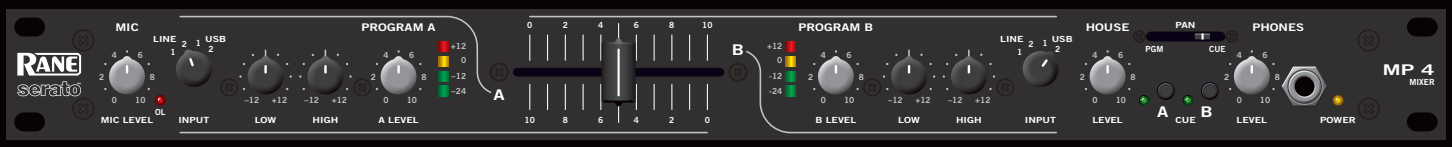
SCRATCH LIVE



serato™ RANE

Important Safety Instructions

1. Read these instructions.
2. Keep these instructions.
3. Heed all warnings.
4. Follow all instructions.
5. Do not use this apparatus near water.
6. Clean only with a dry cloth.
7. Do not block any ventilation openings. Install in accordance with manufacturer's instructions.
8. Do not install near any heat sources such as radiators, registers, stoves, or other apparatus (including amplifiers) that produce heat.
9. Do not defeat the safety purpose of the polarized or grounding-type plug. A polarized plug has two blades with one wider than the other. A grounding-type plug has two blades and a third grounding prong. The wide blade or third prong is provided for your safety. If the provided plug does not fit into your outlet, consult an electrician for replacement of the obsolete outlet.
10. Protect the power cord and plug from being walked on or pinched particularly at plugs, convenience receptacles, and the point where it exits from the apparatus.
11. Only use attachments and accessories specified by Rane.
12. Use only with the cart, stand, tripod, bracket, or table specified by the manufacturer, or sold with the apparatus. When a cart is used, use caution when moving the cart/apparatus combination to avoid injury from tip-over.
13. Unplug this apparatus during lightning storms or when unused for long periods of time.
14. Refer all servicing to qualified service personnel. Servicing is required when the apparatus has been damaged in any way, such as power supply cord or plug is damaged, liquid has been spilled or objects have fallen into the apparatus, the apparatus has been exposed to rain or moisture, does not operate normally, or has been dropped.
15. The plug on the power cord is the AC mains disconnect device and must remain readily operable.
16. This apparatus shall be connected to a mains socket outlet with a protective earthing connection.
17. When permanently connected, an all-pole mains switch with a contact separation of at least 3 mm in each pole shall be incorporated in the electrical installation of the building.
18. If rackmounting, provide adequate ventilation. Equipment may be located above or below this apparatus, but 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 apparatus.
19. This apparatus may be installed in an industry standard equipment rack. Use screws through all mounting holes to provide the best support.

WARNING: To reduce the risk of fire or electric shock, do not expose this apparatus to rain or moisture. Apparatus shall not be exposed to dripping or splashing and no objects filled with liquids, such as vases, shall be placed on the apparatus.

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 *www.rane.com/mp4.html*. To keep up with the latest tips, and to check for software updates for your MP 4, visit the official Scratch LIVE Forum at *scratchlive.net*

For the questions that the Quick Start guide doesn't answer, please read through these operating instructions so you will know how to get the most from your MP 4 and the included Scratch LIVE software. Keep this manual in a safe place.

Minimum system requirements

- 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.

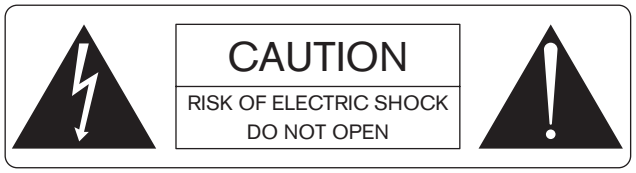
Check List

These items are included with the MP 4 in the box:

- Scratch LIVE software install disc.
- 1 USB cable.
- IEC C5 line cord.
- Package of 4 rubber feet.
- Quick Start Guide.
- This manual.

Copyright notices

WARNING



To reduce the risk of electrical shock, do not open the unit. No user serviceable parts inside. Refer servicing to qualified service personnel.

The symbols shown below are internationally accepted symbols that warn of potential hazards with electrical products.

This symbol indicates that a dangerous voltage constituting a risk of electric shock is present within this unit.

This symbol indicates that there are important operating and maintenance instructions in the literature accompanying this unit.

Contents

WEAR PARTS: This product contains the following wear part subject to the ninety (90) day warranty period described on page Warranty-1:
(1) Active Crossfader #11646.

MP 4 Overview

The MP 4 combines Rane mixer technology and Serato Scratch LIVE software. The result is a mixer with the flexibility of playing digital music directly from your computer while still supporting traditional analog inputs. This two-bus mixer is able to simultaneously play stereo analog sources, play stereo digital files, and digitally record Mic, Program A, Program B or Main-mix. You can also operate the MP 4 as a stand-alone analog mixer without a computer, or use it as a high-quality six-channel sound card with Serato Scratch LIVE software, without analog sources.

The MP 4 is targeted at mobile DJ, night club, remix project studio and post production applications. The Scratch LIVE MP 4 control screen includes many advanced features that enhance its ability to mix and blend:

- Play / pause control, both forward and reverse
- Pitch ± and bend controls for fine tuning beat matching
- Fast forward and reverse
- Multiple cue points per track
- Censor (reverse a section without losing play position)
- Fader Start; Scrub track with mouse; Autoplay Crate…

and more.

The MP 4 is not a performance scratch mixer. It does not use control vinyl or CDs and does not have a scratch fader.

While the MP 4 may be used as a generic sound card with other software applications, for best performance and support we highly recommend using Scratch LIVE. Performance using other applications may vary and compatibility is not guaranteed.

The computer sees the MP 4 as three USB audio devices (two stereo play and one stereo record). ASIO (for PC) and CoreAudio (for Mac) drivers are included. The digital audio format is 24-bit, 3-byte PCM with a 48 kHz sample rate.

Inputs

PROGRAM A and **B INPUT** switches select between the two **LINE** and two **USB** Inputs. **LINE 1** and **LINE 2** are set for **PHONO** level or **LINE** level using the associated push switch on the rear panel.

PROGRAM A and B each feature LOW and HIGH tone and LEVEL controls. Four-segment program level meters indicate signals from –24 to +12. Clipping occurs at +22.

The balanced MIC input features a full-range LEVEL control and is mixed with the Main-mix post-crossfader.

Outputs

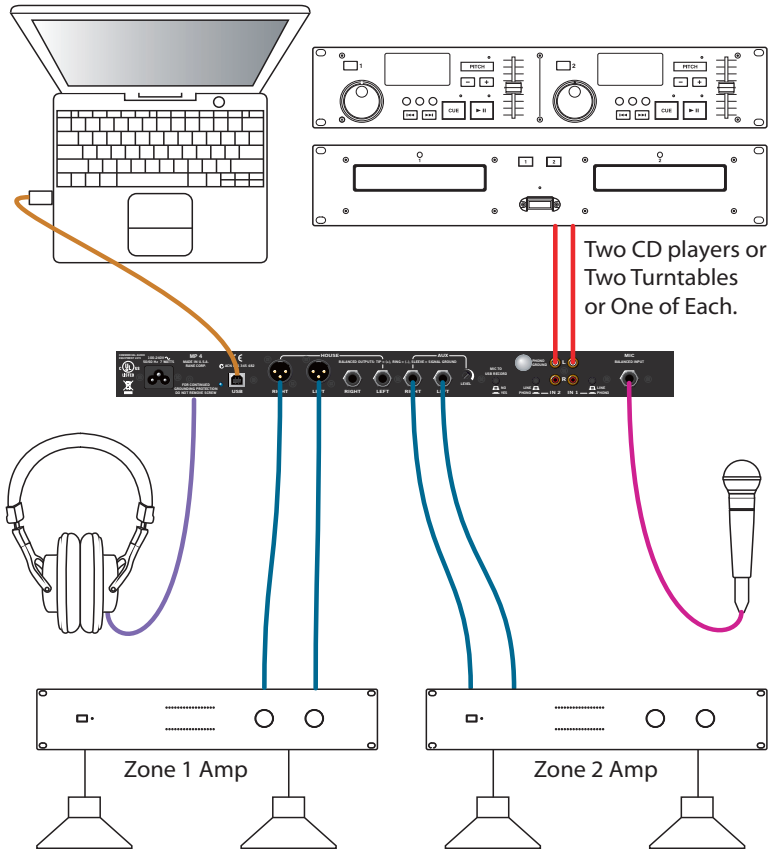
Two stereo analog outputs are provided. The **HOUSE** output is available on both balanced XLR and balanced ¼" TRS connectors. The **AUX** output is available on balanced ¼" TRS connectors and has an independent rear panel **LEVEL** control.

