Your PDF Guides

You can read the recommendations in the user guide, the technical guide or the installation guide for RANE SL 1. You'll find the answers to all your questions on the RANE SL 1 in the user manual (information, specifications, safety advice, size, accessories, etc.). Detailed instructions for use are in the User's Guide.

> **User manual RANE SL 1**
> **User guide RANE SL 1**
> **Operating instructions RANE SL 1**
> **Instructions for use RANE SL 1**
> **Instruction manual RANE SL 1**

Manual abstract:

@@ · At least one turntable or CD player. · At least one turntable or CD player. · Computer with USB 1 port supporting Full Speed Mode (USB 1.1). · Screen resolution 1024 x 768 or higher. · Hard drive space for storing music. · PC Windows XP with Service Pack 2 or Vista (64-bit XP not supported) Pentium 4 / 1.5 GHz 1 GB RAM. · Mac OSX 10.3 G4 / 1 GHz 1 GB RAM.

Scratch LIVE is compatible with Intel-based Mac computers. Note: no sound card is necessary. Check List These items are included in the Scratch LIVE box: · Scratch LIVE hardware box. · Scratch LIVE software install disc. · 2 (two) control CDs. · 2 (two) control records. · 1 USB cable. · 4 stereo RCA cables. · Quick Start Guide. · This manual.

Reference This manual and the quick start are saved for easy reference in the Serato folder on your hard drive during software installation. Reading it requires Adobe AcrobatTM or the Adobe ReaderTM (free download) from www.adobe.com. Intro Optional power supply Connect an external power supply to the Scratch LIVE hardware to power the THRU channels when USB power is not present. This allows you to play vinyl (or CDs) when the laptop is not present, useful for permanent installations or using more than one laptop. The power supply is 9 volts DC, 300 mA using a P6 type barrel plug. (5.5 mm) + (2.5 mm) (Radio Shack carries a compatible supply.

Use model 273-1770 or 273-1768 with Adaptaplug N). 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. Copyright notices © 2007 Rane Corporation. All rights reserved. Scratch LIVE and the Scratch LIVE logo are trademarks of Serato Audio Research. Trademarked in the U.

S. and other countries. Licensed exclusively to Rane Corporation. This software is based in part on the work of the Independent JPEG Group, and uses libpng code, copyright © 2000-2002 Glenn Randers-Pehrson. Control vinyl and CDs are available for single use only -- any further copying or unauthorized reproduction is strictly prohibited.

Windows XP and Vista is either a registered trademark or a trademark of Microsoft Corporation in the United States and/or other countries. Apple, Mac, Macintosh and iTunes are trademarks of Apple Computer, Inc., registered in the US and/or other countries. WEAR PARTS: The Scratch LIVE interface contains no wear parts. The vinyl records and CDs are wear parts as described in the Limited Domestic Warranty section at the end of this manual. SERATO SCRATCH LIVE SL 1 OPERATOR'S MANUAL Version 1.7.4 Getting started ...

Manual-1 Getting started 1) Install the software Mac Insert the Software Installation CD-ROM and double-click the installer icon. Windows XP and Vista 1.

Insert the Software Installation CD-ROM. If Setup doesn't start automatically, browse to the CD drive and run setup.exe. Note: Select custom install to change the directory you wish to install Scratch LIVE into. 2.

Follow the on-screen instructions. Once the installation is complete, Scratch Live appears in the Start Menu under All Programs > Serato > Scratch Live. 2) Connect and install the hardware Mac Mac users need only connect the SL 1 hardware after installing the software. No extra hardware installation is required. Windows XP 1.

Connect the SL 1 (Scratch LIVE interface) to your computer using the supplied USB cable. 2. The Windows New Hardware Wizard appears. 5. Click Finish once installation is complete. 3. Insert the Software Installation CD-ROM if it's not already inserted, then press Next. 4. Windows may complain that the software driver is not digitally signed. Choose Continue Anyway.

