Roland

V-Mixing System
Digital Audio Transfer & Mixing System

Digital Snakes

Digital Consoles

Personal Mixers

Recording

Bridging

REAC

The Total Solution from Roland

The V-Mixing System is a powerful live audio production solution built on five components: Digital Consoles, Digital Snakes, Personal Mixers, Recording, and Bridging. There is no need for third-party products or optional cards to make a complete live mixing system.

Simple and Flexible System

The V-Mixing System separates mixing (V-Mixer) from the input/output section (Digital Snake) enabling pure sound and minimal loss of transmission with very flexible system configuration and setup. It allows effortless add-ons for monitoring solutions (M-48 Personal Mixer) as well as multi-channel live recording R-1000 48-Track Recorder/Player and SONAR REAC Recording. The V-Mixing System encompasses the entire live sound process expanding the possibilities far beyond a mixing console.

Easy to Set up - Plug and Play

Devices are automatically recognized by the system and the appropriate menus present themselves. With no configuration required, simply connect the devices with Cat5e/6 cable and the system is ready to go.

High quality sound is obtained with ease and flexibility

REAC

REAC (Roland Ethernet Audio Communication) technology is the cornerstone of the V-Mixing System. REAC is Roland's original technology for low latency, high quality digital audio transfer. REAC is an Ethernet based technology that enables multiple components to be easily integrated using lightweight Cat5e/6 cable. With just a single inexpensive cable, 40 input x 40 output channels of 24-bit uncompressed audio data (including level and control information) are transferred.

Bridging

The S-MADI REAC Bridge enables connectivity between MADI-equipped digital audio mixers/systems to any REAC-based devices.

Digital Snakes

Enjoy superior clear sound, great intelligibility with minimal latency and the freedom to split or extend your audio sources anywhere.

Digital Snake

S-MADI
REAC MADI BRIDGE

Personal Mixers

The M-48 is the "next generation" live personal mixer that offers musicians the flexibly to control exactly what they want to listen to during their performances.

M-48
LIVE PERSONAL MIXER

REAC

The SONAR REAC Recording System when used in conjunction with the V-Mixing System or Digital Snakes provides the most comprehensive live recording, mixing, mastering and delivery product available.

SONAR
PRODUCER

R-1000
48-TRACK RECORDER/PLAYER

V-Mixing System

Digital Consoles

Boasting powerful mixing engines to support multiple channels, buses, EQ, effects, dynamics processing and unprecedented digital patching, the V-Mixer lineup represents a premium console choice. More than a digital mixing console; it is the heart of a V-Mixing System ideal for any live event applications in corporate, church, education or rental/staging environments.

Recording

Multi-channel recording and playback, including virtual rehearsal is accomplished with reliability and stability using the dedicated R-1000 48-Track Recorder/Player.
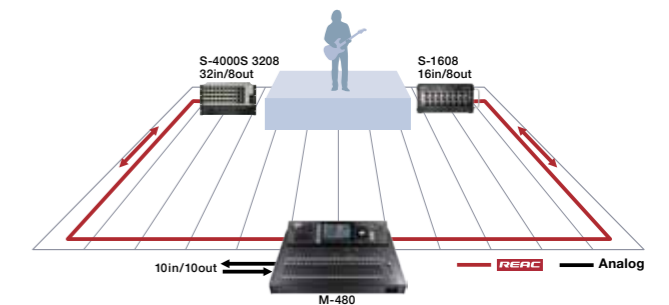
LIVE MIXING CONSOLE

V-Mixer M-480

- 48 mixing channels plus 6 stereo returns
- Main LCR outputs, 16 AUX buses, 8 matrices
- 4-band fully parametric EQ, gate/compressor on all channels
- All input and output channels equipped with delay
- 6 built-in multi-effects and 12 graphic EQs
- Cascade mode supports 96 mixing channels for large format applications.

M-480 Ver.1.5
New functions

24 DCA groups

The number of DCA's has been increased from 8 to 24. This new power is very effective in larger or more complex applications such as theater/broadcast and when using cascaded configurations with 96 channels.

Increased Delay time

The amount of delay on any input or output channel can now be up to 1.2 seconds. This is effective when longer times are required in video/streaming production or audio time alignment at large venues.

Scene Fade

Channel fader levels can be set to fade smoothly when a scene is changed. Fade time is selectable up to 100 seconds and can be set to on or off for each channel and each scene. This function is very effective in musical and theater applications.