Recording

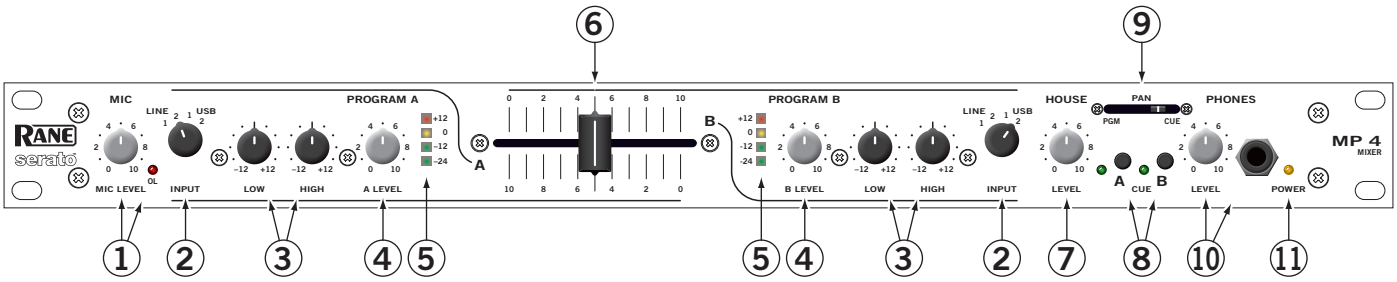
One USB stereo output is available for recording. Scratch LIVE software allows selecting Mic, Program A, Program B or Main-mix as the source. (see page Manual-15). The MIC TO USB RECORD switch located on the rear panel determines if the Mic is included in the USB Main-mix record output. The ability to record lets you archive your analog sources, record samples to use in your performance or to record your performance.

Cueing

Headphone Cueing allows independent selection of the Program A or Program B input, making it possible to Cue any source (digital or analog) with the push of a switch. The **PAN PGM / CUE** control lets you Pan between the selected Cue input (pre-Crossfader) and the Main-mix (post-Crossfader).



Front Panel Description



① **MIC LEVEL control:** Adjusts the Level of the **MIC** Input. The **OL** (overload) indicator lights when the maximum mic level has been reached, 3 dB before clipping. *If this lights up, either turn the MIC LEVEL down, or stop yelling.*

② **Program INPUT selectors:** Provide selection of **LINE 1**, **LINE 2**, **USB 1** or **USB 2** Inputs for each of the **PROGRAM A** or **PROGRAM B** channels. **LINE** Inputs may each be set for **PHONO** or **LINE** level via the rear panel switch (see Rear Panel ⑥).

③ **Program LOW and HIGH tone controls:** adjust the equalization for each of the **PROGRAM** channels. Pointing these controls straight up at their center detents takes the tone controls out of the signal path. This is not designed to be the only equalizer in the system, this is intended to provide EQ between varying program materials. We recommend an external graphic equalizer for the best system sound, connected between the **HOUSE OUTPUTS** and the amplifier.

④ **Program LEVEL controls:** set the volume of each **PROGRAM INPUT**, as you would expect! These controls are pre-Crossfader, so both Program Level controls also depend on the Crossfader setting (see ⑥).

⑤ **Program meter:** This four-segment meter shows signal presence (at -24), optimum signal level (at around 0), and a warning to turn down the associated LEVEL control if the +12 indicator lights up.

⑥ **Active Crossfader:** Controls the mix of **PROGRAM A** and **B LEVELS** in a logical manner. When the Crossfader is all the way **left**, only **PROGRAM A** is heard. When it's all the way **right**, only **PROGRAM B** is heard. When it's in the middle, both **PROGRAM A** and **B** are mixed together equally. This is an *Active Crossfader*™ which uses a VCA to deliver an extended life with reduced travel noise, but to insure trouble-free operation, see *Fader Cleaning* on page Manual-4.

⑦ **HOUSE LEVEL control:** Adjusts the Output Level of the Main-mix to the **HOUSE** Outputs.

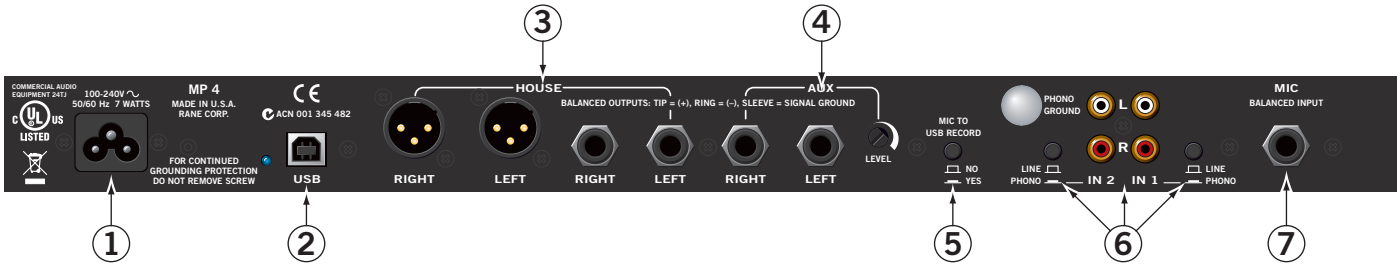
⑧ **CUE switches:** Select Program **A** or **B** in any combination to the **PHONES**. The associated yellow indicator lights when a **CUE** is activated and pressed *in*. Depressing a button sends Program signals to the **CUE** side of the **PAN** control. For example, when the Crossfader is to the left (playing Program A to the House), listen to **CUE B** (Program B) on the headphones to audition, match beats or prepare a starting point.

⑨ **PAN control:** Changes the relative levels of the Cue and Program mixed together in stereo to the **PHONES**. Adjust this control anywhere between Program and Cue:
PGM follows the Main-mix (House) Output.
CUE is determined by the **CUE** switches and only goes to the headphones.

⑩ **PHONES LEVEL and headphone jack:** As you guessed, plug your headphones in here and adjust the overall volume with the **LEVEL** control. **CUE** ⑧ and **PAN** ⑨ select the source.

⑪ **POWER indicator:** Illuminates to let you know the MP 4 is plugged in and ready to go.

Rear Panel Description



① **Universal Voltage Input:** via a miniature IEC 60320 C6 appliance inlet. This mates with an IEC 60320 C5 line cord (USA domestic). Do **not** lift the ground connection!

② **USB connection:** Attach the included USB cable from here to the computer. The blue LED illuminates when the cable is connected and receiving power. USB delivers two stereo inputs from the computer to the mixer (**USB 1** and **USB 2**), and one stereo record signal from the mixer to the computer.

③ **HOUSE Output:** The front panel **HOUSE LEVEL** control affects the volume at this Output. Connect either the XLR or ¼" TRS (tip-ring-sleeve) jacks to a balanced equalizer or amplifier. Both Output types may be used simultaneously if needed. Though not recommended, unbalanced ¼" TS (tip-sleeve) cables may be used for short runs (under 3 meters [10 feet]) to an amplifier with unbalanced inputs. See the RaneNote *"Sound System Interconnection"* for wiring recommendations.

④ **AUX Output:** This delivers the same signal as the **HOUSE** Output, but has its own rear panel **LEVEL** control. *This Output is **not** affected by the front panel **HOUSE LEVEL** control.* These balanced ¼" TRS (tip-ring-sleeve) Outputs connect to a balanced equalizer or amplifier (for a possible second listening zone) and follow the same interconnection rules as above.

