Vestax

DJ CONTROLLER

VCI-300

serato ITCH

OWNER'S MANUAL

ITCH

IMPORTANT SAFTEY 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. Only use attachments and accessories specified by the manufacturer.

10. 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.

11. Unplug this apparatus during lightning storms or when unused for long periods of time.

12. Refer all servicing to qualified service personnel. Servicing is required when the apparatus has been damaged in any way, such as 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.

13. If rack-mounting, 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.

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

ITCH

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TABLE OF CONTENTS

SETTING UP

UNPACKING

Your package should include:

- This Printed Manual.
- VCI-300 Controller.
- USB Cable.
- Serato ITCH Install CD.

SYSTEM REQUIREMENTS

The minimum system requirements are:

MAC

- G4 1.5 GHz processor or better.
- 1 GB RAM.
- OSX 10.4.11 or higher.
- Available USB Port
- Hard disk space for music

WINDOWS XP

- Pentium 4 mobile 2 GHz processor or better.
- 1 GB RAM.
- Service Pack 2 or higher
- Available USB Port
- Hard disk space for music

WINDOWS VISTA

- Core Duo 1.6 GHz processor or better.
- 1 GB RAM.
- Service Pack 1 or higher
- Available USB Port
- Hard disk space for music

PLEASE NOTE: The above is the minimum requirement to run ITCH. For best performance and for use in professional situations we recommend you buy a higher spec computer.

64 bit Windows is not supported, if you are purchasing a Windows machine for ITCH please ensure it has a 32 bit Windows installation.

SOFTWARE INSTALLATION

Free updates to the ITCH software are available from http://www.serato.com/itch

We suggest you check the website for the latest version before installing.

INSTALLATION MAC

- **Either**
  - Insert the Serato ITCH install CD into your computers CD drive and browse to it using Finder.
- **Or**
  - Browse using Finder to the location where the ITCH download installer was saved, double click the ITCH .dmg file to mount the image on your system, and browse to that volume.
- **Then:**
  - Double click the file called "ITCH installer.mpkg".

1. The following screen will appear. Click Continue.

2. Accept the License Agreement and then click Continue.

3. Choose the hard disk you want to install to and click Continue.

4. Confirm the install location and click Install.

5. ITCH will now be installed.

6. A confirmation screen will appear when the install is complete.

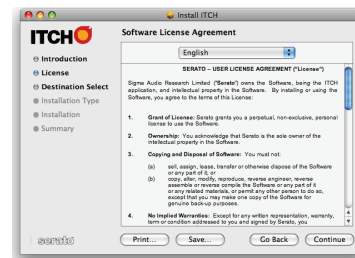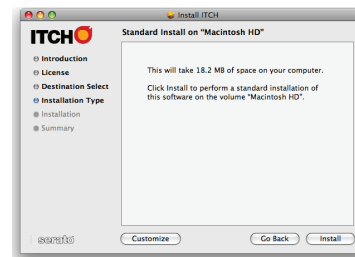## INSTALLATION PC

The installer should start automatically, if not;

- **Either**
  - Insert the Serato ITCH install CD into your computer's CD drive and browse to it using Windows Explorer.
- **Or**
  - Browse using Windows Explorer to the location where the ITCH download installer was saved, unpack the ITCH .zip file and browse to the extracted contents.
- **Then:**
  - Double click the file called "ITCH_installer.exe".

1. The following screen will appear. Click Next.
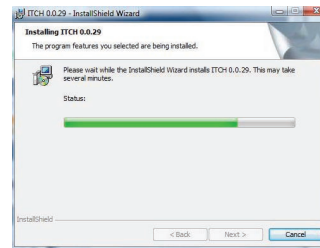
2. Accept the License Agreement and then click Next.

3. Choose the location you want to install to and click Next.
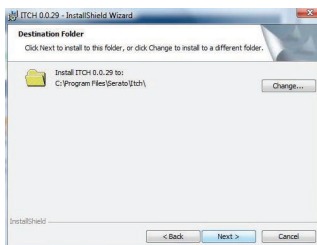
4. Complete will perform a standard installation. Click Next to continue.

