

These are analog audio output jacks.

They will output “R-Bus Out 3” and “R-Bus Out 4” of the RPC-1.

4 AUX2 jacks

These are analog audio output jacks.

They will output “R-Bus Out 5” and “R-Bus Out 6” of the RPC-1.

5 DIGITAL OUT connector

This is a digital audio (stereo) output connector.

It outputs “R-Bus Out 1/2” of the RPC-1.

NOTE

If desired, the RPC-1’s “R-Bus Out 7/8” can be output from DIGITAL OUT. For details, refer to “Outputting the RPC-1’s R-Bus Out 7/8 from the SI-24” (p. 30).

6 DIGITAL IN connector

Digital audio devices such as electronic musical instruments, DAT recorders, or the Roland VS series can be connected to this coaxial type connector.

NOTE

In order to use digital input, you must change settings on the SI-24 and RPC-1. For details, refer to “Using the digital input” (p. 18).

7 Peak indicators

● Input level

These indicate whether the sound being input to each INPUT jack is distorting. They provide a guideline for adjusting the **input sensitivity knobs** to an appropriate input level.

→ For details, refer to “Adjusting the input sensitivity” (p. 17).

● Phantom power

While you hold down [SHIFT], these indicate the phantom power on/off status.

Indicator lit: phantom power on

Indicator dark: phantom power off

→ For details, refer to “Using phantom power” (p. 16).

8 INPUT sensitivity knobs

These knobs adjust the input sensitivity of the INPUT jacks.

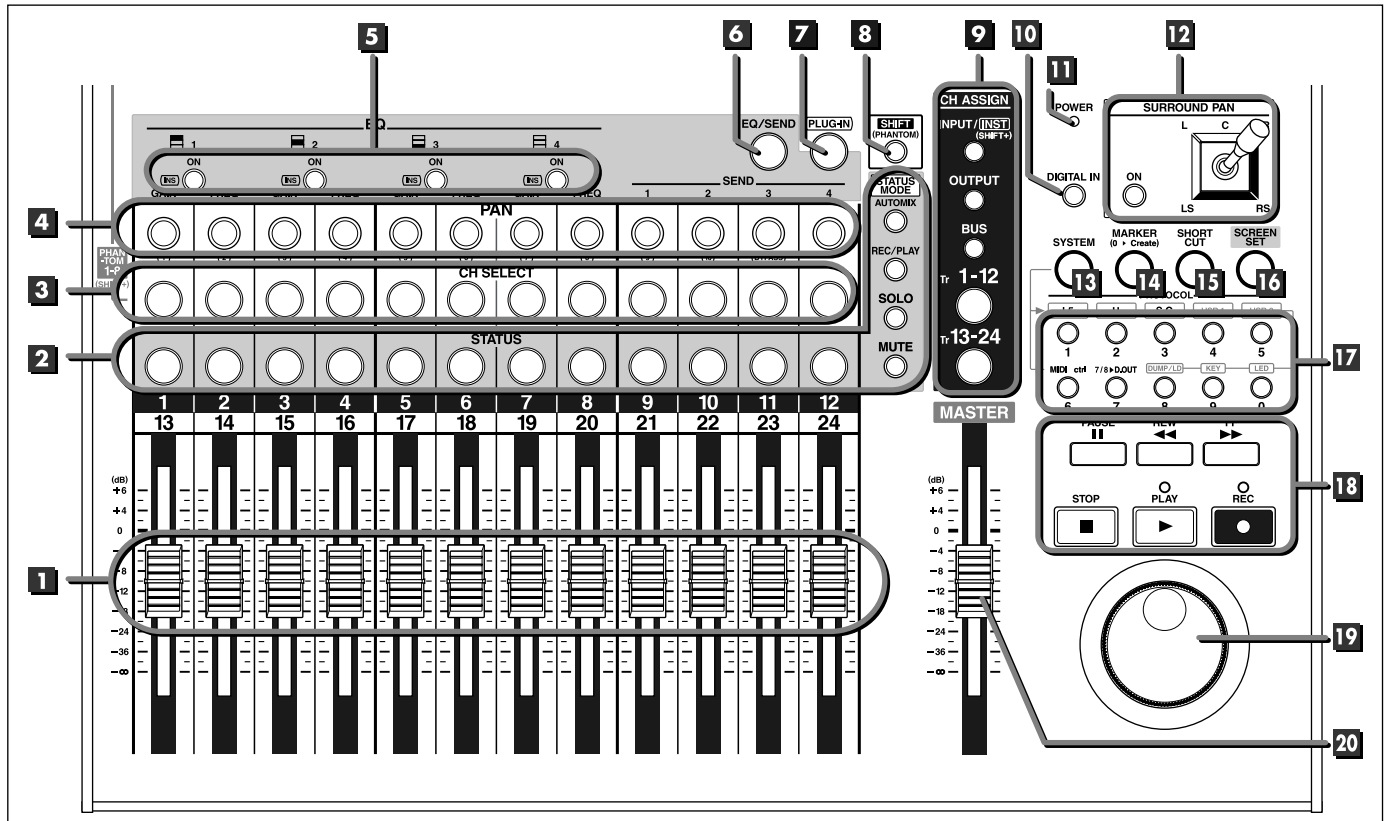
→ For details, refer to “Adjusting the input sensitivity” (p. 17).

9 PHONES knob

Adjusts the volume of the headphones.

Panel Description

Control section



1 Faders

These move the on-screen faders to adjust the volume level of the channels.

MEMO

When you use the mouse to move the on-screen faders, the faders of the SI-24 will move in tandem.

2 STATUS buttons STATUS MODE

The function of [STATUS] will change according to the selected STATUS MODE.

Pressing [STATUS] repeatedly changes the status of the channel. The current status is shown by the color of the button.

Logic RPC Pro → For details, refer to “Selecting channels” (p. 32).

3 CH SELECT (Channel Select) buttons

Select the channel that will be the object of operations. The [CH SELECT] indicator of the selected channel will light.

When used in conjunction with [SHIFT], these will function as phantom power switches for the INPUT jacks (XLR type).

Logic RPC Pro → For details, refer to “Using phantom power” (p. 16).

4 PAN 1–12 knobs

Adjust the pan of the channels you selected in CH ASSIGN (channel assign).

When [EQ/SEND] is on (lit), these knobs control the equalizer or bus send levels.

Logic RPC Pro → For details, refer to “Controlling the equalizer” (p. 34) or “Controlling the bus send levels” (p. 35).
When [PLUG-IN] is on (lit), these knobs control plug-in parameters.

Logic RPC Pro → For details, refer to “Controlling plug-ins” (p. 35).

5 ON/INS (On/Insert) 1–4 buttons

- When [EQ/SEND] is on (lit)

Functions as EQ [ON].

Switches each of the four equalizer bands on/off. When the equalizer is on, EQ [ON] will light.

Logic RPC Pro → For details, refer to “Controlling the equalizer” (p. 34).

- When [PLUG-IN] is on (lit)

Functions as [INS]. Selects the plug-in that is to be edited.

Logic RPC Pro → For details, refer to “Controlling plug-ins” (p. 35).

6 EQ/SEND (Equalizer/Send) button

When **[EQ/SEND]** is on (lit), you can use PAN knobs 1–12 to adjust the equalizer or the bus send level.

Logic RPC Pro → For details, refer to “Controlling the equalizer” (p. 34 or “Controlling the bus send levels” (p. 35).

7 PLUG-IN button

When **[PLUG-IN]** is on (lit), you can adjust various parameters of the plug-in.

Logic RPC Pro → For details, refer to “Controlling plug-ins” (p. 35).

8 SHIFT button

This is used in conjunction with other buttons to change the function of those buttons.

9 CH ASSIGN (Channel Assign)

Use these buttons to select the mixer section that you want to control. The selected button will light.

Logic RPC Pro → For details, refer to “Selecting channels” (p. 32).

● INPUT/INST (Input/Instrument) button

Select this when you want to control the inputs.

When you want to control instruments, hold down the **[SHIFT]** key and select **[INPUT/INST]**.

● OUTPUT button

Select this when you want to control the outputs.

● BUS button

Select this when you want to control the buses.

● Tr 1–12 (Track 1–12) button

Select this when you want to control tracks 1–12.

● Tr 13–24 (Track 13–24) button

Select this when you want to control tracks 13–24.

10 DIGITAL IN button

Use this when you want to send the DIGITAL IN input to the RPC-1.

When **[DIGITAL IN]** is on (lit), the input signal from DIGITAL IN (instead of the analog signal from INPUT 7–8) will be sent to the RPC-1.

NOTE

In order to use digital input, you must also change settings on the RPC-1. For details, refer to “Using the digital input” (p. 18).

11 POWER indicator

This indicates the power on/off status of the SI-24. The indicator will light when the power is on.

12 SURROUND PAN**● ON button**

This button switches Surround mode on/off.

When **SURROUND PAN [ON]** is on (lit), the currently selected channel will switch to surround mode. At the same time, the Surround screen will appear.

When surround mode is switched off, the normal pan display will reappear.

MEMO

The PAN knob will not function when Surround mode is on.

● Joystick

When **SURROUND PAN [ON]** is on (lit), this controls surround panning.

13 SYSTEM button

This button is used to make SI-24 system settings. While you hold down **[SYSTEM]**, **[0]–[9]** will function as system setting buttons.

[1]–[5]: Select the protocol.

→ For details, refer to “Selecting the protocol” (p. 25).

[6] (MIDI Ctrl):

When this is on (lit), a computer or MIDI device connected to the SI-24 can be controlled via the MIDI connector.

→ For details, refer to “Using the MIDI connectors to transmit/receive control data—MIDI Control Mode” (p. 29).

[7] (7/8>D.OUT):

When this is on (lit), the RPC-1’s “R-Bus Out 7/8” signal will be output from DIGITAL OUT.

→ For details, refer to “Outputting the RPC-1’s R-Bus Out 7/8 from the SI-24” (p. 30).

[8] (DUMP/LD):

Use this when you want to save user mode settings on your computer, or to load previously saved data.

→ For details, refer to “Saving user mode settings on your computer—Dump” (p. 28), or “Loading user mode settings that were saved on your computer—Load” (p. 28).

[9] (KEY):

When making user mode settings, this switches key/fader setting mode on/off.

→ For details, refer to “Setting/registering user mode settings” (p. 26).

[0] (LED):

When making user mode settings, this switches LED setting mode on/off.

→ For details, refer to “Making/registering user mode settings” (p. 26).

Panel Description

14 MARKER button

When **[MARKER]** is on (lit), **[0]** will function as the Marker Request button. Markers will be registered (stored) to **[1]–[9]**.

Logic RPC Pro → For details, refer to “Registering a song location—Marker Create” (p. 36).

15 SHORTCUT button

When **[SHORTCUT]** is on (lit), **[0]–[9]** will function as command execution buttons.

Logic RPC Pro → For details, refer to “SHORTCUT button operations” (p. 37).

16 SCREEN SET button

When **[SCREEN SET]** is on (lit), **[0]–[9]** will function as screen set buttons.

Logic RPC Pro → For details, refer to “Recalling screens registered to the numeric keys—Screen Set” (p. 37).

17 [0]–[9]

These are used as marker buttons, screen set buttons, shortcut buttons, and system setting buttons.

Logic RPC Pro → For details, refer to the corresponding section.

To use as marker buttons:

“Registering song locations—Marker Create” (p. 36)

To use as screen set buttons:

“Recalling screens registered to the numeric keys—Screen Set” (p. 37)

To use as shortcut buttons:

“SHORTCUT button operations” (p. 37)

To use as system setting buttons:

“Making system settings” (p. 25–30)

18 Transport

These buttons operate the transport.

● STOP button

Stops playback or recording.

● PLAY indicator

This will light during playback or recording.

● PLAY button

Starts playback.

● REC (Recording) indicator

This will light during recording.

● REC (Recording) button

Starts recording.

● PAUSE button

Pauses song playback or recording.

● REW (Rewind) button

Logic RPC Pro:

Rewind the song. Press **[STOP]** to stop rewinding.

Pro Tools/Cubase:

While you hold down **[REW]**, the song will rewind.

● FF (Fast-forward) button

Logic RPC Pro:

Fast-forward the song. Press **[STOP]** to stop fast-forwarding.

Pro Tools/Cubase:

While you hold down **[FF]**, the song will fast-forward.