⑤ **MIC TO USB RECORD switch:** In the **YES** position the Mic signal along with the Program mix is routed to the USB record output. In the **NO** position only the Program mix is sent to the USB record output.

⑥ **INPUTS 1 & 2:** These stereo Inputs are each switchable from a **PHONO** (RIAA) stage for magnetic cartridges (switch *in*) to a **LINE** level Input suitable for any line level device such as a CD player (switch *out*). Each of these may be assigned to **PROGRAM A** or **B** using the front panel **INPUT** selectors. The **PHONO GROUND** screw connects those extra wires coming out of the turntables.

⑦ **MIC Input jack:** Accepts either a ¼" balanced (TRS) or unbalanced (TS) microphone plug, controlled by the front panel **MIC LEVEL** control.

Fader Cleaning

With heavy use in harsh environments, the fader may need lubrication. This treatment extends longevity and can make a used fader as good as new. The fader assembly must be removed from the MP 4 for proper cleaning. We recommend any of the following cleaning solutions:

Caig DeoxIT FaderLube F100 spray lubricant (*www.caig.com*)
Caig DeoxIT FaderLube F5 spray cleaner (*www.caig.com*)
CRC 2-26 (*www.crcindustries.com*)

Order CaiLube MCL® from:
CAIG Laboratories, Inc.
12200 Thatcher Ct.
Poway, CA 92064
Phone 858-486-8388
Fax 858-486-8398
Web *www.caig.com*

CLEANING INSTRUCTIONS

A. Fader assembly replacement (part #11646)

1. Unplug the MP 4.
2. Remove the bottom cover.
3. Remove the fader screws from the front panel.
4. Draw fader assembly out through the bottom.
5. Remove ribbon cable from old fader.
6. Attach ribbon cable to new fader, screw onto front panel and replace bottom cover.

B. Fader cleaning

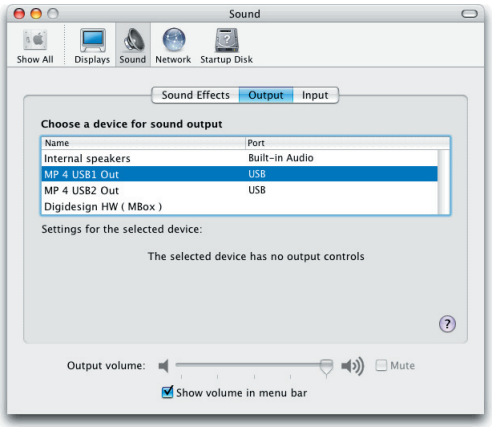
1. Hold the fader assembly away from the mixer.
2. Position the fader at mid-travel.
3. Spray cleaner/lubricant into both ends of the fader in sufficient amounts to flush debris.
4. Move the fader over its full travel back and forth a few times.
5. Shake excess fluid from the fader assembly.
6. Wipe off excess fluid.

Getting started on Mac OS X

Before you install the Scratch LIVE software, check for free software updates at *scratchlive.net*. The software version that came with your MP 4 is printed on the installation CD. The Scratch LIVE software is updated frequently, all updates are free, and available at *scratchlive.net*.

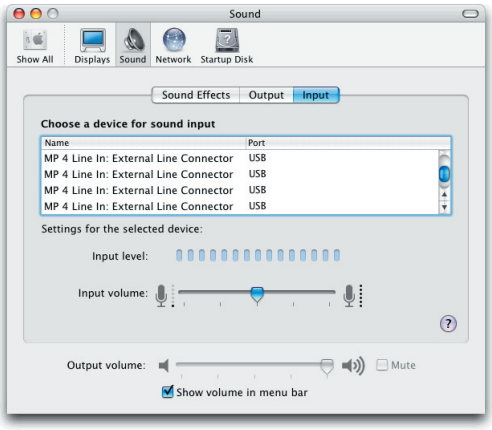
To install the software, double-click on the installer icon from the CD-ROM, or the installer you just downloaded from *scratchlive.net*.

When you connect your MP 4 to your Mac, it will appear to the Mac operating system as multiple sound outputs and inputs. Go to the audio section of the system preferences panel to select the desired settings.



On the output tab, choose MP 4 USB1 Out or MP 4 USB2 Out, and on the MP 4 select the same USB 1 or 2 INPUT.

On the input tab, you will see four MP 4 devices listed.



They are, in order:

1. The Main-mix output
2. Program A
3. Program B
4. Microphone

The MP 4 can be used with third party software, as well as the Scratch LIVE software included with it. On the Mac, you can use the MP 4 with any audio application, though technical support is limited to Scratch LIVE.

Getting started on Windows

Windows XP

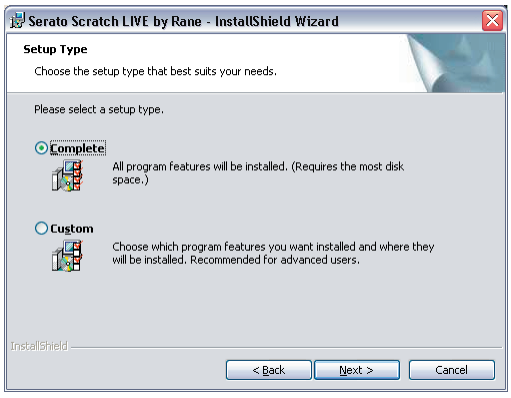
1. Disconnect any unneccessary USB devices from your PC.

2. Connect the MP 4 to your computer with the supplied USB cable.

3. The **Found New Hardware** bubbles appear:
   MP 4
   USB Composite Device
   MP 4 USB1 Out
   USB Audio Device
   MP 4 USB2 Out
   USB Audio Device
   MP 4 Line In
   USB Audio Device
   MP 4
   USB Human Interface Device
   Your new hardware is installed and ready to use.

4. Before you install the Scratch LIVE software, check for free software updates at *scratchlive.net*. The software version that came with your MP 4 is printed on the installation CD. The Scratch LIVE software is updated frequently, and all updates are free. To install the software, double-click on the installer icon from the CD-ROM, or the installer you just downloaded from *scratchlive.net*. Follow the on-screen instructions.

5. Click "Next" to continue the install, or choose custom if you wish to change the install directory or choose not to install the ASIO driver.



6. Windows may complain that the software driver is not digitally signed. Defy Microsoft and choose **Continue Anyway**.

7. Click Finish once installation is complete. Scratch Live appears in the Start Menu under All Programs > Serato > Scratch Live.

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.

As soon as you install the device driver, the operating system does not see the MP 4. That means you can either [A] not install anything, and windows will see the MP 4, or [B] install Scratch LIVE and the ASIO driver, and then you can use the MP 4 with Scratch LIVE or an ASIO application only.

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.

Windows Troubleshooting

If you have a USB PCI card, your computer may have allocated bandwith to other devices, including your mouse, preventing Scratch LIVE from recognising the MP 4. Unplug unneccesary devices and install Scratch LIVE again. You may need to temporarily move your mouse to the built-in USB port. After installation, reconnect USB units as needed.

If other USB devices steal bandwidth, you may get a "interface disconnected" message when launching Scratch LIVE, try unplugging and re-plugging in the MP 4.

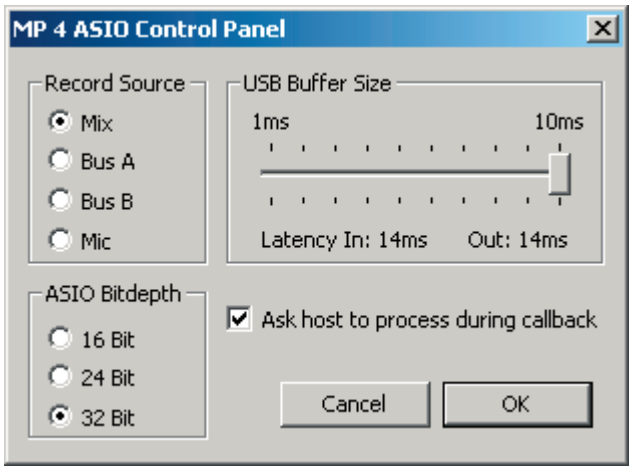
The ASIO Bit Depth and "Ask host to process during callback" settings should not be adjusted unless you are having problems.

