

RANE SL2 INTERFACE QUICK START MANUAL

Important Safety Instructions

For the continued safety of yourself and others we recommend that you read the following safety and installation instructions. Keep this document in a safe location for future reference. Please heed all warnings and follow all instructions.

Do not use this equipment in a location where it might become wet. Clean only with a damp cloth. This equipment may be used as a table top device, although stacking of the equipment is dangerous and not recommended.

Equipment may be located directly above or below this unit, but note that some equipment (like large power amplifiers) may cause an unacceptable amount of hum or may generate too much heat and degrade the performance of this equipment. Only use attachments and accessories specified by Rane. Refer all servicing to qualified service personnel. Servicing is required when the apparatus has been damaged in any way, such as spilled liquid, fallen objects into an opened chassis, exposure to rain or moisture, a dropped unit, or abnormal operation.

WARNING: This product may contain chemicals known to the State of California to cause cancer, or birth defects or other reproductive harm.

FCC 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.

CAUTION: Changes or modifications not expressly approved by Rane Corporation could void the user's authority to operate the equipment.

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

FCC Declaration of Conformity

Brand: **Rane**

Model: **SL2**

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.

Responsible Party: Rane Corporation
10802 47th Avenue West
Mukilteo WA 98275-5000 USA
Phone: 425-355-6000

Copyright Notices

©2016 Rane Corporation. All rights reserved. Serato DJ and Scratch Live are trademarks of Serato. Trademarked in the United States and other countries. This software is based in part on the work of the Independent JPEG Group, and uses libpng code, copyright © 2000-2002 Glenn Randers-Pehrson. The Serato NoiseMap™ Control Tone, the audio pressed on Serato Control vinyl and Control CDs, is copyright ©2004-2016 Serato. The Control Vinyl and Control CDs are licensed for personal use only. The creation of personal backups of the Control CD is allowed, however duplicating Control CDs for commercial benefit is strictly prohibited. For avoidance of doubt the duplication or creation of Control vinyl for any use is strictly prohibited. Please respect our copyright. Windows® is a registered trademark of Microsoft Corporation in the United States and other countries. Apple, Mac, Macintosh, iTunes, Safari, QuickTime, GarageBand, and OS X are registered trademarks of Apple Inc., registered in the United States and other countries.

Check List

These items are included in the box:

- 1 SL2 hardware interface.
- 1 Serato DJ software install disc.
- 1 USB cable.
- 4 stereo RCA cables.
- 2 control CDs.
- 2 control vinyl records.
- 4 rubber feet for the SL2.
- 1 Quick Start Guide.
- 1 Warranty card.
- 1 Serato DJ Manual.

Wear Parts

The SL2 Interface contains no wear parts. The control vinyl records and CDs are wear parts as described in "Limited Warranties" on page 12.



Recycle cardboard and paper.



Cartons et papier à recycler.

Contents

2 Important Safety Instructions

2 FCC Statement

2 FCC Declaration of Conformity

3 Copyright Notices

3 Check List

3 Wear Parts

5 Software

- 5 Serato DJ Software Installation for Mac OSX
- 5 Serato DJ Software Installation for Windows
- 5 Serato Scratch Live

6 Hardware

- 6 System Overview
- 7 Connecting the SL2
- 7 Turntable Setup
- 7 CD Player Setup
- 8 Kensington Security Slot
- 8 Playing Regular Vinyl and CDs
- 8 Optional Power Supply
- 9 Rane USB Drivers
- 9 ASIO (Windows)
- 9 Core Audio (Macintosh)
- 9 Control Panel

10 Technical Specifications

11 Technical Support

12 Limited Warranties

15 EU Declaration of Conformity

Software

This section will help get you started. Refer to the Serato DJ manual for software operating instructions.

Serato DJ Software Installation for Mac OS X

Before installing, we recommend you check for a newer version of Serato DJ at serato.com/downloads and install the latest Serato DJ version if it is newer than the version on the CD-ROM that comes with your SL2.



1. Insert the Serato DJ Installer CD-ROM that came with your unit,
-or-
browse using Finder to the location where the Serato DJ download was saved.
2. Double click the Serato DJ .dmg installer file.
3. The software EULA screen will appear - read the License Agreement, then click Agree.
4. The disk image mounts and opens the actions folder, once this is finished you can unmount the disk image and launch Serato DJ.
5. Drag the Serato DJ application icon to the Applications folder alias.
6. You may then need to enter your User Password to authenticate.
7. Serato DJ will now copy to the Applications folder, once this is finished you can unmount the disk image and launch Serato DJ.