19 Jog dial

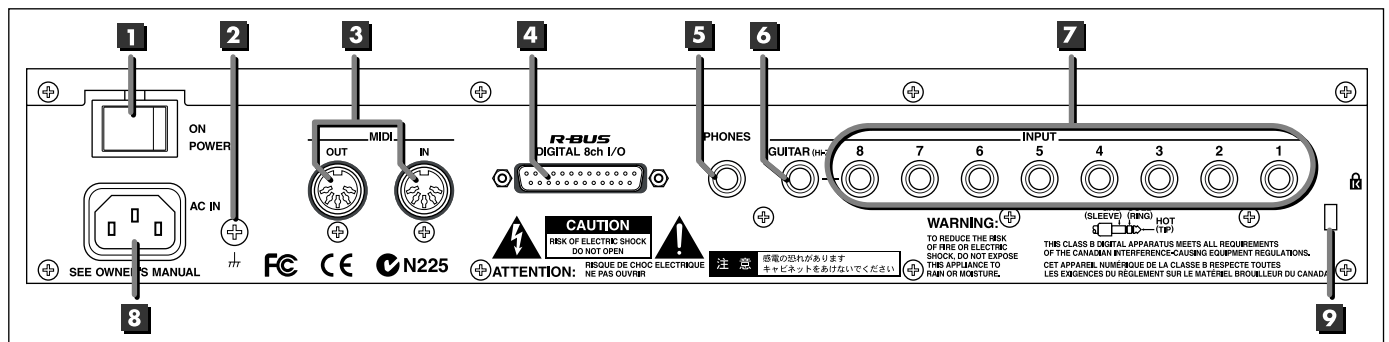
This moves the time location within the song.

20 MASTER fader

This adjusts the overall volume.

The MASTER fader always controls the RPC-1's “R-Bus Out 1–2” fader, regardless of the **CH ASSIGN (Channel Assign)** selection.

Rear panel



1 Power switch

Turns the power on/off.

2 Earth Connector

Connect the ground cable here.

NOTE

In some cases, depending on the environment in which the unit is installed, the surface of the panel may sometimes feel rough and grainy. This is due to an infinitesimal electrical charge, which is absolutely harmless. However, if you are concerned about this, connect the ground terminal (see figure) with an external ground. When the unit is grounded, a slight hum may occur, depending on the particulars of your installation. If you are unsure of the connection method, contact the nearest Roland Service Center, or an authorized Roland distributor, as listed on the “Information” page.

Unsuitable places for connection

- Water pipes (may result in shock or electrocution)
- Gas pipes (may result in fire or explosion)
- Telephone-line ground or lightning rod (may be dangerous in the event of lightning)

3 MIDI connectors (IN, OUT)

Connect a MIDI sequencer or other external MIDI device here.

MEMO

In order for a MIDI device connected to the SI-24 to be controlled via the MIDI connector, you must switch MIDI Control Mode on. For details, refer to “Using the MIDI connectors to transmit/receive control data—MIDI Control Mode” (p. 29).

● IN

This connector receives MIDI messages from another MIDI device. Connect it to the MIDI OUT connector of the external MIDI device.

● OUT

This connector transmits MIDI messages. Connect it to the MIDI IN connector of the external MIDI device.

4 R-BUS connector

Use this connector to connect the SI-24 and RPC-1.

NOTE

- You must use a special R-BUS cable to make this connection. The SI-24 cannot use a five meter R-BUS cable (RBC-5).
- The R-BUS connector of SI-24 can not be used by connecting with the equipment requires power supply via R-BUS such as DIF-AT, VE-7000 and so on.

5 PHONES jack

A set of stereo headphones can be connected here.

* This jack will output the same sound as MASTER L/R.

6 GUITAR jack

This is a high-impedance jack. An electric guitar or bass can be connected directly to this jack.

?

Impedance (p. 46)

7 INPUT jacks 1–8/phone type

These jacks allow devices with phone plugs to be connected. The audio signals that are input to INPUT 1–8 of the SI-24 are sent to “R-Bus In 1–8” of the RPC-1.

* These are TRS phone jacks that allow either balanced or unbalanced connections.

NOTE

- You cannot use the GUITAR jack and the INPUT 8 jack (phone type/XLR type) simultaneously. If devices are connected to both jacks, the GUITAR jack input will take priority. If you want to use the input from the INPUT 8 jack (phone type/XLR type), do not connect anything to the GUITAR jack.
- Do not connect plugs to both the XLR type and phone type INPUT jack of the same number.
- When using the phone type INPUT jack, you must switch phantom power off.

8 AC inlet

Connect the power supply cable to this inlet.

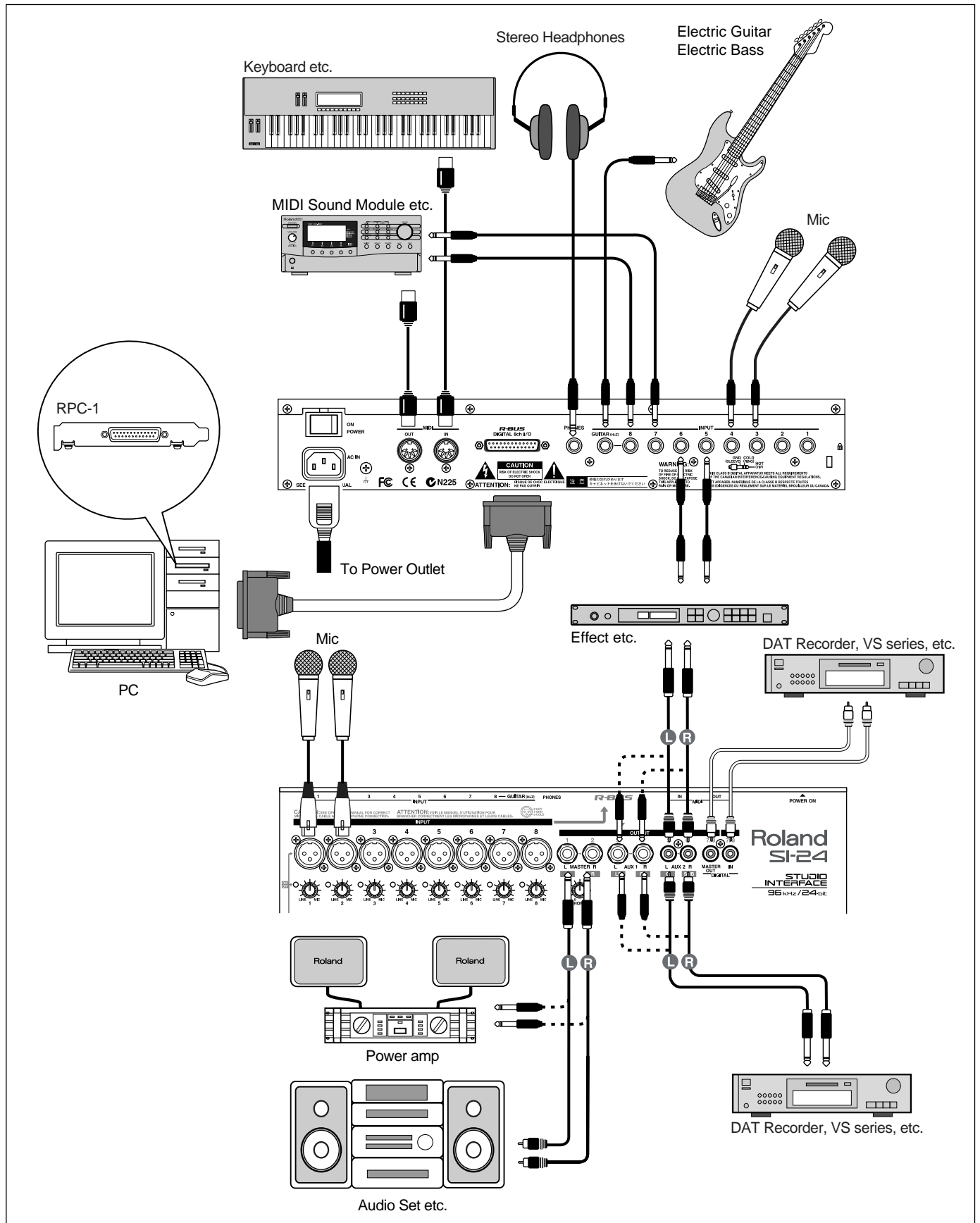
9 Security Slot (K)

You can lock this product using ordinary sold security wire etc. See “<http://www.kensington.com/>” for details.

Preparing to use the SI-24

Connecting peripheral equipment

Make connections correctly, as shown in the diagram below.

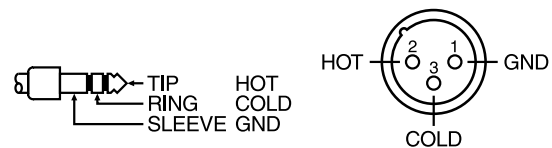


NOTE

- Do not connect plugs to both the XLR type and phone type INPUT jack of the same number.
- You cannot use the GUITAR jack and the INPUT 8 jack (phone type/XLR type) simultaneously. If devices are connected to both jacks, the GUITAR jack input will take priority. If you want to use the input from the INPUT 8 jack (phone type/XLR type), do not connect anything to the GUITAR jack.
- If using the phone type INPUT jack, you must switch phantom power off. For details, refer to “Using phantom power” (p. 16).
- In order to handle audio with the SI-24 and to transfer audio between the SI-24 and your computer, you must connect it to a computer in which an R-BUS interface card (RPC-1) has been installed.
- You must use a special R-BUS cable to make this connection. The SI-24 cannot use a five meter R-BUS cable (RBC-5).
- The R-BUS connector of SI-24 can not be used by connecting with the equipment requires power supply via R-BUS such as DIF-AT, VE-7000 and so on.

NOTE

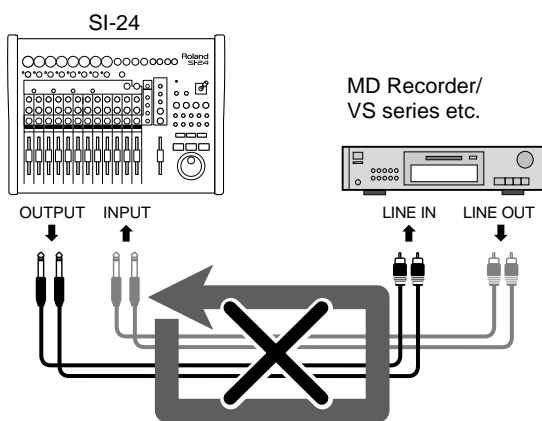
- To prevent malfunction and/or damage to speakers or other devices, always turn down the volume, and turn off the power on all devices before making any connections.
- This instrument is equipped with balanced (XLR/TRS) type input jacks. Wiring diagrams for these jacks are shown below. Make connections after first checking the wiring diagrams of other equipment you intend to connect.



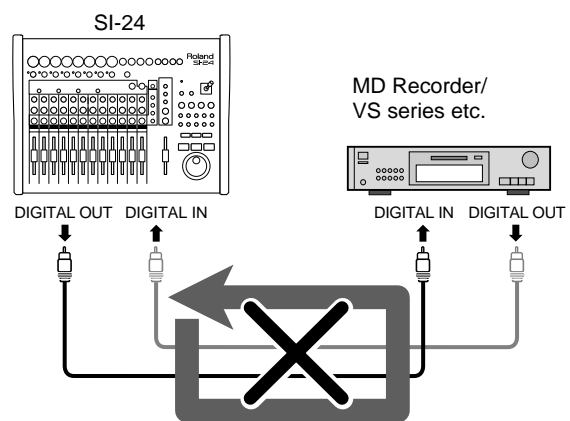
- Howling could be produced depending on the location of microphones relative to speakers. This can be remedied by:
 1. Changing the orientation of the microphone(s).
 2. Relocating microphone(s) at a greater distance from speakers.
 3. Lowering volume levels.

NOTE Be careful of loop connections

Example of an Analog Loop Connection



Example of a Digital Loop Connection



When the SI-24 is connected as shown in the above diagram to a device that passes the input sound through to its output (a DAT recorder/the Roland VS series that is recording), the SI-24 and that device will form a loop that can cause oscillation, producing an unexpectedly loud sound.

This type of connection can cause malfunction and damage to speakers and other equipment; take care to avoid these conditions.

In addition to the above figure, take a moment now to check your connections for the following conditions.

- Could there be a looped connection between the analog and digital realms?
- Has any looped connection resulted from insertion of a mixer or other piece of equipment between the devices?

Turning the power on/off

■ Turning the power on

1. Use the rear panel **POWER** switch to turn on the power of the SI-24.
When the power is turned on, the power indicator will light.
2. Turn on the power of your audio system.
3. Raise the volume of your audio system to an appropriate level.

■ Turning the power off

1. Turn off the power of your audio system.
2. Use the rear panel **POWER** switch to turn off the power of the SI-24.
When the power is turned off, the power indicator will go out.