Uncheck "Ask host to process during callback" if you have audio dropouts. Your application may not support an ASIO bitdepth of 32-bit. If this is the case, there will be no audio sent to the MP 4.

Third-Party Software

The MP 4 can be used with third party software, as well as the Scratch LIVE software that comes with it. When you install Scratch LIVE, an ASIO driver will also be installed. You can use the MP 4 as a sound card for any third party software that supports the ASIO standard. Go to the audio interface control panel in the third party software, and choose the MP 4 Driver. Launch Control Panel to access more settings for the MP 4 ASIO driver.

You can reduce the USB Buffer Size for lower latency.



Playing your first track

Before launching the Scratch LIVE software, close all other programs on your Mac or PC.

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.

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.

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.

Supported file types

Scratch LIVE supports fixed and variable bit rate .MP3, Ogg Vorbis, .AIFF, and .WAV file types. iTunes™ library and iTunes playlists can be automatically imported in the **setup** screen by clicking **read iTunes library** (see page Manual-17). You can also play audio direct from CD. See **Rescan ID3 tags** on page Manual-18.

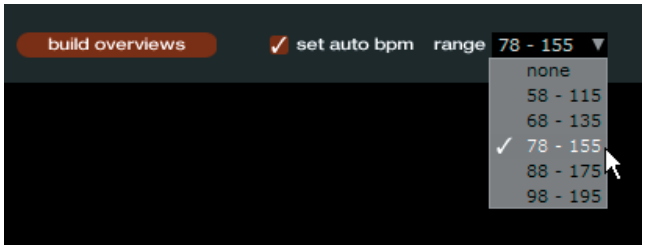
Using tool tips

Click on the **?** icon to enable tool tips (right of the Scratch LIVE logo). 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.

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.

***Tip:** Holding the mouse over the* **?** *button with tool tips turned on will show you a list of all keyboard shortcuts.*

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-19.

Virtual Deck

Virtual Deck shows everything about the speed and position of a track. 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. You can also choose to display the playback speed as a percentage pitch shift, or the pitched BPM (BPM with pitch adjustment multiplier applied). If the track has no BPM information, percentage pitch shift will be displayed.

Mixing with the MP 4

Scratch LIVE software has many features allowing you to smoothly mix two tracks together. From left to right, these are:

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 **brake speed** knob in the **setup** screen to range from an immediate stop to a slow turntable-style 'powerdown'. See page Manual-18.

Play / pause forward – Press to play, press again to stop playback. Uses the same **brake speed** 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.

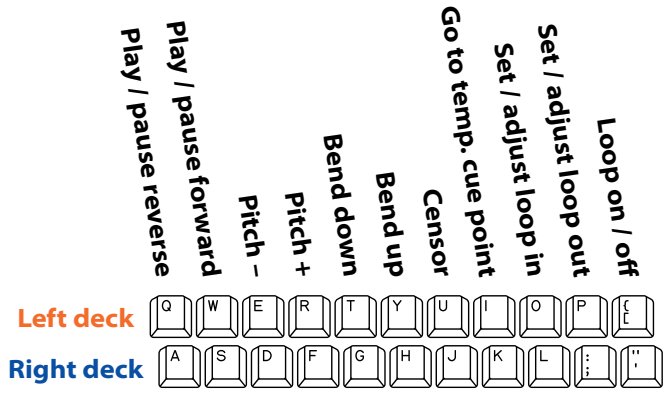
Fast forward – The fast forward function speeds up the longer you hold the button.

The Scratch LIVE software has two pitch sliders – a large slider for coarse pitch adjustment, and next to it, 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.

The buttons above the cue points allow you to seed the base playback speed – half speed, 33/45 or the speed of a 45 rpm recording playing at 33 rpm, normal speed, 45/33 or the speed of a 33 rpm recording playing at 45 rpm, or double speed.

You can also control playback using the computer keyboard — turn Caps Lock on to enable.

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
U	censor	J
I	go to temporary cue point	K
O	set / adjust loop in-point	L
P	set / adjust loop out-point	;
[	loop on / off	'
ctrl-[	jump to selected loop	ctrl-'
ctrl-I	set temporary cue point	ctrl-K
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
alt-O	previous loop	alt-P
alt-L	next loop	alt-;



Note: These shortcuts are fixed to their position on the keyboard, not the key letters, so that they are the same regardless of keyboard language. For example, Play left deck is "A" on a French keyboard. Keep Caps Lock ***on when using these shortcuts.***

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.

Fader start

Playback may be triggered from the Crossfader using the *fader start* feature. To start playback using the Crossfader, pause the track at the desired position and press the **fader start** button. Now each time you move the Crossfader from its end position, the track will start playing from that point. Moving the Crossfader from the right end point will start the left deck when fader start is turned on, and moving the crossfader from the left end point will start the right deck when fader start is on. You can set the fader start point using the keyboard shortcut ctrl-i for the left deck, and ctrl-k for the right deck. You can also jump to this point without moving the fader by pressing I for the left deck, and k for the right deck. The fader start point is not saved with the file, and by default this point is set to the start of the track.

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 bend or pitch controls. 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.

Cue points

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. 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 cue points on the right deck.

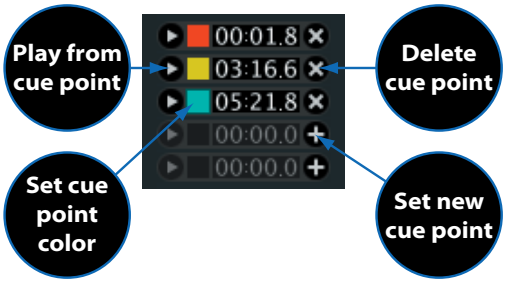
Notice that the stripe on the Virtual Deck jumps to the 12 o'clock position and changes color when you set a cue point – you are at the cue point when the stripe is one solid color and at the 12 o'clock position.

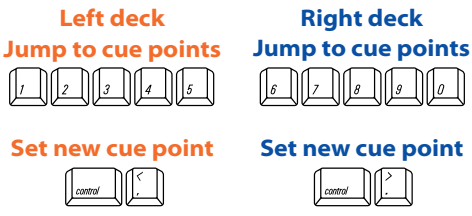
As the song plays on beyond the position of the cue point, the colored bar will shorten by a fifth for each rotation. Likewise, as you approach the cue point, the color will grow by a fifth each rotation. For example, the picture below shows the song just before the end of the 5th rotation before the 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.

The stripe grows a fifth by each rotation closer to the marker point

The stripe is a solid color near the marker point





Note: Cue point shortcuts are fixed to their position on the keyboard, not the key numbers, so that they are the same regardless of keyboard language. Keep Caps Lock ***on when using these shortcuts.***

Tip: use the keyboard shortcuts ctrl-comma (for left) and ctrl-dot (for right) to place cue points.

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 press a jump to cue point button while you are not playing, it plays forward for as long as you hold down the cue point button, and jumps back to the cue point when you release the mouse button.

Tip: use the keyboard shortcuts ctrl-comma (for left) and ctrl-dot (for right) to place cue points.

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: ← 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.

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.

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. **Play from start** must be checked in the **setup** screen.

Repeat

Use the repeat function to repeat the song.

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

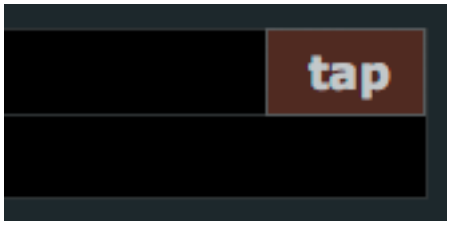
Tap Tempo

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.