Windows XP treats each USB port individually. You might like to install Scratch LIVE on all of your USB ports, so you can connect the hardware to any port. Note: You may be prompted the location of "SeratoUsb.sys". Browse to find this file on the Scratch LIVE install CD or web download, under "Drivers\SL 1". Windows Vista When you plug in your hardware: 1. A Found New Hardware wizard will pop up.

2. Choose "Locate and install driver software" 3. After Windows looks for the driver it will say "Windows couldn't find driver software for your device. Choose "Browse my computer for driver software" 4. Browse to the location that you extracted the ScratchLIVE.zip file to. Choose the Drivers folder. 5. Click next and Windows will say "Windows can't verify the publisher of this driver software". Click "Install this driver software anyway". 6. When you see the bubble "Your new hardware is installed and ready to use," proceed to install the Scratch LIVE driver. Manual-2 Connections USB TURNTABLE OUT GROUND GROUND TURNTABLE OUT MIC IN PHONO LINE PHONO LINE GROUND Tip: Whenever you are connecting input devices to your DJ mixer, turn down the master volume.

A 15:00 12-125-33 CV02 RECORDS A 15:00 12-125-33 CV02 RECORDS 1. Connect your turntables (or CD players) to INPUTS 1 and 2 of the SL 1 (Scratch LIVE interface). 2. Connect the LINE OUTPUTS of the SL 1 to the Line Inputs on your DJ mixer, check that those inputs are switched to line level. 3. Connect the USB cable from the SL 1 to your Mac or PC. This record contains a control signal only and is intended solely for use in conjunction with Serato Scratch LIVE software. ©2004 Serato Audio Research ©2004 Rane Corporation All rights reserved. 14368 CONTROL RECORD CONTROL RECORD This record contains a control signal only and is intended solely for use in conjunction with Serato Scratch LIVE software. ©2004 Serato Audio Research ©2004 Rane Corporation All rights reserved.

14368 Optional extra setup · If you are using turntables, connect their ground wires to the grounding post of your DJ mixer. · Connect the THRU OUTPUTS of the SL 1 to the mixer's phono inputs when using turntables; connect these to t 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. (See page Manual-11 for details) Scope view Once you have set the threshold, start both turntables. You will see green rings appear in the scope view, as shown below. 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 at least 85% when your system is calibrated properly. Tip: If you have trouble getting the rings circular, you probably need to clean or change your needles. If the image appears as a line, then one of the channels of the turntable is not working.

See examples of potential problems and fixes on pages Manual-23-24. Signal threshold The first step is to set signal threshold. There is always a certain amount of background noise, particularly when using turntables in a club environment. With a normal turntable setup, this background noise is transmitted through the body of the turntable and platter to the stylus, and can cause stylus feedback. In Scratch LIVE, this can cause errors on the reading of the position and velocity of the control record, resulting in a garbled digital noise and/or poor tracking.

Manual-5 Now that you have calibrated Scratch LIVE, you are ready to play your first track. We will return to the setup screen later to set general system preferences. When you first run Scratch LIVE, your library contains only the pre-installed tracks. Load files into Scratch LIVE by pressing the import button. Navigate the hard drive of your computer to locate your audio files. Click on these files (or folders containing files) and drag them onto the All... icon. You can also import by dragging files and folders directly from Windows Explorer (PC version) or Finder (Mac version) into the Scratch LIVE library (see pic below).

Scratch LIVE supports importing M3U playlists. Playing your first track Preparing your files Build overviews If you run Scratch LIVE with the hardware interface disconnected, you will notice a button labeled build overviews on the main screen. Click this to automatically build the overviews for all the tracks in your library. The track name (and location) are shown in the bar immediately below the button. Below this are three more bars. The first bar shows track reading progress, the second bar shows overview building, and the third bar shows track writing progress. This process prepares the overviews of all your tracks, and alerts you to any corrupt files you might have. These are indicated by Status Icons, shown on page Manual-16. Set auto BPM If this option is checked, building overviews will include 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. If you know your files BPM will fall within a certain range, use the range dropdown to avoid double or half value BPMs being calculated. Note: As auto BPM is part of the overview building process, files in your library with overviews already built will not be processed by clicking the build overviews button. To rebuild overviews and use auto gain or auto BPM on those files drag them onto the build overviews button. Reset track gain If you want to reset any track gain tags to 0 dB, drag them onto this button to reset them to 0.