5. Confirm the installation options and click Install.

6. ITCH will now be installed.

7. An confirmation screen will appear when the install is complete.

CONNECTIONS

USB
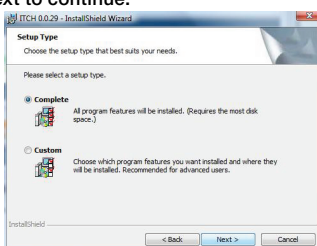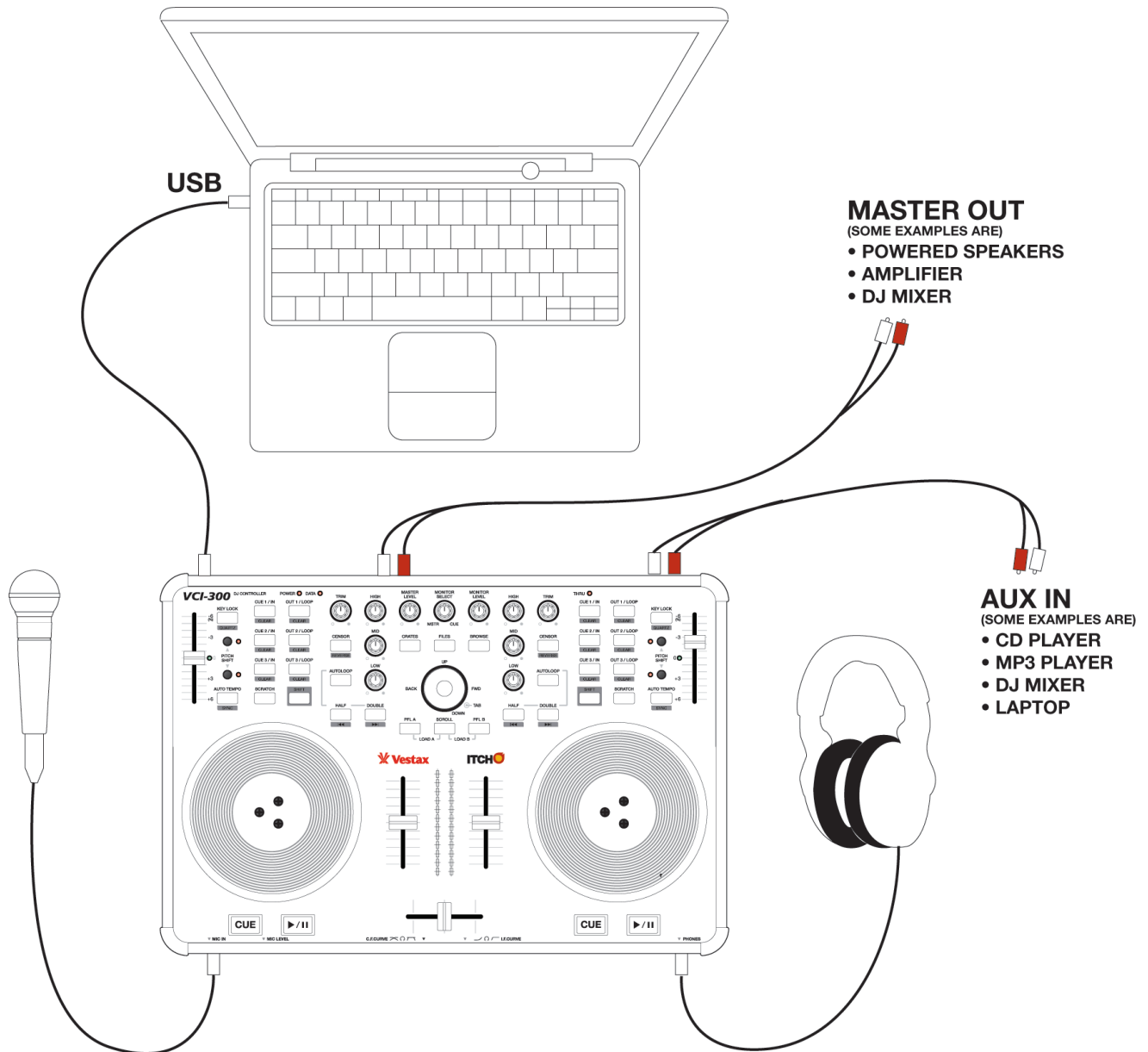
MASTER OUT
(SOME EXAMPLES ARE)
• POWERED SPEAKERS
• AMPLIFIER
• DJ MIXER

AUX IN
(SOME EXAMPLES ARE)
• CD PLAYER
• MP3 PLAYER
• DJ MIXER
• LAPTOP

USB

The VCI-300 is a bus powered device. Power is drawn from the computer and under normal operation the VCI-300 does not require its own power supply. The single USB supplied cable is all that's required to connect the VCI-300 to your computer.