Visual aids

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

Track Overview display

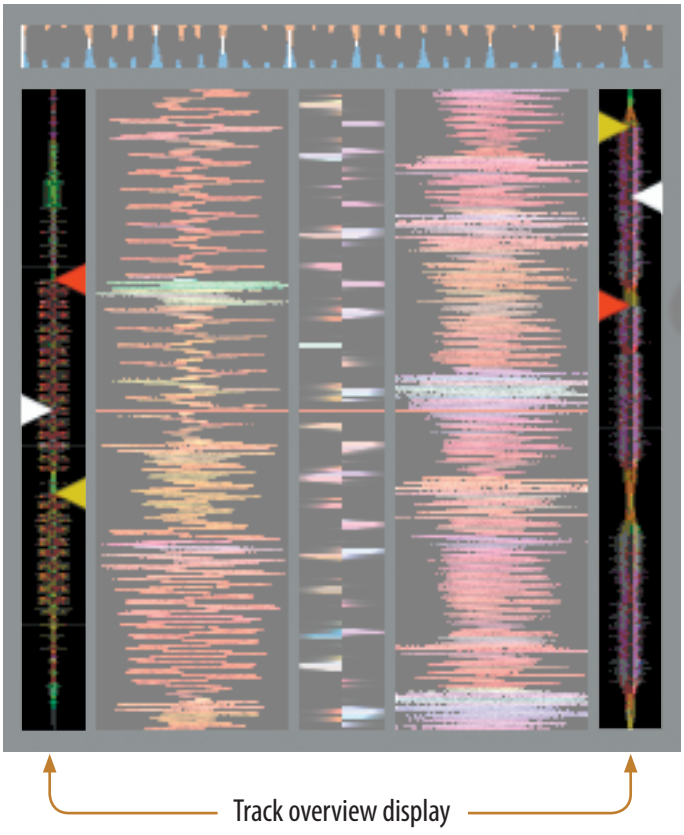
This view provides a complete overview of the waveform of the track, and includes a marker to show the current position within the track.

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.

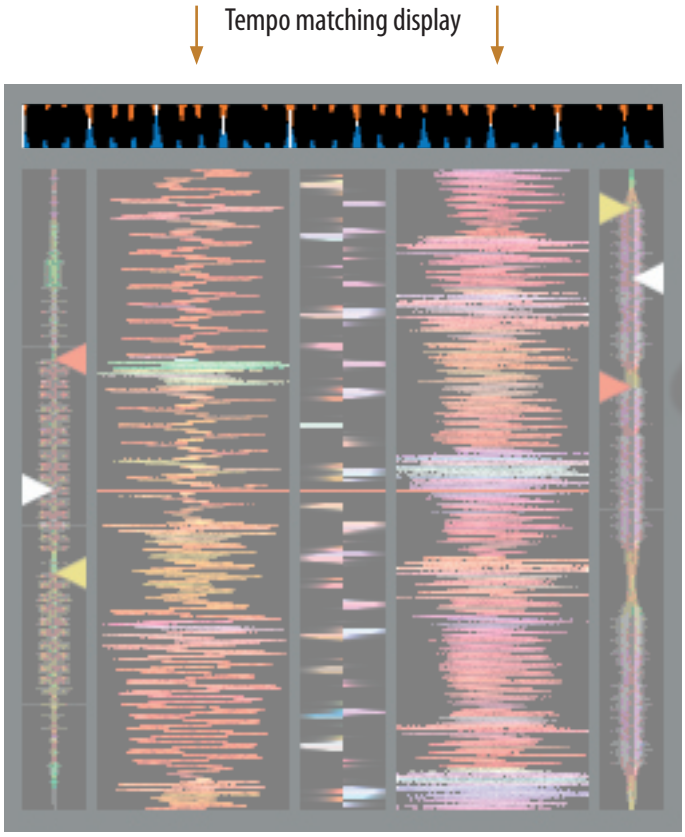
Grey lines behind the overview show the length of the track – a thin grey line every minute, and a thick grey line every 5 minutes.

The overview will be filled when you load the track onto a Virtual Deck. You can also build the overviews for all your tracks using the **build overviews** feature – see page Manual-18 for details.

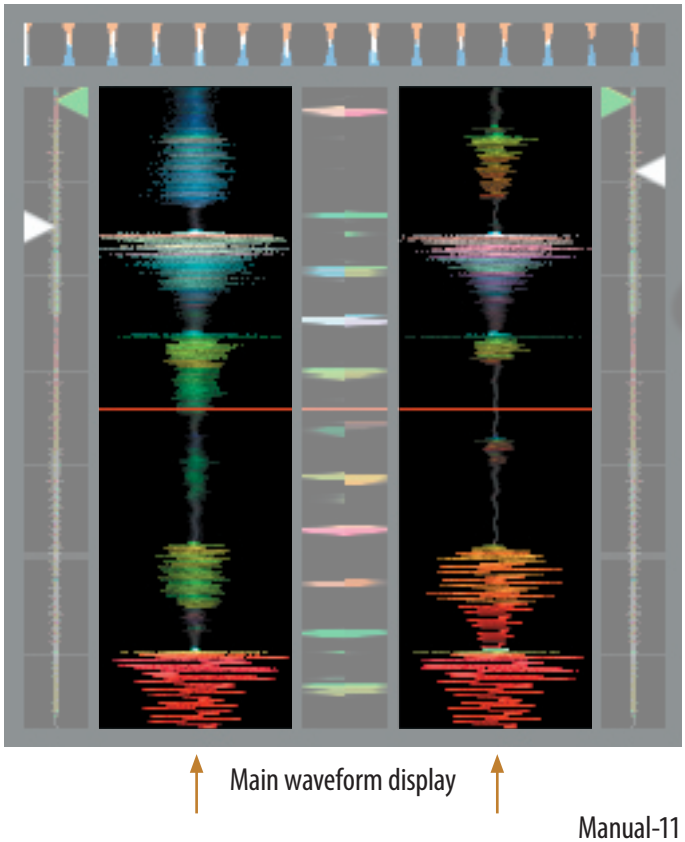


Tempo Matching display

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.



Main Waveform display

This view provides a close-up view of the track, including color-coding to show the frequency of the sound; red representing low-frequency 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. The Main Waveform is zoomed around the current position in the track.

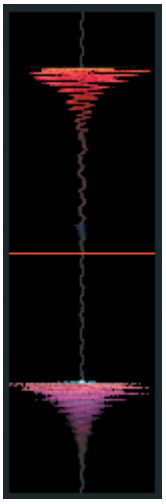
See also: **Cue points** on page Manual-15.

Tip: Use the + and – keys to zoom in and out.

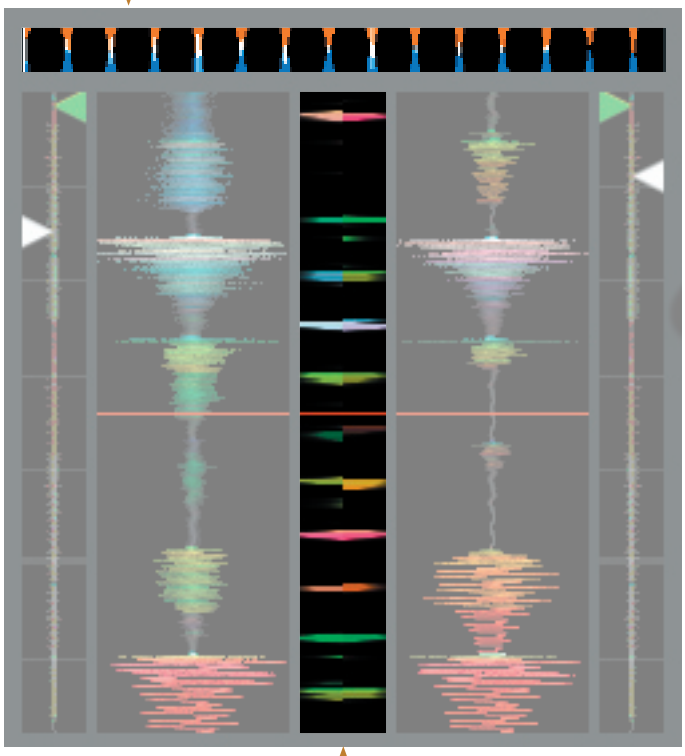
Kick Drum

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

Snare Drum



Tempo Matching display



Beat 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.