To regenerate new values as you build overviews, see Set auto gain on page Manual-20. Loading tracks Click on the All... icon to show all the tracks in your library.

To load a track on to one of the decks, drag the track from the track list on to either deck. You can drag the same track on to both decks to load it onto both turntables. Tip: Use the keyboard shortcut shift to load the highlighted track on to the left deck, and shift to load the highlighted track on to the right deck. To start playing a track, simply put the needle on the record and start the turntable. The track will start playing 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). Supported file types Scratch LIVE supports fixed and variable bit rate .

MP3, Ogg Vorbis, .AIFF, and .WAV file types.

iTunesTM library and iTunes playlists can be automatically imported in the setup screen by clicking read iTunes library. See Rescan 1D3 tags on page Manual-20. Note: iTunes' default encoder is set to AAC, which Scratch LIVE currently does not support. To change the default encoding preferences in iTunes, go to Preferences > Importing. Change the "import using" option to a supported file type and click OK. Manual-6 Playing tracks 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. The track will start playing as soon as it detects the signal from the control vinyl (or CD). 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. 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 (page Manual-20). Tip: You can also use Vinyl Scroll in the prepare window. See page Manual-16. Virtual Deck 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 turntable speed as a percentage pitch shift is shown on the left of the Virtual Deck, and the pitched BPM (BPM with pitch adjustment multiplier added) is shown on the right of the virtual Deck. If the track has no BPM information, pitched BPM will not be shown. Activate Keylock by clicking this button. For more information regarding Keylock see page Manual-10. If you are playing regular vinyl, notice that the Virtual Deck behaves 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 eject button next to each Virtual Deck. Tip: Use the keyboard shortcut shift-alt-arrow to unload a track from the Virtual Deck. Eject button Manual-7 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. Note that 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 waveform of the track, 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 spectrum of the sound 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 auto fill overviews in the setup screen with this setting disabled, the overview will be filled as you play the track. See also: Cue points on page Manual-13 Absolute mode on page Manual-11 Build overviews on page Manual-21 Manual-8 Track overview display Main Waveform display This view provides a close-up view of the track, including colorcoding to show the frequency of the sound; red representing lowfrequency bass sounds, green representing mid-frequency sounds and blue representing high-frequency treble sounds. You can also switch to a three-band spectrum view by holding the crtl 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 also: Internal mode on page Manual-12 Cue points on page Manual-13. Horizontal waveforms on page Manual-19.

Tip: Use the + and keys to zoom in and out. In the example below, the red part of the wave represents a kick drum, while the purple part represents a snare drum. Kick Drum Main waveform display Snare Drum Tempo Matching display 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. Beat matching display Manual-9 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. 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 pressing 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. 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 light to be red when cueing or scratching. 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. Use the next | and previous | buttons to jump to the next track or go to the previous track in the list.

Autoplay works in both rel and int modes. Play from start must be checked in the setup screen for autoplay to work correctly. See page Manual-27. 33 / 45 Speeds Set this to match the speed of your turntable for normal playback. 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. Track gain Use the track gain adjustment 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 Set auto gain on page Manual-20 and Reset track gain on page Manual-6. Manual-10 Scratch LIVE has three different modes of operation. You can switch between these modes by clicking the mode buttons near the Virtual Deck. 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, 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 rel mode by lifting the needle and placing it in the lead-in of the control record. Emergency int mode will activate after 1 second Note: Be careful when scratching near the end of the record not to accidentally go past this point and into int mode the track will no longer respond to record movement! Tip: Use the keyboard shortcut F1 (left deck) or F6 (right deck) to switch to abs mode. Scratch LIVE modes 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. Rel mode adds additional speed controls: Rewind The rewind function speeds up the longer you press the button. 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. Fast forward The fast forward function speeds up the longer you hold the button. Censor see description When you reach the end of the record, 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 back to relative mode by lifting the needle and placing it back at the beginning of the control record. Tip: Use the keyboard shortcut F2 (left deck) or F7 (right deck) to switch to rel mode. Tip: If you wish to change the orientation of the sticker on your control vinyl, lift the needle, turn the control vinyl, and drop the needle more than 1 minute from where you picked it up. 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. Manual-11 Internal mode Int mode allows you to play tracks without external vinyl (or CD player) control. Int mode has a start / stop function and virtual pitch slider. Holding down the shift key moves the pitch slider slowly. Holding the ctrl key and clicking on the pitch slider resets it to 33 rpm or 45 rpm, depending on which you are closest to at the time. Scratch LIVE automatically switches to int mode when the end of the control record is reached; you can switch back to abs mode by placing the needle in the lead-in 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. int mode adds these additional controls. Rewind The rewind function speeds up the longer you press the button.