Five new effect types

Multi-Band Compression/Expansion and four BOSS compact effects (modeling) including OD/DS series (Overdrive/Distortion), DD-3 (Digital Delay), DM-5 (Delay) and CE-1 (Chorus Ensemble). Five new effect types brings more control and snap to live productions.

And more...

- Second order LO and HI EQ type
- Mutually Exclusive LR/C assignment for cross-matrixed linear array speaker configurations
- Set delay in "samples"
- Monitor dimmer setting

Standard V-Mixing System

The basic system supports typical mid-sized live event applications. S-4000S-3208 and S-1608 for I/O enable a total of 48 inputs and 16 outputs on the stage with 10 inputs and 10 outputs at the console.

S-4000S 3208
32in/8out

S-1608
16in/8out

10in/10out

M-480

REAC   Analog

Easy, intuitive and award-winning interface design

The large color display and dedicated knobs and buttons in the channel edit section offers intuitive operation.

Three live recording options

The V-Mixer supports multi-channel recording. Simply connect the R-1000 with Cat5e/6 cable to easily record (or playback) up to 48channels of 24-bit audio. Uncompressed BWF file data is stored on a removable SSD or HDD where it can be edited later in the studio with a DAW of choice. By using Cakewalk SONAR Producer software, up to 40 channels can be recorded directly by simply connecting a single Cat5e/6 cable to a computer. In addition, the built-in USB memory recorder can record a stereo output signal from the V-Mixer.

Management of multiple M-48 Live Personal Mixers

The V-Mixers can be used to setup, configure and control multiple REAC-enabled M-48 Live Personal Mixers for the performing musician wanting the best possible sound quality and flexibility in their individual stage mix.

Remote control and offline setup using a Win/Mac

The V-Mixers can be controlled remotely by connecting a computer via USB using the RCS software. The RCS can also be used when the V-Mixers are not connected allowing offline setup and configuring of the system before an event. Using a connected computer and a wireless LAN, a tablet device can control the V-Mixer from a remote location like the stage or a seat in the audience.

The cascade capability enables a solution for high channel counts (M-480 only)

The M-480 supports a cascade connection requested by many live sound engineers. Connecting two M-480s with one Cat5e/6 cable enables the mixing of up to 96 channels as well as advanced synchronization of internal busses.

	M-480	M-380	M-300
	614	500.9	482.7
	749 (mm)	482 (mm)	470 (mm)
SETUP	Table Top	12U Rackmount	Table Top [Option: 10U Rackmount angle bracket]
Weight	20.0 kg	14.0 kg	9.8 kg

	M-480	M-380	M-300
Number of REAC Port	2 + SPLIT/BACKUP	2 + SPLIT/BACKUP	2
Mixing Channels	48	48	32
Return Channels	6 Stereo (12)	None	None
Input Delay	0 - 1200 [msec] Ver1.5	No	No
AUX Bus	16	16	8
MATRIX Bus	8	8	4
MAIN Bus	L,C,R	L,R * AUX is available as Main C	L,C,R
DCA Groups	24 Ver1.5	8	4
Output Delay	0 - 1200 [msec] Ver1.5	No	0 to 400 [msec]
Graphic or Parametric EQ	12 * Maximum 24 using FX	4 * Maximum 12 using FX	No * Graphic EQ: Maximum 4 using FX
Multi FX (Dual-mono)	6	4	4

Digital snakes provide system flexibility with superb sound quality

40CH I/O MODULAR RACK
S-4000S-3208

32in/8out flagship I/O unit

Analog Inputs
Discrete circuit design with high quality components and 24-bit AD conversion.

REAC SPLITTER & POWER DISTRIBUTOR
S-4000D

Equipped with 10 REAC ports including 8 ports of REAC Embedded Power

REAC MERGE UNIT
S-4000M

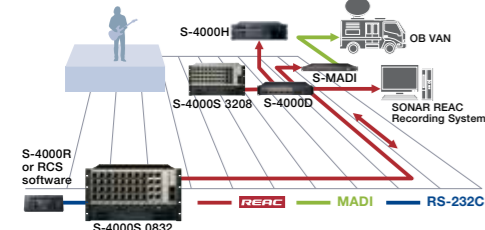Merge up to four REAC devices
Supports "REAC Embedded Power" (S-0808, M-48)

The superior quality and reliability of Roland Digital Snakes is made possible by coupling high quality preamps with REAC (Roland Ethernet Audio Communication) transmission technology. Roland Digital Snakes systems are immune to the hums, buzzes and general impedance and capacitive losses that plague analog snakes. By having the mic preamps close to their source and by avoiding the transmission losses of long runs of analog cable, your audio can sound its best throughout the whole system.