Serato DJ Software Installation for Windows

Before installing, we recommend you download and install the latest Serato DJ version from serato.com if it is newer than the version on the CD-ROM that comes with your mixer.

1. Insert the Serato DJ Installer CD-ROM that came with your unit,
-or-
browse using Windows Explorer to the location where the Serato DJ download installer was saved.
 2. Double click the Serato DJ .exe installer file.
 3. Accept the Security Warning and click "Run".
 4. The installer introduction screen will appear, click Next.
 5. Read the License Agreement, then tick "I agree to the license terms and conditions," then click Install.
 6. If a User Account Control window appears, click Yes.
 7. Serato DJ will now perform a standard installation.
 8. The installation is now complete. You can now click Close.
- NOTE: A shortcut will be also be created on desktop.

When you first connect your SL2 via USB, you may see a request to install drivers. Accept the request and allow the driver installation to proceed. After drivers are installed, a SL2 control panel will be available, and your software will recognize the SL2.

Serato Scratch Live

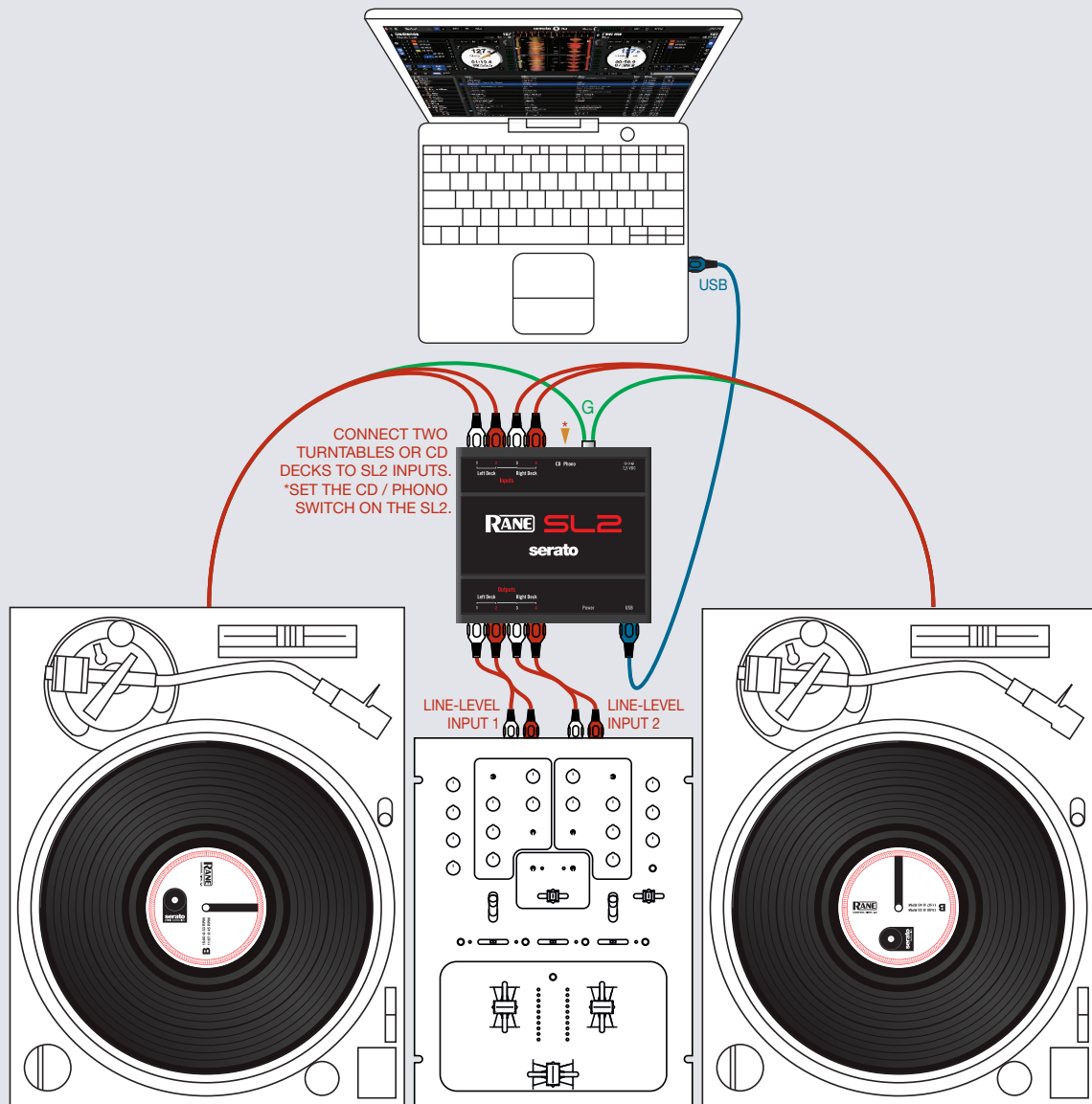
Your SL2 is completely compatible with Serato Scratch Live. You may connect to a laptop that has either program installed. The latest version of Scratch Live or Serato DJ is always available for download from serato.com.

