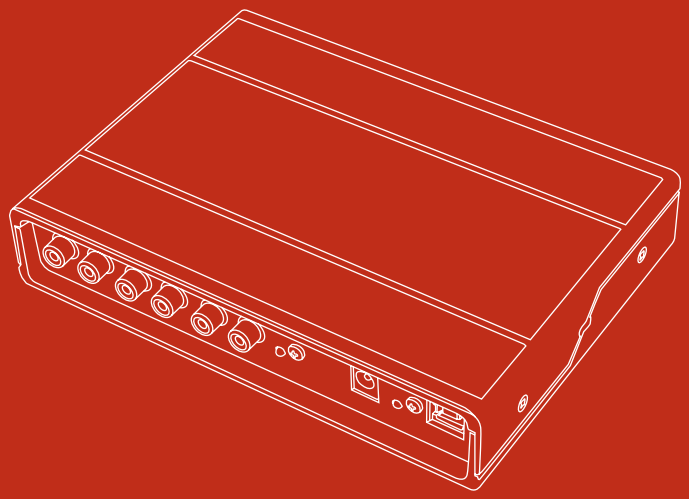
RANE | SL 3

ADVANCED 24-BIT USB 2.0 INTERFACE FOR PROFESSIONAL DJS

serato™ | SCRATCH LIVE



RANE SL 3 FOR SERATO SCRATCH LIVE • OPERATOR'S MANUAL **2.2**

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.

INTRODUCTION

Refer to the separate Quick Start guide that was included in the box. If you lose yours, a new copy (along with this manual and all other documentation) may be downloaded at rane.com/sl3.html. To keep up with the latest tips, and to check for Scratch Live software updates, visit the Official Scratch Live Forum at serato.com.

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WEAR PARTS

The SL 3 interface contains no wear parts. The vinyl records and CDs are wear parts as described in “Limited U.S.A. Warranty” on page 42.

MINIMUM SYSTEM REQUIREMENTS

- **DJ mixer with at least 2 line-level inputs.**
- **At least one turntable or CD player.**

PC

- **Windows XP with Service Pack 3 or higher, or Vista with Service Pack 2 or higher, or Windows 7. We recommend Windows 7 over Vista.**
- **Intel processor, Pentium 4 / 1.5 GHz.**
- **2 GB RAM.**
- **Screen resolution 1024 x 768 or higher.**
- **Hard drive space for storing music.**
- **Available USB 2.0 port.**

MAC

- **Mac OSX 10.4.11 or higher.**
- **1 GHz G4.**
- **2 GB RAM.**
- **Screen resolution 1024 x 768 or higher.**
- **Hard drive space for storing music.**
- **Available USB 2.0 port.**
- **Scratch Live is compatible with Intel-based Mac computers.**

PLEASE NOTE: These are the minimum requirements to run Serato Scratch Live without optional plugins. For best performance or when using optional plugins we recommend you use a higher spec computer. For more information please visit www.serato.com/scratchlive.

CHECK LIST

These items are included in the box:

1 SL 3 interface.
1 soft carry case.
1 Serato Scratch Live software install disc.
1 external universal power supply with country adaptors.
1 USB cable.
4 stereo RCA cables.
2 control CDs.
2 control vinyl records.
4 rubber feet for the SL 3.
1 Quick Start Guide.
1 Warranty card.
1 this manual.

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SCRATCH LIVE: GETTING STARTED

CONNECTING YOUR HARDWARE

SYSTEM OVERVIEW

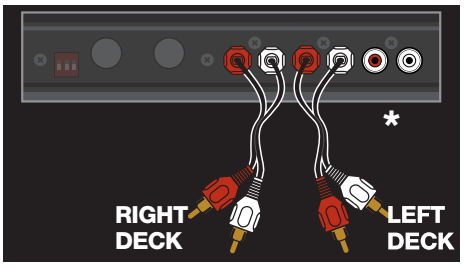
The Scratch Live control records and CDs are pressed with an audible tone specifically developed for controlling the Scratch Live software application.

The SL 3 interface converts the control signal coming from each deck into digital audio, to be sent via USB to the Scratch Live 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 SL 3

To integrate an SL 3 unit into a typical DJ setup, connect it to your turntables (or CD players) and mixer, as follows:

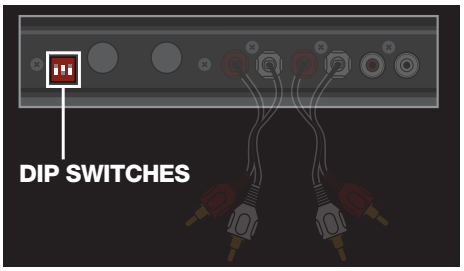
1. Inputs



Connect your CD players or turntables to the DECK INPUTS on the Rane SL 3.

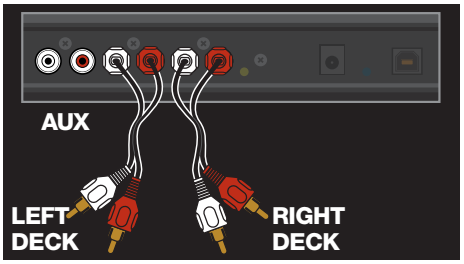
***Optional Step:** Connect an additional output (such as AUX OUT) from your mixer to the AUX INPUTS on the SL 3 to record your set in Scratch Live. **SEE "RECORDING" ON PAGE 28.**

2. Input Level Selection



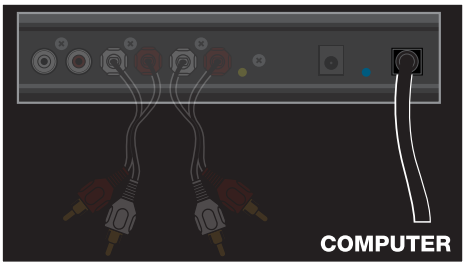
Set each input to the correct input level using the dip switches. Set the switches UP for Phono (turntables) or DOWN for Line (CD players).

3. Outputs



Connect the OUTPUTS of the SL 3 to line inputs on your mixer. Connect the AUX output to an additional line input or AUX input on your mixer to output the sample player. **SEE "SP-6 SAMPLE PLAYER" ON PAGE 19.**

4. Connect the SL 3 to your computer



Using the provided USB cable, connect your SL 3 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.

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 Scratch Live. Make sure you have good connections from the ground wires of your turntables to the grounding post of your SL 3. If you do not ground your turntables properly, the control signal will be noisy and the tracking of the record position will be erratic.

3. Ensure the SL 3 is set to receive a phono level signal – **SEE STEP 2 OF CONNECTING THE SL 3.**

CD PLAYER SETUP

Disable all built-in effects on the CD player, including keylock/master tempo.

Ensure the SL 3 is set to receive a LINE level signal – **SEE STEP 2 OF CONNECTING THE SL 3.**

KENSINGTON SECURITY SLOT

You can use a Kensington security cable to attach the SL 3 to an immovable object. Each side of the SL 3 has a Kensington Security Slot. Refer to the instructions provided with your Kensington Lock.

PLAYING REGULAR VINYL AND CDS

NOTE: the SL 3 must be powered by USB or the supplied external power supply for the DECK THRUs to work.

While Scratch Live is not running, and the SL 3 is powered by the external supply, the Deck Thrus on the SL 3 will always be on, allowing you to play regular CDs and vinyl with your CD players or turntables.

When the SL 3 is powered by the universal power supply, and then Scratch Live is launched, the Deck Thrus are still on. This allows a laptop to be connected during a set (when using the Deck Thrus) with no audio interruption.

If the SL 3 is not powered by the universal power supply when Scratch Live is launched (USB connected), the Deck Thrus will be off, but can be turned on in Scratch Live.

To turn the Thrus off and on in Scratch Live, click on the THRU button just above each Virtual Deck for the respective channel. This will change the state of the channels to Thru Mode, sending audio direct from the SL 3 inputs to your mixer.

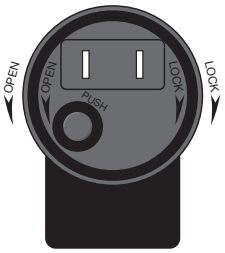
SEE "THRU MODE" ON PAGE 15.

POWER SUPPLY

Connect the barrel connector of the power supply to the 7.5 VDC jack on the SL 3. Plug the power supply into an AC outlet. The yellow POWER indicator will light on the SL 3.

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 is regulated 7.5 volts DC, 1 amp, using a P6 type barrel plug. Any substitute must meet these specifications.

-(5.5mm) +(2.5mm)

INSTALLING SCRATCH LIVE

Check for the latest download version of Scratch Live software at serato.com. If it is newer than what is on your CD-ROM, we recommend installing it instead.

MAC

1. Insert the Software Installation CD-ROM and double-click the installer icon.

or

Launch the installer you just downloaded from serato.com.

2. Follow the on-screen instructions. Once the installation is complete, Scratch Live will appear in your applications list. You may like to drag the Scratch Live icon to your dock for quick launching.

3. Plug in your SL 3. No extra hardware or driver installation is required.

WINDOWS

It is important that Windows users install the SL 3 drivers as well as the Scratch Live software. The easiest way to do this is to allow the Scratch Live installer to do all the work.

1. Connect your SL 3 before you insert your installation CD. When you first connect it, Windows will attempt to install the drivers via the hardware wizard. Cancel and close the hardware wizard.

2. Insert the Software Installation CD-ROM. Make sure your SL 3 is connected first. If a window doesn't open automatically, browse to the CD drive. Run setup.exe.

or

Launch the installer you just downloaded from serato.com.

3. Follow the on-screen instructions. Once the installation is complete, Scratch Live appears in the Start Menu under All Programs > Serato > Scratch Live.

Because the SL 3 was connected prior to installing Scratch Live, no extra hardware installation is required.

NOTE: Select the custom install option if you wish to change the installation location of Scratch Live.

ADDITIONAL WINDOWS DRIVERS

Vista & Windows 7 install the driver for all USB ports at once. Windows XP treats each USB port individually. You might like to install the Drivers for the SL 3 hardware on all of your USB ports.

Connect your Scratch Live hardware to a USB port. Windows will again attempt to install the drivers via the hardware wizard. Cancel and close the hardware wizard.

With your hardware still connected, run the Scratch Live driver updater. This is usually located in:

C: > Program Files > Serato > driver_updater32.exe

or for Vista and 7 64-bit systems:

C: > Program Files (x86) > Serato > driver_updater64.exe.

Repeat this process for each of your USB ports.

TIP: The driver updater can install drivers for different types of Scratch Live hardware, not just the SL 3. For example, if you play at a club that uses a TTM 57SL mixer, just connect the mixer and run through the driver updater as above.

STARTING THE SOFTWARE

Close all other programs on your Mac or PC. When you load Scratch Live for the first time, you will see this screen.

USING THE TOOL TIPS

Click on the **?** icon to enable tool tips. Tool tips provide a handy way to learn the various features of Scratch Live. Move the mouse over a section of the screen to bring up a context-sensitive tool tip. Holding the mouse over the **?** button with tool tips turned on will show you a list of all keyboard shortcuts. Tool tips are available in several languages. Scratch Live will display the tool tips in the language that your computer is set to. If your language is not available, the tool tips will be displayed in English.

CALIBRATING SCRATCH LIVE

Since Scratch Live is controlled by an analog signal, there is no guarantee of what state that signal will be in by the time the software gets to interpret it. Therefore, Scratch Live needs to be able to handle a wide range of signals, and be configurable to use them optimally. Calibrating is just configuring the software to your situation. **Calibration is equally important for both vinyl and CD users of Scratch Live.**

There are two parts to the Scratch Live control signal: The directional tone, and the noise map. Listening to the control vinyl, the directional tone is the 1 kHz tone. The noise map sounds like random noise over the top of the tone.

The directional tone provides the current speed and direction of the record, while the noise map tells the software precisely where on the record the needle is currently.

THE NOISE THRESHOLD

A threshold is a lower limit, below which a process will not occur. In the case of Scratch Live, the noise threshold is the limit below which the input signal will not be interpreted as control signal; in other words if it's below the threshold, it is considered noise and ignored.

This setting is necessary because a stylus is very sensitive, and will inevitably pick up noise from the environment as well as the signal on the record, especially in the noisy environment of a live show.

HOW TO CALIBRATE SCRATCH LIVE

With music playing in the background (from any source), put your needle on the record with the turntable **stopped**. If you are using CD players, the same rules apply. Have the CD deck paused or stopped while calibrating. Ensure the input level in Scratch Live is set correctly to accept a LINE level signal. **SEE "LINE / PHONO STATUS" ON PAGE 31.**

Click and hold the estimate button until the slider stops moving. Moving the threshold slider to the left will make Scratch Live more sensitive to slow record movement, but also more sensitive to background noise.

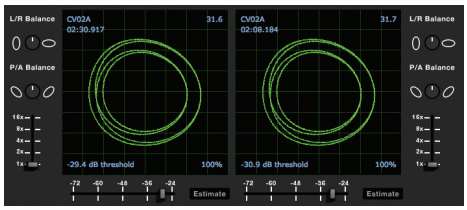
Repeat the process for each deck.

Things to remember:

- Your needle must be on the record.
- Your turntable (or CD player) must be stationary.
- The background music playing must be at a similar level to which you will play your set at.
- Calibrate Scratch Live every time you play.

TIP: If the slider jumps to the far right, then you have a problem with noise in your turntables/CD players/mixer. Check all your connections and make sure your equipment is well earthed. In some situations you will not be able to improve the signal quality, and you will have to play on regardless. In this situation, stick to REL mode.

THE SCOPES



The scopes on the Setup screen in Scratch Live display the input signal as a phase diagram. The key factors to look at on the scope display are crisp clean lines, round shape, and the tracking percentage in the lower right corner.

Start both turntables or CD players. You will see green rings appear in the scope view as shown above.

For optimal performance the inner ring should be as close to circular as possible. Use the scope zoom slider (**1x to 16x**) to zoom in or out as necessary. Use the scope **L/R Balance** and **P/A Balance** controls to adjust the shape of the inner ring.

The number in the top left corner of the scope view gives the current absolute position within the control record or CD. The number in the top right corner is the current speed in RPM. In the bottom left is the current threshold setting, and the number in the bottom right shows the percentage of readable signal – this number should be close to 85% when your system is calibrated properly.

CALIBRATION TROUBLESHOOTING

After calibration, the number in the upper right corner of the scope view should say 0.0 while the needle is on the record and the turntable is stopped.

If that number is fluctuating then manually move the Estimate slider to the right until that number is stable at 0.0. If you've moved the slider all the way to -24 and its still fluctuating then you have a grounding or interference problem somewhere in the chain.

If so, the first thing to check is that the grounding wire coming from your turntable is connected to your SL 3's grounding posts.

Next, make sure that the SL 3 isn't sitting next to a power source such as a power strip or power box and that the RCA cables connected to the SL 3 aren't laying across other power conducting cables.

If you are still experiencing issues, you might have to adjust the placement of your setup. For example, make sure bass bins aren't directly under the turntables. **FOR MORE CALIBRATION TROUBLESHOOTING HELP SEE "SCOPE READING AND FIXES" ON PAGE 38.**

IMPORTING AND PLAYING MUSIC

IMPORTING YOUR MUSIC

The easiest way to load music into your library is by using the **Files** button:

1. Click on the Files button to open the files panel. The left side of this window displays various locations on your computer hard drive (and external drives if you have one). Click on these locations to navigate your computer and find your music. By default, your music will usually be found in either "Music" (Mac) or "My Music" (Windows).

2. Once you have located your music, drag the folder or files you want to import onto the purple "✻ **All...**" icon. This is located to the left of your screen at the top of the crates and playlist window. If you wish to import all of your music, just drag your whole music folder onto this icon.

TIP: You can also import by dragging files and folders directly from Windows Explorer (PC version) or Finder (Mac version) into the Scratch Live library.

SUPPORTED FILE TYPES

Scratch Live supports fixed and variable bit rate .MP3, Ogg Vorbis, .AAC, .AIFF, .ALAC, .WAV and Whitelabel (wl.mp3) file types. M3U playlists are also supported. For more on Whitelabel.net audio files, **SEE "WHITELABEL.NET" ON PAGE 10**.