Using phantom power

Turn phantom power on if you connect a condenser mic that requires phantom power. When phantom power is turned on, phantom power will be supplied to the XLR type INPUT jacks.

NOTE

- Always turn the phantom power off when connecting any device other than condenser microphones that require phantom power. You risk causing damage if you mistakenly supply phantom power to dynamic microphones, audio playback devices, or other devices that don't require such power. Be sure to check the specifications of any microphone you intend to use by referring to the manual that came with it. (This instrument's phantom power: 15 V DC, 10 mA Max)
- The SI-24 is able to supply phantom power to condenser mics for which the 15V current is no more than 10 mA. Also, if you are using phantom power with multiple INPUT jacks, you must ensure that the total current does not exceed 80mA. We cannot guarantee operation for condenser mics that require more electrical power than this. In such cases, you will need to use a phantom power supply device.
- Phantom power is not supplied to the phone type INPUT jacks on the rear panel. If you need phantom power, use the XLR type INPUT jacks on the top panel.
- To prevent hazard or damage, ensure that only microphone cables and microphones designed to IEC-268-15A are connected.

French language for Canadian Safety Standard

- Afin d'éviter tout risque ou dommage, ne brancher que des câbles de microphone et des microphones conformes à la norme IEC-268-15A.

1. Hold down [SHIFT], and press the [CH SELECT] button of the number corresponding to the INPUT jack for which you want to switch phantom power on.

- Number of [CH SELECT] buttons (1-8) corresponds to same numbered input jacks (XLR).
- While you hold down [SHIFT], the peak indicators and [CH SELECT] will show the phantom power on/off status.

Indicator lit: phantom power on

Indicator dark: phantom power off

NOTE

- Once the connections have been completed (p. 14), turn on power to your various devices in the order specified. By turning on devices in the wrong order, you risk causing malfunction and/or damage to speakers and other devices.
- This unit is equipped with a protection circuit. A brief interval (a few seconds) after power up is required before the unit will operate normally.

Adjusting the input sensitivity

Use the **INPUT sensitivity knobs** to adjust the input sensitivity. You can adjust the input sensitivity over a range from line level (+4 dB) to mic level (-50 dB).

The peak indicators will light at a level below the point at which the sound distorts. When you input sound, adjust the **INPUT sensitivity knobs** until your levels are as high as you can get them without causing any peak indicators to light.

■ When connecting a mic

Set the **INPUT sensitivity knob** to about the 3 o'clock position.

■ When connecting an electronic musical instrument (synthesizer)

Set the **INPUT sensitivity knob** to about the 9 o'clock position.

■ When connecting an electric guitar or electric bass

Use the GUITAR jack if you want to connect an electric guitar or electric bass directly to the SI-24. The input sensitivity of the GUITAR jack is adjusted with the **INPUT 8 sensitivity knob**. In this case, set the **INPUT 8 sensitivity knob** to about the 9 o'clock position.



Q: The volume level of the instrument connected to INPUT jacks are too low.

A: Could you be using a connection cable that contains a resistor?

Use a connection cable that does not contain a resistor.

Using the digital input

The output of a digital audio device (e.g., electronic musical instrument, DAT recorder, or the Roland VS series) connected to the SI-24 can be input to RPC-1 while still in digital form.

If you want to use the DIGITAL IN input, use the following procedure to change the settings.

1. Connect the SI-24's DIGITAL IN connector to the digital out connector of your digital audio device.

2. Press [DIGITAL IN] to turn it on (lit).

* In case [DIGITAL IN] blinks after pressing, no digital signal is coming to DIGITAL IN jack. (The blinking of [DIGITAL IN] stops after a while and turns off.) Please check the connection or signal from digital audio devices in such case.

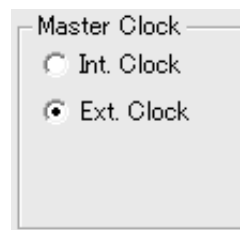
3. Change the RPC-1 settings.

- 3-1. Access the RPC-1 Control Panel.

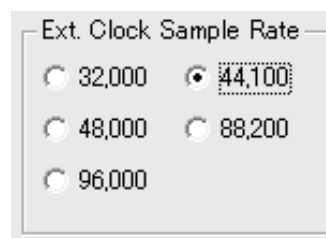
For details on operation, refer to the column "How to open the RPC-1 control panel" (p. 20).


- 3-2. Select the "Hardware Settings" tab.

- 3-3. Change the "Master Clock" setting from "Int. Clock" (Internal Clock) to "Ext. Clock" (External Clock).



- 3-4. Change the "Ext. Clock Sample Rate" setting the same frequency as the output of the digital audio device.



- 3-5. Click  to close the RPC-1 Control Panel.

When you have finished making RPC-1 settings, the input from DIGITAL IN will be sent to the RPC-1, instead of the analog input from INPUT 7-8.

4. If you want to use the input from INPUT 7-8, turn [DIGITAL IN] off (dark). Then change the RPC-1's "Master Clock" setting to "Int. Clock."

MEMO

The SI-24's digital interface complies with IEC60958 (consumer format). If you want to use the digital input, use a digital audio device that



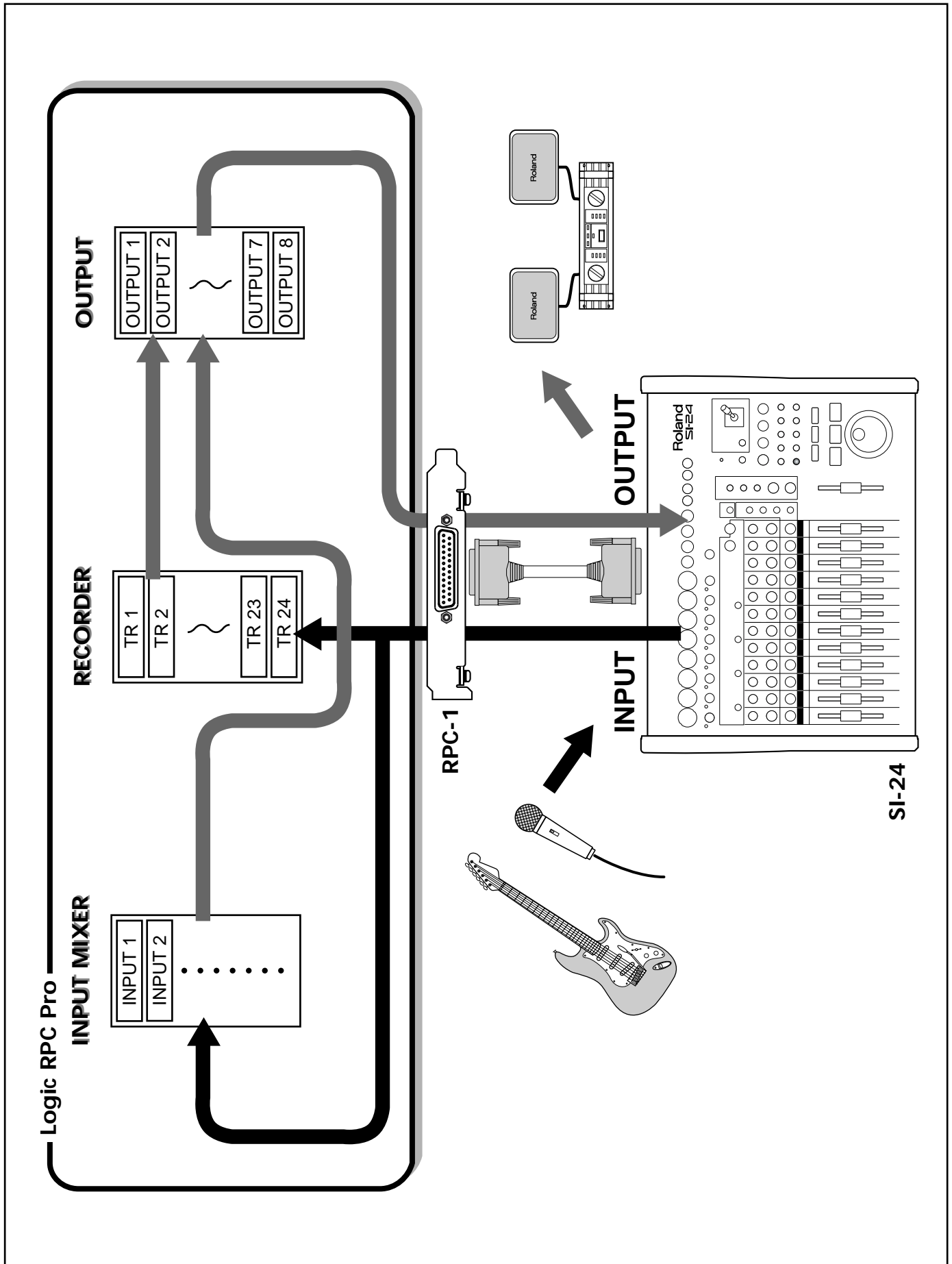
IEC (p. 46)

MEMO

How word clock is handled on the SI-24

When [DIGITAL IN] is off (dark), the SI-24 will synchronize to the word clock of the RPC-1. However, when [DIGITAL IN] is on (lit), the SI-24 will synchronize to the word clock of the digital audio device. In this case, the RPC-1 will also need to synchronize to the word clock of the digital audio device. In order for this to happen, you must change the settings of the RPC-1 (step 3).

Overall signal flow



Overall signal flow

Monitoring the SI-24's inputs

The SI-24 does not provide mixing functionality. For this reason, if you want to use the master output or headphones to monitor the sounds that are being sent to the SI-24's inputs, the sounds that are being input to the SI-24 must be sent back from the computer to the SI-24. Broadly speaking, there are three ways to return the input sounds from the computer.

1 Using the RPC-1's internal mixer to return the input sound (p. 21)

This allows latency-free monitoring (i.e., monitoring with no delay). Also, you will be able to monitor the input sound at any time, unless you change the settings.

2 Using the RPC-1's direct monitoring function to return the input sound (p. 23)

This allows latency-free monitoring only for the input sounds in your application software.

3 Returning the input sound from your application software (p. 24)

This allows monitoring only for the input sounds that are set to record mode in your application software. The sound will be delayed by the latency specified in the RPC-1 control panel, but you will be able to monitor the sound processed by the software effects.

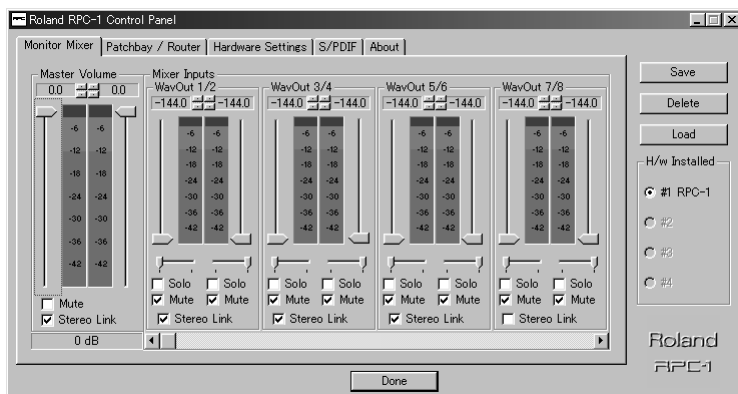


If the computer is not powered-on, you will not be able to monitor the input sound.



This is possible only when using ASIO or EASI drivers on Windows.