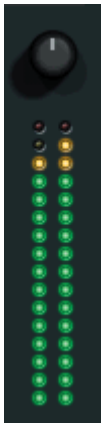
Example

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 deck 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.

Track gain



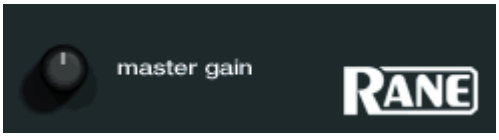
Use the gain adjustment to balance the volume of the tracks in your library. Any adjustment made to the gain of a track is saved with the file, and will be reapplied to the entire track when it is loaded again.

The level meter shows the level sent to the MP 4 after both individual channel gain and master gain adjustment.

Note: for automatic gain setting of your tracks, see Set auto gain and Reset track gain on page Manual-19.

Master gain

The master output of Scratch LIVE to the MP 4 can be controlled using the master gain control. This adjusts the output volume of all tracks played. The HOUSE LEVEL control on the MP 4 is the final master gain control.



Organizing your music

Scratch LIVE software can support an unlimited number of songs – 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.

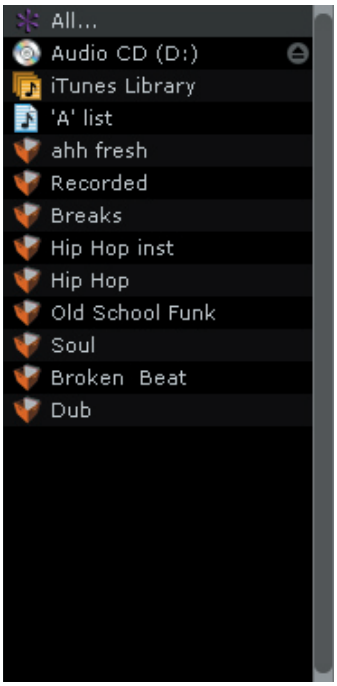
Grouping tracks into crates

Scratch LIVE supports several ways of organizing and sorting your file library. iTunes™ users will notice that Scratch LIVE automatically incorporates 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:

- Vocal Jazz
- Cool Jazz
- Jazz Funk
- Modern Jazz
- Jazz Groove
- Fusion Jazz

To make a new crate, click the **+** button. To rename a crate, double click the crate name.



You can change the order of tracks within a crate by dragging them up or down.

Tip: The* protect library *option in the* setup *screen applies to removing, editing and renaming crates. Check this option 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**.**

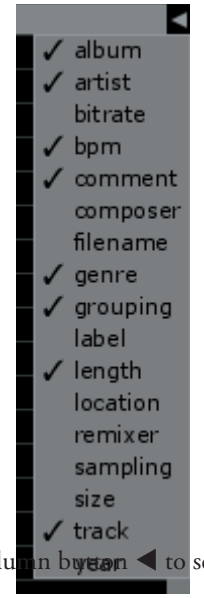
Subcrates

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.

Sorting your files

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

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



Click on the column browser ◀ 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.

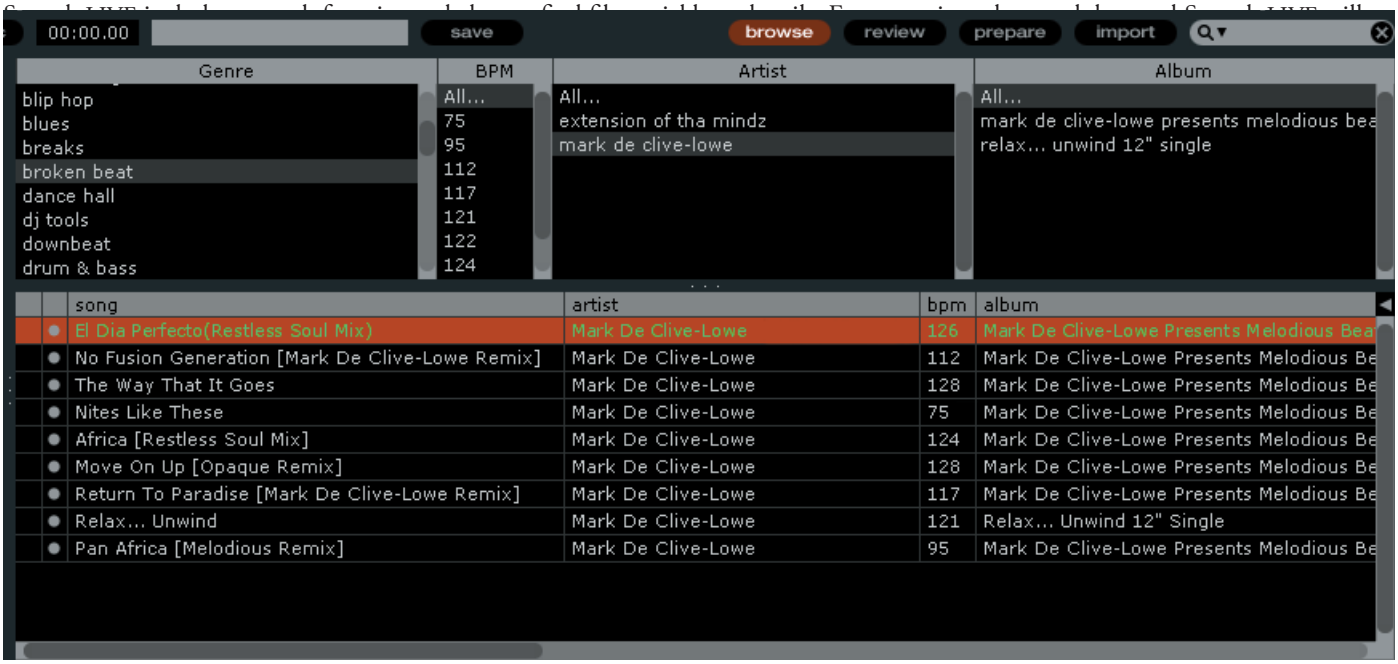
Using the song browser

The song browser allows you to filter your song list by Genre,

#	song	artist	album	bpm	genre	length
5	Five Day Night feat. Dallas	Tubbs	Good Days, Better Nights	70	Electronica/Dance	03:57.01
1	Get off (manuel bundy remix)	One million dollars	Ultra Sound	79	Beats	04:27.70
7	Hey Son (Flash Harry remix)	The Black Seeds	Pushed (Keep On Pushing Remixed)	82	Reggae	03:50.77
9	Push on thru	Salmonella Dub	Kaikoura Roots Fesitval	85	Reggae	04:51.55
8	Ekadek	Love In Your Eyes	Styles upon Styles - Urban Soul Pollination	90	Jazz	04:25.06
6	Imon Star	Vitality	Styles upon Styles - Urban Soul Pollination	98	Beats	03:38.72
4	Slide	Mark de Clive-Lowe	Antipodean Records	125	Broken Beats	04:32.90
2	Midnight Marauders (Mu Dub)	Joe Dukie & DJ Fitchie		132	Dub Disco	08:17.87
3	When I Return (Featuring Lady6)	ShapeShifter	Riddem Wise LP	169	Drum & Bass	05:25.56

BPM, Artist and Album. To turn the song browser on or off, click the **browse** button.

Searching

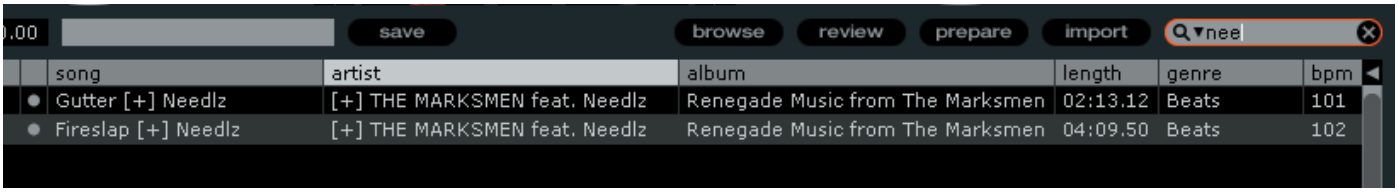


automatically find as you type.