- Superb quality pre-amps on each input channel
- Remote controllable pre-amps using a V-Mixer, S-4000R or S-4000RCS for Win/Mac
- Flexible and selectable number of I/O for any venue or application
- Unlimited splits using the S-4000D or Standard Ethernet Switch Hardware
- Merge up to 4 REAC devices into a single REAC stream using a S-4000M
- The S-0808 supports unique types of power supply - REAC Embedded Power, and External Battery Options.
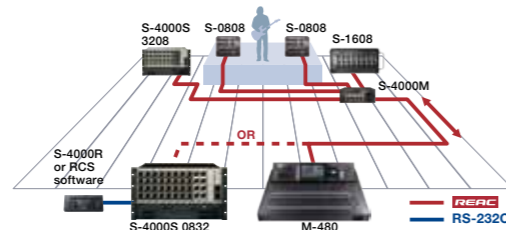
S-4000 Digital Snake System with SONAR REAC Recording
The system inputs can be "split" using the S-4000D, S-4000-SP or standard Ethernet hardware switches providing for multiple "lossless" audio splits to a monitor console, recording location and broadcast truck.

S-4000H
S-4000S 3208 S-4000D
OB VAN
S-MADI
SONAR REAC Recording System
S-4000R or RCS software
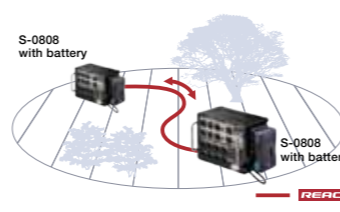S-4000S 0832
REAC   MADI   RS-232C

Merge Setup for Distributed Inputs and Outputs
Using the S-4000M, up to 4 REAC signals (up to 160 inputs) from Digital Snakes can be merged to one single REAC signal (40ch). The S-0808 can be used in a place where AC power is not available using REAC Embedded Power technology.

S-4000S 3208   S-0808   S-0808   S-1608
S-4000M
OR
S-4000R or RCS software
S-4000S 0832   M-480
REAC   RS-232C

Location Sound - Digital Snake System 8x8 Ch with battery operation
An 8 x 8 Digital Snake system enables high quality audio transmission with an easy setup. This system is ideal when AC power is not convenient or available.

S-0808 with battery
S-0808 with battery

LINE UP

S-4000S-0832
40CH I/O MODULAR RACK
- 8in/32out flagship I/O unit

S-4000S-MR
40CH I/O MODULAR RACK
- Modular rack chassis with no preinstalled In/Out modules

SI-AD4
4-channel
Analog Input Module

SI-AES4
4-channel
Digital Input Module

SO-DA4
4-channel
Analog Output Module

SO-AES4
4-channel
Digital Output Module

S-4000H 8X32 FOH UNIT
- No pre-amp model
- **Ver.2.5** supports 44.1 / 48 kHz sampling rate connected with V-Mixer.

S-0808 8X8 I/O UNIT
- 8in/8out compact digital snake
- Eliminate the need for direct boxes by using the TRS or Hi-Z inputs
- Power options – REAC Embedded Power and External Battery enabling a variety of setups

S-1608 STAGE UNIT
- 16in/8out I/O unit

S-0816 FOH UNIT
- 8in/16out I/O unit

S-4000R REMOTE CONTROLLER
- Remote control of all input gain adjustments, phantom power and PAD settings

S-OPT REAC OPTICAL CONVERTER
- Converts multi-channel REAC signal to a multi-mode digital optical signal
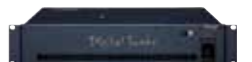- Up to 2 km distance audio transmission possible

S-4000-SP REAC SPLITTERS
*limited quantity
- Dual 5-port dedicated splitter

S-240P EXTERNAL POWER SUPPLY UNIT
- Redundant DC power to an S-4000S or S-4000H

W100S-R REAC CABLE (100m)
- 100 meter Cat5e cable on a reel for REAC signal transmission
- Crossover Ethernet cable with Neutrik® Ethercon connectors on both ends

SC-W100S
REAC CABLE (100m)

SC-W20F
REAC CABLE (20m)

SC-W100S

SC-A41S D-SUB/XLR Cable Set
- SC-A41S multi-cables are convenient for connection to the S-4000H, analog consoles, and other equipment.