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. 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 page Manual-20. Play / pause forward Press to play, press again to stop playback. Uses the same braking as described above. 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. Fast forward The fast forward function speeds up the longer you hold the button.
Scratch LIVE has two pitch sliders a large slider for coarse pitch adjustment, and a small pitch slider for fine adjustments. Click above or below the handle on the large pitch slider to make small pitch adjustments, or hold the shift key and drag the pitch slider to move it slowly. Drag the center of the small pitch slider to make fine pitch adjustments, or click on either side of the small slider to pitch bend. 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 temp cue point. As soon as you release the key, it will jump back to the temp cue point.
Note that you can use this shortcut to jump the beginning of the track if the temporary cue point has not been set. See Cue points on the next page. The buttons above the small pitch slider allow you to seed the base playback speed 1/2 (half speed), 33/45 or the speed of a 45 rpm recording playing at 33 rpm, 1x or normal speed, 45/33 or the speed of a 33 rpm recording playing at 45 rpm, or 2x (double speed). You can also control playback using the computer keyboard -- turn Caps Lock on to enable. Left Deck Function Right Deck Q A play / pause reverse S W play / pause forward D E pitch down F R pitch up G T bend down H Y bend up Alt-A Alt-Q load previous track Alt-S Alt-W load next track Alt-D Alt-E rewind Alt-F Alt-R fast forward Ctrl-K Ctrl-I set temporary cue point / off Loop on p out just loo Set / ad p in just loo Set / ad point mp. cue Go to te Censor Play / pa Bend up wn Bend do Pitch + Pitch qwertyuiop[Right deck asdfghjkl;' Left deck 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: Use the keyboard shortcut F3 (left deck) or F8 (right deck) to switch to int mode. Tip: Panic! 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 internal mode, and reset the pitch to zero. Play / pa ard use forw rse use reve Manual-12 Tip: The rate of cue point stuttering is controlled by your operating system keyboard repeat rate settings. Windows users: Keyboard properties are in the Control Panel. Mac users: Keyboard and Mouse are in System Preferences. Tip: use the keyboard shortcuts ctrl-comma (for left) and ctrl-dot (for right) to place cue points. The stripe grows a fifth by each rotation closer to the cue point The stripe is a solid color at the cue point You can set up to five visual cue points within each track. Use the + button to place a cue point. Click the arrow to the left of each cue point to jump to it (rel and int mode 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. Notice that 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 record plays on beyond the position of the cue point, the colored bar will shorten 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 right shows the record just before the end of the 5th rotation before the cue point. Each cue point can have a different color. To change the color of a cue point, click on the colored square and choose a new color from the drop down menu. To remove a cue point, use the x button on the right side of the cue point panel. A cue point can occupy any of the 5 slots. You can drag and drop cue points to change their order in the list. If you wish to have the cue points sorted chronologically, check the sort cues chronologically option in the setup screen. If you load the same track on to both decks, you will be able to add or modify cue points from either deck.
When you jump to a cue point in internal 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 internal or relative mode, the cue point will be repeatedly triggered, producing a stuttering effect. Cue points 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: to move the in-point towards the start of the track, 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 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 the adjust loops with vinyl option 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 number of a occupied loop slot, 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. Looping applies to rel and int modes. Looping Manual-13 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. iTunesTM users will notice that Scratch LIVE automatically incorporates your existing iTunes library and playlists. Scratch LIVE uses digital "crates" for quick access to your favorite collections. @@@@To rename a crate, double click the crate name. @@@@Check this option to prevent changes to your crates.