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.

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.

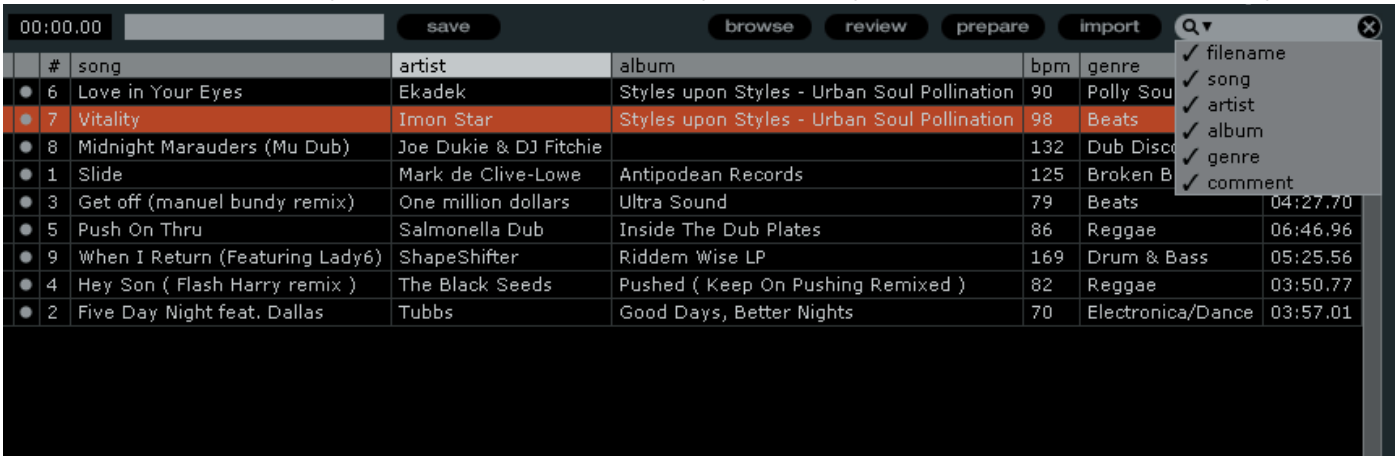
search box



Press **esc** or the **x** button on the right of the search box to clear the search.

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 from the main track list into the prepare window, or simply drag tracks 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 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-7 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.

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 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.

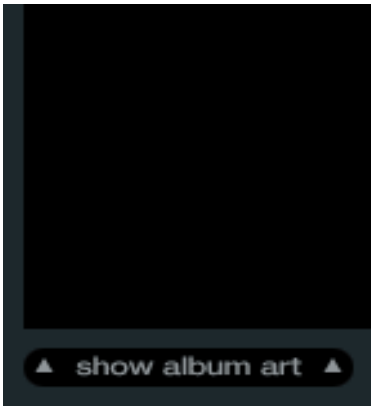
• The track cannot be found. Most likely the file has been renamed or moved.

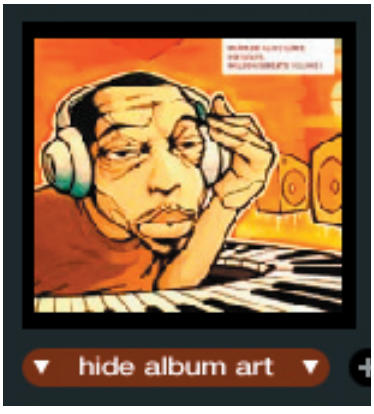
• Scratch LIVE is trying to import a track from the iTunes library, but cannot find the file.

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

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 iTunes™.





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.

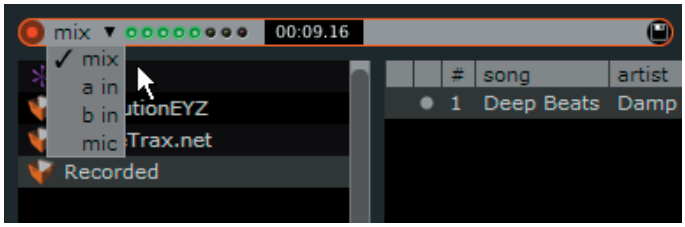
Recording

The MP 4 allows you to record from several sources, allowing you to convert vinyl and tape to digital, make samples, or record a performance. The recording will be saved to disk as 24-bit 48K Stereo AIFF files. Recordings are saved in 'My Documents\My Music\ScratchLIVE\Recording' on a PC, and ~/Music/Scratch-LIVE/Recording/ on a Mac. Recordings will also be automatically added to your Scratch LIVE library, and added to a crate named Recorded.

By clicking immediately to the right of the record light, you can select which input to record. The function **mix** will save the mixed output to disk. You can choose whether the Mic Input is included in this recording by pressing the **MIC TO USB RECORD** button on the back of the MP 4. Functions **a in** and **b in** will save Program A or Program B respectively. The **mic** function will ignore all other inputs, saving only the microphone input.

Press the red record button to start and stop recording. Enter a name for the recording in the text field to the right of the elapsed time. Press the save button to save the recording to disk.

Tip: Use keyboard shortcut ctrl-n to start a new recording.



Keyboard shortcuts

These actions can be accessed directly from the computer keyboard.

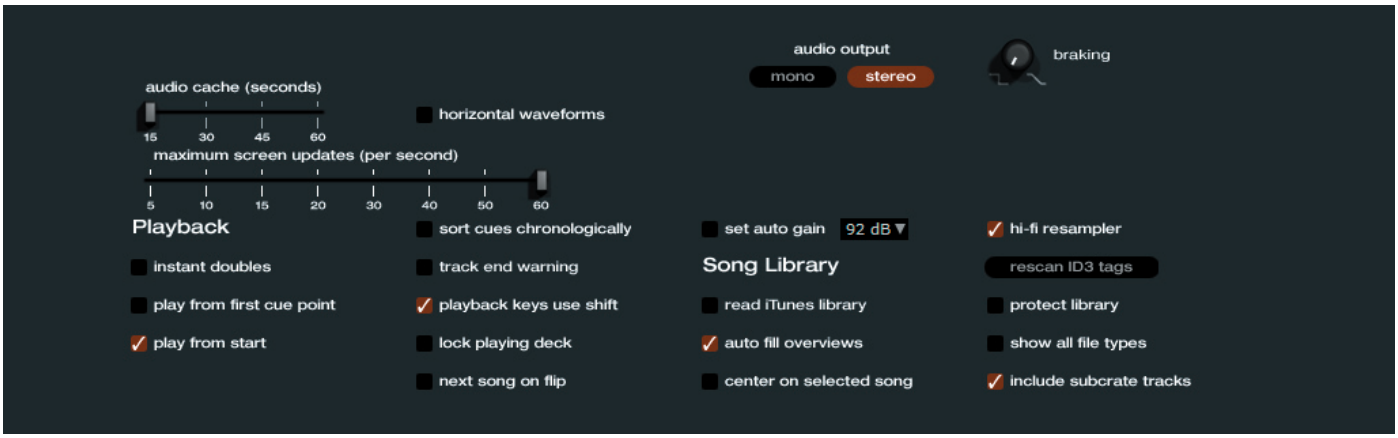
Key	Action
ctrl - L	Locate the current track. This will highlight the track you most recently loaded. Pressing ***ctrl - L*** again will alternate between the tracks recently loaded on both decks.
ctrl - R	Reveal - the highlighted song is opened in a file browser.
ctrl - F	Find - moves the cursor to 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 the up and down arrow keys.
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.
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).
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.

Note: Playback, cue and speed controls use Shift or Caps Lock

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*** - ←
ctrl - /	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).	***shift - alt*** - →
ctrl - , (comma)	Place a cue point.	***ctrl - . (period)***
1 2 3 4 5	Jump to cue points in track.	***6 7 8 9 0***
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.	***G***
Y	Bend up.	***H***
U	Censor.	***J***
I	Go to temporary cue point.	***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 - E	Rewind.	***alt - D***
alt - R	Fast forward.	***alt - F***
alt - O	Previous loop.	***alt - P***
alt - L	Next loop.	***alt - ;***
alt - space bar	Activate the tempo tapper.	***alt - space bar (2x)***
ctrl - I	Set temporary cue point.	***ctrl - K***

Additional setup

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



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).