Hardware

System Overview

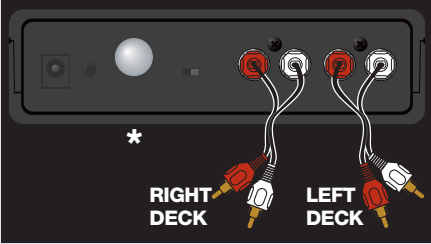
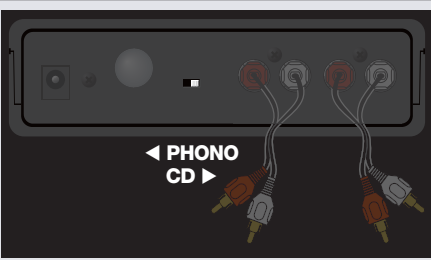
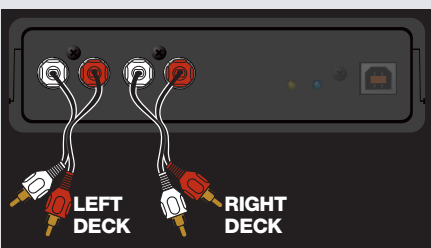
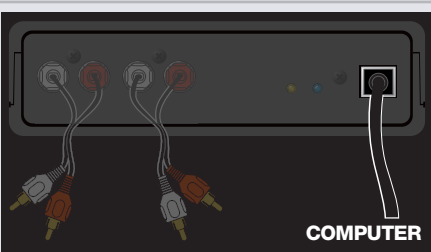
The Serato control records and CDs are pressed with an audible tone specifically developed for controlling the Serato DJ software application. The SL2 and Serato control records and CDs may also be used with computers running Serato Scratch Live.

The SL2 interface converts the control signal coming from each deck into digital audio, to be sent via USB to the Serato DJ software, which decodes that signal into a stream of information based on what the DJ is doing with the control disc. A virtual 'deck' replicates the movements of the control disc. Audio files loaded onto the Virtual Decks are then played back through the outputs of the hardware, with any manipulation of the control discs reproduced on the audio, effectively emulating vinyl control of the files loaded in software.



Connecting the SL2

To integrate an SL2 unit into your setup, connect it to your turntables (or CD players) and mixer as follows:

<p>1. Inputs Connect your CD players or turntables to the Deck Inputs on the Rane SL2. *If you use turntables, connect their ground wires to the ground terminal on the SL2 or your mixer.</p>	
<p>2. Input Level Selection Select the correct input level using the CD / Phono switch. Select Phono for turntables, or CD for line-level devices like CD players.</p>	
<p>3. Outputs Connect the Outputs of the SL2 to Line inputs on your mixer. You may need to set your mixer's input switch to CD or LINE (not PHONO).</p>	
<p>4. Connect the SL2 to your computer Using the provided USB cable, connect your SL2 to an available USB 2.0 port on your computer. Make sure you connect it directly to your computer and not through a hub or splitter.</p>	

Turntable Setup

1. Set the tone arms to the specific recommendations of the cartridge used, so that the needle never leaves the record, but not heavy enough that it heats up significantly. Both produce poor tracking.
2. Grounding is extremely important when using Serato DJ. Make sure you have good connections from the ground wires of your turntables to the grounding post of your SL2 or your mixer. If you don't ground your turntables properly, the control signal will be noisy and the record tracking position will be erratic.
3. Ensure the SL2 is set to receive a Phono level signal – **See step 2 of Connecting the SL2.**

CD Player Setup

1. Disable all built-in effects on the CD player, including keylock/master tempo.
2. Ensure the SL2 is set to receive a CD level signal – **See step 2 of Connecting the SL2.**

Kensington Security Slot

You can use a Kensington security cable to attach the SL2 to an immovable object. Each side of the SL2 has a Kensington Security Slot. Refer to the instructions provided with your Kensington Lock.



Playing Regular Vinyl and CDs


The SL2 **must be powered** by USB or the optional external power supply for the DECK THRU's to work.