S-4000RCS Remote Control Software for Win/Mac

Remote control software for the S-4000S/S-1608/S-0816/S-0808 provides the same functionality as the S-4000R. It also enables control of the M-48 Personal Mixer and the S-4000M REAC Merge Unit.
*S-4000RCS can be downloaded from *www.rolandsystemsgroup.net*.

●Preamp Control
Preamp Gain, Phantom Power, PAD are controllable. Also preamp gain setups can be saved and recalled.

●Personal Mixing Management & Control
Enable setup and manage the M-48 parameters on Win/Mac.

●S-4000M Merge Unit Control
Configures routing, input preamp gain, PAD and phantom power.

LIVE PERSONAL MIXER

M-48

The M-48 is the next generation live personal mixer that offers musicians the flexibly to control exactly what they want to listen to during their performances. It provides the highest level of sound monitoring quality for both headphones and IEMs (In-Ear Monitors) as well as for wedge and powered monitors. The superb sound quality creates the ideal monitoring environment for live performance and recording as well as studio applications.

Typical Vocal Monitor Setup

Simple Setup No Feedback

M-48 Live Personal Monitor System
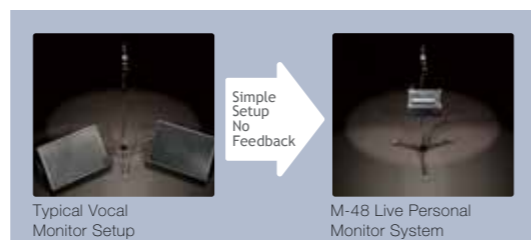
- Enables control of up to 40 audio channels via 16 stereo groups
- Built-in ambient mic aids in communicating with other musicians as well as enabling a stage/room "presence"
- Volume, Pan, 3-band EQ and built-in Reverb per group – all instantly adjustable by convenient encoder knobs

Personal Mixing Setup with V-Mixer

V-Mixer M-480, M-380 or M-300

The V-Mixer is equipped with all the M-48 management software and memory recall, providing a simple and flexible setup. The M-48 enables control of up to 40 audio sources that can be managed via 16 stereo groups - assignable and unique per musician. Any V-Mixer can setup and control multiple M-48s.

Setup Display

Source Assignment

V-Mixer

M-48   M-48

S-4000D   S-4000S 3208

REAC
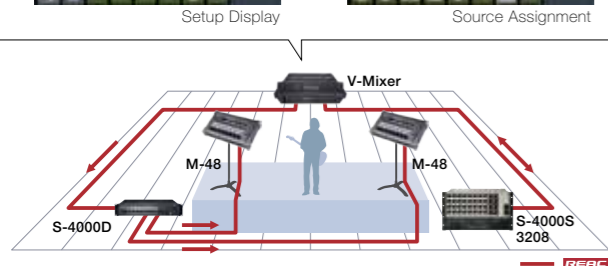
Personal Mixing Setup with Other Consoles

S-4000RCS for Win/Mac

Setup and manage the M-48 on Win/Mac using the S-4000RCS Remote Control Software when using with an existing console. Use the direct and bus outputs on a console to connect to a digital snake such as the S-4000S or S-1608. Use the S-MADI to connect digitally to a MADI-equipped console as shown on the next page.

S-4000RCS   Analog Console

S-4000S-3208

M-48   M-48

S-4000D

REAC — Analog — RS-232C
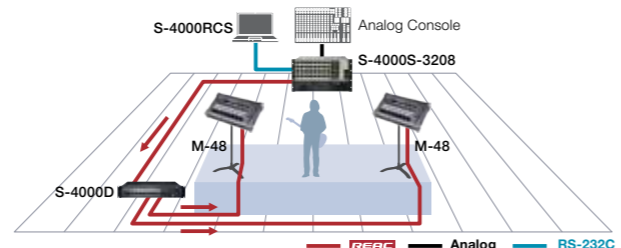
REAC MADI BRIDGE

S-MADI

The S-MADI REAC Bridge is a bi-directional signal converter between REAC and MADI. This bridge enables connectivity between MADI-equipped digital audio consoles/systems to any REAC-based devices such as the popular M-48 Personal Mixing System, Digital Snakes, V-Mixer Consoles, and Multi-channel Live Recording.