NOTE: Older iTunes Music Store DRM files cannot be played back by Scratch Live. iTunes Plus files are DRM-free.

PLAYING MUSIC

Click on the "❇ **All...**" icon to show all the tracks in your library. Use the keyboard shortcut Shift - Left Arrow to load the highlighted track on to the Left Deck, and Shift - Right Arrow to load the highlighted track on to the Right Deck.

TIP: You can also load tracks to Decks using the mouse. Click and drag a track from the track list area on to either Virtual Deck.

To start playing a track, simply put the needle on the record and start the turntable. The track will start playing as soon as it detects the signal from the control vinyl (or CD).

In ABS mode, the track will play from the position dictated by the placement of the needle on the record. If you place the needle at the beginning of the record, the track will start playing from the beginning. You can skip through the track by picking up the needle and placing it further into the record, just as with regular records (This is known as needle dropping). **SEE "SCRATCH LIVE MODES" ON PAGE 15.**

TRACK DISPLAY

When a track is loaded, the track name, artist and length are displayed in the track title bar, and the Virtual Deck shows a solid black line.

If the track has BPM or key information written in the tag this will also be displayed. **SEE "SET AUTO BPM" ON PAGE 11.**

WHITELABEL.NET

The Serato Whitelabel Delivery Network is a unique system that allows record labels to digitally deliver promotional releases directly to DJs.

To download Whitelabel audio files and sign up to receive updates on the latest promotional releases, visit whitelabel.net.

WHITELABEL AUDIO FILES

Whitelabel.net audio files are a unique format (file extension wl.mp3) developed by Serato. They are specially prepared for use in Scratch Live; pre-analyzed, tagged with song and artist info, BPM and album art where possible.

Whitelabel audio files play as high quality 320 kbps stereo audio in Scratch Live when Rane Scratch Live hardware is connected. Without Scratch Live hardware connected, or when playing these files through other mp3 software and devices, they will play as low quality 32 kbps mono audio.

Whitelabel audio files are promotional releases from records labels available to Scratch Live DJs for free from Whitelabel.net.

PREPARING YOUR FILES

ANALYZING FILES

Before you play your music in Scratch Live, It is important to first analyze your files.

The analyze files function processes the songs in your library to detect file corruption, saves the waveform overview to an ID3 tag*, and calculates auto-gain and BPM values.

HOW TO ANALYZE FILES

To analyze files run Scratch Live with the SL 3 disconnected. On the left side of the main screen, click the **Analyze Files** button to automatically build overviews for all the tracks in your library.

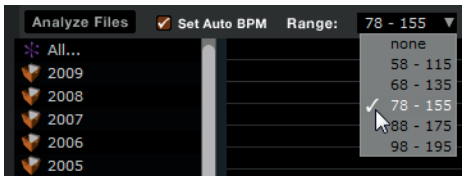
TIP: You can drag and drop individual folders, crates or files onto the Analyze Files button to force the building of overviews at any time.

ABOUT CORRUPT FILES

If Scratch Live detects a corrupt file it will tag it with a corrupt file icon:

It is very important that you delete ANY corrupt files from your library as they can cause Scratch Live to crash regardless if you play the file or not. **SEE "STATUS ICONS" ON PAGE 27 AND "CORRUPT FILE DESCRIPTIONS AND DIAGNOSES" ON PAGE 36.**

SET AUTO BPM

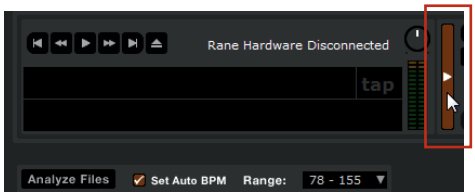


If this option is checked while analyzing files, Scratch Live will calculate the estimated tempos of your files. If Scratch Live is confident that the Auto BPM estimate for a file is accurate, it will be written to an ID3 tag* in the file. The Auto BPM function will not be applied if the track already contains BPM information. To re-analyze these files and use Auto BPM or auto gain on them, drag them onto the **Analyze Files** button. If you know your file's BPM will fall within a certain range, use the range drop down to avoid double or half value BPMs being calculated.

***NOTE: ID3 tags contain data about your tracks and are saved inside the files themselves. Genre, track name and artist are examples of common tag information.** **SEE "EDITING ID3 TAGS" ON PAGE 26.**

THE OFFLINE PLAYER

The offline player is a useful tool for preparing crates, auditioning tracks, and setting cue and loop points. The offline player is available when Scratch Live hardware is not connected, and outputs through the current default audio device. Load a track to the offline player by dragging and dropping onto the Deck, or pressing shift+left arrow. If the end of the loaded track is reached, the next track in the current playlist is played automatically. Click the Offline Player Controls button (outlined below) to expand and hide the offline player controls.



For information on rescanning, moving, copying, deleting and backing up your files, **SEE "FILE MANAGEMENT" ON PAGE 27**.

PLAYBACK CONTROL

THE CONTROL RECORD

The control record has two sides. The first side is 10 minutes long and contains the Vinyl Scroll section. The second side is 15 minutes long. Scratch Live can be configured to work with records playing at either 33 RPM or 45 RPM, depending on your preference. The record has thin marks every minute, and a thicker mark every 5 minutes (when playing at 33 RPM). These marks are to assist you when using needle dropping to move through the track. These marks do not affect the playback of the track.

THE CONTROL CD

The control CD has two tracks. The first track is 15 minutes long and controls playback. The second track is 40 seconds long and controls vinyl scroll.

VINYL SCROLL

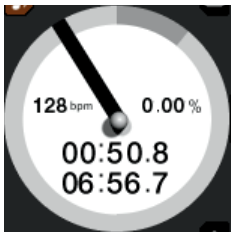
Vinyl Scroll allows you to select and load tracks using only your turntables (or CD player) – no contact with the computer necessary! To use Vinyl Scroll with turntables, lift the needle off the record and drop it into special "bonus track" section at the end of the record's A side. The movement of the control disk now controls the selected track within your library. Lift the needle out of the Vinyl Scroll section of the record and into the lead out (between the Vinyl Scroll area and the end of the record) to change crates or iTunes playlists. Go back to the Vinyl Scroll area of the record to choose a track within the crate or playlist. Once you have found the track you wish to play, put the needle back at the beginning of the record and it will load automatically.

This feature is available to CD users. Go to track 2 on the control CD to access Vinyl Scroll. Find the track you want to load, and go back to track 1. The track you selected will be loaded and ready to play. You can reverse the direction of Vinyl Scroll and set the sensitivity in the Setup screen.

TIP: You can also use Vinyl Scroll in the Prepare window. **SEE THE OPTIONS FOR "VINYL CONTROL" ON PAGE 32.**

MAIN SCREEN OVERVIEW

VIRTUAL DECK



The Virtual Deck shows everything about the speed and position of a track. As the vinyl rotates, so does the line on the label. The circular progress bar around the edge is a visual representation of the position within the song, and can be set to flash to warn you that the track is nearing its end. The time and remaining time are displayed in minutes and seconds. The pitched BPM (BPM with pitch adjustment multiplier added) is shown on the left of the Virtual Deck, and the turntable speed as a percentage pitch shift is shown on the right of the Virtual Deck. If the track has no BPM information, pitched BPM will not be shown.

If you are playing regular vinyl, notice the Virtual Deck behaving strangely as Scratch Live attempts to decode the incoming signal. This will not cause any problems, but you may find it distracting. You can unload the currently loaded track using the Virtual Deck eject button.

TIP: Use the keyboard shortcut shift-alt-arrow to unload a track from the Virtual Deck.

VISUAL AIDS

When the track is playing several waveforms are displayed. Each shows a different aspect of the track being played.

TEMPO MATCHING DISPLAY

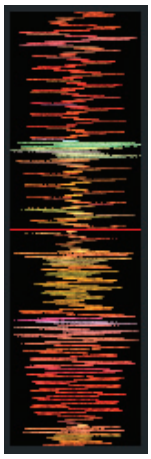
The Tempo Matching display area provides a helpful tool for beat matching. Scratch Live detects the beats within the track, and places a row of orange peaks (for the track on the left side) above a row of blue peaks (for the track on the right side) in the Tempo Matching display area. When the two tracks are matched to the same tempo, the peaks will line up. The tempo display is aligned with the beginning of the bar, so the peaks keep their relative position as the track plays. This display does not show the relative timing of the beats, only the tempos of the tracks. The peaks will still line up when the tracks are playing at the same tempo, but are out of sync.

TRACK OVERVIEW DISPLAY

This view provides a complete overview of the track waveform, and includes a marker to show the current position within the track. This view is useful for finding transitions within the track. The waveform is colored according to the sound spectrum – red representing low frequency bass sounds, green representing mid frequency sounds and blue representing high frequency treble sounds.

You can jump to different positions within the track by clicking on the Track Overview display (disabled in ABS Mode). Grey lines behind the overview show the length of the track – a thin grey line every minute, and a thick grey line every 5 minutes. The overview will be filled when you load the track onto a Virtual Deck. On slower computers, you should disable **Autofill overviews** in the Library tab of the Setup screen. **SEE "PREPARING YOUR FILES" ON PAGE 10 AND "AUTOFILL OVERVIEWS" ON PAGE 33.**

MAIN WAVEFORM DISPLAY



This view provides a close-up of the track, including color coding to show the frequency of the sound; red representing low frequency bass, green representing mid-frequencies and blue representing high-frequency treble sounds. You can also switch to a three-band spectrum view by holding the ctrl key and clicking on the waveform. Click on the waveform to 'scrub' or make fine adjustments to your position within the track. This applies to INT Mode only, and may be useful if you wish to set cue points in your tracks without your turntables or CD players connected. The Main Waveform is zoomed around the current position in the track. **SEE "CUE POINTS" ON PAGE 17 AND "SCRATCH LIVE MODES" ON PAGE 15.**

TIP: Use the + and – keys to zoom in and out.
TIP: Waveform can be either vertical or horizontal.
SEE "DISPLAY MODES" ON PAGE 14.

Kick Drum

In this example, the red part of the wave represents a kick drum, while the purple part represents a snare drum.

Snare Drum

BEAT MATCHING DISPLAY

This view shows the position of beats within the track. When beat matching, this view helps align the downbeats of the two tracks. The markers are matched up when the two tracks are beat matched.

Example: The following is a demonstration of using the visual aids to help beat match. In this example, the track that is playing is on the Left Deck, and the track to be mixed in is on the Right Deck.

1. Start the track playing on the Right Deck. After a few seconds, blue peaks appear in the Tempo Matching display.

2. Adjust the pitch of the right turntable until the blue peaks sit under the orange peaks in the Tempo Matching display. Once they are aligned, the two tracks have the same tempo.

3. Next align the markers in the Beat Matching display. Watch the color of the items passing by in the Main Waveform display. Remember that a kick or bass drum will be red in color, and a snare drum will be green or blue. This technique will by no means guarantee perfect mixes, but may help to speed up the process of beat matching.

MASTER GAIN

The master output of Scratch Live can be controlled using the master gain control. This adjusts the output volume of all tracks played.

NOTE: For best results, set the master gain to the 12 o'clock position, and adjust the volume of individual tracks using the track gain adjustment.

33 / 45 SPEEDS

Set this to match the speed of your turntable for normal playback.

TRACKING INDICATOR

The tracking indicators on the main screen show the quality of the signal coming from the control record or CD. The length of the bar indicates the speed of the record or CD. The color indicates the amount of position information Scratch Live is receiving. When you are playing the record at normal speed, the tracking indicator should be grey. If it is mostly red there is a problem reading the control signal. Make sure your needles are clean, and check the calibration in the setup screen.

NOTE: It is normal for the tracking indicator to be red when cueing or scratching.

TAP TEMPO

For tracks with no BPM information, there is a tap tempo button displayed where the BPM usually is, in the song info area. Pressing alt-space bar activates the tempo tapper (press alt-space bar a second time to activate the tempo tapper on the Right Virtual Deck). Tap the space bar along with the beat. After you've tapped the first beat, you can switch to double time tapping, half time, start of each bar etc. The range is set by the first two taps, after that you can switch to any steady rhythm you feel comfortable with – quarter notes, half note, whole notes. Esc resets the BPM, Enter saves the BPM to the track. You can use the mouse if you prefer. Your CD player or turntable's pitch slider doesn't need to be at zero, we do the math for you. You can also use the tempo tapper when no song is loaded, for finding the BPM of regular records, for example.

KEY LOCK

When Key Lock is on, the key or pitch of the song stays locked at what it would be if the track was playing at normal speed, regardless of the platter speed of the turntable or CD player. Key Lock has scratch detection, so that it automatically turns off when scratching for a natural scratching sound. Turn Key Lock on or off by clicking the button to the top right of the Virtual Deck.

TIP: F5 and F10 will turn Key Lock on and off for the Left and Right Decks respectively.

REPEAT

Use the Repeat function to repeat the song across the entire length of the control record.

TIP: Short "loop" samples can be turned into a continuous track using the Repeat function. The loops must be less than 10 seconds long, and cut at the start and end of a bar.

CENSOR

Use the censor button to "mask" parts of a song, or use as a special effect. When you press the censor button, the track starts playing backwards from that point. When you release the censor button, the track plays forward from the point you would have been, had you not pressed the censor button. Censor is available only in REL and INT Modes.

EJECT

This ejects the track playing or loaded from it's Virtual Deck.

AUTOPLAY

Click the **Auto** button to enable autoplay. With this setting turned on, when one track finishes playing, the next track starts automatically. Load from a crate to play through the songs in that crate, or from your library to play through your library. Autoplay works in both REL and INT modes. **Play from start** must be checked in the Playback tab of the Setup screen for autoplay to work correctly. **SEE "PLAY FROM START" ON PAGE 32.**

REVERSE INPUT CONTROL

Swaps the Left Deck input (3 & 4) with the Right Deck input (5 & 6) of the SL 3.

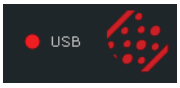
This transfers control over to the alternate Virtual Deck. For example, the physical record on the right hand side now controls the Left Virtual Deck. This essentially lets you continue mixing, but just using one turntable. **SEE "MIXING WITH ONE TURNTABLE OR CD PLAYER" ON PAGE 37.**

TRACK GAIN

Use the track gain knob to balance the volume of the tracks in your library. Any adjustment made to the gain of a track is saved with the file, and will be reapplied to the entire track when it is loaded again. The level meter shows the level sent to the hardware interface after both individual track gain and master gain adjustment.

NOTE: For automatic gain setting of your tracks, SEE "USE AUTO GAIN" ON PAGE 32.

USB DROPOUT INDICATOR



The USB dropout indicator on the main screen is a useful trouble shooting tool if you have problems with audio dropouts. Such dropouts are caused by an interruption in passing the audio to the Scratch Live hardware interface. If such an interruption (or dropout) occurs, a red light will appear briefly, just to the left of the Scratch Live logo at the top of the screen. The light will be red for one second, and then orange for four seconds.

If you experience USB drop outs:

- Increase the USB Buffer Size. **SEE "USB BUFFER SIZE (LATENCY)" ON PAGE 31**.
- Try closing other applications that are running at the same time as Scratch Live.
- Try turning off background tasks, for example, wireless networking.
- If your CPU load is very high, try decreasing the Maximum Screen Updates setting in the Display tab of the Setup screen. **SEE "MAXIMUM SCREEN UPDATES" ON PAGE 34.**

DISPLAY MODES

Scratch Live gives you the option of four different display modes to suit your style of performance. The Display Mode buttons are located in the top left of the Main Screen. The available display modes are:

Library Mode: Maximizes your library space by minimizing the Virtual Deck information displayed. In Library Mode only the track information, Virtual Deck, mode, track overview display and meter are displayed.

TIP: Use the space bar to toggle between Library Mode and your current display mode.

Classic Vertical Mode: The two Decks are displayed on the left and right sides of the screen with vertical waveforms in the middle.

Classic Horizontal Mode: The two Decks are displayed on the left and right sides of the screen with horizontal waveforms in the middle.