@@Crate files have the extension .crate. @@@@@@@@@@@To move a column, drag the header to the left or right. @@@@@@@@@@@@The drop down menu shows which fields are currently being used. @@@@@@@@@@Tip: Select the contents of the prepare window and drag them onto the new crate button (+) to save the selection. Review window The review window shows the tracks you have recently played in the order in which they were played. Tracks you have played recently are colored green press the clear button to reset the list of recently played tracks. Tip: Select the contents of the review window and drag them onto the new crate button (+) to save a history of the tracks you played. 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. See Preparing your files on page Manual-6 for details on prebuilding overviews and the auto bpm feature. 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. Display album art MP3 files can contain album art information.

To display this album art, click the show album art button. There are many third party applications available for adding album art to MP3s. We recommend Apple's iTunesTM. Status icons The leftmost column shows the status of each track. The image to the left shows 5 tracks with differing statuses.

From top to bottom: · Scratch LIVE has detected some corruption in the MP3 file. If possible, re-encode the MP3. · The track has been imported from the iTunesTM 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. · Scratch LIVE is trying to import a track from the iTunes library, but cannot find the file. · 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. Detailed explanations of these messages can be found on page Manual-26, and more help with these is at scratchlive.net. Playing tracks direct from audio CD You can play tracks direct from an audio CD in your CD-ROM drive. When you insert the CD into your computer, it appears under your Scratch LIVE library. Click on the CD and the tracks will be displayed in the track list.

Tip: Disable any third-party CD Auto-Play functions before inserting a CD, as they may interfere with Scratch LIVE. Previewing tracks You can preview the tracks in your library using your computer's default media player. Highlight a track and press ctrl-o. This will launch the player your computer has associated with the file type, and start playback. Also applies to the import panel. Manual-16 Recording Scratch LIVE allows you to record from the Mic Input and scratch it immediately as if it were on vinyl. Use the mic input level indicator on the screen and the MIC GAIN control on the SL 1 box to adjust the mic recording level. Click on the downward pointing triangle and set the input to mic, and click on the red mic button to start recording. Click the mic button again to stop recording. The mic button flashes during recording.

To play the recording, type in a name for the recording and click the save button. The recording is automatically placed in a crate named Recorded. If that crate does not already exist, it will be created. To start a new recording without saving, simply re-click the mic rec button. Recordings can be loaded onto the decks, renamed and managed like other files.

Recordings are saved in My Documents\My Music\ScratchLIVE\Recording' on a PC, and ~/Music/ScratchLIVE/ Recording/ on a Mac. Recordings are saved as 16-bit mono AIFF files. To quickly load a recording on to a deck without saving it first, click the mic button to start the recording, and then use the short cut keys shift or shift to load the track. If you load the recording in this way, the recording will not be added to the library, and will be discarded on exit. To keep the recording, copy the file found in My documents\My Music\ScratchLIVE\Recording temp' on PC and in ~/Music/ScratchLIVE/Recording temp on a Mac.

Tip: Use keyboard shortcut ctrl-n to start a new microphone recording. Recording from a microphone You can use the SL 1 interface to sample from vinyl or any other sound source. If you click on the triangle next to the mic record button, you'll see that you can select inputs 1 and 2. Select one of these, and you'll see a input level adjustment knob appear to the right of the level indicators. This boosts or attenuates the input signal up to 12 dB. The recordings are in the same format and saved to the same place as mic recordings. On a PC this is in My Documents\My Music\ScratchLIVE\Recording. On a Mac this is ~/ Music/ScratchLIVE/Recording/. The file is saved as a 44.1Khz 16bit stereo AIFF file.