If you are using a USB hub, or have a lot of other USB devices you may need to use the optional power supply (available separately) there is a limit to how much power your computer can supply over USB.
The VCI-300 does not require driver installation on MAC or PC. To install, connect the VCI-300 to your computer and move the power switch on the rear of the VCI-300 to the on position. Once the computer has recognized the device it will appear as a 4 channel sound device and a separate midi device.

SPEAKERS

The VCI-300 features both 6.5mm TS Jack and RCA main outputs for connection to your sound system. It can be connected directly to powered speakers, a traditional stereo system and PA or another DJ mixer. Ensure the Master volume is down on both the VCI-300 and your sound system before plugging it in and turning it on.

HEADPHONES

A 6.5mm Jack is provided for headphones on the front right of the VCI-300. The volume of the headphone is controlled by the "Monitor Level" knob at the top of the VCI-300. It is best to turn this volume down before plugging in your headphones.

SOFTWARE OVERVIEW
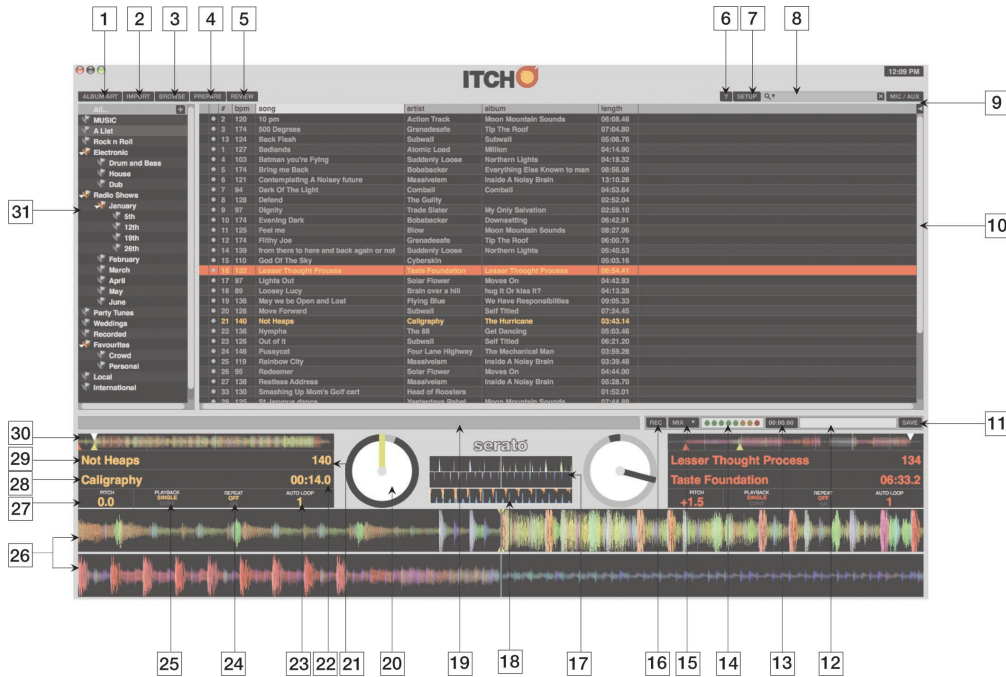
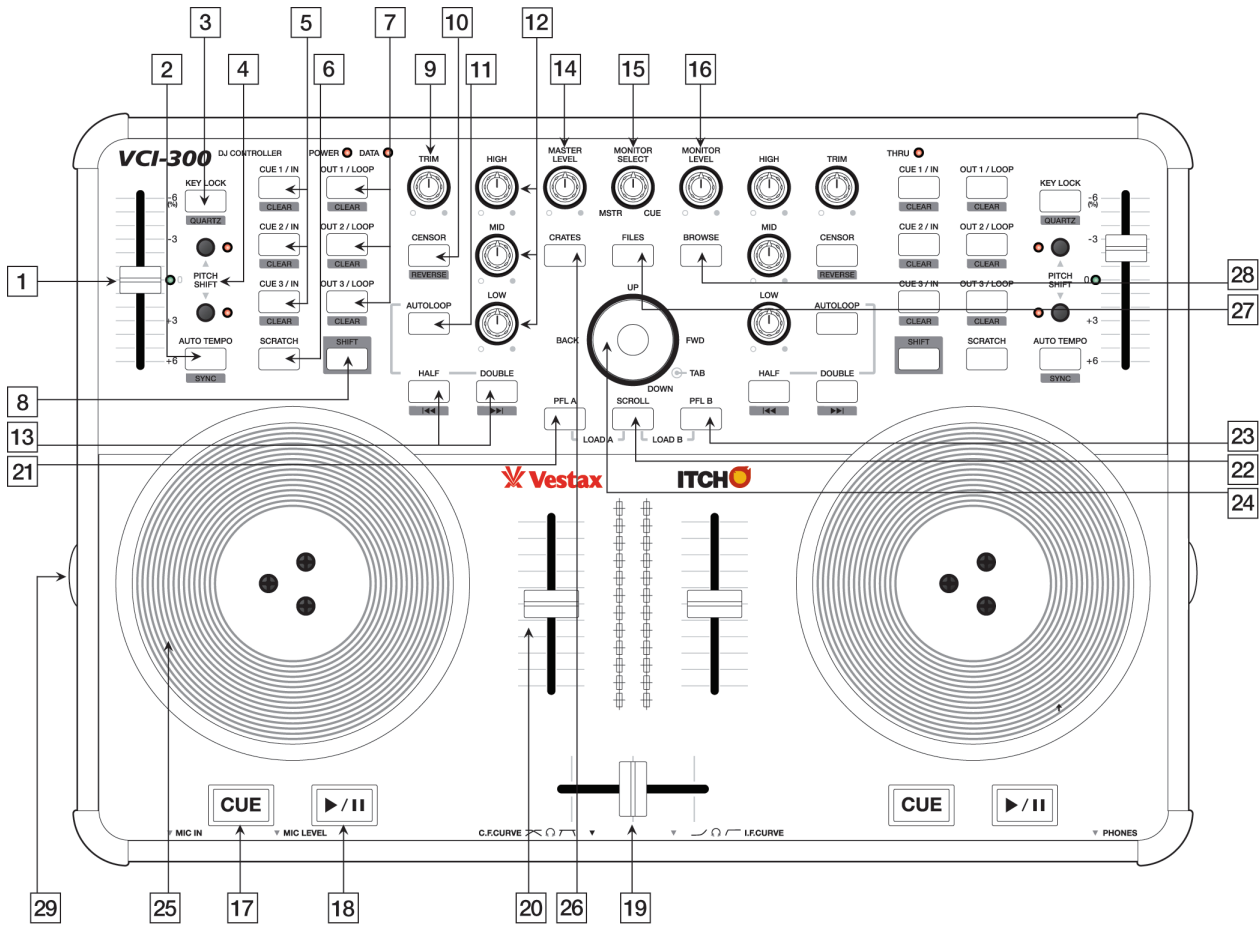| NO.	KEY	FUNCTION
01	ALBUM ART	Shows / Hides Album Art.
02	IMPORT	Shows / Hides the Import panel which enables you to search for tracks on your hard drive.
03	BROWSE	Shows / Hides the Browse panel which enables you to browse for tracks by genre, bpm, etc.
04	PREPARE	Shows / Hides the Prepare crate which is a special crate for preparing your set.
05	REVIEW	Shows / Hides the Review crate which shows you what tracks have been played already.
06	TOOLTIPS	Enables / Disables tool tip display.