Stack Mode: The Decks are stacked on top of each other in a horizontal fashion. Stack Mode aligns the waveforms on top of each other, while maximizing waveform space. The controls for all Decks can be shown or hidden by pressing the Show Deck Controls Button on any deck.

LIBRARY VIEWS

You can choose between four different library views which allow for visual browsing using text and album art. Select your Library View by using the buttons in the bottom left area of the main screen. The available Library Views are:

Simple List: Displays the track information in a text list.

Album Art List: Adds an album art column to the Simple List mode.

Album Art Grid 1: Displays the album art as a grid with the track information text to the right.

Album Art Grid 2: Displays the album art as a grid with the track information text below.

NOTE: Your files must have album art added for it to be displayed. SEE "ADDING ALBUM ART" ON PAGE 27.

TIP: For all views you can adjust the font size by using the Font Size slider in the Library tab on the Setup screen. For all Album Art views you can adjust the album art size using the Album Art Size slider in the same area.

SCRATCH LIVE MODES

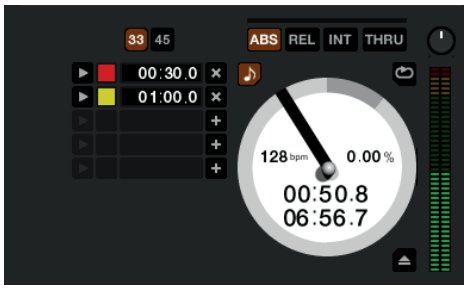
Scratch Live has three different modes of operation. You can switch between these modes by clicking the mode buttons near each Virtual Deck.

THRU MODE

Click on the **THRU** button to switch between Scratch Live and regular vinyl or CDs. Click the THRU button for the respective Deck in Scratch Live. (The THRU button on the left Virtual Deck for the left channel, and vice versa.)

This will change the state of the channels to THRU mode, sending audio direct from the SL 3 inputs to your mixer. **SEE "PLAYING REGULAR VINYL AND CDS" ON PAGE 7.**

ABSOLUTE MODE



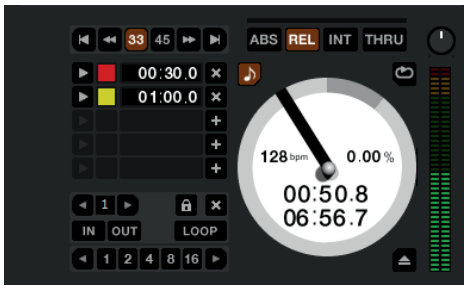
ABS mode is the default mode, and most closely resembles the properties of normal vinyl. The beginning of the track is mapped to the start of the record, and by picking up the tone arm and moving the needle to another part of the record (needle dropping) you can move to a different position within the track.

ABS mode faithfully reproduces the movement of vinyl control records, including stops, starts, scratching, needle dropping, rubbing and other turntablist techniques.

When you reach the end of the record using either REL or ABS modes, Scratch Live automatically switches to INT mode. This is known as Emergency Internal mode, and prevents long tracks from stopping when you run out of record. You can switch from Emergency Internal mode to ABS mode by lifting the needle and placing it in the lead-in of the control record. Emergency Internal mode will activate after 1 second. Use the keyboard shortcut F1 (left deck) or F6 (right deck) to switch to ABS mode.

NOTE: Be careful when scratching near the end of the record not to accidentally go past this point and into internal mode, or the track will no longer respond to record movement!

RELATIVE MODE



REL mode observes the relative forward and backward movement of the record, but does not take into account the position within the record. REL mode disables needle dropping, but allows skip-free scratching.

SEE: "DROP TO ABSOLUTE POSITION (RELATIVE MODE)" ON PAGE 32.

REL mode adds additional speed controls:

Previous track – Go to the previous track in the list.

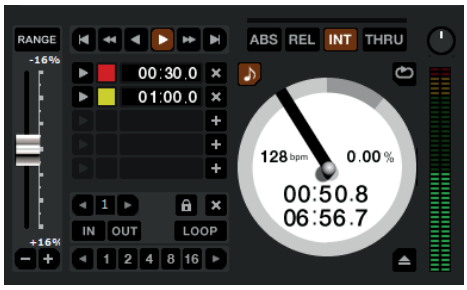
Rewind - The rewind function speeds up the longer you press the button.

Fast forward – The fast forward function speeds up the longer you hold the button.

Next track – Jump to the next track in the list.

TIP: Use the keyboard shortcut F2 (left deck) or F7 (right deck) to switch to REL mode.

INTERNAL MODE



INT mode allows playing tracks without external vinyl (or CD) control. INT mode has a start / stop function and a virtual pitch slider. Holding down the shift key moves the pitch slider slowly. Holding the ctrl key and clicking on the pitch slider resets the pitch to zero.

Scratch Live automatically switches to INT mode when the end of the control record is reached; you can switch back to REL mode by placing the needle in the first five minutes of the control record. If you switch from ABS or REL into INT mode, Scratch Live automatically adjusts pitch to maintain playback speed as set by the turntable. Use the keyboard shortcut F3 (left deck) or F8 (right deck) to switch to INT mode.

INT mode adds these additional controls:

Play / pause reverse - Press to play, press again to stop playback. You can adjust the braking knob in the setup screen to range from an immediate stop to a slow turntable-style 'power down'. **SEE "BRAKING (INTERNAL MODE)" ON PAGE 32.**

Play / pause forward – Press to play, press again to stop playback. Uses the same braking as described above.

Bend down - Create a temporary decrease in the playback speed. Use bend down if the two tracks are in time, but this track is slightly ahead of the other track.

Bend up – Create a temporary increase in the playback speed. Use bend up if the two tracks are in time, but this track is slightly behind the other track.

Pitch Slider - Use the pitch slider to make pitch adjustments while using INT mode. Drag the pitch slider with the mouse to make large pitch movements, or hold the shift key and drag the pitch slider to make fine adjustments.

Clicking the **RANGE** button above the slider changes the slider range to ±8%, ±10%, ±16%, ±50% or ±100%.

TEMPORARY CUE

There is a temporary cue point that can be used like the cue button on many DJ CD players. Press ctrl-I to set this temporary cue point on the Left Deck, and ctrl-K to set it on the Right Deck. This temp cue point is shown in the main waveform as a white marker. This cue point is not saved with the track, and by default is set to the beginning of the track. Press I to jump to this temporary cue point on the Left Deck, and K for the Right Deck. If you hold down the I or K key while the track is stopped, it will play from the temporary cue point. As soon as you release the key, it will jump back to the temporary cue point. Note that you can use this shortcut to jump to the beginning of the track if the temporary cue point has not been set. **SEE "CUE POINTS" ON PAGE 17.**

MORE CONTROLS

You can also control playback using the computer keyboard shortcuts — turn Caps Lock on to enable. **SEE "PLAYBACK KEYS USE SHIFT" ON PAGE 31.**

Left Deck	Function	Right Deck
Q	play / pause reverse	A
W	play / pause forward	S
E	pitch down	D
R	pitch up	F
T	bend down	G
Y	bend up	H
Alt-Q	load previous track	Alt-A
Alt-W	load next track	Alt-S
Alt-E	rewind	Alt-D
Alt-R	fast forward	Alt-F
Ctrl-I	set temporary cue point	Ctrl-K

Click on the waveform to 'scrub' or make fine adjustments to your position within the track. This may be useful if you wish to set cue points in your tracks, and don't have your turntables or CD players connected.

NOTE: If you play a track in INT mode, and then switch to ABS or REL mode, the pitch adjustment will be dictated by the turntable, so there will be a jump in pitch unless they are already perfectly matched.

TIP: If you are in ABS or REL mode and you get a build up of dust on the needle that is breaking up the audio, hold down ctrl and press the INT button. This will take you to INT mode and reset the pitch to zero.

CUE POINTS

Use cue points in Scratch Live to mark and trigger different parts of your tracks. The cue point markers are saved with the file in the track's ID3 tag. This means they will be present each time you load the track.

SETTING CUE POINTS

You can set up to five cue points for each track. Click on the **+** button to place a cue point, or use the keyboard shortcuts below. A cue point will be set at the current playhead position of the track and can occupy any of the 5 slots.

Use the keyboard shortcuts: ctrl-comma (for left) and ctrl-period (for right) to place cue points in chronological order. Alternatively, use ctrl-1 through 0 to set a specific cue point, i.e., to set a cue point on the Left Deck in slot 2, press ctrl-2.

Notice the stripe on the Virtual Deck jumps to the 12 o'clock position and changes color when you set a cue point – you are at the cue point when the stripe is one solid color and at the 12 o'clock position. As the track plays on beyond the position of the cue point, the colored bar shortens by a fifth for each rotation. Likewise, as you approach the cue point, the color will grow by a fifth each rotation. For example, the picture below shows the track just before the end of the 5th rotation before the cue point.

TIP: Zoom in on the waveform using the – and + keys and 'scrub' to the desired position for greater accuracy when setting cue points.

ENABLE HOT CUES

To turn on hot cues, check **Enable Hot Cues** in the Playback tab on the Setup screen. When Hot Cues are enabled, you can set cue points simply by pressing the number keys 1 through 0 (no ctrl modifier required). Note that you can only add cues this way if the cue point slots are empty.
SEE "ENABLE HOT CUES" ON PAGE 31.

TRIGGERING CUE POINTS

Click the ▶ arrow to the left of each cue point to jump to it (REL and INT modes only). You can also jump to cue points using keyboard shortcuts: 1 through 5 for the cue points on the Left Deck, and 6 through 0 for the Right Deck cue points.

EDITING CUE POINTS

To remove a cue point, use the **x** button on the right side of the cue point panel. You can also overwrite cue points by using the shortcut keys ctrl-1 through 0.

CUSTOMIZING CUE POINTS

The colors of cue points can be changed at any time. To change the color of a cue point, click on the colored square and choose a new color from the drop down menu.

You can also drag and drop cue points to change their order in the list. If you wish to have the cue points sorted chronologically, check **Sort cues chronologically** in the Playback tab on the Setup screen. If you load the same track onto both Decks, you will be able to add or modify cue points from either Deck.

When you jump to a cue point in INT mode while paused, the track will play from the cue point for as long as the key or mouse button is pressed, after which the playhead returns to the cue point. If this is done using the keyboard while the track is playing in either INT or REL mode, the cue point will be repeatedly triggered, producing a stuttering effect.

LOOPING

You can save up to 9 loops per track. These loops are saved in the file, and will be present when you reload the track. To make a loop, set the in-point by clicking the **IN** button, and the out-point by clicking the **OUT** button. To turn the loop on or off, click the **LOOP** button. If you want the playhead to jump to the start of the loop when you enable the loop, hold the control key and press the **LOOP** button.

To adjust the in-point of the loop, click the **IN** button. You can use the arrow keys: left arrow to move the in-point towards the start of the track, right arrow to move the in-point towards the end of the track. Hold down the shift key while pressing the arrow key to make coarse adjustments. Click the **IN** button again to save the in-point. The same applies to adjusting the out-point.

You can also use the control vinyl (or CD) to adjust the in- and out-point. Click the **IN** button, then move the control vinyl. Moving the vinyl will adjust the in-point. Once you are happy with the new in-point, click the **IN** button again to save, and release the control vinyl.

The control vinyl will go back to controlling playback once the record is back up to normal speed. Using the control vinyl to adjust loop end points is optional — to turn this feature off, disable **Adjust loops with vinyl** under the Vinyl Control tab in the Setup screen.

There are 9 available loop slots per track. If a loop is set in a given slot, the background (behind the loop number) will be green. Press the **x** button to clear the loop. If you click on the

locked loop symbol, a red border will appear. This indicates the loop is locked, and you will not be able to adjust the end points or delete the loop until you unlock it, by clicking on the number again.

NOTE: Looping applies to REL and INT modes.

AUTO-LOOPING

Auto-looping allows you to create loops instantly. If the track has a BPM value simply click the number of beats you wish to loop and Scratch Live will create the loop for you. The loop is snapped to the beats in the song detected by Scratch Live so even if you press the button slightly out of time Scratch Live will still create a perfect loop for you.

Five auto-loop buttons are available on screen at any one time. They range from 1/32 to 32 beats. The user can select the auto-loop range with the ◀ and ▶ buttons.

Pressing an auto-loop button will create a loop start point from the nearest beat to the playhead (within reason), and set a loop endpoint in the future. Pressing auto-loop 1 while auto-loop 1 is active will deactivate the loop. Pressing a different auto-loop button while looping is active will extend the endpoint of the current loop to the appropriate new auto-loop length.

You can also save an auto-loop to the next available slot. When using an auto-loop, a 🖫 save button is visible where the lock loop button normally is.

NOTE: Auto-looping requires the track BPM to be set. **SEE "SET AUTO BPM" ON PAGE 11.**

THE A-SLOT

A special loop slot 'A' exists for auto-looping. The act of using the auto-loop buttons sets a loop in the 'A' slot, following the rules above. Turning a loop off using the auto-loop buttons returns you to the loop slot that you were previously in at the time you started auto-looping. Turning the loop off using the LOOP button leaves you in the 'A' slot. The 'A' slot is not saved to disk automatically, pressing 'save' saves the loop to the first empty slot in 1-9.

Auto-looping shortcut keys are alt-1 to 5 for the left deck, and alt-6 to 0 for the right deck. They correspond to the looping buttons as laid out on screen. ie. if the onscreen buttons display 1 2 4 8 16 bar loops, alt-1 triggers 1 bar loop, and alt-5 triggers a 16 bar loop.

LOOP ROLL

Loop roll performs a standard auto-loop, but when the loop is turned off, the playback position is returned to the position where it would be if it had not entered the loop (much like censor).

The other difference between loop roll and standard auto-loop is the "roll" button is momentary. The loop is engaged when the button is pressed down, and disengaged when the button is released. Use short loop lengths to create "stutter" type effects.

To activate loop roll, hold control + alt while clicking on the desired autoloop increment, or use the keyboard shortcuts: control + alt + 1 through 5 for the left deck and control + alt + 6 through 0 for the right deck. (ie. the same as the auto-loop controls with the additional 'alt' key as a modifier).

The range of values available for loop roll are 1/32 through to 32 bars. The shortcut keys will activate whichever loop lengths are visible on screen, i.e., if you have lengths of a 1/4 bar through to 4 bars visible for the left deck, control + alt + 1 will activate a 1/4 bar loop roll, control + alt + 2 will activate a 1/8 bar loop roll and so on.

Use the ◀ and ▶ buttons to toggle through the range of possible lengths visible onscreen.

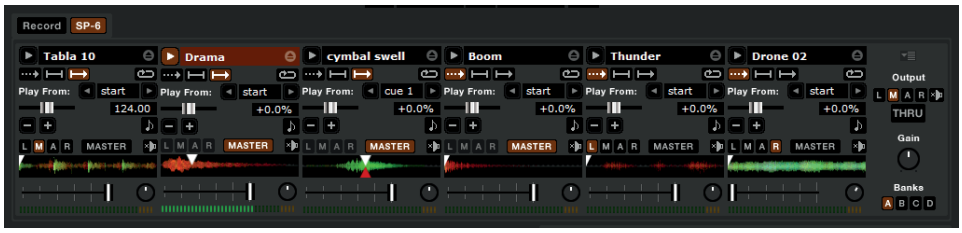
LOOP ROLL WITH MIDI

You can assign loop roll to MIDI in several ways: After pressing the **MIDI** assign button in Scratch Live, press the control + alt keys, click on an auto-loop value, then click on the button/slider you want it mapped to on your MIDI controller. Alternatively, you can assign the singular loop roll button to MIDI, then assign a MIDI knob or slider on your controller to the autoloop select knob (visible in the MIDI assign panel area when in MIDI assign mode) to change the values on the fly.

TIP: When you have the "Autoloop Select" knob assigned to MIDI, you have all of the loop roll lengths at your disposal. This allows you to roll up and down the loop length scale, to create interesting stutter and build-up effects.