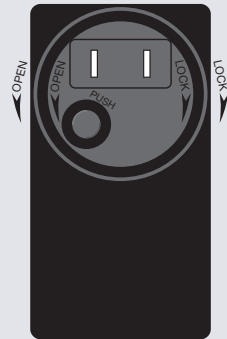
- If external power is connected, the SL2 is self-powered, and power is not used from the USB port.
- If external power is not connected, the SL2 draws power from the USB port. Power switching is automatic and the device continues to operate uninterrupted as long as a power source is available.
- To use the SL2 Thru outputs when a computer is not connected, you will need to obtain and connect the optional SL POWER supply. These are turned on and off in the Control Panel.

Optional Power Supply

The SL POWER supply is an accessory for the SL2. Check for availability at dj.rane.com.

- Connect the barrel connector of the power supply to the 7.5 VDC jack on the SL2. Plug the power supply into an AC outlet. The yellow POWER indicator will light on the SL2.
- The blade kit included with the universal power supply includes different input plugs for the USA, Europe, UK and Australia. The USA plug is attached at the factory — you may need to replace it in your country.
- To remove a plug, PUSH the button while turning the outer rim counterclockwise.
- To attach a plug, rotate it to fit into the supply and turn clockwise until it locks in place.
- The power supply accepts 100-240 VAC. The barrel plug is center positive.

 -(5.5mm) +(2.5mm)



Rane USB Drivers

Rane ASIO and Core Audio drivers allow the SL2 to act as a 4-in 4-out external USB sound card for use with multiple third-party software applications that support Core Audio or ASIO. ASIO and Core Audio drivers are multi-client, meaning they allow multiple applications on a computer to share the device at the same time. The ASIO and Core Audio drivers are included in the Serato DJ installer.

After Serato DJ is installed, you will be prompted to "Install Driver" in the Online Panel if you connect a new compatible device that has not already had its driver installed.

ASIO (Windows)

The SL2 uses a low-latency, multi-client, ASIO device driver to interface with software applications on Windows operating systems. Multi-client ASIO allows different audio software applications to simultaneously stream audio to and from the SL2. If the same playback channel is selected in more than one application, the driver mixes the audio from different applications before streaming it to the device.

The driver Control Panel may be launched from the Windows Control Panel. Select **Start > Control Panel > Rane SL2**.

Core Audio (Macintosh)

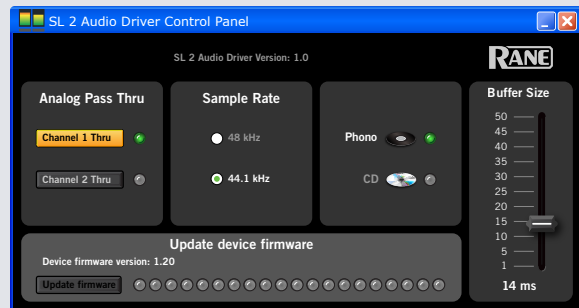
The SL2 uses a low-latency, Core Audio device driver to interface with software applications on Macintosh operating systems. Core Audio allows different audio software applications to simultaneously stream audio to and from the SL2.

To launch the SL2 driver Control Panel, open the System Preferences window. Locate the SL2 in the "Other" section and click the SL2 icon.

Control Panel

The Driver Control Panel supports:

- **Analog Pass Thru** check boxes allow stereo outputs 1-2 to select USB playback (computer) or analog input (vinyl or CD) as their source. If a button is on, USB playback is disabled and the SL2 input is fed to the output. This allows you to play regular audio vinyl and CDs.
- **Sample Rate** radio buttons allow a user to select a sample rate of 48 kHz or 44.1 kHz. If you aren't getting audio in your DJ software, try switching the sample rate and relaunch your software.
- **Phono / CD** read-only indicators show the Phono or CD input switched on the SL2.
- **Buffer Size** increases or decreases the USB driver buffer size. The SL2 drivers run very reliably at latencies below 8 milliseconds. However, computer performance and available resources (number of apps running) may adversely affect streaming audio. If pops and clicks are heard in USB audio, try increasing the buffer size. In ASIO, total round-trip latency = buffer size + device latency. In Core Audio, total round-trip latency = buffer size + software application latency + device latency. SL2 latency is 1.3 ms at 48 kHz and 1.4 ms at 44.1 kHz.
- If the SL2 firmware on your computer is newer than installed in your SL2, the Update Device Firmware panel is enabled. Pressing the **Update Firmware** button updates the SL2 firmware to the newer version installed with your driver.