07	SETUP	Shows the Setup Screen.
08	SEARCH	Searches your library for the terms entered.
09	MIC/AUX	Shows / Hides the MIC/AUX channel strips for monitoring and mixing the MIC/AUX inputs.
10	LIBRARY	The main library area shows you all the tracks in your current selection.
11	SAVE BUTTON	Saves the current recording to disk.
12	RECORDING FILENAME FIELD	Field for entering filename to save current recording.
13	RECORDING TIMER	Timer for current recording.
14	RECORDING METER	Peak Program meter for recording input.
15	RECORD SOURCE SELECTOR	Drop down menu to select your recording source.
16	RECORD BUTTON	Starts / Stops recording.
17	BEAT MATCH DISPLAY	Shows transients (usually the drums) to aid beat matching.
18	TEMPO MATCH DISPLAY	Displays tempos of both tracks to aid mixing.
19	STATUS BAR	Status of current selected item.
20	VIRTUAL DECK	Rotates with playback.
21	BPM FIELD / TAP BUTTON	Displays current BPM, or can be clicked to tap and save a tracks tempo.
22	TRACK TIME DISPLAY	Current position of playhead in track.
23	AUTOLOOP VALUE	Shows the current autoloop setting in beats.
24	REPEAT	Clicking toggles repeat mode on and off for the track.
25	PLAYBACK MODE	Clicking toggles between single and continuous playback modes. Single mode just plays one track. In continuous mode at the end of the track ITCH will automatically play the next track in the current selection.
26	WAVEFORM	Waveform of currently loaded track.
27	PITCH	Current percentage pitch difference from 0.
28	ARTIST NAME	Artist tag for current track.
29	TRACK NAME	Shows the name tag of the current track.
30	TRACK OVERVIEW	Overall view of the currently loaded track.
31	CRATE LIST	Lists and controls crates for organizing library.