The input select in the setup screen (line or phone) determines whether or not the phono preamp is used. Tip: remember that ctrl-n turns recording on and off, and that you can load a recording without saving it using shift or shift . Drop the needle into a loud part of the track, and record a few seconds, and then shift or shift to load it on to the virtual deck. This way you can double check your levels. 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 input 2, 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 input 2. Sampling from vinyl Manual-17 Keyboard shortcuts Key ctrl - L ctrl - R ctrl - F ctrl - A ctrl - C ctrl - E ctrl - V ctrl - X ctrl - Z shift - ctrl - shift - ctrl - These actions can be accessed directly from the computer keyboard. ctrl - P ctrl - N ctrl - O - or + tab ctrl - del and ctrl - backspace Delete the file from your library and send to the recycle bin.

ctrl - shift - del and (Note to iTunes users: files in your iTunes library cannot be deleted this way). ctrl - shift - backspace Toggle the input reverse switch ctrl - shift - / Clear search string if searching, or exit Scratch LIVE. esc Note: Playback, cue and speed controls use Shift or Caps Lock Left Deck Action Load the highlighted song to a deck. ctrl - or shift - Load the track currently on one deck onto the other deck as well. ctrl - shift - Swap the two currently playing tracks from one deck to the other.

ctrl - / shift - alt - Unload the track from a deck. (shift - option - or on some Macs). Place a cue point. ctrl - , (comma) Jump to cue points in track. 12345 (rel and int modes) F1 Switch deck to abs mode.

F2 Switch deck to rel mode. F3 Switch deck to int mode. Key lock on / off. F5 Play / pause reverse. Q Play / pause forward. W Pitch down. E Pitch up. R Bend down. T (rel and int modes) Bend up. Y (rel and int modes) Censor.

U (rel and int modes) Go to temporary cue point. I (rel and int modes) Set / adjust loop in-point. O Set / adjust loop out-point. P Loop on / off. [Jump to selected loop. ctrl - [Load previous track. alt - Q Load next track. alt - W Rewind. alt - E (rel and int modes) Fast forward. alt - R (rel and int modes) Previous loop.

alt - O Next loop. alt - L Activate the tempo tapper. alt - space bar Set temporary cue point. ctrl - I (rel and int modes) Action 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. Reveal - the highlighted song is opened in a file browser. Find - moves the cursor to the search box. Select all. Copy text in edit mode.

Edit text. Paste text in edit mode. Cut text in edit mode. Undo last track load. 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 . Add tracks to the prepare window. Start a new mic recording. Open the track in your default MP3/WAV/OGG/AIF player.

Zoom the main waveform display. Alternate focus between crates or songs. Remove track from library, remove track from crate, delete crate (does not delete the file). Right Deck ctrl - or shift - ctrl - shift - ctrl - / shift - alt - ctrl - . (period) 67890 F6 F7 F8 F10 A S D F G H J K L ; ' ctrl - ' alt - A alt - S alt - D alt - F alt - P alt - ; alt - space bar (2x) ctrl - K Manual-18 This section covers general preferences and adjustments you can make to improve the performance of Scratch LIVE. From the main screen, tick setup to get to this area. USB audio buffer size 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, you should 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).

Audio cache (seconds) Use the 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. Horizontal waveforms Check this option to display the main waveform view horizontally. The waveform will expand to fill available screen space.

If you are using a widescreen computer, increase the audio cache size to make the waveform bigger. Maximum screen updates (per second) This feature 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). Additional setup Playback Instant doubles This allows you to quickly match the playhead position of two tracks. With this option set, when you load a track on one virtual deck that is already loaded on the other virtual deck (it must be the same file), 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. 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. Adjust loops with vinyl Loop end points can be adjust using the control vinyl, as described on page Manual-13. Disable this option if you wish to use the computer's arrow keys to adjust loops, and keep audio playback controlled by the vinyl. 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. Track end warning Enable track end warning 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 This is checked by default. Unchecking this option will enable all of these keys without pressing shift or having caps lock on.

This applies to all cue points (1...0) and cue controls (QWERTY etc). See page Manual-12.