NOTE: Like auto-loop, loop roll requires a BPM value written to the ID3 tag in order to work. Build overviews with the "Set Auto BPM" box checked and the proper range for your music selected to ensure an accurate BPM value. **SEE "SET AUTO BPM" ON PAGE 11**

SP-6 SAMPLE PLAYER



The SP-6 Sample Player allows you to play up to six sources of audio, in addition to the tracks playing on the Virtual Decks. Any audio file in your Scratch Live library can be loaded to any one of the six slots, allowing playback of short samples, sound effects, or full length tracks.

The SP-6 is enabled when the SL 3 is plugged in, but not operational in the offline player mode.

Click on the SP-6 button to access the sample player window. In the top right corner of the SP-6 there is a button which opens the Display Menu. Clicking on this drops down a menu with the list of available controls:

- **Mode:** Chooses the play mode: Trigger / On-Off / Hold / Repeat modes.
- **Output Select:** Assigns individual slot outputs to the left, mix, aux, right or to the master output selector.
- **Pitch:** Pitch Slider / Bend / Nudge / Keylock controls.
- **Play from:** Choose which cue point / loop to use for the loaded track.
- **Overview:** Displays the overview of each track.
- **Level:** Individual sample slot level and Gain controls.
- **Level meter:** Displays the volume level for the sample slot.

This enables you to set up the sample player with the appropriate controls that suit your workflow.

LOADING THE SP-6

To load a track to the SP-6, drag and drop the desired file from your library into one of the sample slots. To eject a track, click the eject button to the right of the title display.

TIP: You can load tracks to the SP-6 with the keyboard shortcuts: ctrl + alt + z to n.

TIP: Select and drag six tracks from your library onto the first sample player slot to simultaneously load six tracks across all six slots.

PLAYING SAMPLES

Pressing the play button on each slot will play the loaded audio.

TIP: Use the shortcut keys

z (slot 1)	**x (slot 2)**	**c (slot 3)**
v (slot 4)	**b (slot 5)**	**n (slot 6)**

to trigger each sample respectively.

SP-6 INSTANT DOUBLES

You can instant double from the Virtual Decks down to the SP-6, from the SP-6 up to the Virtual Decks and also between the sample slots themselves. This means the position, track gain and speed will match when you drag a track to from one location into another. This allows you to beat match tracks with your turntables/CD players on the Virtual Decks, and then "instant double" the track down to a slot, freeing up the Virtual Decks to continue your mix with other tracks. Click and drag an already playing track from a Virtual Deck or sample slot and drop it on another sample slot to begin instant doubling.

SP-6 PLAY MODES

Each sample slot has three different play modes:

Trigger mode - When play is pressed, the audio plays through until the end of the track. Pressing repetitively will trigger the audio from the beginning of the track. To stop the audio, hold the alt key while either clicking the play button, or pressing the corresponding shortcut key (e.g., alt - z for slot one).

Hold Mode - The sample will only play while you press and hold the play button or the corresponding shortcut key. Upon release of the play button, the audio stops immediately. This mode most closely resembles the function of the "note off" mode found on many samplers.

On / Off Mode - When play is pressed, the audio plays through until the end of the track. Pressing play again stops the audio.

Repeat Mode - Each slot has a repeat button. When activated, this will repeat the loaded audio file from beginning to end, or will turn on the loop selected in the "play from" field.

TIP: Short "loop" samples can be turned into a continuous track using the repeat function. Ensure there is a clean cut at the start and end of a bar.

TIP: If you don't wish to use the SP-6, you can disable it in the Plugins tab on the Setup screen.

SP-6 PITCH CONTROLS

There are individual Pitch Slider, Bend, Nudge, and Keylock controls for each sample slot. The BPM is also displayed next to the pitch slider. If no BPM is present in the tracks ID3 tag, the pitch of the track is displayed as a percentage.

Click and drag the pitch slider to make regular pitch adjustments. Hold the shift key and move the pitch slider to make fine pitch adjustments.

Click on the **+** and **–** buttons to nudge the track into time. (temporary pitch adjustment) Hold the ctrl key and click the **+** and **–** buttons to make ultra-fine pitch adjustments to nudge the track, adjusting the pitch permanently.

SP-6 'PLAY FROM' SELECTOR

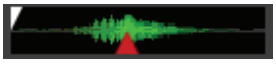
Use the "Play From" selector to choose where the track will play from. You can choose to play a track from the start of the file, any one of the cue points, or any one of the loop in points.

When this is set to play from start, or play from a cue point, the track will play right through until stopped. When a loop is selected, the track will play until the loop out point, unless you have "track repeat" on, in which case the track will loop using the in and out points of the selected loop.

The number of options will be dependent on the number of cue points and loops already set in your track. i.e if the track loaded has no cue points and loops set, then only "start" will be available as a "Play From" option.

TIP: To set or adjust cue and loop information for a track, load it to a Virtual Deck, make your adjustments, then load it back into the sample slot.

SP-6 TRACK OVERVIEWS



Displays an overview of the track loaded to each sample slot. The waveform, play head position, cue points and selected loops will all be visible.

SP-6 SLOT VOLUMES

Each individual sample slot has a separate volume slider and gain control.

Volume Sliders - Use the volume slider to mix and make temporary adjustments to the volume of the sample you are playing. You can use these sliders like you use the line faders or up faders on your DJ mixer, fading from full volume right through to completely silent.

Gain Knobs - In addition to the volume slider there is an additional gain knob for each slot. These allow you to fine tune the maximum gain volume of the loaded sample. The gain adjustment will also be written to the track's ID3 tag, meaning that it will be the same everytime you load it.

SP-6 OUTPUT SELECTOR

Use the master output selector button to choose where you wish to have the SP-6 output to.

L outputs through the left channel
M outputs through both channels (mix)
A outputs through the aux channels (1 and 2)
R outputs through the right channel

If you have the output set to **Aux** and click on the SP-6 **THRU** button, the sample player will automatically switch to use the **Main** mix output. This prevents a feedback loop from occurring.

There is also a master sample player **Gain** knob to adjust the overall SP-6 volume.

INDIVIDUAL OUTPUT SELECTORS

By default each sample slot will be set to Master, mirroring the SP-6 master output setting. You can however, use the individual output selector buttons to override the master output setting.

To send an individual slot to a different output from the master, deselect the master option by clicking on the master button for the corresponding slot.

This will unlink the sample slot from the master sample player output selection, allowing you to choose the L, M, A, R output for each slot. These output routings will be saved when you close down Scratch Live, so the next time you launch Scratch Live, your preferred settings will remain the same.

SP-6 SAMPLE BANKS

The SP-6 has four separate sample banks, labeled A, B, C and D. To switch between the different banks click on the A, B, C or D buttons. Each bank will save the individual sample and sample slot settings you last used, allowing you to prepare banks for easy recall at a later stage. Sample Bank A will load as the default.

SP-6 MUTE BUTTONS

Use the mute buttons to mute the audio output for each of the SP-6's sample slots. Click the mute button to silence the audio output, click the mute button again to turn the audio back on.

You can also ctrl-click on the mute buttons to mute the outputs momentarily, meaning that the audio will only be muted for as long as you hold your mouse click.

TIP: You can MIDI assign these buttons, allowing you to create a virtual kill switch for the sample slot. To MIDI assign momentary mute, hold ctrl and click on the mute button before tapping your MIDI controller.

SP-6 MIDI

All features of the SP-6 are MIDI assignable. The SP-6 window must be opened first before enabling MIDI assign mode. **SEE "MIDI CONTROL" ON PAGE 22.**

DJ-FX PLUGIN

The DJ-FX Plugin gives you control of two FX units, each with three chained effects slots per unit. Each FX unit has two control modes: Ultra Knob Mode and Super Knob Mode, both of which can be fully customized. The DJ-FX plugin opens in Ultra Knob Mode by default.

To enable the DJ-FX Plugin, go to the Plugins tab in the Setup screen, choose DJ-FX and check **Enable DJ-FX Plugin**. Once enabled, the DJ-FX panel button appears in the panels area on the main screen.

NOTE: The DJ-FX plugin is not visible if your Rane hardware is not connected.

ULTRA KNOB MODE

Click the Ultra Knob Mode button to select Ultra Knob Mode. This allows you to control up to three effects slots in one FX unit using the one Ultra Knob.

Click on the drop down menu to load an Ultra Knob effect. (This is "empty" before settings are saved in Macro Edit Mode.)

Click the **ON** button to enable the effect, and use the Ultra Knob to control the wet and dry amount of all effects.

Click the Show Parameters button to show the effects and parameters that are controlled by the loaded Ultra Knob preset.

SUPER KNOB MODE

Super Knob Mode allows you individual control of each effect in the FX unit. Each effect slot has a Super Knob which controls the wet and dry amount for the effect.

Click the Effects drop down box to select an effect for the effect slot. You can leave a slot empty by selecting "empty."

Click the **ON** button by the Super Knobs to toggle turning the effect(s) on and off.

The effects chain works in series going from effects slots 1 to 3, meaning that the effected audio from slot 1 passes through slot 2, which is then passed through slot 3.

EFFECTS BPM MULTIPLIER

The Effects BPM Multiplier is used to adjust the effect time. The effect time is set using the track's BPM value, but by applying the Effects BPM Multiplier you can increase or decrease the effect time.

DECK ASSIGN

You can select which Deck the FX unit applies to by clicking the **Deck** buttons. Each Deck can only pass through one FX unit at a time.

SHOW PARAMETERS

Press the Show Parameters button to expose the individual parameters for each effect. You can then control the individual parameters by adjusting their respective knobs.

In Ultra Knob Mode, use this to select which effects are loaded and controlled by the Ultra Knob.

In Ultra and Super Knob Mode, you can link or unlink a parameter to the Super Knob by pressing the Link Button, allowing one master control of some parameters and individual control of others.

MACRO EDIT MODE

Macro Edit Mode is an advanced option that allows you to create macro mappings for each effect and to save any effects edits made in Ultra or Super Knob Mode. Open Macro Edit Mode by clicking the Macro Edit Button while Show Parameters is open. Once opened, more controls appear which allow you to create and change parameter mappings.

To map a parameter to the Ultra or Super Knob:

1. Unlink the parameter that you want to map to the knob. The Macro Min and Max buttons for this parameter are now displayed.
2. Move the Ultra or Super Knob to the position that you want the parameter to start mapping from.
3. Move the Parameter Knob to the position that you want the to be the lowest value of the parameter.
4. Press the Macro Min button to set the minimum position.
5. Move the Ultra or Super Knob to the position that you want the parameter to end being controlled from.
6. Move the Parameter Knob to the position that you want the to be the highest value of the parameter.
7. Press the Macro Max button to set the maximum.
8. Link the parameter to the Ultra or Super Knob by pressing the Link button.

Macro Edit Mode

Now when you adjust the Ultra or Super Knob you will see the parameter knob move within the range that you just specified. Any parameters not customized but linked to the Super or Ultra Knob will behave as normal.

You can save any macro mappings you have made to an effect by clicking the Save button by the Super Knob, and save effects combinations made in Ultra Knob Mode by clicking the Save button by the Ultra Knob.

AUX DECK PLUGIN

The Aux Deck Plugin for the SL 3 enables you to DJ with three decks. The third deck has all the same functionality as the standard two decks and is displayed when in Stack Mode. **SEE "DISPLAY MODES" ON PAGE 14**.

To turn on the Aux Deck Plugin, go to the Plugins tab on the Setup screen, then choose SL 3 Aux Deck and check **Enable SL 3 AUX Deck plugin**. To enable a turntable or CD player to control the third deck, connect it to the Aux Inputs on the SL 3, and connect the SL 3 Aux Outputs to a spare input on your mixer.

You can use keyboard shortcuts to control the Aux Deck by changing the Deck focus. Press the "**~**" key on your keyboard to toggle focus between Decks 1+2 and the Aux Deck. The Decks which have focus will have a flashing white border. When the Aux Deck has focus, the Left Deck keyboard shortcuts apply to the Aux Deck.

TIP: The flashing deck indicator can be turned off in Setup. **SEE "SL 3 AUX DECK" ON PAGE 34.**

When using the third Deck, you must use Stack Mode to show the third Deck waveforms and controls. You can still use the third Deck with the other display modes, however it won't be displayed.

MIDI CONTROL

The MIDI Control feature in Scratch Live provides the ability to map MIDI controls to Scratch Live controls, and thus control the functions of Scratch Live using MIDI controllers such as keyboards, triggers, sliders, and knobs. Integrating MIDI controllers into your Scratch Live setup can improve live performance usability, such as hitting pads on a MIDI controller to trigger loops and cue points.

MIDI CONTROLLER SETUP

The process of setting up a MIDI controller for use with Scratch Live will vary depending on the hardware in question. Many devices can connect to a computer using MIDI over USB, and will either be supported directly by your operating system, or require installation of drivers and configuration utility software. Follow the manufacturers instructions for installation.

Other controllers may solely use a MIDI out connector to send control messages, and will require a separate MIDI interface unit to communicate to software. Generally the MIDI interface will come with drivers and configuration tools which pass your controller's output onto an available MIDI channel, which can be used by Scratch Live.

Once your controller is installed and functioning correctly, use these directions for assigning controls.

ASSIGNING CONTROLS

To enable MIDI assign mode, click the MIDI button. Hovering the

mouse pointer over a control will bring up the MIDI assignment box, showing the current assignment status.

To assign a MIDI control, click on the control in Scratch Live, then move the MIDI control. The MIDI assignment box should update to show it has mapped the controls to one-another.

To un-assign a MIDI control, click on the control in Scratch Live, and press return on your computer keyboard.

While in MIDI assign mode, controls which have MIDI inputs assigned show a green box indicator around them.

NOTE: Once in MIDI assign mode, Scratch Live controls will no longer respond directly to the mouse. If you need to change a control using the mouse, disable MIDI assign mode.

MIDI PLATTERS

The Scratch Live Virtual Decks are not user assignable to MIDI control. MIDI devices with platters on them all send different data so user mapping is not possible. To control the platter use a natively supported controller.

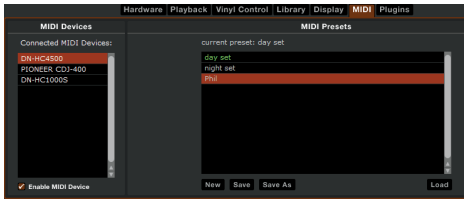
ASSIGNING MIDI TO OTHER CONTROLS

Controls which are not normally visible are available for assignment when in MIDI assign mode by clicking on the **Show MIDI Panel** button. This will open up a panel allowing MIDI assignment for controls including library navigation as well as additional Deck functions such as fine pitch control and extended cue and looping features.

CTRL-CLICK FUNCTIONALITY

Some Scratch Live controls on the GUI have additional functionality assigned to ctrl-click. You can assign ctrl-click functionality to a MIDI control, alongside the normal functionality. For example, ctrl-click on the INT mode pitch slider returns pitch to zero. To assign this to MIDI control, enter MIDI assign mode, ctrl-click on the slider, and then assign one of the pads to it. When you press the pad, pitch goes to 0.

PRESETS



MIDI presets are accessible in the MIDI panel of the Setup screen. By default, the current MIDI assignments in Scratch Live are automatically remembered and loaded next time you start the program. The Preset panel allows you to save and recall several different MIDI setups. This is useful if you are using several MIDI devices or want to quickly switch MIDI setups without having to reassign all your controls.

NATIVE CONTROLLER SUPPORT

This Scratch Live version currently has native support for the following 3rd party controllers:

- Denon DN-HC4500
- Denon DN-HD2500
- Denon DN-HC1000S
- Novation Dicer
- Numark DMC2
- Numark iCDX
- Pioneer CDJ-400
- Pioneer CDJ-900
- Pioneer CDJ-2000
- Pioneer MEP-7000 / SEP-C1
- Vestax VFX-1

These controllers are plug and play, and can automatically control Scratch Live with no MIDI assigment necessary. Visit serato.com for detailed documentation on how to use these controllers.

MIDI DEVICES

Any connected MIDI device will be listed within the MIDI Device List in the MIDI panel of the Setup screen. You are able to enable or disable any of these devices using the “Enable MIDI Device” checkbox.