How to open the RPC-1 control panel



Windows 98/Me/2000:

Start → Settings → in the Control Panel, double-click "Roland RPC-1 H/W"

Windows XP:

Start → double-click "Roland RPC-1 H/W" in the control panel (if this is not displayed, click "Switch to classic view")

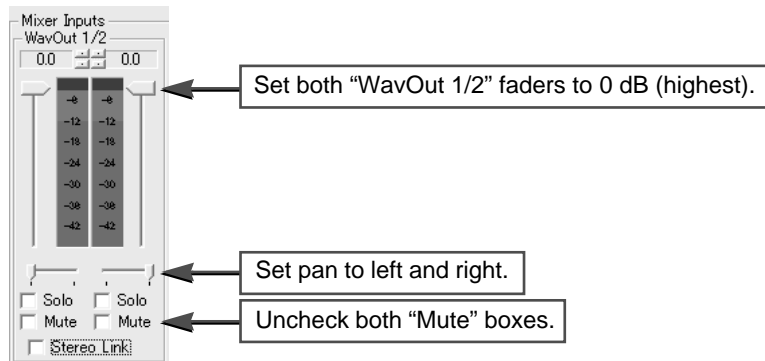
Macintosh:


double-click the "Roland RPC-1 Control Panel" icon that you copied when installing the software

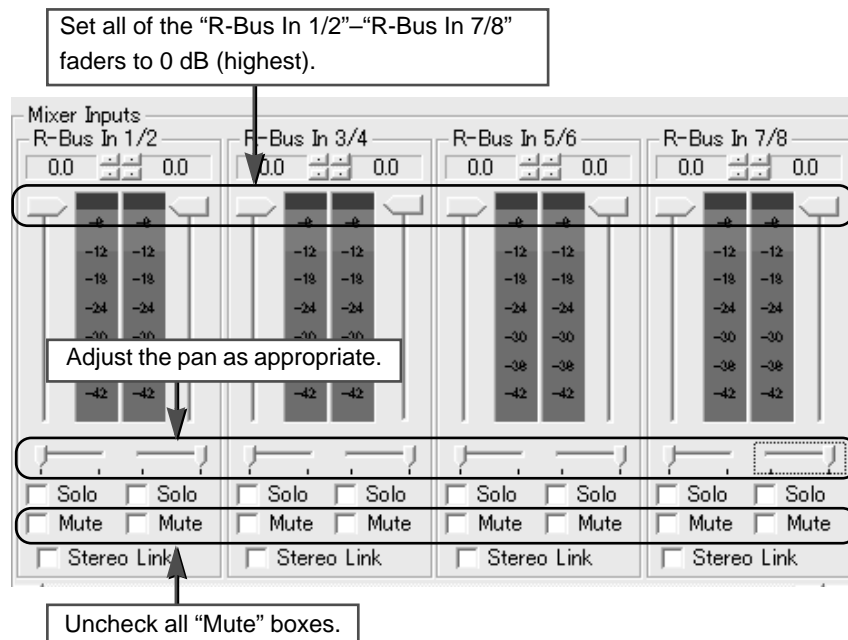
Using the RPC-1's mixer to return the input sound

This allows latency-free monitoring (i.e., monitoring with no delay). Also, you will be able to monitor the input sound at any time, unless you change the settings.

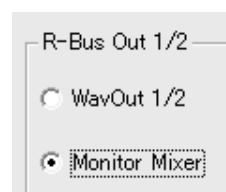
1. Open the RPC-1 control panel.
2. Click the "Monitor Mixer" tab.
3. Make settings as shown in the illustration.



4. Use the slide bar () to scroll the screen to the left, to display "R-Bus In 1/2"-"R-Bus In 7/8."
5. Make settings as shown in the illustration.



6. Click the "Patchbay/Router" tab.
7. As shown in the illustration, set the "R-Bus Out 1/2" source to "Monitor Mixer."



For details on operation, refer to the column "How to open the RPC-1 control panel" (p. 20).

Monitoring the SI-24's inputs

8. Click the "Hardware Settings" tab.

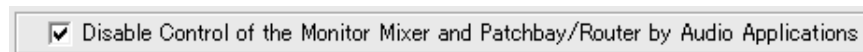
9. ● **Windows 98/ME**

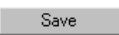
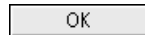
Check "Disable audio app use of Monitor Mixer and Patchbay/Router."



● **Windows 2000/XP**

Check "Disable Control of the Monitor Mixer and Patchbay/Router by Audio Applications."



10. Click , assign a name to your settings, and click  to save them.



11. Click  to close the RPC-1 control panel.

12. Make the following settings according to the application you are using.

For details, refer to the manual for your application.

● **Logic RPC Pro/Logic 5 users:**

Audio → Audio Hardware & Drivers

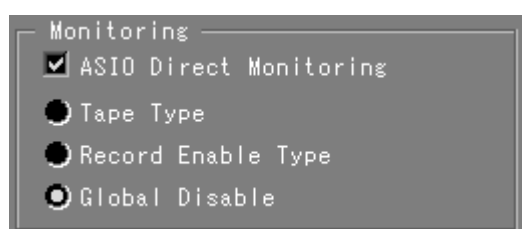
Uncheck "Software Monitoring" if you are using ASIO or EASI drivers.




● **Cubase users:**

Options → Audio Setup → System

Check "ASIO Direct Monitoring" and "Global Disable."



MEMO

In the event that the settings are changed, click the RPC-1 control panel , and load the settings you saved in step 10.

Using the RPC-1's direct monitoring function to return the input sound

This allows latency-free monitoring only for the input sounds in your application software.

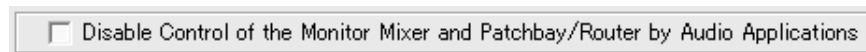
1. Open the RPC-1 control panel.
2. Click the "Hardware Settings" tab.
3. ● **Windows 98/ME**

Uncheck "Disable audio app use of Monitor Mixer and Patchbay/Router."



● **Windows 2000/XP**

Uncheck "Disable Control of the Monitor Mixer and Patchbay/Router by Audio Applications."



4. Make the following settings according to the application you are using.

For details, refer to the manual for your application.

● **Logic RPC Pro/Logic 5 users:**

Audio → Audio Hardware & Drivers

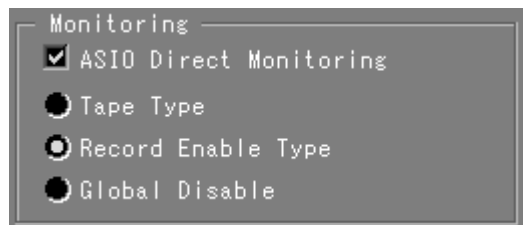
Uncheck "Software Monitoring" if you are using ASIO or EASI drivers.



● **Cubase users:**

Options → Audio Setup → System

Check "ASIO Direct Monitor" and "Record Enable Type."



NOTE

This is possible only when using ASIO or EASI drivers on Windows.



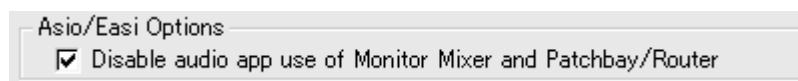
For details on operation, refer to the column "How to open the RPC-1 control panel" (p. 20).

Returning the input sound from your application software

This allows monitoring only for the input sounds that are set to record mode in your application software. The sound will be delayed by the latency specified in the RPC-1 control panel, but you will be able to monitor the sound processed by the software effects.

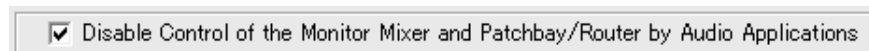
1. Open the RPC-1 control panel.
2. Click the "Hardware Settings" tab.
3. ● **Windows 98/ME**

Check "Disable audio app use of Monitor Mixer and Patchbay/Router."



● **Windows 2000/XP**

Check "Disable Control of the Monitor Mixer and Patchbay/Router by Audio Applications."



4. Make the following settings according to the application you are using.

For details, refer to the manual for your application.

● **Logic RPC Pro/Logic 5 users:**

Audio → Audio Hardware&Drivers

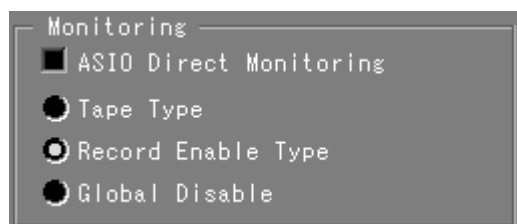
Check "Software Monitoring" if you are using ASIO or EASI drivers.



● **Cubase users:**

Options → Audio Setup → System

- Uncheck "ASIO Direct Monitoring."
- Check "Record Enable Type."



For details on operation, refer to the column "How to open the RPC-1 control panel" (p. 20).

Making system settings

Making settings appropriate for your application

Selecting the protocol

In order to use the SI-24 to control your application, you must select the appropriate protocol.

1. **Hold down [SYSTEM] and press the mode button [1]–[5] for the settings you want to use.**

The button you pressed will light, and the settings will be switched.

The modes are assigned to [1] –[5] as follows.

- [1] (L5):** Logic 5 mode. These settings are for Logic RPC Pro/Logic 5.
For details, refer to “Controlling Logic RPC Pro” (p. 31).
- [2] (H):** Pro Tools mode. These settings are for Pro Tools.
For details, refer to “Controlling Pro Tools (version 4.1 or later)” (p. 38).
- [3] (S.C):** Cubase mode. These settings are for Cubase.
For details, refer to “Controlling Cubase VST (version 5.0 or later)” (p. 42).
- [4] (USR 1):** User mode 1. These are user settings you registered (stored) in “Setting/registering user mode settings” (p. 26).
- [5] (USR 2):** User mode 2. These are user settings you registered (stored) in “Setting/registering user mode settings” (p. 26).

NOTE

If you select a mode that is not appropriate for your application, the SI-24 will not be able to control the application correctly.

MEMO

While you hold down **[SYSTEM]**, one of the mode buttons will light to indicate the current mode.

Setting/registering user mode settings

You can assign different MIDI events of your choice to the buttons and knobs of the SI-24, and register these settings to **[4] (USR 1)** or **[5] (USR 2)**. The settings you register will be remembered even when the power is turned off.

■ Assigning MIDI events to buttons and faders (Send)

As an example, here's how to make user mode settings for **[4] (USR 1)**.

1. **Hold down [SYSTEM] and press [4] (USR 1) to select the location for which you want to register settings.**

[SYSTEM] and **[4] (USR 1)** will light, and user mode 1 will be selected.

2. **Press [9] (KEY).**

[9] (KEY) are turned on (lit), and you will enter key/fader setting mode.

3. **Operate the key (button, PAN knob, fader, or the jog dial) for which you want to assign a MIDI event.**

The key you moved last will be the key your MIDI parameter will be assigned to.

4. **Input the MIDI event that you want to send when keys or faders are operated from R-BUS or from MIDI IN.**

[4] (USR 1) will change from lit to blinking, indicating that the setting has been changed.

* *Whether you input the MIDI event from R-BUS or from MIDI IN will depend on the MIDI control mode setting. For details, refer to "Using the MIDI connectors to transmit/receive control data—MIDI Control Mode" (p. 29).*

5. **Input the MIDI event that you want to send when you leave your fingers from buttons via R-BUS or MIDI IN.**

* *In case you do not want to send MIDI event when you leave your fingers from buttons, this step is not necessary.*

6. **Press [9](KEY) again.**

[9] (KEY) turns off and returns to user mode 1. Press the key specified on above step 3 to check the assignment.

If you want to correct, return to above step 2.

7. **Repeat steps 2-6 as necessary to make assignments for other keys.**

8. **To finalize the user settings, press [4] (USR 1).**

[4] (USR 1) will change from blinking to lit, indicating that the settings have been finalized. At the same time, **[9] (KEY)** will turn off (go dark).

If you press **[MARKER]**, **[SHORTCUT]**, or **[SCREEN SET]** instead of **[4] (USR 1)**, the settings will not be registered. **[9] (KEY)** will turn off (go dark), and you will return to the state the SI-24 was in before you made the settings.

MEMO

User mode settings can also be saved on your computer or another device. For details, refer to "Saving user mode settings on your computer—Dump" (p. 28). To load the user mode settings you saved, refer to "Loading user mode settings from your computer—Load" (p. 28).

NOTE

SI-24 supports the MIDI message as follows.

<Buttons>

- Note On/Off
- Polyphonic Key Pressure
- Pitch Bend
- Control Change
- Channel Pressure
- Program Change

<Faders>

- Note On/Off
- Polyphonic Key Pressure
- Pitch Bend
- Control Change

Specify fader parameter by number of third byte.

➔ 0 (bottom)–127 (top)

<PAN knobs/Jog dial>

- Note On/Off
- Polyphonic Key Pressure
- Pitch Bend
- Control Change

The following number will be inserted at third byte.

Rotated counter clock wise: 127

Rotated clock wise: 1

■ Assigning MIDI events to LEDs and faders (Return)

As an example, here's how to make user mode settings for [4] (USR 1).

1. **Hold down [SYSTEM] and press [4] (USR 1) to select the button for which you want to register settings.**

[SYSTEM] and [4] (USR 1) will light, and user mode 1 will be selected.

2. **Press [0] (LED).**

[0] (LED) will turn on (lit), and you will enter the LED setting mode.

3. **Operate the button to which you want to assign a MIDI event.**

If you operate more than one button, the button/fader you operated last will be the button your MIDI parameter will be assigned to.

4. **Input the desired MIDI event from R-BUS or from MIDI IN.**

[4] (USR 1) will change from lit to blinking, indicating that the setting has been changed.

* *You cannot assign single MIDI event to multiple faders or buttons. In case fader moves or button blinks on input of MIDI event, it means the MIDI event is already assigned.*

If you want to cancel the LED setting mode, press [0] (LED). The LED of [0] (LED) turns off. Then return to step 1.

If you want to cancel the prior assignment and want to assign MIDI event on step 3, you need to input MIDI event once again.