TOP PANEL OVERVIEW

NO.	KEY	FUNCTION
01	PITCH SLIDER	Adjusts playback speed ± 6%.
02	AUTOTEMPO	Turns on auto tempo, this automatically matches the speed of the track to the other playing track.
	SHIFT FUNCTION: BEATSYNC	Automatically aligns the last transient in the track with the closest one in the other playing track.
03	KEYLOCK	Engages Keylock. This keeps the key of a track the same even when you change the tempo.
	SHIFT FUNCTION: QUARTZ LOCK	Resets the pitch of the track to zero regardless of the slider setting.
04	PITCH SHIFT BUTTONS	Offsets the pitch range by 12%, for example when pitch shifted one step up your available speeds become 6% to 18%. Pressing both buttons at once return you to normal pitch range of ± 6%.
05	CUE/IN	Pressing these buttons will set cue points 1-3, pressing them again will begin playback from the relevant cue point.
	SHIFT FUNCTION: DELETE CUE	Deletes the current cue point setting.
06	SCRATCH	Puts the platter into "Scratch" mode which allows vinyl style playback control.
07	OUT/LOOP	When you have a cue point set this will create a loop out point. Playback will loop between the cue point and the outpoint until you press the out button a second time.
	SHIFT FUNCTION: DELETE OUT POINT	Deletes the current out point setting.
08	SHIFT	Holding shift engages shift functions of many of the buttons, secondary functions are printed inside a grey box.
09	TRIM	This controls the volume of the track before it goes to the EQ and fader.
10	CENSOR	Pressing censor reverses playback temporarily, when released playback resumes from where the playhead would have been if censor was not pressed. It is used to "censor" out portions of a song.
	SHIFT FUNCTION: REVERSE	Toggles playback direction.
11	AUTOLOOP	Autoloop works for tracks that have BPM calculated and when pressed will create an autoloop of the current autoloop value.
12	EQ	There are 3 EQ knobs, low mid and high. The available range is -∞ dB (off) to 0 dB to +6 dB.
13	HALF/DOUBLE	These buttons set the auto loop length before you turn it on. Once autoloop is on they allow you to half or double the length of the loop.
	SHIFT FUNCTION: NEXT/PREV	Skip to the next or previous track in the current selection.
14	MASTER	This knob controls the overall output of the VCI-300, ensure this is right down before running ITCH.
15	MONITOR SELECT	Controls the balance in the headphones between the mix output and the PFL headphone cue.

NO.	KEY	FUNCTION
16	MONITOR VOLUME	Controls the volume of the headphones.
17	CUE	When playback is paused this sets a temp cue point, once the temp cue is set pressing it while playing will jump to the temp cue point.
18	PLAY/PAUSE	Starts and stops playback.
19	CROSSFADER	Fades between the left and right channels.
20	INPUT FADERS	Control the volume of their respective tracks.
21	PFL A	Sends the left deck to the headphone mix, pressing with SCROLL loads the current selection to the left deck.
22	SCROLL	Turns on platter scrolling, this allows you to browse the library using the platters.
23	PFL B	Sends the right deck to the headphone mix, pressing with SCROLL loads the current selection to the right deck.
24	NAVIGATION	This control works like cursor keys for navigating the library.
25	PLATTER	On startup the platters temporarily NUDGE the playback speed slower or faster.
	SHIFT FUNCTION: FFWD/REWIND	Skips through the track at high speed.
26	CRATES	Switches cursor focus to the crate area.
27	FILES	Opens the Import panel where you can browse your filesystem for tracks to load.
28	BROWSE	Opens the Browse panel where you can filter your selection by Genre, BPM, Artist and Album.
29	JOG TORQUE ADJUST KNOB	Adjusts the Torque of the Jog Wheel.