TECHNICAL INFORMATION

Scratch Live MIDI Control only supports:

- Note On/Off
- Standard 7-bit CC (Control Change)
- 14-bit CC
- RPN/NRPN (14-bit)

ORGANIZING YOUR MUSIC

Scratch Live can support an unlimited number of tracks – the only limitation is the size of the hard drive of your computer. A number of features are included to help you to keep your music organized and find songs quickly and easily.

GROUPING TRACKS INTO CRATES

Scratch Live supports several ways of organizing and sorting your file library. iTunes users will notice that Scratch Live can incorporate your existing iTunes library and playlists.

Scratch Live uses digital "crates" for quick access to your favorite collections. There is no limit to the number of crates you can create, and any given track can be placed in multiple crates. For example, you could organize your files into the following crates, where any one track would be filed in more than one crate:

- Hip Hop
- UK Hip Hop
- French Hip Hop
- Inst Hip Hop
- Old Hip Hop
- Hip Hop LPs

To make a new crate, click the Add New Crate button in the bottom left corner of the main screen (brown crate icon). To rename a crate, double click the crate name.

You can change the order of tracks within a crate by sorting by the "#" column and dragging them up or down.

TIP: Check the 'Protect library' option in the Library tab of the Setup screen to prevent changes to your crates. If you do delete a crate by accident, you can get it back from the recycle bin / trash. Crate files have the extension .crate.

SUBCRATES

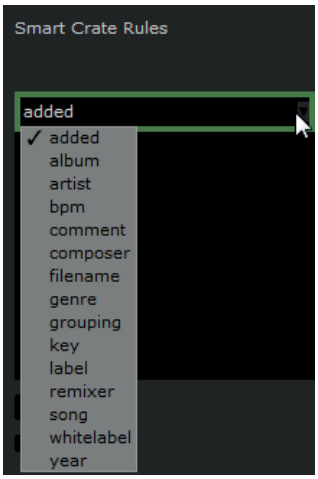
You can drag and drop crates into other crates to make subcrates. If you drag a crate to the very left of the crate panel, it will stay in the top level of the crate structure. If you drag the crate a little to the right, onto the name of another crate, it will make the crate you are dragging a sub crate of the first crate.

SMART CRATES

Smart crates are crates which update their contents by using keywords which are matched with selected tags of your music library tracks. Smart crates can be updated automatically or at your discretion.

To create a smart crate, click the Add Smart Crate button in the bottom left corner of the main screen (blue crate icon). A popup window will open which allows you to add the rules to fill your smart crate. Press **Add Rule** to add a rule for the smart crate to match with. For each rule you can choose a field to match on from the drop down menu:

- Added (date)
- Album
- Artist
- BPM
- Comment
- Composer
- Filename
- Genre
- Grouping
- Key
- Label
- Remixer
- Song
- Whitelabel
- Year

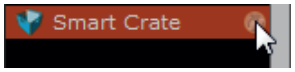


You can then choose the following inclusion / exclusion criteria:

- Contains
- Is
- Does not contain
- Is not

Check the **Match all of the following Rules** option so that tracks must match all the set rules to be added to the crate. If this option is not checked, any track which matches any of the rules will be added to the crate.

Check the **Live update** option to have the smart crate update when any tags are edited in your music library. With this option unchecked, the crate contents will be updated only when you click the refresh crate icon, which is not visible when Live update is checked.



Click **Save** to save your crate or **Cancel** to exit without saving.

Click the **Edit** button (next to the Add Smart Crate button) to edit the rules of an existing Smart Crate.

SORTING YOUR FILES

The track information display area can be customized to display the columns listed below:

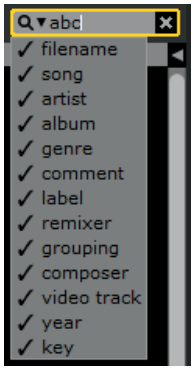
- Added
- Album
- Artist
- Bitrate
- BPM
- Comment
- Composer
- Filename
- Genre
- Grouping
- Key
- Label
- Length
- Location
- Remixer
- Sampling
- Size
- Track
- Video Track
- Year

The column button ◀ is located at the top of the library pane in the right hand corner. Click on the column button to select which columns you want to display. To sort your library by a column, click the column header so it highlights. For example, clicking on the album column header will sort your library alphabetically by album title. To move a column, drag the header to the left or right. To resize a column, click on the column boundary and drag it to the left or right.

USING THE SONG BROWSER

The song browser allows you to filter your song list by Genre, BPM, Artist and Album. To turn the song browser on or off, click the **Browse** button.

SEARCHING



Scratch Live includes a search function to help you find files quickly and easily. Enter text into the search box and Scratch Live will automatically find as you type. To select which fields the search function will look through, click on the left hand side of the search box. The drop down menu shows which fields are currently being used. Press esc or the **x** button on the right of the search box to clear the search.

TIP: Use the keyboard shortcut 'ctrl-f' to jump to the search box. This keyboard shortcut will also take you out of any crate or playlist that you might be in and into your main library, so you can find any track in your collection. If you then click on a crate or playlist, the search query will be cleared.

PREPARE WINDOW

The Prepare window is a holding area for tracks, much like preparing a set by lifting records part way out of your record bag. You can drag tracks (or whole crates) from the main track list into the Prepare window, or simply drag them onto the **Prepare** button. These tracks will be removed from the Prepare window once they have been played. All tracks in the Prepare window will be discarded when you exit Scratch Live.

TIP: Use the keyboard shortcut ctrl-p to add tracks to the Prepare window.

TIP: Select the contents of the Prepare window and drag them onto the new crate button (+) to save your selection as a crate.

HISTORY

The **History** button opens a complete log of all the tracks you have played and allows exporting Scratch Live session information as a data file.

Each session is catalogued by date and time. Using the drop down arrow, you can navigate to and view detailed information of any previous sessions. There are columns for the period (i.e., date of session), name of track and artist name. In addition, these other categories listed below will give you more detailed information about your sessions:

Start Time: When viewing a song row, the start time of the song is displayed. When viewing a session row, the start time of the session is displayed with the date (in real time value).

End Time: When viewing a song row, the end time of the song is displayed. When viewing a session row, the end time of the session is displayed with the date (in real time value).

Playtime: When viewing a song row, the total played time of the song is displayed (i.e., 00:03:00). When viewing a session row, the total elapsed time of the session is displayed with date (i.e., 10/09/08 01:38:16).

Deck: The Virtual Deck that the song was played on will be displayed under the deck column. In the song row, either left or right is displayed. The offline player will be listed as offline.

Notes: Use this field to list particular information about your songs and each session (i.e., note how you transitioned from one track to another).

Start Session / End Session: To start or end a session, click the corresponding button.

Insert Track: If you wish to add information for tracks not played in Scratch Live into your session (e.g., if you played one of your favorite vinyl or CDs), select the song you want to insert after and click the **Insert Track** button. Double click the inserted track fields and edit your information accordingly. When exporting an m3u playlist [see exporting below] "Inserted Tracks" will not be present.

Export: You can export each session as a data file using the **Export** button. Select a session, then choose your preferred file **Format**, and click **Export**. There are three possible export formats:

- **text:** to create a simple text file with your session information contained within.
- **csv:** to create a file for use in spreadsheet software.
- **m3u:** to create a playlist file, which can be imported into media players. Note that an m3u does not contain audio itself, it only points to the location of your audio files. (Inserted tracks within sessions will not be included in an m3u playlist.)
- **Serato Playlists:** see "Serato Playlists" on page 26.

Delete: To delete a history session, highlight the session, then press ctrl + del.

TIP: To make a new Scratch Live crate containing your session information, select a session and drag it to the + new crate icon. The crate will automatically use the session date as the crate name.

Listing Behavior - only the tracks you actually play are listed in history. This is done using an A-B algorithm, meaning a track on Deck A is only listed once the track on Deck B has been changed or ejected.

You can choose to show tracks which you have auditioned, but not actually played, by checking the **Show unplayed tracks** box. The session will then also list these tracks in grey, along with actual played tracks.

Alternatively, you can mark or unmark tracks as played manually. Select a track (or a group of tracks) and click the **Mark as played** or **Mark as unplayed** button. This may be useful if you play a track off regular vinyl or CD — breaking the A-B algorithm).

Songs that you have played are marked as green in your library. Click on the button marked **Clear** to reset the list of recently played tracks and turn the color of your library back to white.

SERATO PLAYLISTS

The Serato Playlists plugin allows you to upload your history sessions to your serato.com profile for viewing, sharing and editing. You can upload your playlist once your session is complete, or by using the Live Playlists feature to update your playlists online in real time!

To enable this plugin, go to the Plugins tab on the Setup screen and check the **Enable Serato Playlists Plugin** option. Open the History panel and you will now have access to the Serato Playlists options.

UPLOADING SERATO PLAYLISTS

Once you have finished your session, or to upload a previous history session, select the desired session in the History panel. Click the Format dropdown box, select **Serato Playlists** and click the **Export** button. You will receive the following warning:

> Warning: This feature will submit play data from your History to your online Serato Playlists and may affect sound card performance while sending.
>
> Do you wish to continue?

If you choose "Yes" you will then be taken to www.serato.com where you can review your playlist before choosing to post it online. Once posted, you have the option to edit the playlist and track information.

NOTE: We recommend that you turn off any wireless networking devices when using Scratch Live. If you export your playlist online whilst playing you may experience USB dropouts. If so, you may wish to avoid using this function.

LIVE PLAYLISTS

Serato Playlists has the Live Playlists option to allow you to display what you are playing online in realtime on your serato.com profile.

To enable the Live Playlists feature go to the Plugins tab on the Setup screen and check the **Enable Live Playlists** option. Once enabled, the **Start Live Playlist** button is now displayed in the History panel. Click this to start and stop your Live Playlist session.

NOTE: Live Playlists requires you to be connected to the internet while playing, which may result in USB dropouts. If so, you may wish to avoid using this function.

EDITING ID3 TAGS

Much of the information associated with each file can be edited from within Scratch Live. Double click on the attribute within the main library to edit the attribute. Filename, length, size, bit rate and sampling cannot be edited. This information is saved in the file itself. Note that the protect library option in setup must be unchecked to allow edits. **FOR DETAILS ON AUTO-BPM SEE "PREPARING YOUR FILES" ON PAGE 10.**

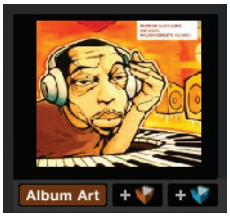
TIP: Use the keyboard shortcut ctrl-e to edit text. Hold down the ctrl key and move with the arrow keys to change to a different field while staying in edit mode. When you have more than one file selected, editing tags changes all the files in your selection.

TIP: The second column in the library is the label color for that file. Click it to bring up a color palette, and customize the Virtual Deck for that file.

LIBRARY ZOOM

You can change the size of your library text by using the shortcuts ctrl **+** and ctrl **–**.

DISPLAY ALBUM ART



MP3 files can contain album art information. Click the **Album Art** button at the very bottom left of the screen to open a small window. This window displays the album art of the track currently selected in the library.

Album art can also be shown next to the the track information display on each Virtual Deck. Click on the Display tab in the Setup screen to find this option. **SEE "SHOW ALBUM ART ON DECK" ON PAGE 34.**

FILE MANAGEMENT

ADDING ALBUM ART

You can add album art to a file by dragging and dropping a jpeg or png file onto the track in any of the album art views, or onto the Album Art window.

STATUS ICONS

The leftmost column shows the status of each track. The image to the left shows five tracks with differing statuses.

- Scratch Live has detected some corruption in the MP3 file. If possible, re-encode the MP3.

- The track has been imported from the iTunes library.

- The track has been imported from the iTunes library, and Scratch Live has detected some corruption in the MP3 file. Solution: If possible, re-encode the MP3.

- The track cannot be found. Most likely the file has been renamed or moved.

- Tracks that are read-only have a locked icon.

MORE INFO ON CORRUPT FILES

If you have a corrupt file in your library, hover your mouse over the status icon for information on what type of corruption was found. **SEE "CORRUPT FILE DESCRIPTIONS AND DIAGNOSES" ON PAGE 36.**

Located in the files pane are two buttons, rescan ID3 tags and relocate lost files. Use these tools for ongoing file and library management.

RESCAN ID3 TAGS

Click this button to force Scratch Live to re-read all file tags. Alternatively, you can drag and drop files, folders, or drives onto the rescan id3 tags button from the files pane. This will only scan the files that you drag and drop, resulting in much faster processing.

TIP: Rescanning the tags is a handy way to identify all the files that Scratch Live can't find (for example if the files have been altered or moved). These tracks will show up red in the main track list, with an exclamation mark in the status column. You can sort by the status column to group all these tracks together.

RELOCATE LOST FILES

This feature finds music and folders on your computer that you have either moved or altered.

1. Click the **Relocate Lost Files** button to search all your drives (internal and external) for files currently marked as not found in your library.
2. When this process is complete, your Scratch Live library will be updated with the new location of your files.

TIP: Drag and drop files, folders, or drives onto the Relocate Lost Files button from the Files pane. This is useful if you know the location of your files, as it only scans the drag and drop location, with faster relocation.

DELETING CRATES AND TRACKS

To delete tracks from your Scratch Live library, select the track and use the keyboard shortcut ctrl-delete. Make sure you have the **Protect library** option unchecked in the Library tab of the Setup screen.

- Deleting a track when you are in the "✻ **All...**" playlist removes it from your library and any crates that the track may be in.
- Deleting a track inside a crate removes it from that crate but the file will remain in your "✻ **All...**" playlist.
- Deleting a track from a subcrate will remove it from the subcrate and the main crate but not the "✻ **All...**" playlist.
- Crates that are deleted are sent to the recycle bin/trash.

NOTE: To delete any files from your library and your hard drive (sending them to the recycle bin) use the shortcut ctrl-shift-delete.

If you are using iTunes playlists, your files cannot be deleted this way. You will need to delete them from within iTunes.

COPYING AND MOVING FILES AND FOLDERS

Scratch Live gives you the ability to copy and move files, folders and crates between drives or to a new location on the same drive.

To copy or move your files and/or folders, open the Files panel and select, drag and drop them in the desired new location. Scratch Live will then prompt you with the following options:

Copy: Select this to make a copy of the selected files and folders in the new location. Your Scratch Live library will now contain entries for both the originals and copies.

Move: Select this to move the selected files and/or folders to the new location. Your Scratch Live library and crates will now reference the files in their new location.

Cancel: Cancel any changes.

Remove original references from library: Check this option when using the copy feature to remove the original references to these files in your Scratch Live library and replace them with the copies in the new location. The original files will still be kept in their current location, but will no longer referenced in your Scratch Live library.

COPYING AND MOVING CRATES

You can also copy or move your Crates and Subcrates to another drive in the same way. Open the Files panel and select, drag and drop your Crates or Subcrates to the new drive. You will be presented with the same options as mentioned above.

SCRATCH LIVE BACKUP

Scratch Live stores your library database and crates information in the Scratch Live folder on your hard disk. This folder is created on a drive when files are added to Scratch Live. A copy of each Scratch Live folder called ScratchLiveBackup is created next to the folder it is backing up. This folder is created when exiting Scratch Live. You will be prompted to backup your Scratch Live library on exit if there is no backup for a drive or if the last backup is more than 1 week old.

Backup will only keep ONE level backup at a time; each time backup runs, it overwrites the previous backup.

NOTE: Make sure you back up your music separately. This backup function only backs up the Scratch Live folder, not your music files.

RECORDING

Scratch Live allows you to record one of three stereo signals from the SL 3:

- Left (deck) in
- Right (deck) in
- Aux in

Stereo recording is possible even while using two stereo vinyl control inputs.

1. Select the **RECORD** button at the left of the screen to open the Record controls.

2. Choose the **Input Source** by clicking on the downward arrow (icon) to get the drop menu.

3. Click the red record icon to start recording.

4. The record icon flashes while recording and the display shows the elapsed recording time.

5. Click the flashing record icon again to stop the recording.

6. To save the recording, type in a name for the recording and click the save icon.

7. The recording is automatically placed in a crate named “RECORDED”. If the crate does not already exist, it will be created automatically.