If you want the prior assignment unchanged, input different MIDI event.

* *Whether you input the MIDI event from R-BUS or from MIDI IN will depend on the MIDI control mode setting. For details, refer to "Using the MIDI connectors to transmit/receive control data—MIDI Control Mode" (p. 29).*

5. **Press [0](LED) again.**

[0] (LED) turns off and returns to user mode 1. Press button or move fader specified on above step 3 to check the assignment.

If you want to correct, return to above step 2.

6. **Repeat steps 3-5 as necessary to make assignments for other buttons/faders.**

7. **To finalize the user settings, press [4] (USR 1).**

[4] (USR 1) will change from blinking to lit, indicating that the settings have been finalized. At the same time, [0] (LED) will turn off (go dark).

If you press [MARKER], [SHORTCUT], or [SCREEN SET] instead of [4] (USR 1), the settings will not be registered. [0] (LED) will turn off (go dark), and you will return to the state you were in before you made the setting.

NOTE

SI-24 supports the MIDI message as follows.

<buttons/Faders>

Note On/Off

- Polyphonic Key Pressure
- Pitch Bend
- Control Change

Specify fader parameter or color of LEDs by number of third byte.

Faders

0 (bottom)–127 (top)

LEDs 0: Off

1: Lit Green

2: Lit red

3: Lit orange

others: Lit red

Saving user mode settings on your computer—Dump

You can save user mode settings on your computer or sequencer. This provides a convenient way to back up the settings you register to [4] (USR 1) or [5] (USR 2), or allows you to prepare several sets of user mode settings.

As an example, here's how to save [4] (USR 1) settings.

1. **Hold down [SYSTEM] and press [4] (USR 1).**
[SYSTEM] and [4] (USR 1) will light, and user mode 1 will be selected.
2. **Press [8] (DUMP/LD).**
[8] (DUMP/LD) will light, and the SI-24 will be ready to transmit data.
3. **Operate your computer or external device so that it is ready to receive data.**
4. **Press [8] (DUMP/LD) once again.**
[8] (DUMP/LD) will blink and the **PLAY indicator** will light, while the SI-24 is transmitting MIDI messages.
When transmission is completed, [8] (DUMP/LD) and **PLAY indicator** will go dark.

Loading user mode settings that you saved on your computer—Load

Here's how user mode settings you saved on your computer or sequencer can be loaded back into the SI-24.

As an example, we will describe the procedure for loading the saved settings into [4] (USR 1).

1. **Hold down [SYSTEM], and press [4] (USR 1).**
[SYSTEM] and [4] (USR 1) will light, and you will switch to User Mode 1.
2. **Press [8] (DUMP/LD).**
[8] (DUMP/LD) will light, and the SI-24 will be ready to receive data.
3. **Operate your computer or other external device to make it transmit previously-saved User mode MIDI messages.**
The **PLAY indicator** and **REC indicator** will light while the SI-24 is receiving the MIDI message.
When reception is completed, [8] (DUMP/LD), the **PLAY indicator**, and **REC indicator** will go dark.

MEMO

Whether the SI-24 transmits the MIDI message from R-BUS or from MIDI OUT will depend on the MIDI control mode setting. For details, refer to "Using the MIDI connectors to transmit/receive control data—MIDI Control Mode" (p. 29).

MEMO

Whether the SI-24 receives the MIDI message from R-BUS or from MIDI IN will depend on the MIDI control mode setting. For details, refer to "Using the MIDI connectors to transmit/receive control data—MIDI Control Mode" (p. 29).

Using the MIDI connectors to transmit/receive control data—MIDI Control Mode

With the factory settings, the SI-24 will transmit and receive control data via R-BUS.

If you are controlling a MIDI device or a computer that does not have R-BUS, set the SI-24 to MIDI Control Mode so it will use the MIDI connectors to transmit and receive control data.

1. Hold down [SYSTEM] and press [6] (MIDI Ctrl) to turn it on (lit).

If [6] (MIDI Ctrl) is on (lit):

MIDI Control Mode is selected. SI-24 control data will be transmitted from MIDI OUT. If a device is connected to MIDI IN, control data from the connected device will be received at MIDI IN.

If [6] (MIDI Ctrl) is off (dark):

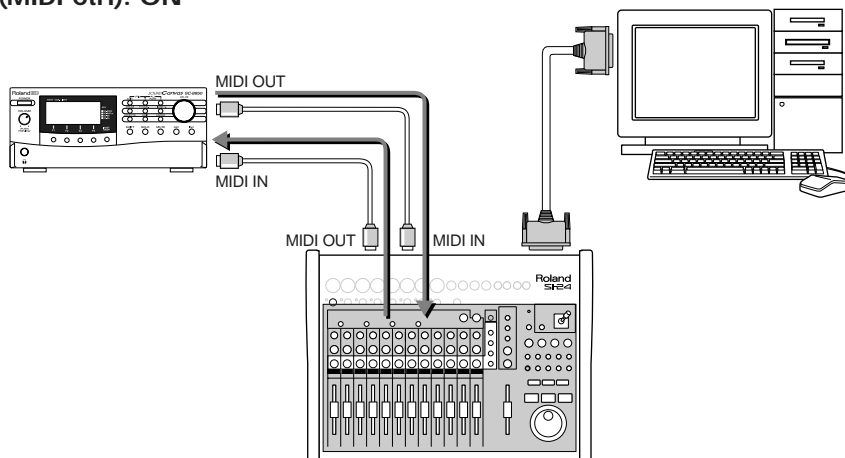
SI-24 control data and control data from the connected device will be transmitted and received via R-BUS.

2. To change the setting back, hold down [SYSTEM] once again and press [6] (MIDI Ctrl).

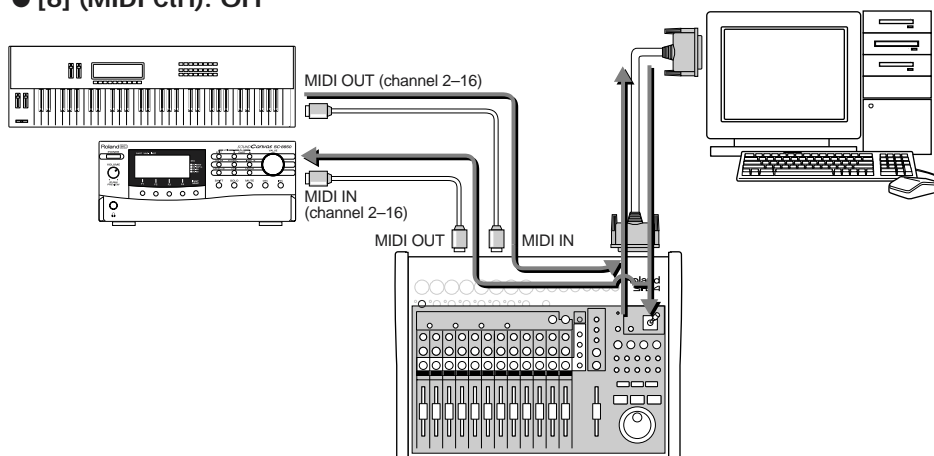
[6] (MIDI Ctrl) will turn off (go dark).

The signal flow is as follows.

● [6] (MIDI Ctrl): ON



● [6] (MIDI Ctrl): OFF



Outputting the RPC-1's R-Bus Out 7/8 from the SI-24

With the factory settings, the RPC-1's "R-Bus Out 7/8" will not be output from the SI-24. If you want "R-Bus Out 7/8" to be output from the SI-24, change the setting as follows.

1. Hold down [SYSTEM] and press [7] (7/8>D.OUT) to turn it on (lit).

If [7] (7/8>D.OUT) is on (lit):

RPC-1 "R-Bus Out 7/8" will be output from DIGITAL OUT.

If [7] (7/8>D.OUT) is off (dark):

RPC-1 "R-Bus Out 1/2" will be output from DIGITAL OUT.

2. To change the setting back, once again hold down [SYSTEM] and press [7] (7/8>D.OUT).

[7] (7/8>D.OUT) will turn off (go dark).

The RPC-1's "R-Bus Out 1-8" correspond to the SI-24's OUTPUT as follows.

RPC-1	SI-24 OUTPUT	
	[7] (7/8>D.OUT): off (dark)	[7] (7/8>D.OUT): on (lit)
R-Bus Out 1	MASTER-L, DIGITAL OUT (L)	MASTER-L
R-Bus Out 2	MASTER-R, DIGITAL OUT (R)	MASTER-R
R-Bus Out 3	AUX1-L	AUX1-L
R-Bus Out 4	AUX1-R	AUX1-R
R-Bus Out 5	AUX2-L	AUX2-L
R-Bus Out 6	AUX2-R	AUX2-R
R-Bus Out 7	–	DIGITAL OUT (L)
R-Bus Out 8	–	DIGITAL OUT (R)

Controlling Logic RPC Pro

You can remotely control Logic RPC Pro from the SI-24.

* *The software upgrade of Logic RPC Pro may make the operation process different or may include additional functions.*

Making the SI-24 settings

Use the following procedure to switch the settings of the SI-24.

1. **Hold down [SYSTEM] and press [1] (L5).**
[1] (L5) will light, and you will switch to Logic 5 mode.
2. **If you want to use the MIDI connectors (and not R-BUS) to exchange data between the SI-24 and your computer, hold down [SYSTEM] and press [6] (MIDI ctrl) to turn it on (lit).**

For details, refer to “Using the MIDI connectors to transmit/receive data—MIDI Control Mode” (p. 29).

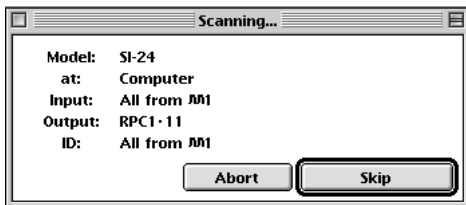


For details on modes (protocols), refer to “Selecting the protocol” (p. 25).

Making Logic RPC Pro settings

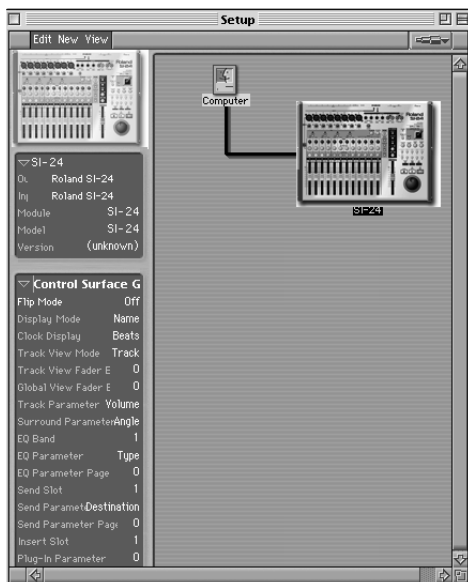
The setting of Logic RPC Pro should be made one following procedure.

1. **Select [Scan] (Options → Control Surfaces → Scan).**
 - 1-1. Scan of the connected devices will start.



- 1-2. When your computer detect SI-24, the icon of SI-24 will appear on Setup window.

You are now able to use SI-24 as remote controlling device for Logic PRC PRO.



Selecting channels

1. Use **CH ASSIGN** to select the Logic RPC Pro mixer section that you want to control.

The selected button will light.

[INPUT/INST]: Select this when you want to control INPUT.
If you want to control instruments, hold down **[SHIFT]** and press **[INPUT/INST]**.

[OUTPUT]: Select this when you want to control OUTPUT.

[BUS]: Select this when you want to control the buses.

[Tr 1–12]: Select this when you want to control TRACK 1–12.

[Tr 13–24]: Select this when you want to control TRACK 13–24.

2. Press **[CH SELECT]** to select the channel that you want to control.

[CH SELECT] of the selected channel will light.



For details on the Logic RPC Pro mixer, refer to the column “The structure of the Logic RPC Pro mixer section” (p. 32)

The structure of the Logic RPC Pro mixer section

The Logic RPC Pro mixer consists of the following five sections.

For each section you can change insert effect, bus send, pan, and volume settings.

■ Input section

This sends the inputs to the output section.

■ Instrument section

Software synthesizers are inserted here for use.

■ Output section

This mixes the sound of each channel and sends this mix to an output.

■ Track section

These are the tracks that record the input audio on the hard disk of the computer and play it back. The playback audio is sent to the buses or outputs.

■ Bus section

This section allows effects to be inserted and used as send effects, or can be used as a group mixer.



It is not possible to send audio from the input section to the track section. For details, refer to “Overall signal flow” (p. 19).



You will need to purchase software synthesizers separately.

Switching the status of a channel

The function of [STATUS] will change depending on the **STATUS MODE**.