Technical Specifications

All specifications typical unless otherwise stated	
CODEC	24-bit PCM
44.1 kHz Sample Rate Frequency Response	-0.5 dB @ 20 Hz, -1.22 dB @ 20 kHz
48 kHz Sample Rate Frequency Response	-0.5 dB @ 20 Hz, -0.40 dB @ 20 kHz
Sample Rate Selection	44.1 / 48 kHz selected in software control panel
Deck Inputs	Unbalanced RCA with CD / Phono switch
.....Phono Maximum Input	70 mV rms @ 1 kHz
.....Phono Gain	33 dB at 1.0 kHz
.....Line Level (CD) Maximum Input	3 Vrms
Line Outputs:	Unbalanced RCA
.....THD+N	0.007% @ 1 kHz
.....Maximum Output	3 Vrms
.....Dynamic Range	101 dB A-weighted analog in to analog out
Dynamic Range DAC	104.5 dB A-weighted
Device Latency	1.4 ms @ 44.1 kHz and 1.3 ms @ 48 kHz
USB 2.0 High Speed Port Required	3-unit load (300 mA max)
Blue Indicator	Flashing while device is booting Lit when USB 2.0 connection is detected
Yellow Indicator	Lit when the analog section is powered on
Optional SL POWER External Supply	100-240 VAC input, 7.5 VDC output, barrel plug
Power Supply Blade Kit with country adaptors	USA, UK, Europe, Australia (included with SL POWER)
Power: Turn On/Off Muting	Yes
.....Galvanic Isolation: Audio I/O is actively isolated from USB port and external power	
.....Auto-selects USB or external power without interruption	
Unit: Conformity	CE, FCC
.....Size	5.5" x 5" x 1.3" (14.1 x 12.5 x 3.3 cm)
Shipping: Size	14" x 14" x 4" (36 x 36 x 10 cm)
.....Weight	5 pounds (2 kg)

Technical Support

Support for Serato DJ and Scratch Live software is provided for the life of your Rane hardware. Several support avenues are available:

- Check the "support" tab at dj.rane.com.
- Check the "support" tab at serato.com.
- Phone support for USA customers from the Rane Factory at 425-355-6000 is only available 8:30 AM to 1PM and 2PM to 5PM Pacific Standard Time, Monday through Friday, closed on USA holidays.
- International customers may receive phone support from your distributor during their business hours. Contacts are under the "buy" tab at dj.rane.com.
- Serato direct support by email is answered most non-holiday New Zealand weekdays, Monday through Friday.
- Serato direct support by a phone call to New Zealand is answered most non-holiday weekdays, Monday through Friday 10AM to 6PM, New Zealand time. The phone number and office hours are at serato.com, and a note at the bottom shows if the office is open or closed. From the USA or Canada, dial 011 first, and then their number. Note that most cell phones are not able to call internationally, so use a land line.

The Rane and Serato Relationship

- "Scratch Live" and "Serato DJ" are digital DJ solutions using software, hardware and Control Vinyl / CD.
- Serato is the company that invented and develops "Serato DJ" and "Scratch Live" software applications.
- Serato holds copyright on the Serato Control Vinyl and Serato Control CD.
- Rane Corporation is a company that manufactures hardware to operate a functional Serato DJ system utilizing Serato Control Vinyl and CD.
- Rane Corporation & Serato both provide technical support for Rane's "Serato DJ" and "Scratch Live" software.
- Rane does not provide technical support for non-Rane hardware used with Serato software.
- Rane does not provide technical support for other Serato software products, such as Serato Video, Serato Video-SL, Serato Itch, or Serato DJ Intro. Technical support options are at serato.com/support.

dj.rane.com is your center for support, accessories, community, and learning how to get the most from your DJ equipment.

Limited Warranties

Factory Authorized Service

Your unit may someday need to be serviced by the Rane Factory if you live in the USA. International customers should contact your dealer or distributor for service. You must call the Rane factory before shipping. Please do not return your unit to Rane without prior authorization.

To obtain service or a Return Authorization in the USA, please phone Rane Corporation at 425-355-6000, or fax Rane at 425-347-7757.