REAC ⇕ MADI

- Bi-directional format conversion between REAC and MADI
- BNC and Optical MADI ports
- Supports REAC Embedded Power and Split out for connecting and power additional devics (e.g., M-48 Personal Mixer, S-0808)
- Support for 44.1/48kHz
- Clock source can be selected from REAC, MADI or Word Clock
- Preamp and personal mixing control with S-4000RCS (Remote Control Software)

Personal Mixing Setup with Other Digital Consoles

Connect several M-48 Live Personal Mixers to a MADI equipped digital console. An additional M-48 can be connected to the SPLIT OUT port on the S-MADI that also supplies power - all over one Cat5e/6 cable.

S-4000RCS   Digital Console

M-48 for engineer   S-MADI

M-48   M-48

S-4000D

REAC — MADI — RS-232C
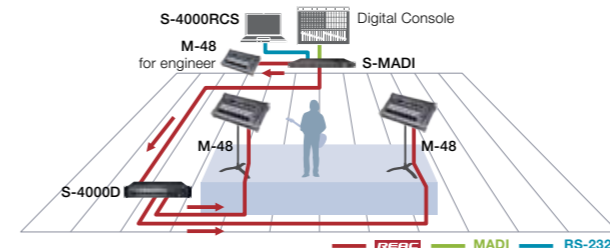
Digital Snake and Monitor V-Mixer Split Setup

The V-Mixing system's REAC protocol makes it easy to split the source audio signals. These splits can be used to connect to another V-Mixer as a monitor console, M-48 Personal Mixing System, or output for analog monitoring or recording requirements.
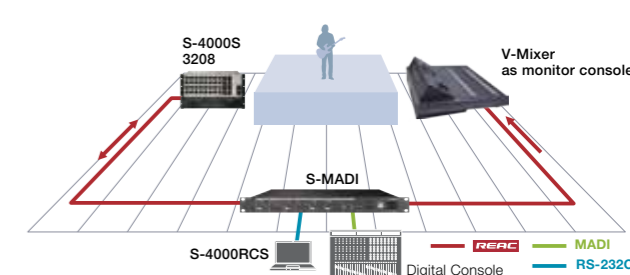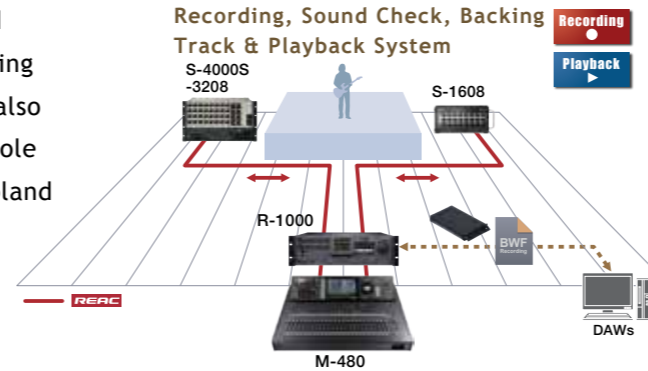
S-4000S 3208

V-Mixer as monitor console

S-MADI

S-4000RCS   Digital Console

REAC — MADI — RS-232C

48-TRACK RECORDER/PLAYER

R-1000

The R-1000 is an intuitive stand alone, dedicated recorder/player designed to work with the V-Mixing System in any live event or production. You can also connect and use the R-1000 with any digital console that has MADI output capabilities by using the Roland S-MADI REAC MADI Bridge.

Recording, Sound Check, Backing Track & Playback System

Recording
Playback

S-4000S-3208
S-1608
R-1000
BWF
M-480
DAWs

The SONAR REAC Recording System when used in conjunction with the V-Mixing System or Digital Snakes provides the most comprehensive live recording, mixing, mastering and delivery product available. The REAC driver enables users to record from their Digital Snake/V-Mixer System directly into SONAR.
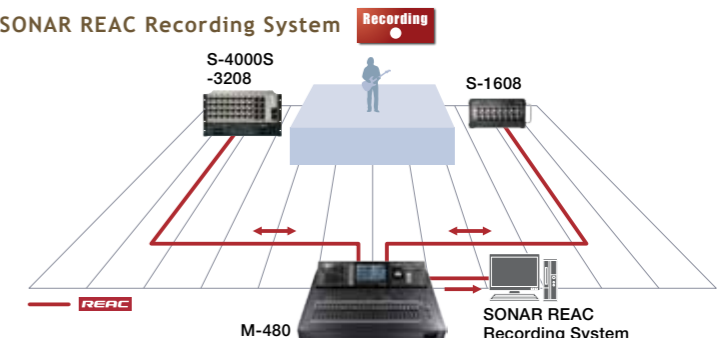
Cakewalk SONAR X1 Producer