1. As described in the preceding section “Selecting channels,” select the Logic RPC Pro mixer section that you want to control.
2. Select **STATUS MODE**, and press [STATUS] to switch the status of the channel.

The functions of **STATUS MODE** and [STATUS] correspond as follows.

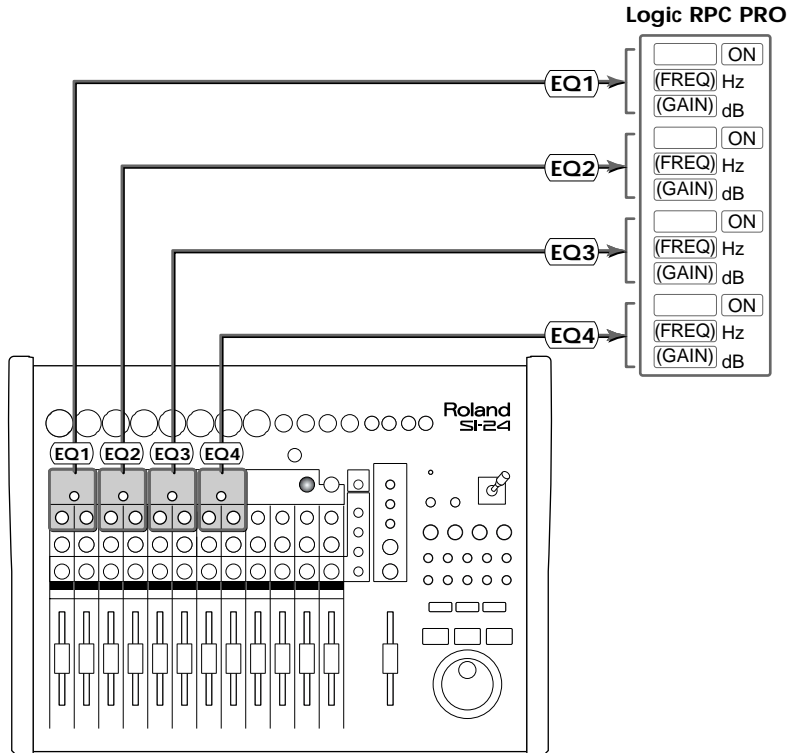
STATUS MODE	[STATUS] function
[MUTE]	Switches muting on/off for each channel. Lit: Mute on Dark: Mute off
[SOLO]	Switches solo on/off for each channel. Lit: Solo on Dark: Solo off
[REC/PLAY] (Recording/Play)	Switches the record/playback status of each track. Dark: The track can be played. Lit red: Now recording. Blinking red: Selected as a recording destination. <i>Record mode (lit red) will be selected when you press [REC].</i>
[AUTOMIX]	Switches the Automix Mode status of each channel. Lit green: Read automix (Read). Lit red: Write automix (Write). Lit orange: Automix will be overwritten from the moment you operate the SI-24 (Latch). Dark: Automix off (Off).



When you are writing auto-mix data on Latch mode, it is convenient to press [SHIFT] to stop the movement of faders.

Controlling the equalizer

The buttons and knobs of the SI-24 correspond to the Logic RPC Pro equalizer parameters as follows.



PAN knobs 1–8 will operate the equalizer (EQ GAIN 1–4, EQ FREQ 1–4).

Knob 1	→	EQ1 GAIN
Knob 2	→	EQ1 FREQ
Knob 3	→	EQ2 GAIN
Knob 4	→	EQ2 FREQ
Knob 5	→	EQ3 GAIN
Knob 6	→	EQ3 FREQ
Knob 7	→	EQ4 GAIN
Knob 8	→	EQ4 FREQ

Use the following procedure to operate the equalizer.

1. Press **[EQ/SEND]** to turn it on (lit).
2. As described in “Selecting channels” (p. 32), select the channel that you want to control.
The **[CHANNEL SELECT]** of the selected channel will light.
3. Press **EQ [ON]** for the equalizer you want to operate, to turn it on/off.
When the equalizer is on, **EQ [ON]** will light.
4. Use knobs 1–8 to adjust the equalizer “GAIN” and “FREQ.”

NOTE

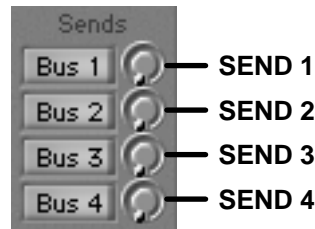
In order to control equalizer parameters from the SI-24, you must first make settings EQ Type in Logic RPC Pro. For details on the procedure, refer to the Logic RPC Pro owner’s manual.

Controlling the bus send levels

The send levels to four buses can be controlled from the SI-24.

PAN knobs 9–12 will control the send levels to the buses.

Knob 9	→	SEND 1
Knob 10	→	SEND 2
Knob 11	→	SEND 3
Knob 12	→	SEND 4



Use the following procedure to control the send levels.

1. Press [EQ/SEND] to turn it on (lit).
2. As described in “Selecting channels” (p. 32), select the channel that you want to control.
The [CHANNEL SELECT] of the selected channel will light.
3. Use knobs 9–12 to adjust the send levels (SEND 1–4).

Controlling plug-ins

Logic RPC Pro lets you insert up to two plug-ins into each channel. An inserted plug-in can be controlled from the SI-24.

EQ [ON 1] – [ON 2] will act as [INS 1] – [INS 2] to select the plug-in that you want to edit.

[INS 1] (EQ [ON 1])	→	First plug-in
[INS 2] (EQ [ON 2])	→	Second plug-in

PAN knobs 1–11 will control the parameters of the plug-in.

Knobs 1–10	→	The parameters of the plug-in will automatically be assigned to each knob.
Knob 11	→	Bypass function

1. As described in “Selecting channels” (p. 32), select the channel that you want to control.
[CH SELECT] of the selected channel will light.
2. Press [PLUG-IN] to turn it on (lit).
3. Use [INS 1] – [INS 2] to select which plug-in you want to edit.
The PLUG-IN screen for the selected plug-in will appear.
4. Use knobs 1–11 to edit the parameters of the plug-in.

NOTE

In order to control send levels from the SI-24, you must first make settings in Logic RPC Pro to specify the buses to which **SEND 1–4** will be assigned. For details on the procedure, refer to the Logic RPC Pro owner’s manual.

NOTE

A maximum of ten plug-in parameters can be controlled from the SI-24.

NOTE

If no plug-in has been inserted into the channel you selected in step 2, [PLUG-IN] will not turn on (light).

Registering a song location—Marker Create

Logic RPC Pro has a Marker Create function that lets you assign a marker at the desired location in a song.

Here's how to control Logic RPC Pro's Marker Create function from the SI-24.

■ Assigning a marker

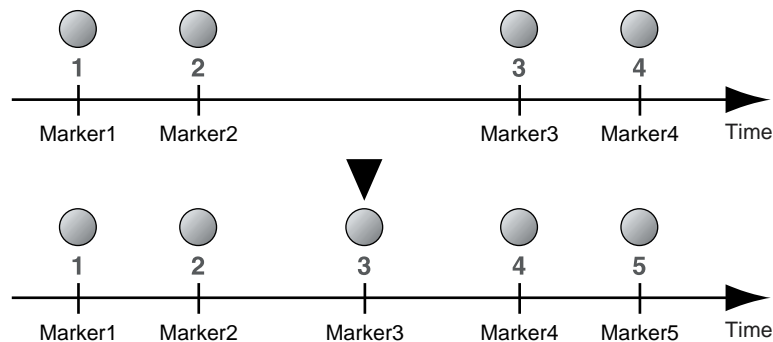
1. Press [MARKER] to turn it on (lit).
2. Move to the location that you want to register, and press the marker request button [0].

You may do this while the song is recording, playing, or stopped.

Markers will be registered to [1]–[9] in playback order. Registered buttons will be lit.

About marker registration

The markers are registered to the nine buttons [1]–[9] in the order of playback. This means that if you assign a new marker at a location that is earlier than a previously assigned marker, subsequent markers will be renumbered upward.



■ Moving to a marker location

1. Press [MARKER] to turn it on (lit).
2. Press a lit [1]–[9] button to move to the registered location.

■ Erasing a marker

1. Press [MARKER] to turn it on (lit).
2. Of the lit [1]–[9] buttons, press the button for the marker that you want to erase.
3. Hold down [SHIFT] and press [0].

The registration will be erased, and the button will go dark.

Recalling screens assigned to the numeric keys —Screen Sets

Logic RPC Pro lets you register various configurations of windows (“screen sets”) to numeric keys 1–9 of the keyboard, and recall these screen sets by pressing a numeric key.

Here’s how screen sets assigned to the numeric keys of the keyboard can be recalled from the SI-24.

1. Press **[SCREEN SET]** to turn it on (lit).
2. Press one of the **[1]–[9]** buttons, and the screen set assigned to the corresponding numeric key will be recalled just as if you had pressed a numeric key of the keyboard.



You can lock/unlock the screen set pressing **[0]**. When screen set is locked, **[0]** lits.

SHORTCUT button Operations

[0]–[9] will execute the following Logic RPC Pro commands.

1. Press **[SHORTCUT]** to turn it on (lit).

[1]: Save	[2]: Undo	[3]: Copy	[4]: Paste
[5]: Clear	[6]: Scrub	[7]: Cycle	[8]: Drop
[9]: Automation View Volume	[0]: Automation View Pan		

Transport Operations

It is possible to control the transports of Logic RPC Pro using the following buttons.

- | | |
|------------------|---------------------------------------------------------------------|
| [STOP]: | Stops playback or recording. |
| [PLAY]: | Starts playback. |
| [REC]: | Starts recording. |
| [PAUSE]: | Pauses song playback or recording. |
| [REW]: | Rewind the song. Press [STOP] to stop rewinding. |
| [FF]: | Fast-forward the song. Press [STOP] to stop fast-forwarding. |
| Jog dial: | This moves the time location within the song. |

Controlling Pro Tools (version 4.1 or later)

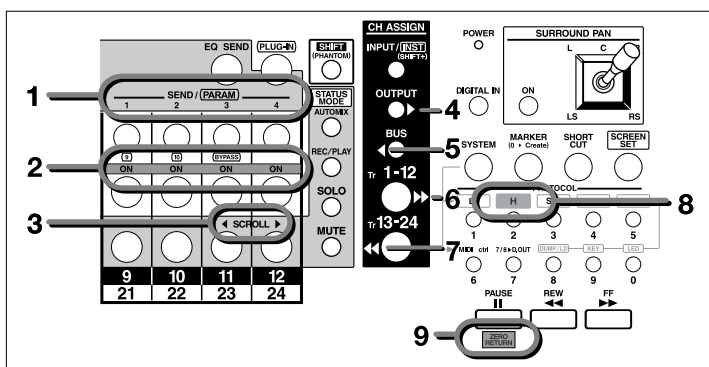
Digidesign Pro Tools can be remotely controlled from the SI-24.

NOTE

The SI-24 supports Pro Tools software version 4.1 or later.

■ Putting Pro Tools mode labels

When controlling Pro Tools, the button and knob functions will differ in some ways from the panel. You will find it convenient to affix the included Pro Tools mode labels when using the SI-24 with Pro Tools (see figure).



MEMO

Before putting Pro Tools mode labels on top panel of SI-24, please wipe dust or dirt adheres with a soft dry cloth.

Notes concerning the control of Pro Tools

- The SI-24 is not able to exchange audio with Pro Tools TDM or Pro Tools LE.
- When the protocol (p. 25) is Pro Tools mode, the following buttons and knobs cannot be used.
 - Faders 9–12
 - Master fader
 - [STATUS 9]
 - [STATUS 10]
 - CH ASSIGN [INPUT]
 - Joystick
 - SURROUND PAN [ON]

Making the SI-24 settings

Use the following procedure to switch the settings of the SI-24.

1. Hold down [SYSTEM] and press [2] (H).
[2] (H) will light, and Pro Tools mode will be selected.
2. If you want to use the MIDI connectors (and not R-BUS) to exchange data between the SI-24 and your computer, hold down [SYSTEM] and press [6] (MIDI ctrl) to turn it on (lit).

For details, refer to “Using the MIDI connectors to transmit/receive control data—MIDI Control Mode” (p. 29).

MEMO

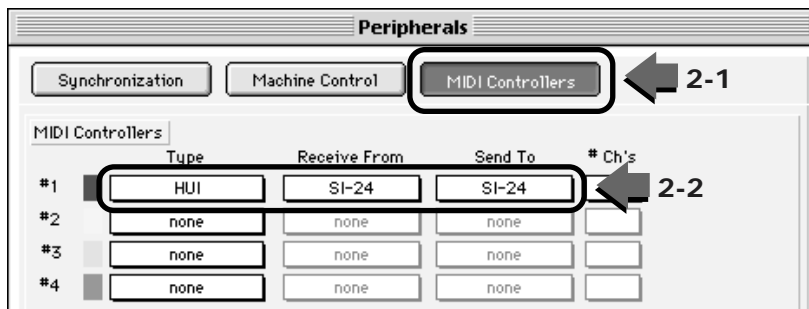
For details on modes (protocols), refer to “Selecting the protocol” (p. 25).