Limited U.S.A. Warranty

RANE CORPORATION WARRANTS ALL RANE PRODUCTS (except those items classified and listed in "Wear Parts" on page 3) PURCHASED IN THE U.S. AGAINST DEFECTS IN MATERIAL OR WORKMANSHIP FOR A PERIOD OF TWO (2) YEARS. WEAR PARTS ARE LIMITED TO A PERIOD OF NINETY (90) DAYS FROM THE INITIAL DATE OF RETAIL PURCHASE FROM AN AUTHORIZED RANE DEALER—WEAR PARTS REQUIRE PROOF OF PURCHASE DATE. This limited warranty extends to all purchasers or owners of the product during the warranty period beginning with the original retail purchase. Rane Corporation does not, however, warrant its products against any and all defects: 1) arising out of material or workmanship not provided or furnished by Rane, or 2) resulting from abnormal use of the product or use in violation of instructions, or 3) in products repaired or serviced by other than the Rane Factory, or 4) in products with removed or defaced serial numbers, or 5) in components or parts or products expressly warranted by another manufacturer. Rane agrees to supply all parts and labor to repair or replace defects covered by this limited warranty with parts or products of original or improved design, at its option in each respect, if the defective product is shipped prior to the end of the warranty period to the Rane Factory in the original packaging or a replacement supplied by Rane, with all transportation costs and full insurance paid each way by the purchaser or owner.

Limited Warranty Outside the U.S.A.

RANE PRODUCTS ARE WARRANTED ONLY IN THE COUNTRY WHERE PURCHASED, THROUGH THE AUTHORIZED RANE DISTRIBUTOR IN THAT COUNTRY, AGAINST DEFECTS IN MATERIAL OR WORKMANSHIP, THE SPECIFIC PERIOD OF THIS LIMITED WARRANTY SHALL BE THAT WHICH IS DESCRIBED TO THE ORIGINAL RETAIL PURCHASER BY THE AUTHORIZED RANE DEALER OR DISTRIBUTOR AT THE TIME OF PURCHASE. Rane Corporation does not, however, warrant its products against any and all defects: 1) arising out of materials or workmanship not provided or furnished by Rane, or 2) resulting from abnormal use of the product or use in violation of instructions, or 3) in products repaired or serviced by other than authorized Rane repair facilities, or 4) in products with removed or defaced serial numbers, or 5) in components or parts or products expressly warranted by another manufacturer. Rane agrees, through the applicable authorized distributor, to repair or replace defects covered by this limited warranty with parts or products of original or improved design, at its option in each respect, if the defective product is shipped prior to the end of the warranty period to the designated authorized Rane warranty repair facility in the country where purchased, or to the Rane factory in the U.S., in the original packaging or a replacement supplied by Rane, with all transportation costs and full insurance paid each way by the purchaser or owner.

ALL REMEDIES AND THE MEASURE OF DAMAGES ARE LIMITED TO THE ABOVE SERVICES, IT IS POSSIBLE THAT ECONOMIC LOSS OR INJURY TO PERSON OR PROPERTY MAY RESULT FROM THE FAILURE OF THE PRODUCT; HOWEVER, EVEN IF RANE HAS BEEN ADVISED OF THIS POSSIBILITY, THIS LIMITED WARRANTY DOES NOT COVER ANY SUCH CONSEQUENTIAL OR INCIDENTAL DAMAGES. SOME STATES OR COUNTRIES DO NOT ALLOW THE LIMITATIONS OR EXCLUSION OF INCIDENTAL OR CONSEQUENTIAL DAMAGES, SO THE ABOVE LIMITATION MAY NOT APPLY TO YOU.

ANY AND ALL WARRANTIES, EXPRESS OR IMPLIED, ARISING BY LAW, COURSE OF DEALING, COURSE OF PERFORMANCE, USAGE OF TRADE, OR OTHERWISE, INCLUDING BUT NOT LIMITED TO IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE, ARE LIMITED TO A PERIOD OF TWO (2) YEARS FROM EITHER THE DATE OF ORIGINAL RETAIL PURCHASE OR, IN THE EVENT NO PROOF OF PURCHASE DATE IS AVAILABLE, THE DATE OF MANUFACTURE, SOME STATES OR COUNTRIES DO NOT ALLOW LIMITATIONS ON HOW LONG AN IMPLIED WARRANTY LASTS, SO THE ABOVE LIMITATIONS MAY NOT APPLY TO YOU. THIS LIMITED WARRANTY GIVES YOU SPECIFIC LEGAL RIGHTS, AND YOU MAY ALSO HAVE OTHER RIGHTS WHICH VARY FROM STATE TO STATE, COUNTRY TO COUNTRY.

Warranty Procedure - Valid in U.S.A. only

NOTICE! You must complete and return the warranty card or register your product online to extend the Warranty from 2 years to 3 years!