8. To start a new recording without saving, simply click the record button again.

Recordings can be loaded onto the decks, renamed, and managed like other files. Recordings are saved in “MyDocuments\My-Music\ScratchLive\Recording” on a PC and “~/Music/ScratchLive/Recording Temp” on a Mac. Recordings are saved as 24-bit, 48 kHz stereo AIFF files by default.

RECORD GAIN KNOB

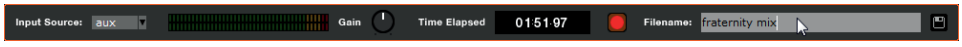
Adjust the record level using this Gain knob. The meter reveals the level of your audio. Ideally the meter should sit just below the red, meaning your signal is as loud as it can be without clipping.

You can also use the Virtual Deck’s output level meter to monitor the input level. To do this, eject the loaded track from the appropriate Virtual Deck — the left Virtual Deck if recording from input one, or the right Virtual Deck if recording from input two. You can now see the input level on the Virtual Deck’s higher resolution stereo meter.

NOTE: If you turn the record Gain knob down and the red clip led is still illuminated, the signal is clipping the input of the SL 3. Turn down the level at your audio source before it reaches the SL 3.

TIPS

- The keyboard shortcut ctrl-n turns recording on and off.
- Load a recording without saving it using the shortcut keys shift left arrow to the Left Deck or shift right arrow to the Right Deck.
- If the Virtual Deck is set to INT mode and is unloaded, the input record level is sent to the Virtual Deck’s higher resolution stereo meters, e.g., if you’re recording from the Right Deck, set the right Virtual Deck to INT, eject the track if there is one loaded, and the Virtual Deck’s meters will show the signal coming into the Right Deck’s input.



NOTE: Recording files are automatically split when the recording exceeds 3 hours (16-bit) or 1 hour 50 minutes (24-bit).

SAMPLING FROM VINYL

You can use the SL 3 interface to sample from vinyl or any other sound source. Click the ▼ triangle next to the record button to select from Aux, Left (deck) or Right (deck) inputs.

TIP: Remember that ctrl-n turns recording on and off, and you can load a recording without saving it using shift + left arrow or shift + right arrow. Drop the needle into a loud part of the track, record a few seconds, and then shift + left arrow or shift + right arrow to load it on to the Virtual Deck. This way you can double-check your levels and adjust with the Gain control.

RECORDING YOUR MIX

To record your DJ mix in Scratch Live:

1. Connect an output (i.e., booth, session, aux or 2nd master output) from your DJ mixer into the AUX input of the SL 3.
2. Select AUX as the record source in Scratch Live.
3. Adjust the input level to a suitable volume. Be sure the red overload LED stays off.
4. Begin recording. Details are the same as steps 3 to 7 under RECORDING.

RECORDING BIT DEPTH

There is an option for Recording Bit Depth with the SL 3 on the Hardware tab of the Setup screen. Choose either 16-bit (CD quality, smaller file size) or 24-bit (high quality, larger file size). **SEE "RECORDING BIT DEPTH" ON PAGE 31.**

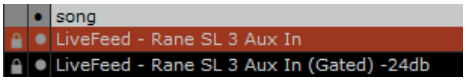
LIVEFEED

LiveFeed allows you to stream the Aux input from the SL 3 to a Virtual Deck. For instance, you can connect any available mixer output to the SL 3 Aux In to record a section of your set. You can then instantly play the recording back just like a normal audio file — you can scratch it, speed it up, slow it down, set loops and set cue points.

There are two recording options, Normal and Gated. The Normal option means recording will begin as soon as the Deck starts playing. The Gated option means recording will only begin once the input source exceeds the set gate level (thus avoiding periods of silence). You can set the gate level by clicking the dropdown menu in the LiveFeed filename. The lower the gain setting the more sensitive the gate is.

The amount of time available to record is determined by your audio cache setting. The track overview display shows the amount of usable audio you have to play with from the recording. Click anywhere in the track overview display to jump to your desired position in the recording. **SEE "AUDIO CACHE" ON PAGE 34.**

USING LIVEFEED



First locate the LiveFeed files in your library. Type "livefeed" into the search box and you will see:
LiveFeed - Rane SL 3 Aux In
LiveFeed - Rane SL 3 Aux In (Gated) -xx dB.

Load the desired LiveFeed file to any Deck. To begin recording, start the Virtual Deck playing. The waveforms will start to build in the track overview and main waveform display as the Aux input is being recorded, you can now use the recording as normal. Performing a needle drop on the record brings the playhead back to the "now" position in the audio stream.

KEYBOARD SHORTCUTS

These actions can be accessed directly from the computer keyboard.

NOTE: Playback, cue and speed controls use Shift or Caps Lock. You can turn this off in the Setup screen.

SEE "PLAYBACK KEYS USE SHIFT" ON PAGE 31.

KEY	ACTION
ctrl - L	Locate the current track. This will highlight the track you most recently loaded. Pressing ctrl - L again will alternate between the tracks recently loaded on both decks.
ctrl - R	Reveal - the highlighted song is opened in a file browser.
ctrl - F	Find - moves the cursor to the search box.
ctrl - A	Select all.
ctrl - C	Copy text in edit mode.
ctrl - E	Edit text.
ctrl - V	Paste text in edit mode.
ctrl - X	Cut text in edit mode.
ctrl - Z	Undo last track load.
shift - ctrl - ↑ **shift - ctrl - ↓**	Move focus up / down through the library or crates. Note that if you have a song highlighted in the song view, and use shift - ctrl - ↑ ↓ you will move up or down through the library or crates. When you release the shift or ctrl key, the focus will go back to the song view so that you can move up and down through songs using ↑ ↓.
ctrl - P	Add tracks to the prepare window.
ctrl - N	Start a new mic recording.
ctrl - O	Open the track in your default MP3/WAV/OGG/AIF player.
- or **+**	Zoom the main waveform display.
ctrl - or **+**	Zoom the library text size.
tab	Alternate focus between crates or songs.
ctrl - del and **ctrl - backspace**	Remove track from library., remove track from crate, delete crate (does not delete the file).
alt - del and **alt - backspace**	Remove track from crate and from library.
ctrl - shift - del and **ctrl - shift - backspace**	Delete the file from your library *and* send to the recycle bin. (Note to iTunes users: files in your iTunes library cannot be deleted this way).
ctrl - shift - /	Toggle the input reverse switch
esc	Clear search string if searching, or exit Scratch Live.

SAMPLE PLAYER	slot 1	slot 2	slot 3	slot 4	slot 5	slot 6
Load to sample slot	**ctrl - alt - Z**	**ctrl - alt - X**	**ctrl - alt - C**	**ctrl - alt - V**	**ctrl - alt - B**	**ctrl - alt - N**
Play sample slot	**Z**	**X**	**C**	**V**	**B**	**N**

LEFT DECK	ACTION		RIGHT DECK
ctrl - ← or **shift - ←**	Load the highlighted song to a deck.		**ctrl - →** or **shift - →**
ctrl - shift - →	Load the track currently on one deck onto the other deck as well.		**ctrl - shift - ←**
shift - alt - ←	Unload the track from a deck.		**shift - alt - →**
ctrl - , (comma)	Place a cue point.		**ctrl - . (period)**
ctrl - 1, 2, 3, 4, 5	Place a cue point in a slot.		**ctrl - 6, 7, 8, 9, 0**
1, 2, 3, 4, 5	Jump to cue points slots.	(REL and INT modes)	**6, 7, 8, 9, 0**
F1	Switch deck to ABS mode.		**F6**
F2	Switch deck to REL mode.		**F7**
F3	Switch deck to INT mode.		**F8**
F5	Key lock on / off.		**F10**
Q	Play / pause reverse.		**A**
W	Play / pause forward.		**S**
E	Pitch down.		**D**
R	Pitch up.		**F**
T	Bend down.	(REL and INT modes)	**G**
Y	Bend up.	(REL and INT modes)	**H**
U	Censor.	(REL and INT modes)	**J**
I	Go to temporary cue point.	(REL and INT modes)	**K**
O	Set / adjust loop in-point.		**L**
P	Set / adjust loop out-point.		**;**
[	Loop on / off.		**'**
ctrl - [	Jump to selected loop.		**ctrl - '**
alt - Q	Load previous track.		**alt - A**
alt - W	Load next track.		**alt - S**
alt - 1, 2, 3, 4, 5	Auto loop on / off.		**alt - 6, 7, 8, 9, 0**
ctrl - alt - 1, 2, 3, 4, 5	Loop roll.		**ctrl - alt - 6, 7, 8, 9, 0**
alt - E	Rewind.	(REL and INT modes)	**alt - D**
alt - R	Fast forward.	(REL and INT modes)	**alt - F**
alt - O	Previous loop.		**alt - P**
alt - L	Next loop.		**alt - ;**
alt - space bar	Activate the tempo tapper.		**alt - space bar (x2)**
ctrl - I	Set temporary cue point.	(REL and INT modes)	**ctrl - K**

ADDITIONAL SETUP

This section covers general preferences and adjustments you can make to improve the performance of Scratch Live. From the top of the main screen, click on **SETUP** to get to this area.

HARDWARE

USB BUFFER SIZE (LATENCY)

Scratch Live processes audio in small chunks. When smaller chunks are used, the movement of the record is translated into audio more often, which results in a lower overall system latency. However, this requires more processing and therefore a higher CPU load, so lower buffer size settings require a more powerful computer to produce uninterrupted audio. If you want tighter control, try decreasing this setting. On the other hand, if you experience audio dropouts, you need to increase this setting (or use a more powerful computer).

UPDATING FIRMWARE

If a firmware update is available after installing a new Scratch Live software release, an **Update Firmware** button appears in the Hardware screen.

The firmware upgrade takes approximately 10 seconds, during which time the SL 3 will not be usable.

LINE / PHONO STATUS

The input level currently set on the SL 3 is displayed for each input. To change the input level setting, use the dip switches on the SL 3. Choose up for Phono and down for Line.

When Phono is selected, the **Phono Sensitivity** setting is also displayed. Set the Phono Sensitivity to the same level of your cartridge (see your cartridge documentation for the correct value).

RECORDING BIT DEPTH

Choose to record in either **16-Bit** (CD quality, smaller file size) or **24-Bit** (high quality, larger file size). **SEE "RECORDING" ON PAGE 28.**

PLAYBACK

TRACK END WARNING

Enable this option to flash the Virtual Deck as you approach the end of the track. The label will start flashing 20 seconds from the end of the record. The Track end warning does not apply to any tracks under 1 minute long.

PLAYBACK KEYS USE SHIFT

When this option is checked you must have the shift key pressed for the playback keys to trigger. This applies to all keyboard shortcuts, including cue points, INT mode shortcuts, and the sample player shortcuts.

TIP: You can also turn on Caps Lock instead of using Shift.

LOCK PLAYING DECK

Every DJ's nightmare used to be lifting the needle off the wrong turntable in the middle of a set. This setting helps to avoid the digital equivalent; loading a new track to the wrong deck. When this option is checked, you can only load a track if the target deck is stopped.

SORT CUES CHRONOLOGICALLY

The five cue points can be placed in any order, and can be dragged up and down if you wish to reorder them. If you prefer to lock them to chronological order, turn this option on.

ENABLE HOT CUES

When Hot Cues are enabled, you can set cue points simply by pressing the number keys 1 through 0 (no ctrl modifier required) from your keyboard. You can only add cues this way if the cue point slots are empty. **SEE "CUE POINTS" ON PAGE 17.**

USE AUTO GAIN

Auto gain enables you to set a uniform volume level for the tracks in your library. When a track is in auto gain mode, the track gain knob appears recessed.

Check this box to enable auto gain. Provided you have analyzed your files, your tracks will now be loaded with the auto gain applied.

Next to this box is a drop down menu, in which you set the target gain volume level.

To find the optimum setting, load a track with an average volume level onto one of the Virtual Decks. Now play the track, and take note of the volume and LED lights inside the software.

The idea is for the track volume to be sitting just under the clipping point (indicated by the LED meter red-lining). If the track is too quiet, unload it, then go to the Playback setup screen and boost the auto gain dB value more.

Once you've made this adjustment, load the same track onto the Virtual Deck again. You'll notice that the volume knob has automatically adjusted itself.

Keep making adjustments on the same track until it's just below the clipping point. Once this is set you won't need to adjust the target gain level ever again.

Because the track you used had an average volume level, most of the other tracks in your library should be around the same volume. You may still need to make minor adjustments to some individual tracks, but once that's done these will stay saved in the ID3 tag of the file.

TIP: Slightly too quiet is always better than too loud. If your LED meter is in the red, it is likely that it is clipping. Not only does clipping not sound very nice, it can damage your equipment.

NOTE: Your overviews need to be built by version 1.7.2 or later for auto gain to work.

HI-FI RESAMPLER

This significantly reduces digital distortion at very slow or very fast record speeds, increasing the CPU load slightly. This option is off by default, the old resampler is used when switched off.

PLAY FROM START

Enable this to start all tracks from the beginning when loaded in REL and INT modes. If this setting is not enabled, freshly loaded tracks will continue to play from the point the last track was at. This option is on by default.

INSTANT DOUBLES

This option allows you to quickly match the playhead position of two tracks. With this option enabled, when you load the same file on one Virtual Deck that is already loaded on the other Virtual Deck, the playhead will jump to the position of the track that was loaded first, with the keylock state and looping settings copied. This setting overrides the **Play from start** and **Play from first cue point** options.

PLAY FROM FIRST CUE POINT

Enable this option to start all tracks from the first cue point when loaded in REL and INT modes. This setting overrides the **Play from start option**.

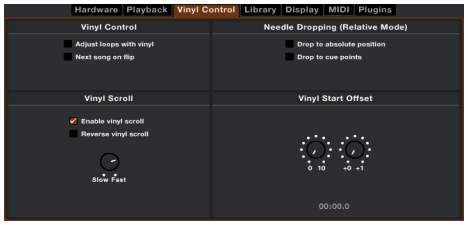
BRAKING (INTERNAL MODE)

In INT mode, this controls how fast the deck stops when play is stopped. Counter-clockwise, the stop is immediate. Clockwise rotation increases the stop from a finger grab all the way to a slow turntable power-down.

AUDIO OUTPUT

By default the output of Scratch Live is stereo. You can also select mono output. This setting is saved when you exit Scratch Live.

VINYL CONTROL



ADJUST LOOPS WITH VINYL

Loop end points can be adjusted using the control vinyl. Disable this option if you wish to use the computer's arrow keys to adjust loops, and keep audio playback controlled by the vinyl. **SEE "LOOPING" ON PAGE 17.**

NEXT SONG ON FLIP

When this option is enabled, changing the side of control vinyl you're using ('flipping the record') loads the next song.

ENABLE VINYL SCROLL

Uncheck this box to disable the Vinyl Scroll feature. **SEE "VINYL SCROLL" ON PAGE 11.**

REVERSE VINYL SCROLL

This setting allows you to reverse the direction of Vinyl Scroll. **SEE "VINYL SCROLL" ON PAGE 11.**

VINYL SCROLL SPEED

Vinyl Scroll allows you to load a new track without touching the computer, by lifting the needle and placing it in the special section of side A of the control record. This setting allows you to adjust the sensitivity of Vinyl Scroll, so that you can control the amount of record movement required to move between tracks.

DROP TO ABSOLUTE POSITION (RELATIVE MODE)

This detects a deliberate repositioning of the needle, and moves the playhead to the needle's absolute position, as if it were in ABS mode. Accidental skipping of the needle does not reposition the playhead. (REL mode only)

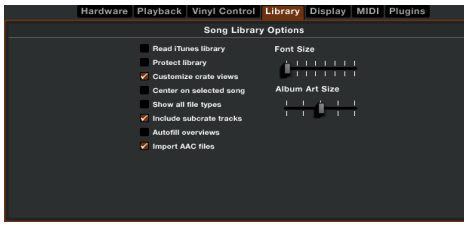
DROP TO CUE POINTS (RELATIVE MODE)

This option triggers the corresponding cue point when the needle is repositioned into one of the first five one-minute sections on the control vinyl. For instance: needle dropping into the second minute on the left turntable will send playback for Deck 1 to cuepoint 2, if that cuepoint is set. (REL mode only)

VINYL START OFFSET

If there is cue burn at the beginning of the vinyl, you will notice that the tracking will be poor at this point. Use the two knobs to offset the start point, so that the track will start playing from a point further into the control record. The first knob sets the number of whole minutes to offset by, the second knob sets the number of whole rotations within that minute.