FRONT AND REAR PANEL OVERVIEW

NO.	KEY	FUNCTION
01	MIC IN	Microphone input socket.
02	MIC LEVEL	Hardware microphone input gain control before sending to software.
03	CROSSFADER CURVE	Adjusts slope of Crossfader. Rotate clockwise to shorten fade time with sharper cut off at either end, and 50/50 mix across width of fader. Rotate anti-clockwise to lengthen fade to gradually mix across fader and 50/50 mix in centre only.
04	CHANNEL FADER CURVE	Adjusts slope of Channel Faders. Rotate clockwise to shorten fade time with sharper cut off at bottom and full level most majority of fade length. Rotate anti-clockwise to lengthen fade to gradually increase level up fader and 100% level at top only.
05	HEADPHONE OUT	6.5 mm TRS Jack for headphone connection.
06	AUX IN	RCA connections for auxiliary sound source.
07	AUX GAIN	Hardware AUX input gain control before sending to software.
08	GROUND POST	Connect AUX input devices requiring grounding to prevent interference.
09	THRU SWITCH	Sends the AUX and mic signals directly to the master out and disconnects the computer output.
10	MASTER OUT JACK	6.5mm TS Jack Master outputs.
11	MASTER OUT RCA	RCA Master outputs
12	PLATTER SENSITIVITY CONTROLS	Adjust level of touch sensitivity for the platters, adjust if ITCH is not detecting your touches correctly.
13	DC POWER INPUT	To power hardware with optional DC adapter: 9V DC 500mA.
14	POWER SOURCE SELECTION	Select between Adapter, Off, and USB power for unit.
15	USB SOCKET	For connecting the VCI-300 to your computer.

GETTING STARTED

STARTING THE SOFTWARE

The ITCH software is installed to the following locations:

MAC: ITCH will be installed to your applications folder

WINDOWS XP: Start> Programs>ITCH

WINDOWS VISTA: Windows Menu>All Programs>Serato>ITCH

To start ITCH on OSX double click the ITCH icon in your applications folder. To start ITCH on windows browse your start menu and click the ITCH icon. When the software launches ITCH will automatically detect the VCI-300.

IMPORTING MUSIC

SUPPORTED FILE TYPES

ITCH supports the following file types.

.MP3 , Ogg Vorbis , AAC , .AIFF , .WAV

Fixed and variable bit rate files are both supported.

Please note that ITCH will load and play the 32kbps mono preview portion of Serato Whitelabel files (wl.mp3). Full quality Whitelabel playback requires Rane hardware and Serato Scratch LIVE software.

ADDING FILES TO THE ITCH LIBRARY

There are several ways to add files to your ITCH library.

Pushing the FILES button on the hardware will show a view of your file system where you can browse your hard disk for music to load. You can navigate using the navigation controls on the hardware, the cursor keys on your keyboard, or with the mouse. Loading a file to either deck automatically adds it to your library.

Dragging a file from Finder or Explorer onto ITCH will also load the the track into your library. You can drop tracks directly into the library or straight onto the virtual deck.

SHOWING YOUR ITUNES LIBRARY

ITCH can read your iTunes™ library and show it whilst browsing in ITCH. To enable this feature go to the setup screen, under the library tab tick "Show iTunes Library".

NOTE: iTunes Music Store DRM files cannot be played back by ITCH

HOW TO GET MUSIC FROM CDS INTO ITCH

ITCH does not support CD ripping. We suggest you use a 3rd party application like iTunes to convert your audio CDs into a suitable file type for ITCH. 320 kbps MP3 files are recommended for high sound quality and low CPU load. Audio CDs can be played directly from the computers CD ROM or DVD drive.

Please visit http://www.serato.com for articles and information on file conversion.