TO VALIDATE YOUR EXTENDED WARRANTY: Use the postcard that came in the box with your unit, or go to the **support** page at dj.rane.com and click on **product registration**. Fill out the warranty completely, being sure to include the model and serial number of the unit since this is how warranties are tracked. If your Rane product was purchased in the U.S.A., mail the completed card or register online with to Rane Corporation within 10 days from the date of purchase. **If you purchased the product outside the U.S.A. you must file your warranty registration with the Rane Distributor in that country.** It is advised that you keep your bill of sale as proof of purchase, should any difficulties arise concerning the registration of the warranty card. **NOTICE: IT IS NOT NECESSARY TO REGISTER IN ORDER TO RECEIVE RANE CORPORATION'S STANDARD TWO YEAR LIMITED WARRANTY.**

WARRANTY REGISTRATION is made and tracked by MODEL AND SERIAL NUMBERS ONLY, not by the purchaser's or owner's name. Therefore any warranty correspondence or inquires **MUST** include the model and serial number of the product in question. Be sure to fill in the model and serial number in the space provided below and keep this in a safe place for future reference.

WARRANTY SERVICE MUST BE PERFORMED ONLY BY AN AUTHORIZED RANE SERVICE FACILITY LOCATED IN THE COUNTRY WHERE THE UNIT WAS PURCHASED, OR (if product was purchased in the U.S.) AT THE RANE FACTORY IN THE U.S.. If the product is being sent to Rane for repair, please call the factory for a Return Authorization number. We recommend advance notice be given to the repair facility to avoid possible needless shipment in case the problem can be solved over the phone. **UNAUTHORIZED SERVICE PERFORMED ON ANY RANE PRODUCT WILL VOID ITS EXISTING FACTORY WARRANTY.**

FACTORY SERVICE: If you wish your Rane product to be serviced at the factory, it must be shipped **FULLY INSURED, IN THE ORIGINAL PACKING OR EQUIVALENT**. This warranty will **NOT** cover repairs on products damaged through improper packaging. If possible, avoid sending products through the mail. Be sure to include in the package:

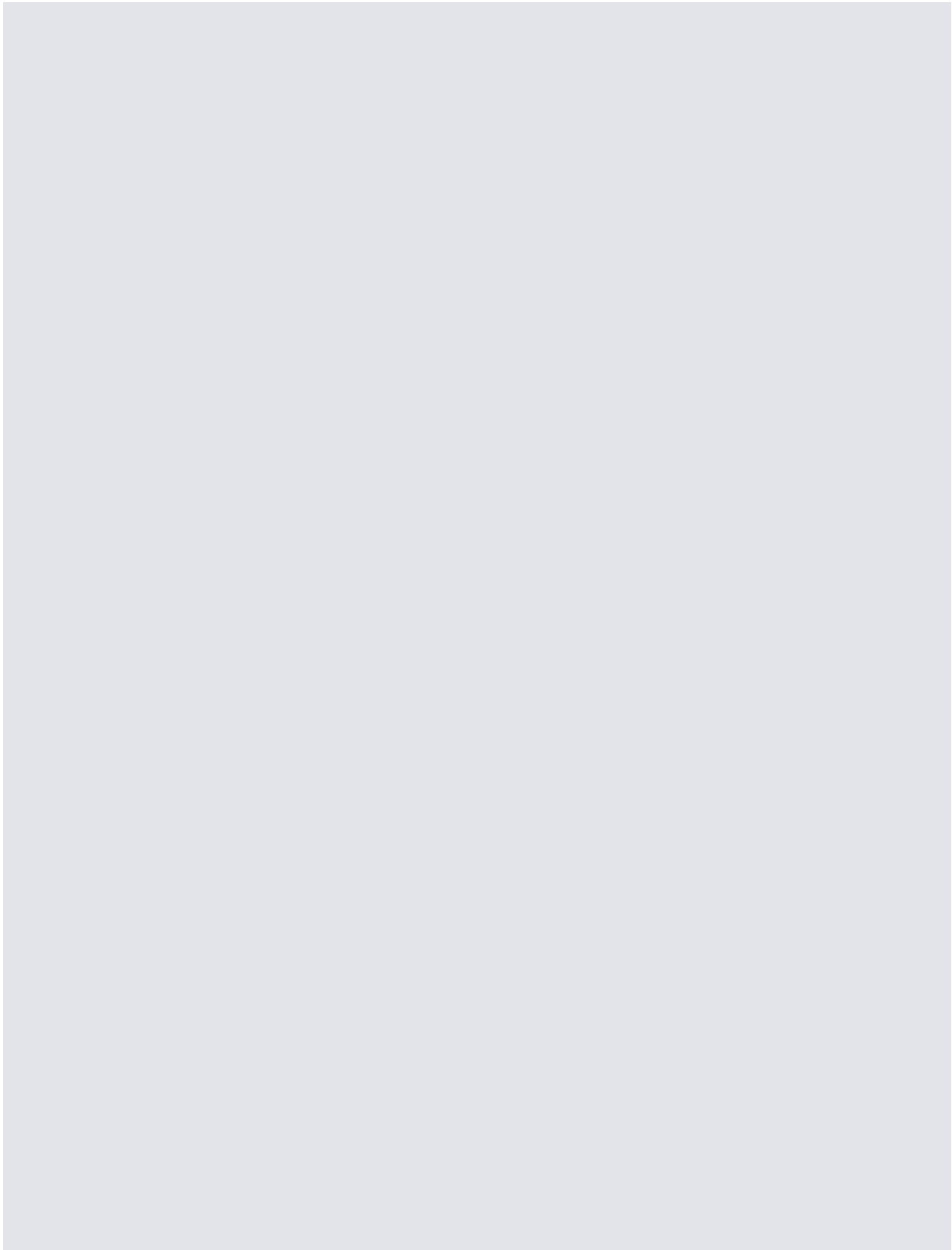
1. Complete return street shipping address (P.O. Box numbers are **NOT** acceptable).
2. A detailed description of any problems experienced, including the make and model numbers of any other system equipment.
3. Remote power supply, if applicable.