LIBRARY



READ iTUNES LIBRARY

Check this option to show your iTunes library and playlists in Scratch Live. You can collapse your iTunes playlists by clicking on the blue folder icon.

Uncheck this option to remove iTunes playlists and iTunes songs from your Scratch Live library.

To add your iTunes music to your Scratch Live library permanently, drag and drop tracks from the iTunes playlists onto the "❇ **All...**" icon (on the far left hand side of the Scratch Live screen), or into individual Scratch Live crates.

Any files moved to "❇ **All...,**" an existing crate, or a new crate will now remain in Scratch Live even when the **Read iTunes library** option is unchecked. Once a file has been permanently added to Scratch Live, the iTunes logo will disappear.

We recommend unchecking this option after you have added your music into the Scratch Live library.

NOTES:

- If your iTunes library contains a large number of tracks it may take some time for Scratch Live to read it.
- Any changes made in Scratch Live to the file information of tracks in your iTunes library will not appear in iTunes until after you play the track.
- Scratch Live cannot play files that have been protected by Digital Rights Management systems, such as those previously sold through the Apple iTunes Music Store. iTunes Plus files are DRM-free.
- iTunes is available for Mac and PC. To get more information, visit www.apple.com.

PROTECT LIBRARY

Uncheck this option to remove files and crates from your library. Check this option to lock your library and prevent accidental file or crate deletion while using Scratch Live. Enabling this option will also lock all file tags and crate names, so that no text can be changed.

CUSTOMIZE CRATE VIEWS

Check this option to set custom column views for each crate and playlist. When the option is off (default), all crates will share the same column configuration as the "❇ **All...**" crate.

CENTER ON SELECTED SONG

With this option on, scrolling up and down in your library holds the selected track in the middle of the library panel.

SHOW ALL FILE TYPES

Enable this option to show all files when importing tracks into Scratch Live. If this option is unchecked, only files that Scratch Live can play will be displayed.

INCLUDE SUBCRATE TRACKS

You can drag crates into other crates to make subcrates. If you have this option turned on, any crate will also display the contents of all its subcrates. **SEE "ORGANIZING YOUR MUSIC" ON PAGE 24.**

AUTOFILL OVERVIEWS

Enable this option to automatically generate the track overview as soon as a track is loaded. If this setting is disabled, the track overview will be generated as the track plays. Automatically generating the track overview uses more of the computer's CPU power, and should be disabled on slower computers.

TIP: Analyze your files before you play to pre-build all your overviews. **SEE "PREPARING YOUR FILES" ON PAGE 10.**

IMPORT AAC FILES

Turn this option off if you do not wish to import AAC files into your library. Changing this option will cause your iTunes library to be reloaded if the **Read iTunes library** option is turned on.

FONT SIZE

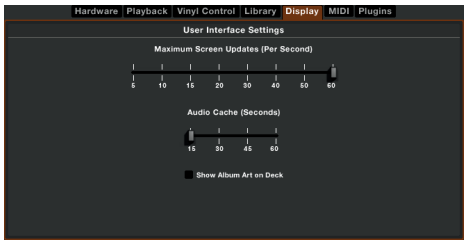
Adjust this slider to increase and decrease the font size for the main library and crates area.

TIP: You can also use the keyboard shortcuts ctrl + and ctrl – to increase and decrease the font size.

ALBUM ART SIZE

Adjust this slider to set the maximum album art size for any of the album art display modes. The artwork will still get larger if required to fit the track and will still scale with the library zoom keyboard shortcut.

DISPLAY



MAXIMUM SCREEN UPDATES

This slider allows you to throttle back the screen refresh rate. Users with slower computers might like to do this if they are having performance issues. It could also be useful if you want to limit Scratch Live's processor usage, for example if you are running a recording program at the same time. The default setting is 60 Hz, or refreshed 60 times per second. This setting applies to the entire screen (i.e. the Virtual Decks, the Waveforms, the Library, and the SETUP screen).

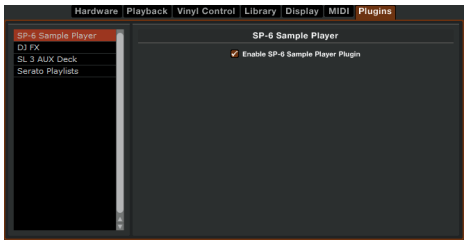
AUDIO CACHE

Use this slider to set the amount of audio that is loaded into memory. A small audio cache will place less load on your computer, and the tracks will load faster. A large audio cache will give you a bigger view of the waveform when the main waveform view is zoomed out. The default is 15 seconds.

SHOW ALBUM ART ON DECK

Check this option to show the album art for your song next to the track information display on each Virtual Deck.

PLUGINS



SP-6

Use the check box to enable and disable the SP-6 sample player plugin. The SP-6 is enabled by default.

DJ-FX

Use the check box to enable and disable the DJ-FX plugin. The DJ-FX plugin is disabled by default.

SL 3 AUX DECK

Use the check box to enable and disable the SL 3 Aux Deck plugin. The SL 3 Aux Deck plugin is disabled by default.

FLASHING DECK INDICATOR

Use this check box to turn the Flashing Deck indicator for the SL 3 Aux Deck on and off.

SERATO PLAYLISTS

Use the check boxes to enable and disable the Serato Playlists plugin and the Live Playlists feature. These are disabled by default.

TROUBLESHOOTING AND FREQUENTLY ASKED QUESTIONS

THE AUDIO PLAYBACK IS DROPPING OUT / CLICKING / POPPING

Scratch Live is not getting a clear signal from the record, or your computer is not able to process the information quickly enough. Go to the Setup screen and check the scope views. When the record is playing, the circles should be round, and the value in the bottom right corner should be close to 100%. If this is not the case, you need to calibrate. **SEE "CALIBRATING SCRATCH LIVE" ON PAGE 8.**

Also try increasing the **USB Buffer Size** in Hardware Setup if your computer is close to the minimum spec.

Clean your needles! This is the most common cause of audio drop-out. Because you are playing the same record over and over, the needles will get dirty more quickly than usual.

THE THRESHOLD GOES TO THE FAR RIGHT WHEN I CLICK THE ESTIMATE BUTTON

Make sure the needle is on the record and the record is stopped when you click estimate. If the slider goes hard right and stays there, you most likely have an grounding problem with your turntables/mixer. If you cannot eliminate this problem, use REL mode instead of ABS mode.

SCRATCH LIVE MAKES A STRANGE DIGITAL NOISE, EVEN WHEN NO TRACK IS PLAYING

Scratch Live is interpreting background noise as record movement. Go to the Setup screen and move the threshold slider (located left of the Estimate button) to the right until the noise stops. **SEE "CALIBRATING SCRATCH LIVE" ON PAGE 8.**

THE TRACKS ARE PLAYING BACKWARDS!

The inputs (from the turntables or CD players) are the wrong way around. Try swapping red and white wires at one end.

I CAN'T GET THE SCOPE VIEW TO SHOW NICE CLEAN CIRCLES

Check your needles and make sure they are clean. If the circles look fuzzy, try cleaning your control record. If the Scope View shows a line instead of a circle, Scratch Live is only receiving a signal from one channel — check all your cables, and the connection between your cartridges and the tone arm. You can order replacement control records from your local distributor. You may also order these in the online store at www.rane.com if you are in the USA.

THE FIRST TIME I PLAY A NEW TRACK, IT TAKES A WHILE TO LOAD

Scratch Live has to read the entire file and create a file index (overview) the first time it is loaded. This may take a few seconds for longer files. After the first load, it should load instantly. **SEE "PREPARING YOUR FILES" ON PAGE 10.**

I HAVE A PARTICULAR MP3 THAT WON'T PLAY / PLAYS BADLY / TAKES A LONG TIME TO LOAD / CRASHES THE PROGRAM.

The file may be damaged, and may need to be deleted from your library. Please go to the forum at serato.com and notify the support team that you have a bad file. By reporting damaged or corrupt files, you help the developers to improve Scratch Live's ability to play damaged MP3 files in the future.

SCRATCH LIVE FREAKS OUT WHEN I USE THE MASTER TEMPO (KEY CORRECTION) FUNCTION ON MY CD PLAYER

Scratch Live interprets the signal coming out of the CD player, and uses this information to control the playback of the files on your computer. Any audio processing performed on the signal before it reaches the hardware interface, such as key correction, will scramble the signal making it illegible to Scratch Live. Use key correction within Scratch Live instead. **SEE "KEY LOCK" ON PAGE 13.**

I WANT TO BACKUP MY LIBRARY AND CRATES OR MOVE THEM TO ANOTHER MACHINE, SO WHERE ARE THEY STORED?

Your database and crates are stored in the folder Home\Music\ScratchLive on a Mac, and My Documents\My Music\ScratchLive on a PC. If your library contains tracks that are stored on a drive other than your boot drive, a folder called _ScratchLive_ will be created in the root of that drive, and a separate database will be made in this folder. If it is a removable drive, the tracks will only appear in your library when the drive is connected. **SEE "SCRATCH LIVE BACKUP" ON PAGE 28.**

I HAVE PINK FILES WHICH DON'T PLAY

These are files which Scratch Live thinks are missing. You can use the Relocate Lost Files feature in the Offline player to re-associate these with their new location. To do this you can either: drag the file itself from Finder/Windows explorer onto the button to relocate an individual file, drag an entire folder onto this button, or press the button (this will search all connected drives for all the missing files in your library).

I HAVE CUE BURN AT THE BEGINNING OF MY CONTROL RECORD, DOES THAT MEAN I NEED TO REPLACE IT?

No, use the Vinyl Start Offset function (in the Vinyl Control tab of the Setup screen) to move the point at which tracks begin to a position further into the vinyl. **SEE "VINYL START OFFSET" ON PAGE 33.**

WHAT ARE THE BEST CARTRIDGES TO USE WITH SCRATCH LIVE?

We recommend the Ortofon|Serato S-120 cartridges for use with Scratch Live. These employ revolutionary new cantilever suspension, which delivers high output volume, unrivaled tracking ability and low record wear.

NOTE: To keep up with the latest tips, visit the Official Scratch Live Forum online at serato.com.

CORRUPT FILE DESCRIPTIONS AND DIAGNOSES

Corrupt file: This MP3 contains invalid frames.	This MP3 contains frames which do not conform strictly to the official MP3 specification. Scratch Live can not be certain that this file will play back 100% accurately.
Corrupt file: This file contains corrupt frames that may result in audible glitches.	This file contains two or more contiguous corrupt frames. Since corrupt frames are replaced with silence, this could result in what might sound like an audio glitch.
Corrupt file: This file has been split. You should check the beginning for audio glitches.	The first MPEG audio frame in this file refers to audio that should be present before it but is not. This is usually the result of incorrect MP3 editing. Since a corrupt frame is replaced with silence and most songs start with silence, the resulting silence might not be noticeable. All the same, listen to the beginning of the song, just to be sure.
Corrupt file: This file structure is incorrect.	This file has caused the QuickTime metadata manager to fail.
Corrupt file: This MP3 contains frames with corrupt data.	Decoding of an MPEG audio frame failed. This means that the frame contained invalid data. As usual with corrupt frames, this frame will be played as silence.
Corrupt file: This MP3 lost syncronization between the frame index and the frames.	Scratch Live is reading an old overview of an MP3 that has been edited in a thrid party editing program. Rebuilding the overviews for the affected files usually corrects this error.
Corrupt file: This MP3 is completely invalid and is not playable.	Self explanatory. Possible causes are disk bad sectors, file system corruption, wrong file types, wrong file extensions, etc.
Corrupt file: This file contains invalid audio data.	Scratch Live encountered invalid data while looking for audio in this file. This message alerts you to the fact that the file you're trying to play contains corrupt data. This may, or may not, affect playback.
Corrupt file: This MP3 contains no valid frames.	No audio could be found in this file, which means it is completely unplayable as far as Scratch Live is concerned. Please make sure this really is an audio file.
Unsupported file: This MP3 contains multiple layers.	While scanning this file, Scratch Live found frames belonging to multiple MPEG layers. Scratch Live does not support MP3s containing frames from multiple layers – some frames may output as silence.
Unsupported file: This file is more than 2 GB in size.	Self explanatory. At the moment, Scratch Live does not support files that are 2 GB in size (or larger).
Unsupported file: This file has data blocks greater than 2 GB in size.	This file contains chunks of data that are larger than 2 GB. Scratch Live does not support files that are more than 2 GB in size.
Corrupt file: This WAV contains no valid chunks.	This WAV file contains no recognizable WAV data. It is quite possible that this might not be a WAV file.
Unsupported file: This file's data is not in PCM format.	WAV files can contain data in several formats. Scratch Live only supports WAV files that contain data in the PCM format.
Unsupported file: This file has a sampling rate greater than 96 kHz.	Scratch Live does not support sampling rates greater than 96 kHz. If you see this message, the simplest approach is to re-sample the audio at 96 kHz and re-save the file.
Unsupported file: This file uses more than 24 bits per sample.	Scratch Live supports a maximum of 24 bits per sample of audio data.
Corrupt file: This WAV is incomplete.	Scratch Live expected more data in the file, but found none. This could be because the file was incorrectly truncated or because the data in the file is corrupt, causing Scratch Live to incorrectly estimate the amount of data present in the file.
Corrupt file: This file contains corrupt blocks.	This file contains blocks of data that report their size to be zero. This message was inserted to identify files that might cause lockups on previous versions of Scratch Live.
Corrupt file: This song contains no audio data.	Scratch Live could not find any audio in this file. Please check to make sure this file contains audio in a format that Scratch Live supports.
Corrupt file: This song contains invalid samples.	This file contains samples of audio that are too small to represent accurately and will therefore be truncated to zero. This should not result in any audible audio artifacts, but could cause audio dropouts on earlier versions of Scratch Live.

MIXING WITH ONE TURNTABLE OR CD PLAYER

This single turntable technique allows you to mix as if you had two turntables, using just one. If one of your turntables is not performing properly, or if you only have one available, you will be able to continue to mix the way you are used to.

The following is a step-by-step description of how to perform a mix using only your right turntable or CDJ with the instant doubles feature.

MENU SETTINGS

Go to the Setup menu, click on the Playback tab. Make sure **Instant doubles** is checked, and **Lock playing deck** is unchecked.

1. Load a track onto the Right Deck in Scratch Live and play as usual.

2. Put the Left Deck into INT mode.

3. Load the same song you have playing on the Right Deck onto the Left Deck. The track on the Left Deck will start playing from the same point and at the same pitch as the Right Deck.

4. You can now quickly slide your mixer's crossfader over to the Left Deck.

5. Your Right Deck is now free to load up a new song ready to mix in.

6. Repeat!

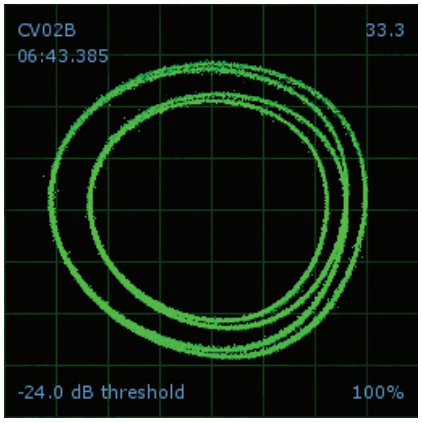
SEE "LOCK PLAYING DECK" ON PAGE 31.
SEE "INSTANT DOUBLES" ON PAGE 32.