Making Pro Tools settings

Use the following procedure to make settings in Pro Tools.

1. **Start up Pro Tools.**
2. **From the Setups menu, choose Peripherals.**

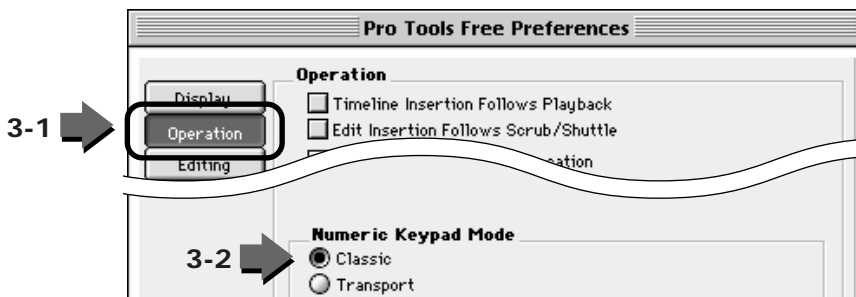
The Peripherals window will open.



- 2-1. Click **MIDI Controllers**.
- 2-2. In MIDI Controllers #1, set Type to "HUI." Also set the Receive from and Send to fields to the device corresponding to the SI-24.
- 2-3. Click **OK**, and communication between Pro Tools and the SI-24 will begin.

3. **From the Setups menu, choose "Preferences."**

The Preferences window will open.



- 3-1. Click **Operation**.
- 3-2. For the Numeric Keypad Mode field, choose "Classic." (*)

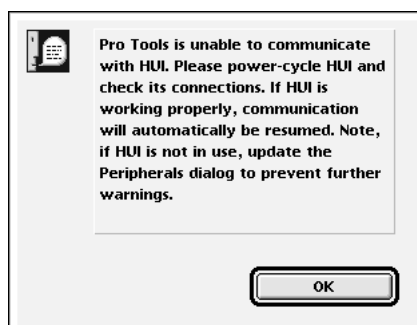
* On software version 4.x of Pro Tools, there is no setting of "Numeric Keypad Mode."

NOTE

In some cases, the Macintosh will frequently display an error message stating that "Pro Tools can't communicate with HUI."

In this case, exit Pro Tools, and then delete "Pro Tools Preferences" from "Default settings" in the "System folder." Then restart Pro Tools.

However, after restarting, the Peripherals and Preference settings will have to be made once again.



How the SI-24's controls will function

The explanation in this section will use the button names corresponding to the included Pro Tools mode labels.

■ Faders 1–8

These control the faders of the area enclosed in blue within the Pro Tools Mix window.

The target of control can be selected with [▶▶] (Tr 1-12), [◀◀] (Tr 13-24), [▶] (OUTPUT), and [◀] (BUS).

■ STATUS buttons

These switch the status of the channel according to the selected **STATUS MODE**. The current status is shown by the color of the buttons.

STATUS MODE	[STATUS] function
[MUTE]	Switches muting on/off for each channel. Lit red: Mute on Dark: Mute off Blinking red: Muted by solo
[SOLO]	Switches solo on/off for each channel. Lit red: Solo on Dark: Solo off
[REC/PLAY] (Recording/Play)	Switches the record/playback status of each track. Lit green: The track can be played. Lit red: Now recording. Blinking red: Selected as a recording destination. <i>Record mode (lit red) will be selected when you press [REC] or when you enter the auto-punch region.</i>
[AUTOMIX]	Switches the Automix Mode status of each channel. Lit green: Read automix. Lit red: Write automix. Blinking red: Ready to write automix. Dark: Automix off.

■ CH SELECT (Channel Select) buttons

These buttons select the target channel when you control the send levels or plug-ins. The [CH SELECT] of the channel selected for operations will light.

By simultaneously pressing two or more [CH SELECT] buttons, you can create a group of channels.

For details, refer to “SHORTCUT button” (p. 41).

■ PAN 1–8 knobs

These control the channel panning.

You can control the panning more precisely by turning [SHORTCUT] on (lit) and then holding down [8] (FINE) while you turn the knobs.

MEMO

There are four automix writing modes, as follows.

Write: Automix will be overwritten.

Latch: Automix will be overwritten from the moment you operate the SI-24.

Touch: Automix will be overwritten only while you are operating the SI-24.

Trim: Fader operations will apply a relative change, overwriting the data.

HINT

When you are writing automix data on Latch mode or Touch mode, it is convenient to press [SHIFT] to stop the movement of faders.

MEMO

If all [CH SELECT] buttons are dark, a track outside the range being controlled by the SI-24 has been selected.

■ EQ/SEND (Equalizer/Send) buttons

You can press **[EQ/SEND]** to turn it on (lit), and use SEND 1–4 (PAN 9–12) to control the send levels of the channel you selected in **[CH SELECT]**.

■ PLUG-IN button

When you press **[PLUG-IN]** to turn it on (lit), you will be able to control plug-in effects.

Use the following procedure to control plug-in effects.

1. Press **[PLUG-IN]** to turn it on (lit).
The plug-in window will appear.
2. Use **[CH SELECT]** to select the track into which the plug-in you want to control has been inserted.
3. Use **[INS 1] (ON 1)–[INS 4] (ON 4)** to select the slot into which the plug-in you want to control has been inserted.
4. Use **PARAM 1–4 (PAN 9–12)** and **[ON 1–4] (CH SELECT 9–12)** to control the parameters of the plug-in.
5. Use **[< SCROLL] (STATUS 11)** or **[SCROLL >] (STATUS 12)** to change the range of parameters being controlled. Knobs or buttons within the region of parameters being controlled will be displayed in blue.

■ MARKER button

When you press **[MARKER]** to turn it on (lit), **[0]** will function as the marker request button. Markers will be registered to **[1]–[9]**, and you can press one of these buttons to move to the registered location.

■ SHORTCUT button

When you press **[SHORTCUT]** to turn it on (lit), **[0]–[9]** will execute the following Pro Tools commands.

[1]: Save **[2]:** Undo **[3]:** Copy **[4]:** Paste **[5]:** Clear
[6]: Group **[7]:** Create Group **[8]:** Fine **[9]:** Escape **[0]:** Enter

■ SCREEN SET button

When you press **[SCREEN SET]** to turn it on (lit), **[1]–[6]** will open the Pro Tools window assigned to each button.

[1]: Mix **[2]:** Edit **[3]:** Transport
[4]: Memory Locations **[5]:** Status **[6]:** Plug-in

■ Transport

You can use **[STOP]**, **[PLAY]**, **[REC]**, **[ZERO RETURN] (PAUSE)**, **[REW]**, and **[FF]** to operate the Pro Tools transport.

You can use the jog dial to move the song position line.

MEMO

If you want to view the send levels in the screen, choose the Display menu in Pro Tools, and in “Sends View Shows,” select Send A–D as desired.

MEMO

[7] (Create Group) groups the tracks that you selected by simultaneously pressing two or more **[CH SELECT]** buttons. **[6] (Group)** turns the group function on/off. While you hold down **[8] (Fine)**, you will be able to adjust the pan or send level more precisely.

Controlling Cubase VST (version 5.0 or later)

The SI-24 can remotely control Steinberg Corporation's Cubase series programs.

NOTE

- **A remote control file is required for Cubase settings.**
You can download a remote control file for Cubase from the Roland web site.
<http://www.roland.co.jp/>
- **The SI-24 supports Cubase version 5.0 and later.**

Cautions when controlling Cubase

- When the selected protocol (p. 25) is "Cubase mode," the following buttons and knobs cannot be used.
 - STATUS MODE [REC/PLAY] and [AUTOMIX]
 - Joystick
 - SURROUND PAN [ON]
- When used with Cubase, the SI-24's MIDI is used only for VST remote. In this case, the SI-24 cannot be used as a MIDI interface.

Making the SI-24 settings

Use the following procedure to make settings on the SI-24.

1. **Hold down [SYSTEM] and press [2] (S.C.).**
[2] (S.C.) will light, and the SI-24 will switch to Cubase mode.
2. **If you want to use the MIDI connectors (and not R-BUS) to exchange data between the SI-24 and your computer, hold down [SYSTEM] and press [6] (MIDI ctrl) to turn it on (lit).**

For details, refer to "Using the MIDI connectors to transmit/receive control data—MIDI Control Mode" (p. 29)."

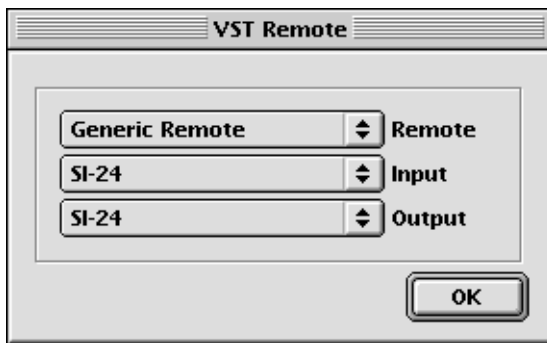
MEMO

For details on modes (protocols), refer to "Selecting the protocol" (p. 25).

Making Cubase settings

Use the following procedure to make Cubase settings.

1. **Start up Cubase.**
2. **From Remote Setup on the Option menu, choose Setup.**
The VST Remote window will appear.




3. **Make Remote, Input, and Output settings as follows.**

Remote: Generic Remote


Input: MIDI In Roland RPC-1 (on the Macintosh, the device corresponding to the SI-24 in OMS setup)

Output: MIDI Out Roland RPC-1 (on the Macintosh, the device corresponding to the SI-24 in OMS setup)

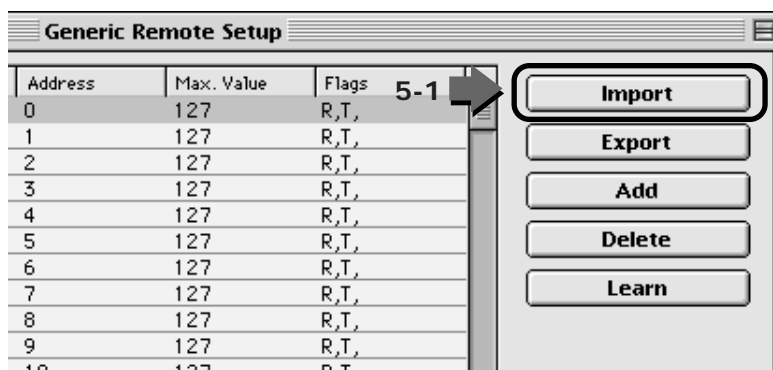
4. **When you have finished making settings, click .**

The Generic Remote window will appear.



5. **In the Generic Remote window, click .**

The Generic Remote Setup window will appear.



5-1. Click the Import button, and specify the “Roland SI-24.xml” file.

5-2. Close the Generic Remote Setup window.

How the SI-24 controls will function

■ Faders 1–12

These will control the Cubase faders.

The CH ASSIGN (Channel Assign) settings correspond as follows to the faders that will be controlled.

[INPUT]: VST instrument mixer

[OUTPUT]: VST master mixer

[BUS]: VST channel mixer 2 (group mixer 1–8)

[Tr 1-12]: VST channel mixer channels 1–12

[Tr 13-24]: VST channel mixer channels 13–24

■ STATUS buttons

These buttons will switch the status of the channel according to the selected **STATUS MODE**. The current status is shown by the color of the buttons.

STATUS MODE	[STATUS] function
[MUTE]	Switches muting on/off for each channel. Lit orange: Mute on Dark: Mute off
[SOLO]	Switches solo on/off for each channel. Lit red: Solo on Dark: Solo off

■ CH SELECT (Channel Select) buttons

These buttons select the target channel when controlling the equalizer or send level. The **[CH SELECT]** of the target channel will light.

■ PAN 1–12 knobs

Adjust the channel pan.

■ EQ/SEND (Equalizer/Send) button

When you press **[EQ/SEND]** to turn it on (lit), you will be able to control the equalizer and send levels of the channel that is selected by its **[CH SELECT]**.

PAN knobs 1–12 will control the equalizer (EQ GAIN 1–4, EQ FREQ 1–4) and the send levels (SEND 1–4).

MEMO

Pressing **[EQ/SEND]** will not cause the VST Channel Settings window to appear.