Roland REAC Driver Kit

S-RDK

HARD DISK DRIVE UNIT (500GB)

HDD-500G
Dedicated removable hard disk drive
20 hours recording (44.1/48kHz)

Audio Interface for monitoring

OCTA-CAPTURE
USB 2.0 Audio Interface

FA-66
FireWire Audio Interface

V-Studio VS-700
USB 2.0 Audio Interface + Console

Records in Standard Broadcast WAV Format

- Records up to 48 tracks of 24-bit audio in BWF format
- Removable Hard disk drive ensures smooth integration with DAWs such as SONAR.
- Approximately 20 hours recording (44.1/48 kHz) using 500GB HDD

Multi-track Playback for a Variety of Applications

- Plays up to 48 tracks of 24-bit audio via REAC
- Data can be loaded from external devices

Ideal for Sound Checks, Rehearsals, Playback and Training

- Connect the R-1000 inline between V-Mixer and Digital Snake for selectable playback or record
- Channels can be set to "pass thru" live from the digital snake inputs, record live input or playback from recorder
- Run a complete sound check to tune the room in a new venue with no need for musicians to come early
- Select the musicians (channels) missing from a rehearsal and continue anyway
- Select all or group of channels for selective audio engineering training

Easy and intuitive operation for recording, sound check, rehearsals...

The R-1000 is controlled directly not only using the built-in LCD monitor but also from any V-Mixer or a Win/Mac with R-1000RCS software. Using the virtual preamp function, an engineer can tune the sound system for a new venue by playing back a mix through the console without the need for performers to be present for sound check. Equally powerful function when using as a tool to teach and train the art of mixing.

Control directly from any V-Mixer

Virtual preamp setting function

Built-in LCD monitor with touch control

Control directly from PC/Mac with R-1000RCS
*R-1000RCS for Win/Mac can be downloaded from www.rolandsystemsgroup.net.

SONAR REAC Recording System

Recording

S-4000S-3208
S-1608
M-480
SONAR REAC Recording System

Training and Seminars

V-Mixing System Training is a program of coordinated training and self learning designed to support operators and providers of professional audio products from Roland Systems Group. Through V-Mixing System Training we endeavor to incorporate not only core product knowledge and an understanding of their related technologies but also practical examples of application and operation.

Bringing Professional Audio and Video Together

Roland Systems Group, a member of the worldwide group of Roland companies, is dedicated to the support of audio and video professionals demanding excellence in both performance and system design. Through the development and support of audio and video products, we endeavor to improve workflow and maximize creative possibilities.

V-LINK is a technology designed for realtime audio and video integration.

V-Mixers support V-LINK for synchronizing with video equipment . For example, combine with the V-1600HD Multi-Format Video Switcher to link a specific video source to an audio channel for convenient "audio follows video" functionality.

Awards and Nominations

2006 — Mix Magazine Certified Hit 2006

2007 — ProAudio Review PAR Excellence 2007

2008 — WFX New Product Awards Best Overall Audio Product 2008

Rental & Staging Systems Best Mixing System 2008

2009 — Tec Award Nominee - Sound Reinforcement Console Technology 2009

LSI Nagroda Czytelników: Live Mixer of the Year 2009

2010 — Mix Magazine Certified Hit 2010

2011 — Worship Leader (Best of the Best 2011)

Tec Award Nominee - Sound Reinforcement Console Technology 2011

"Best Live Mixer" award - Producción Audio Magazine 2011

WFX 2011 Winners: Best Digital Mixing Console

Audio Media Magazine chooses as 'Gear of the Year.'

2012 — ProSoundWeb & Live Sound International Readers' Choice Award for Live Recording Hardware 2012

Electronic Musician Editors' Choice Awards 2012

Ensuring high quality while protecting the environment: Roland is ISO9001 and ISO14001 certified

At Roland, several group companies have obtained ISO9001 certification. In addition, in January 1999, Roland also received ISO14001 international environmental management system certification. We're actively seeking ways to maintain harmony with the environment. (ISO=International Standardization Organization: an organization for the promotion of standardization of international units and terms. They provide different categories of certification: ISO9001 Series certification is a product quality certification for products that undergo a certain level of quality control from the design stage to the after service stage; ISO14001 Series certification is for environment-related standards. Each member of the Roland Group is striving to obtain certification.)

v-mixingsystem.com

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