SL 3 SPECIFICATIONS

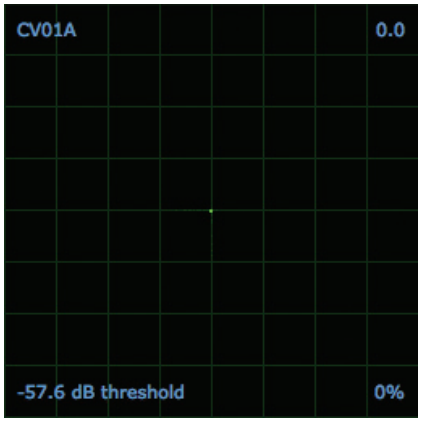
Computer interface	USB 2.0 High Speed
USB Power Requirement	400 mA, 5.0 Volts
USB Audio Channels	Six Record and Six Playback
External Power Supply	1060 mA, 7.5 Volts
Converters	24-bit / 44.1 kHz or 48 kHz sample rate
DAC Dynamic Range	104 dB, A-weighted
Line Thru Dynamic Range	101 dB, A-weighted
Phono Thru Dynamic Range	98 dB, A-weighted
Frequency Response	20 Hz to 20 kHz -3, +0 dB
THD+N	0.009% at 1 kHz at 2 Vrms
All Inputs Phono or Line Level	Switchable
Line Input	Unbalanced RCA
……Gain	Unity
……Maximum Input / Output	3 Vrms
Phono Input	Unbalanced RCA
……Sensitivity	Adjustable 2.5 mV to 10 mV
Unit Size	6.8" x 5" x 1.3" (17.3 x 12.6 x 3.3 cm)

SCOPE READING AND FIXES

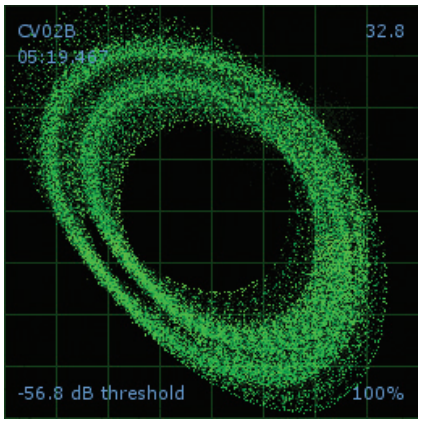
Most of the problems that occur with Scratch Live can be attributed to it not getting a good reading of the control signal from your records or CDs. These examples show what the scopes on the setup screen can look like to help solve possible problems. Some problems cause similar looking scopes, e.g., if your scopes look like the Dusty Needle one, the cause could be a damaged needle.



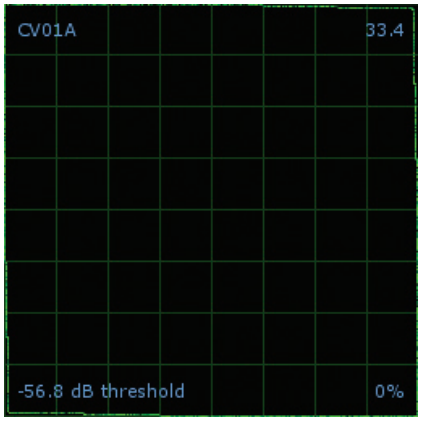
GOOD SIGNAL - Clean signal with 100% tracking.



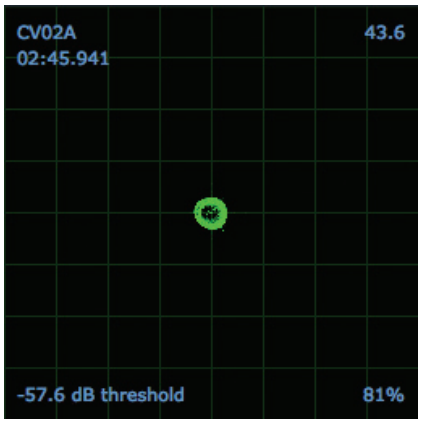
NO SIGNAL - Scratch Live is not receiving any control signal - check your connections.



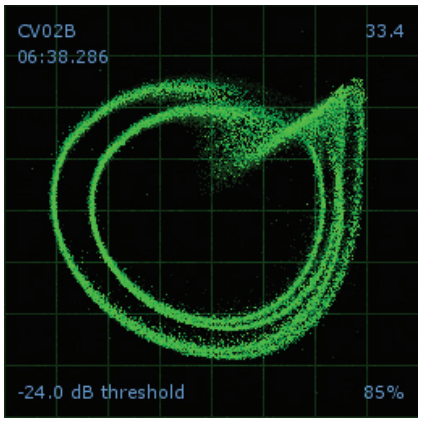
BAD TURNTABLE VIBRATION - Bass is reaching the stylus. Try to isolate the turntable from the speakers.



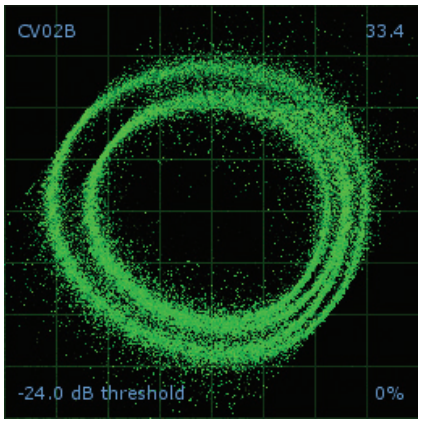
CD PLAYER INTO PHONO INPUT - Scratch Live is set to receive phono level input. Set to the correct value in the setup menu.



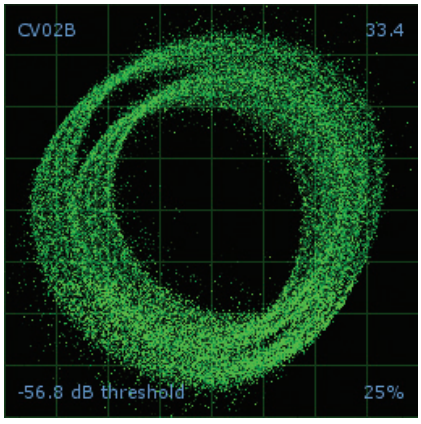
PHONO INTO LINE INPUT - Scratch Live is set to receive line level input. Set to the correct value in the setup menu.



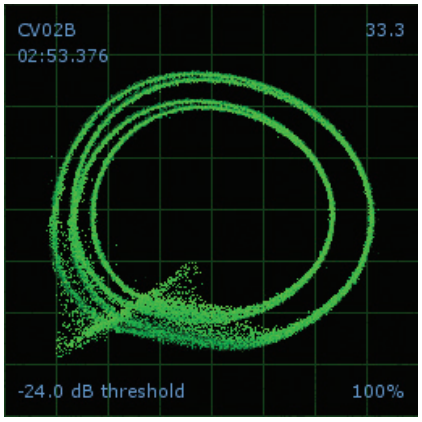
DUSTY NEEDLE - Dust is preventing the stylus from tracking the groove correctly. Clean your needle and the control vinyl.



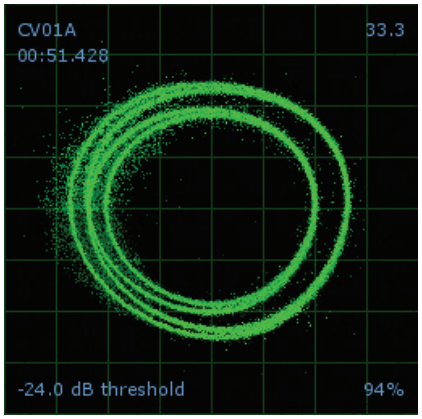
UNEARTHED - Very susceptible to interference. Attach the turntable's ground wire.



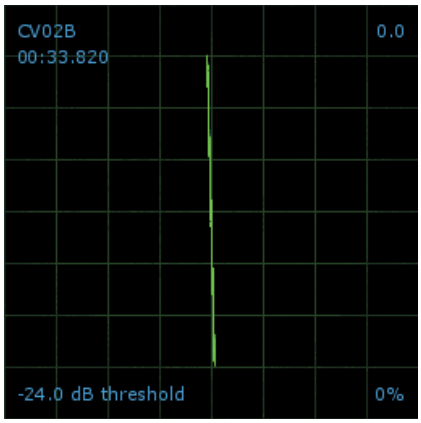
USING PIGGYBACK CABLES - Picking up huge amounts of noise, barely tracking. Connect your turntables directly to the hardware.



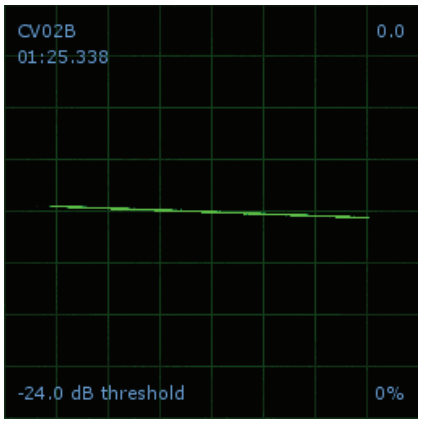
DAMAGED NEEDLE - Try re-seating, cleaning or replacing your stylus.



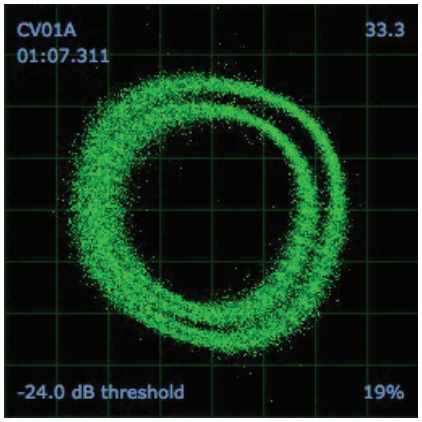
RECORD BURN - This section of the control vinyl has been worn. Swap sides or use the track start offset.



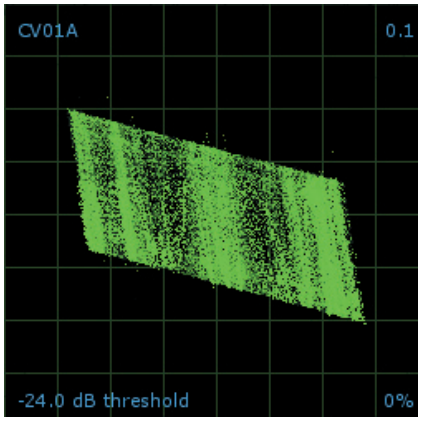
LEFT CHANNEL MISSING - The signal from the needle is not reaching the SL 3. Check the cable and cartridge connections.



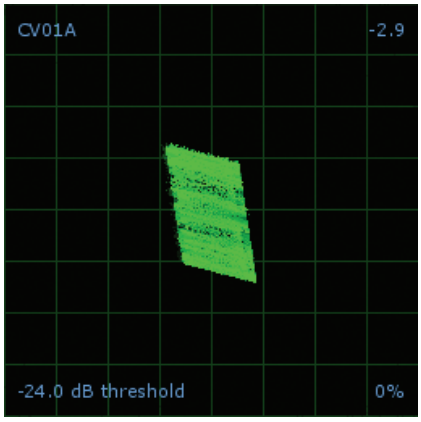
RIGHT CHANNEL MISSING - The signal from the needle is not reaching the SL 3. Check the cable and cartridge connections.



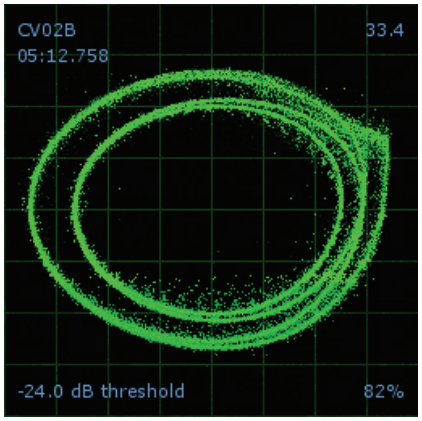
BAD RECORD BURN - Your record is very badly worn and Scratch Live is unable to track correctly. Swap sides or get new vinyl ASAP.



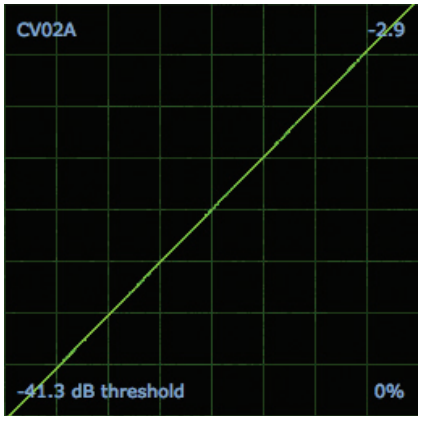
LEFT CHANNEL IS NOISE - Left signal has been lost with a noisy loose connection.



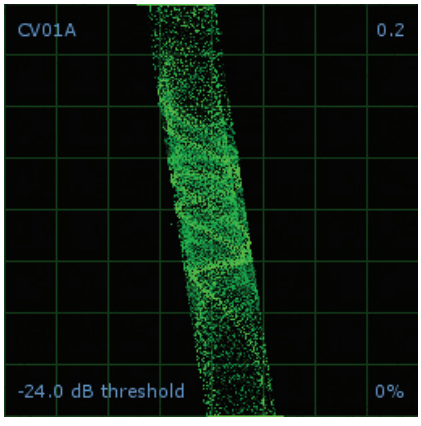
RIGHT CHANNEL IS NOISE - Right signal has been lost with a noisy loose connection.



TONEARM IS SLIGHTLY TOO LIGHT - Susceptible to dust and vibration. Adjust the tonearm.



SIGNALS ARE SUMMING TO MONO - The left and right signals have been combined into one somewhere in your signal chain.



RIGHT CHANNEL IS INTERFERENCE - Right signal has been lost with a noisy loose connection and left channel crosstalk.

DECLARATION OF CONFORMITY

APPLICATION OF COUNCIL DIRECTIVE:

2004/108/EC
2002/96/EC
2002/95/EC

STANDARD(S) TO WHICH CONFORMITY IS DECLARED:

EN55103-1:1996
EN55103-2:1996
ENVIRONMENT E2
SERIAL NUMBERS 700000-900000
CE MARK WAS FIRST AFFIXED IN: 2008

MANUFACTURER:

Rane Corporation
10802 47th Avenue West
Mukilteo WA 98275-5000 USA

This equipment has been tested and found to be in compliance with all applicable standards and regulations applying to the EU's Electromagnetic Compatibility (EMC) directive 2004/108/EC. In order for the customer to maintain compliance with this regulation, high quality shielded cable must be used for interconnection to other equipment. Modification of the equipment, other than that expressly outlined by the manufacturer, is not allowed under this directive. The user of this equipment shall accept full responsibility for compliance with the EMC directive in the event that the equipment is modified without written consent of the manufacturer.

TYPE OF EQUIPMENT:

Professional Audio Signal Processing

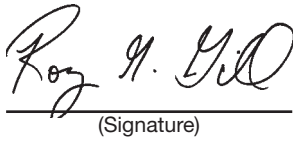
BRAND: RANE

MODEL: SL 3

IMMUNITY RESULTS: THD+N: 4 dBu, 400 Hz, BW = 20 Hz - 20 kHz

Test Description	Results	Conditions
RF Electromagnetic Fields Immunity		
80 MHz -1000 MHz, 1 kHz AM, 80% depth, 3V/m	< -79 dB	80 MHz - 1,000 MHz
Magnetic Fields Immunity		
50 Hz -10 kHz, 3.0 - 0.3 A/m	< -62 dB	

I, the undersigned, hereby declare that the equipment specified above conforms to the Directive(s) and Standard(s) shown above.



(Signature)

Roy G. Gill
(Full Name)

Compliance Engineer
(Position)

July 10, 2008
(Date)

Mukilteo WA USA
(Place)

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.

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

LIMITED U.S.A. WARRANTY

RANE CORPORATION WARRANTS ALL RANE PRODUCTS (EXCEPT THOSE ITEMS CLASSIFIED AS *WEAR PARTS*, AND LISTED ON PAGE 3 OF THIS OPERATORS MANUAL) 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 **www.rane.com** and click on **New 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:**_____