To open the VST Channel Settings window, click the mouse on the channel



■ MARKER button

When you press **[MARKER]** to turn it on (lit), the **[0]–[9]** buttons will function as locator buttons.

[1]: Set left locator	[2]: Set right locator
[3]: Set locator 1	[4]: Set locator 2
[5]: Set locator 3	[6]: Move to left locator
[7]: Move to right locator	[8]: Move to locator 1
[9]: Move to locator 2	[0]: Move to locator 3

■ SHORTCUT button

When you press **[SHORTCUT]** to turn it on (lit), the **[0]–[9]** buttons will execute the assigned Cubase commands.

[1]: Save	[2]: Redo	[3]: Copy	[4]: Paste
[5]: Cut	[6]: Punch-in	[7]: Cycle	[8]: Punch-out
[9]: Click	[0]: Synchronization		

■ SCREEN SET button

When you press **[SCREEN SET]** to turn it on (lit), the **[0]–[6]** buttons will open the assigned Cubase windows.

[1]: VST mixer	[2]: VST effects	[3]: VST master effects
[4]: VST inputs	[5]: VST performance	[6]: VST instruments

■ Transport

You can use **[STOP]**, **[PLAY]**, **[REC]**, **[PAUSE]** (functions as ZERO RETURN), **[REW]**, and **[FF]** to operate the Cubase transport.

You can use the jog dial to move the song position line.

Glossary

Condenser microphone

A type of microphone that applies the principle of a condenser. It has excellent high-frequency response, and allows more subtle nuances of sound to be captured. This type of microphone requires external, phantom power unless it has its own battery power.

Dynamic microphone

A type of microphone that uses the same principle as an electrical generator. It operates without a power source. The most common types are quite durable, and are widely used as vocal and instrument mics.

IEC

The signals that are transferred via the digital input/output of this device comply with the IEC60958 and IEC958 (consumer) formats.

Impedance

The total resistance of an electrical circuit to an alternating voltage such as audio, expressed in units of an Ohm (Ω). When transmitting a signal, the output impedance of the transmitting device must match the input impedance of the receiving device. If not, problems such as distortion, noise, and lowered signal level can occur.

On the SI-24, a high-impedance input jack is used for directly connecting a guitar or bass.

MIDI

MIDI stands for Musical Instrument Digital Interface. It is a worldwide standard that allows electronic musical instruments and personal computers to exchange musical performance data and messages such as sound selections. Any MIDI-compatible device can transmit musical data (as appropriate for the type of device) to any other MIDI-compatible device, regardless of its manufacturer or model type.

R-BUS

Roland's digital communication specification developed to allow audio and control data to be exchanged between devices. Multi-channel audio signals, word clock, and MIDI-compatible operation data and synchronization signals can be exchanged. A single R-BUS connector allows simultaneous bi-directional transfer of eight channels of up to 96 kHz 24-bit digital audio data. The connector is a DB-25 type, and uses a special cable for connections. It should NOT be connected to other types of ports that use similar connectors! Also, you can not use a computer SCSI cable for R-BUS connections.

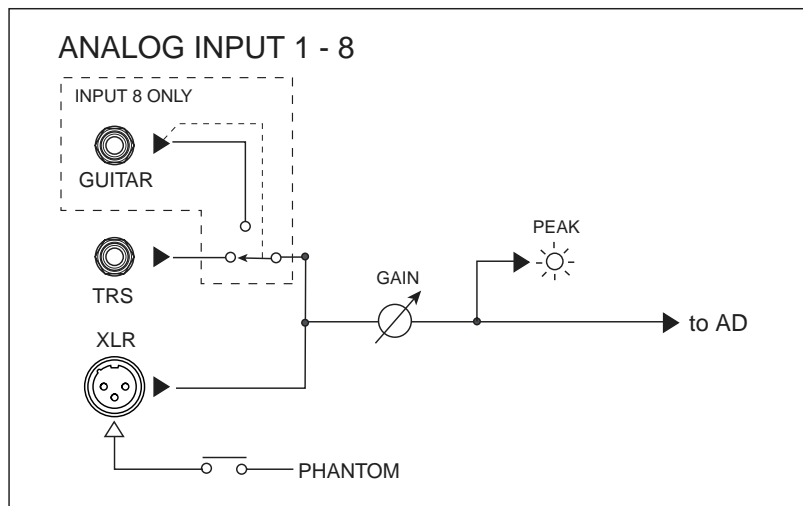
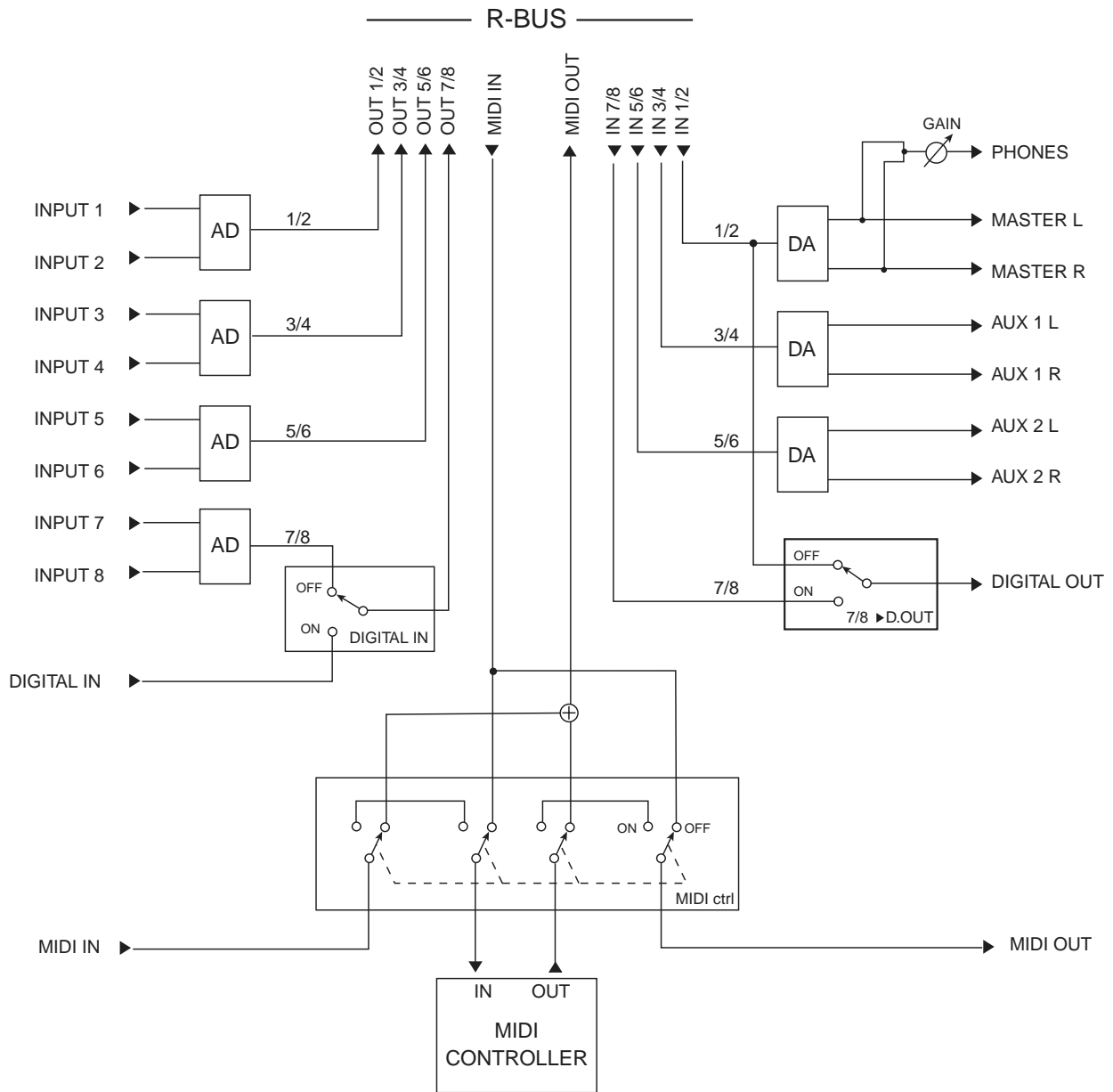
SCMS

SCMS stands for Serial Copy Management System. This is a function that protects the rights of copyright holders by prohibiting recording via a digital connection for more than two generations. When digital connections are made between digital recorders that implement this function, SCMS data will be recorded along with the audio data. Digital audio data which contains this SCMS data cannot again be recorded via a digital connection.

Phantom Power

This is a method of providing electrical power to condenser mics via the mic cables. Generally, a mixer's internal phantom power source supplies 6–48 volts (DC). Supplying phantom power to dynamic mics, audio playback devices, or other such equipment may result in damage to the equipment. Turn the phantom power switch on only when connecting condenser mics which need phantom power; otherwise, leave it switched off.

Block Diagram



Specifications

SI-24: STUDIO INTERFACE

■ Sample Rate

22.05 kHz, 32 kHz, 44.1 kHz, 48 kHz, 88.2 kHz, 96 kHz

■ Frequency Response

96 kHz: 0 Hz–40 kHz (+0/-3 dB)

48 kHz: 20 Hz–22 kHz (+0/-3 dB)

44.1 kHz: 20 Hz–20 kHz (+0/-3 dB)

■ Nominal Input Level (variable)

INPUT 1–8 (XLR, TRS): +4 dBu– -50 dBu

GUITAR (Hi-Z): +4 dBu– -50 dBu

■ Input Impedance

INPUT 1–8 (XLR, TRS): 24 k ohms

GUITAR (Hi-Z): 1 M ohms

■ Nominal Output Level

MASTER: 0 dBu

AUX 1 (L, R): 0 dBu

AUX 2 (L, R): 0 dBu

■ Output Impedance

MASTER: 1 k ohms

AUX 1 (L, R): 1 k ohms

AUX 2 (L, R): 1 k ohms

PHONES: 22 ohms

■ Recommended Load Impedance

MASTER: 10 k ohms or more

AUX 1 (L, R): 10 k ohms or more

AUX 2 (L, R): 10 k ohms or more

PHONES: 8–600 ohms

■ Residual Noise Level (SENS: LINE, IHF-A, Sampling Rate: 96kHz typ.)

MASTER: -86 dBu or less

AUX 1 (L, R): -86 dBu or less

AUX 2 (L, R): -86 dBu or less

■ Interface Connectors

Digital I/O: Coaxial

conforms to IEC60958 (consumer format)

■ Connectors

R-BUS Connector

Input Jack 1–8 (1/4 inch TRS phone type)

Input Jack 1–8 (XLR type, balanced, phantom power)

Guitar (Hi-Z) Jack (1/4 inch phone type)

Digital In Connector (Coaxial type)

Digital Out Connector (Coaxial type)

Headphones Jack (Stereo 1/4 inch phone type)

Master Out Jack L/R (1/4 inch phone type)

AUX 1 Send Jack L/R (1/4 inch phone type)

AUX 2 Send Jack L/R (RCA phono type)

■ Power Supply

AC 117 V, AC 230 V or AC 240 V

■ Power Consumption

20 W

■ Dimensions

446.0 (W) x 326.0 (D) x 103.0 (H) mm

17-9/16 (W) x 12-7/8 (D) x 4-1/16 (H) inches

■ Weight

4.8 kg

10 lbs 10 oz

■ Accessories

Power supply cable

Owner's manual

Pro Tools mode labels

(0 dBu = 0.775 Vrms)

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

...MEMO...

For EU Countries



This product complies with the requirements of European Directives EMC 89/336/EEC and LVD 73/23/EEC.

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. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- 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.

Tested To Comply With FCC Standards

FOR HOME OR OFFICE USE

Unauthorized changes or modification to this system can void the users authority to operate this equipment.
This equipment requires shielded interface cables in order to meet FCC class B Limit.

For Canada

NOTICE

This Class B digital apparatus meets all requirements of the Canadian Interference-Causing Equipment Regulations.

AVIS

Cet appareil numérique de la classe B respecte toutes les exigences du Règlement sur le matériel brouilleur du Canada.

For the USA

DECLARATION OF CONFORMITY Compliance Information Statement

Model Name : SI-24
Type of Equipment : Studio Interface
Responsible Party : Roland Corporation U.S.
Address : 5100 S. Eastern Avenue Los Angeles, CA 90040-2938, U. S. A.
Telephone : (323) 890 3700

* A separate publication titled "MIDI Implementation" is also available. It provides complete details concerning the way MIDI has been implemented on this unit. If you should require this publication (such as when you intend to carry out byte-level programming), please contact the nearest Roland Service Center or authorized Roland distributor.

This owner's manual is printed on recycled paper.

Roland Corporation

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