Repaired products purchased in the U.S. will be returned prepaid freight via the same method they were sent to Rane. Products purchased in the U.S., but sent to the factory from outside the U.S. **MUST** include return freight funds, and the sender is fully responsible for all customs procedures, duties, tariffs and deposits.

In order to qualify for Rane's one year extended warranty (for a total of 3 years parts and labor), the warranty must be completely filled out and sent to us immediately. Valid in USA only.

We recommend you write your serial number here in your owners manual and on your sales receipt for your records.

SERIAL NUMBER: _____ PURCHASE DATE: _____



EU Declaration of Conformity

Product Model: SL2
Serial Numbers: 900000 – 999999
Product Type: Professional Audio Signal Processing



Manufacturer: Rane Corporation
Address: 10802 47th Avenue West, Mukilteo WA 98275-5000 USA

This declaration is issued under the sole responsibility of Rane Corporation.

The object of the declaration described above is in conformity with the relevant Union harmonisation legislation:
2014/30/EU The Electromagnetic Compatibility Directive
2012/19/EU The Waste Electrical and Electronic Equipment Directive
2011/65/EU The Restriction of Hazardous Substances Directive

References to the relevant harmonised standards used in relation to which conformity is declared:
EN55103-1:2009/AM1:2012 Compatibility of professional electronic A/V apparatus emissions.
EN55103-2:2009 Compatibility of professional electronic A/V apparatus immunity.
EN50581:2012 Technical documentation for RoHS assessment of electronic products.

Additional Information:
Environment E2
CE mark first affixed in 2011

In order for the customer to maintain compliance with these regulations, high quality shielded cable must be used for interconnection to other equipment. No changes or modification of the equipment, other than that expressly outlined by the manufacturer, are allowed. The user of this equipment shall accept full responsibility for compliance with Union harmonisation legislation in the event that the equipment is modified without written consent of the manufacturer.

EN55103-2 Immunity Results:	THD+N: 4 dBu, 400 Hz, BW 20 Hz - 20 kHz	
Test Description	Measurement	Conditions
RF Electromagnetic Fields Immunity		
80 MHz - 1000 MHz, 1 kHz AM, 80% depth, 3V/m	<-80 dB	
1400 MHz - 2700 MHz, 1 kHz AM, 80% depth, 3V/m	<-80 dB	
Conducted RF Disturbances Immunity		
150 kHz - 80 MHz, 1 kHz AM, 80% depth, 3V rms	<-75 dB	150 kHz - 6.2 MHz
	<-66 dB	6.2 kHz - 9.5 MHz
	<-75 dB	9.5 kHz - 16.1 MHz
	<-66 dB	16.1 kHz - 28.5 MHz
	<-75 dB	28.5 kHz - 80 MHz
Magnetic Fields Immunity		
50 Hz - 10 kHz, 3.0 - 0.3 A/m	<-56 dB	

Signed for and on behalf of: Rane Corporation
Place of issue: Mukilteo WA USA Date of issue: February 11, 2011
Name: Greg Frederick Function: Compliance Engineer

Signature:

A handwritten signature in black ink, appearing to read 'Greg Frederick'.