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. This setting overrides the **play from start** option.

Play from start

Enable this to start all tracks from the beginning. 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.

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.

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.

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.

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-7.

Read iTunes™ 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.

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.

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.

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.

Troubleshooting and FAQ

The Scratch LIVE software does not recognize the MP 4

It takes five seconds for the software to detect the MP 4. The MP 4 can be unplugged at any time; you do not need to exit Scratch LIVE before disconnecting the MP 4. 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 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-18.

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.net* and notify the support team that you have a bad file. By reporting damaged or corrupt files, you will help the developers to improve Scratch LIVE's ability to play damaged MP3 files in the future.

My USB only outputs audio for about ten seconds then quits.

This is a known XP bug. Included in the Windows Update SP1 (Service Pack One) download is a fix for the XP USB 1.1 bug. For more information visit *www.support.microsoft.com*

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. Crates have the file extension .slc. If your library contains tracks that are stored on a drive other than your boot drive, a hidden 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.

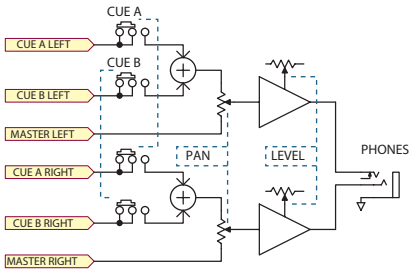
Why do none of the songs I have imported from iTunes show up in Scratch LIVE?

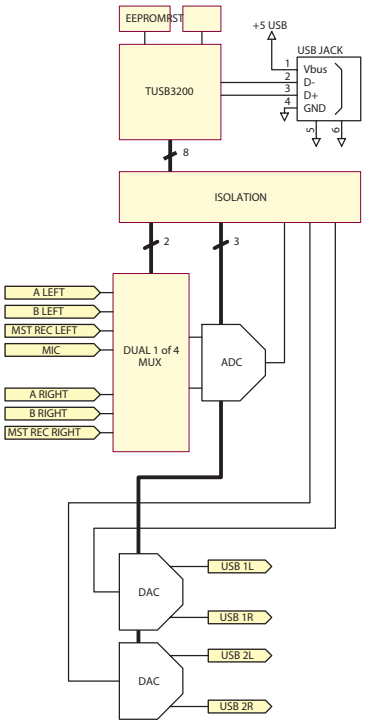
iTunes' default encoder is set to AAC, which Scratch LIVE currently does not support. You need to re-encode those files to a supported file type (AIFF, WAV, OGG, MP3).

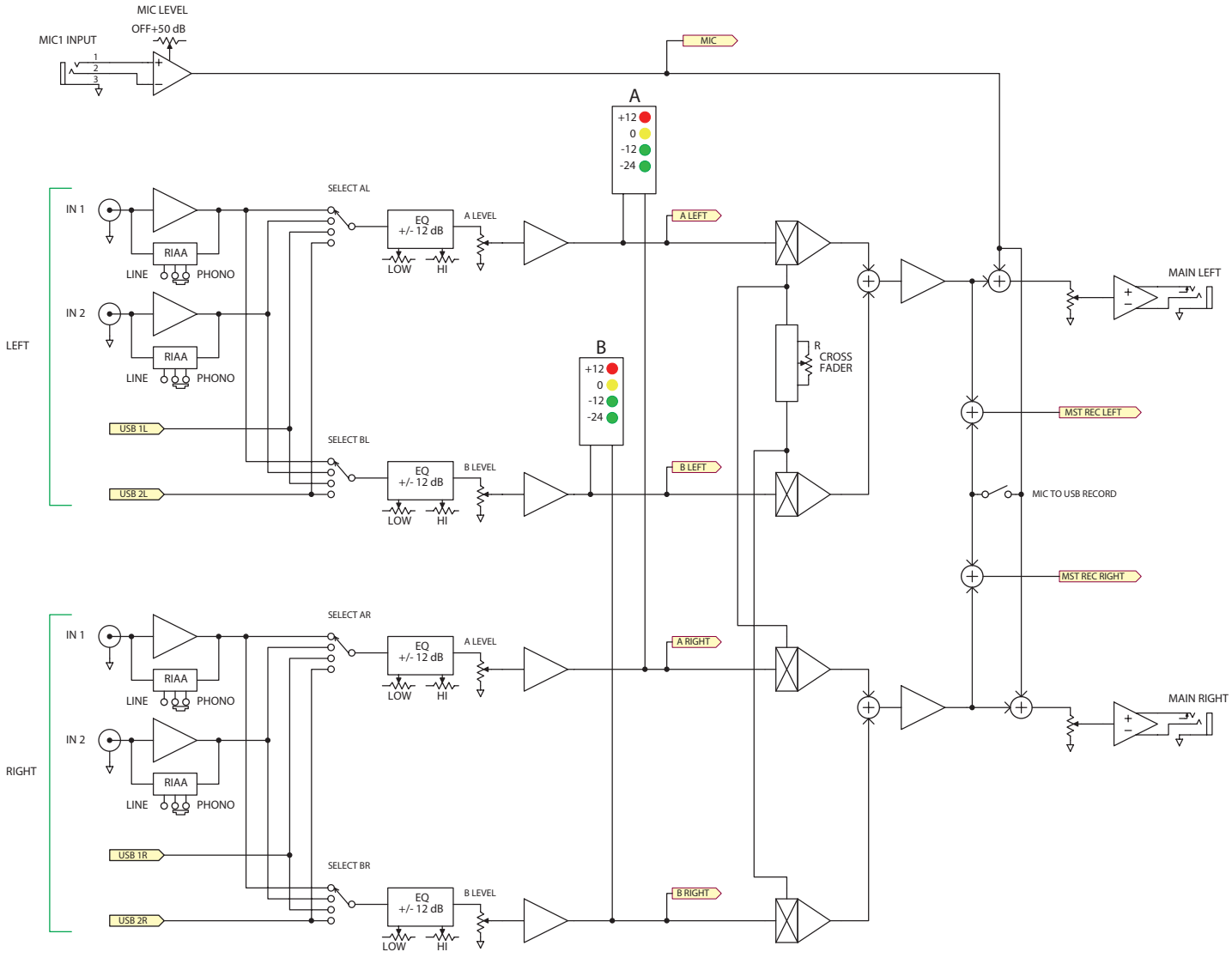
To change the default encoding preferences in iTunes, go to Preferences > Importing. Change the "import using" option to a supported file type and click OK.

To re-encode a track, select/highlight it. Go to Advanced > Convert Selection to.... You can lose quality after you re-encode a track, so it's best to start from the original source if possible.

MP 4 Block Diagrams






MIC LEVEL
OFF+50 dB
MIC1 INPUT
MIC
A
+12
0
-12
-24
LEFT
IN 1
IN 2
RIAA
LINE
PHONO
SELECT AL
EQ
+/- 12 dB
LOW
HI
A LEVEL
A LEFT
USB 1L
USB 2L
B
SELECT BL
B LEVEL
B LEFT
R
CROSS
FADER
MAIN LEFT
MST REC LEFT
MIC TO USB RECORD
MST REC RIGHT
RIGHT
SELECT AR
A RIGHT
USB 1R
USB 2R
SELECT BR
B RIGHT
MAIN RIGHT

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 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.	This is a rare message and you should not see this. Do notify us if you see it and please send us the file that caused the message to appear so we can fix the problem.
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 a lot of 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 that contain frames from multiple layers – some frames may be output as silence.
Unsupported file : This file is more than 2GB in size.	Self explanatory. At the moment, Scratch LIVE does not support files that are 2GB in size (or larger).
Unsupported file : This file has data blocks greater than 2GB in size.	This file contains chunks of data that are larger than 2GB. Scratch LIVE does not support files that are more than 2GB 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 48kHz.	Scratch LIVE does not support sampling rates greater than 44.1kHz. If you see this message, the simplest approach is to re-sample the audio at 44.1kHz 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.