Lock playing deck Every DJs nightmare used to be lifting the needle of 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. 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, as with the Autoplay function (see page Manual-10). Manual-19 Vinyl Control Track start offset If you find that you have cue burn at the beginning of the record, 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. Braking This controls how fast the deck stops when play is stopped. Counterclockwise, the stop is immediate. Clockwise rotation increases the stop from a finger grab all the way to a slow turntable power-down. Vinyl scroll speed Vinyl Scroll allows you to load a new track without touching the computer, simply by lifting the needle and placing it in the special section of side A of the control record. For a full description, see page Manual-7. This setting allows you to adjust the sensitivity of Vinyl Scroll, so you can control the amount of record movement required to move between tracks. Drift compensation Scratch LIVE works by tracking a control signal that is pressed onto vinyl records, and applying that movement to audio files. It does this exceptionally accurately at low and high speeds, both forwards and backwards.

Users have reported drifting of tracks during long mixes, and after careful investigation we have found the lathe that mastered the original CV01 control records induced pitch variations in the vinyl master. Because every CV01 control record pressed had the same pitch variation, it is possible to compensate these variations in software. To turn drift compensation on, check drift compensation. The drift compensation is unique for each side of the record. With drift compensation on, notice the letter A in the Virtual Deck, indicating A side (10 minute side) drift compensation. To compensate for B side drift, place the needle anywhere after the 10 minute mark on the B side. To switch back to drift compensation for the A side, place the needle into the Vinyl Scroll area of the A side. This issue only affected the first batch of control records labelled CV01. If you are using new control records, you don't need drift compesation. The new corrected vinyl label reads CV02, with "second edition" on the upper right of the sleeve.

Don't use drift compensation when using the control CDs. Reverse vinyl scroll This setting allows you to reverse the direction of Vinyl Scroll. For a full description, see page Manual-7. Hi-fi resampler This significantly reduces digital distortion at very slow or very fast record speeds, increasing the CPU load slightly. This option is on by default, and the old resampler is used when switched off.

Song Library Set auto gain For songs with overviews built (by version 1.7.2 or later), check this if you want to use the calculated auto gain value while playing songs. There is also a target gain dropdown menu next to this option, that sets the target gain that you would like. This can be turned on / off, and the target gain changed on the fly.

If you change the target gain while a song is loaded to a deck, the change will apply the next time a song is loaded. When a track is in auto gain mode (auto gain is turned on and the track has an auto gain setting), the track gain knob appears depressed to provide visual feedback that auto gain is in effect for that track. To fine tune your gain values, you can still change each file by the gain knob. To reset the gain to the calculated auto gain value, Alt-Click the gain knob. To remove the auto gain value, see Reset auto gain on page Manual-6. Read iTunesTM library Existing iTunes users will recognize many features from iTunes. Scratch LIVE can read the iTunes library format, and will automatically import the iTunes library and iTunes playlists. iTunes is available for Mac and PC, for more information about iTunes, visit www.apple.com.

Click read iTunes library to activate. Note: it may take some time to read your iTunes library if it contains a lot of tracks. If you edit the file information of tracks from your iTunes library, the changes 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 sold through the Apple iTunes Music Store. Auto fill overviews Enable this setting to automatically generate the track overview as soon as a track is loaded. If this setting is not enabled, 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. Manual-20 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. Rescan ID3 tags Click this button to force Scratch LIVE to re-read all file tags. Use this function if you have edited or modified file tags outside of Scratch LIVE.

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. Protect library Uncheck this setting to remove files and crates from your library. Enable to lock your library and prevent accidental file or crate deletion while using Scratch LIVE.

Enabling this setting will also lock all file tags and crate names, so that no text can be changed.

Show all file types Enable this option to show all files when importing tracks into Scratch LIVE. If this option is not selected, only files that Scratch LIVE can play will be displayed. Include subcrate tracks As described on page Manual-14, you can drag crates into other crates to make subcrates. If you have the "include subcrate tracks" option turned on, any crate will also display the contents of all its subcrates.

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 do experience USB drop outs: · Increase the USB audio buffer size (in the setup screen). · Try closing other applications that are running at the same time as Scratch LIVE. · Try turning off background tasks, for example, wireless networking. · Visit the forum at scratchlive.net, and try some of the computer optimization tips in the Tips and Tricks section. · If your CPU load is very high, try decreasing the maximum screen updates (in the setup screen).

Manual-21 Mixing with only one turntable The 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 mixing using a standard 2-channel mixer, with one turntable set up on the right hand side of the mixer. In this example, all mixing is done with the mixer crossfader. 1. Load a track onto the right deck in Scratch LIVE and play it in abs mode. The crossfader is set to the right hand side. 2. Put the left hand deck into int mode and load a track. 3.

Flick the reverse input control switch. The physical record now controls the left hand deck in Scratch LIVE, and the right hand channel of Scratch LIVE plays on in int mode. 4. Cue the record and mix in the track. Note that you will be using what feels like the wrong channel of your DJ mixer to do this the crossfader will be moving away from the turntable.

5. Having completed the first mix, flick the reverse input control switch. The track you just mixed in will play on in int mode, and the physical record is now back to controlling the right hand deck in Scratch LIVE. 6. Load a track on to the right deck in Scratch LIVE, and mix as normal.

7. Flick the reverse input control switch. 8. Load a track on the left deck, and mix -- moving the cross fader the wrong way. 9. Flick the reverse input control switch, and repeat. Mixing with only one turntable, using instant doubles instead of input reverse When using Instant Doubles with internal mode, the pitch will get transferred to the second deck as well as the playhead position. This makes it easier to DJ using a single deck. (Start playing your song on the left deck with the turntable, then instant double over to the right deck, then fade to the right deck. Voila, the left deck is ready for a new track.

) SL 1 Specifications USB Power Optional External Power Pack CODEC Line Output: ......THD+N ....
..Maximum Output ...
...Dynamic Range Input to Thru ..
....Gain ......

Maximum Input / Output ......Dynamic Range Phono Input ....
..Maximum Input Line Input ...
...Maximum Input Mic Input to ADC ..
....Maximum / Minimum Gain ......

Maximum Input Mic Thru ......Gain ....
..Maximum Output ...
...Noise (all specs typical) 300mA, 5.0 Volts 300mA, 9.

0 Volts 16-bit / 44.1 kHz sample rate Unbalanced RCA -88 dB (1 kHz, 0 dBu, 20 kHz BW) +5 dBu, +3 dBV 94 dB A-weighted Unbalanced RCA Unity 2 Vrms 110 dB A-weighted Unbalanced RCA 35 mVrms Unbalanced RCA 2 Vrms Unbalanced ¼" Tip-Sleeve 49 dB / 9 dB 150 mVrms Unbalanced ¼" Tip-Sleeve +6 dB 300 mVrms 3.5 uVrms A-weighted Manual-22 Troubleshooting and Frequently Asked Questions Scratch LIVE hardware is not recognized It takes five seconds for Scratch LIVE to detect the hardware. The hardware can be unplugged at any time; you do not need to exit Scratch LIVE before disconnecting the hardware. Use the supplied USB cable, longer lengths are not recommended. On some Windows machines each USB port is treated separately, so you will need to install the driver separately for each USB port. 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 100%. If this is not the case, you need to calibrate.

See page Manual5 for details. You should also try increasing the USB audio buffer size 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 earthing problem with your turntables/mixer. If you cannot eliminate this problem, use rel mode over abs mode. The tracks are playing backwards! The inputs (from the turntables or CD players) are the wrong way around. I can't get the Scope View to show nice clean circles Select phono as the audio input level in the setup screen if you are using vinyl. 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. 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 to the left side of the estimate button) to the right until the noise stops. 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 the first time it is loaded. This may take a few seconds for longer files.

After the first load, it should load instantly. See Build Overviews on page Manual-21. I have a particular MP3 that won't play / plays badly / takes a long time to load / crashes the program. What should I do? The file may be damaged. Please go to the forum at scratchlive.