BUILDING OVERVIEWS
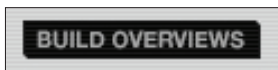
Building overviews is a process where ITCH analyses the song and builds an overview containing the waveform information as well as the song BPM. By default ITCH will build the overview for a track as you load it to the deck.

HARDWARE DISCONNECTED MODE

When ITCH is run without the VCI-300 connected it will show a "Hardware disconnected" message and the overview builder becomes available. To build overviews for all files in your library click BUILD OVERVIEWS, files that already have overviews will be skipped. To manually build overviews for a single file or selection, drag and drop the selection onto the BUILD OVERVIEWS button. Building an overview this way will overwrite any existing overview information. It is recommended for performance that you build overviews for all your songs before playing a gig.

SET AUTO BPM

If this option is checked, building overviews will include the estimated tempos of your files. If ITCH is confident that the auto BPM estimate for a file is accurate, it will be written to the file when possible or stored in the library. The range drop down allows you to specify the BPM range of your tracks to avoid half or double BPM values being calculated.

NOTE: As auto BPM is part of the overview building process, it will not apply to any files that already have an overview. To use auto BPM on a file that already has an overview, drag it onto the BUILD OVERVIEWS button to force an overview rebuild.

MAKING CRATES AND SUBCRATES
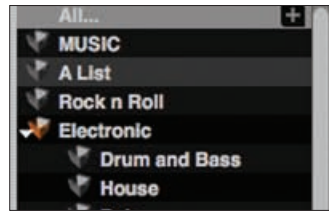
Crates and sub-crates are a way to organize your music into groups for quick access. This can be by genre, mood or whatever suits your DJing style. The crate area can be accessed by pressing the CRATES button on the hardware or by clicking inside the crate area with the mouse. The "+" button on the software allows you to create a new crate. To add files to a crate, drag and drop the track(s) from the library into the Crate. Crates can be nested inside each other to create sub-crates for more detailed sorting.

See the Using the Library section for more details on crates and subcrates.

PLAYING YOUR FIRST TRACK

This section describes the basic steps to start playing tracks with the VCI-300, it will tell you everything you need to know to get up and mixing quickly.

RESETTING THE MIXER

It's a good idea before playing to set your mixer to the default settings. To reset the mixer, set your channel faders all the way up, all EQs to 12 o'clock, and the master and monitor levels down to 0. Place the crossfader on the side to which you will be loading your first track.

NAVIGATING THE LIBRARY

The library contains all the music that you have added to ITCH. By using browse and search you can easily narrow down your selection to find the track you want.

NOTE:You can search your library by keyword using the computer keyboard, see Searching for more info.

HARDWARE NAVIGATION CONTROLS

DIRECTION PAD
The direction pad controller lets you navigate your library in an intuitive fashion, similar to the arrow keys on a computer. UP and DOWN move the cursor up and down the library. BACK and FWD move the cursor between adjacent columns in the browser view. The center TAB button moves through any browse fields available.

FILES
The FILES button opens the import panel which shows your computer's file system. This allows you to add new files to your library or load the directly to the deck.

CRATES
The CRATES button switches focus to the crate list.

BROWSE
The BROWSE button opens and closes the browse panel which groups the tracks in your library by the tags: Genre, BPM, Artist, and Album.

MOUSE AND KEYBOARD
As well as using the control surface you can also use the cursor keys and mouse to navigate the library. The cursor keys work as UP, DOWN, FWD and BACK. The mouse can select the different modes and make Genre / BPM / Artist and Album selections.

PLATTER SCROLL
By pressing the SCROLL button you can engage platter scrolling. This allows you to use the platters to scroll up and down within the library. Loading a track to either deck automatically disengages platter scroll.

LOAD A TRACK TO THE DECK

Once you have located the file you want to load in the library you load it either with the VCI-300, the mouse or the keyboard. To get started load a track to the left deck.

HARDWARE
      SCROLL + PFL A to load to the left deck.
      SCROLL + PFL B to load to the right deck.

KEYBOARD
      Shift + Left arrow to load to the left deck.
      Shift + Right Arrow to load to the right deck.
MOUSE
      Drag the track to either the left or right virtual deck.

STARTING PLAYBACK

To begin playback press the play/pause button on the Hardware, this will start playback from the beginning of the track. Pressing this at any time will pause playback at the current position.

ADJUSTING GAIN

The TRIM knob at the top of the channel strip allow you to boost or cut the volume of the track before you control it with the up fader for mixing. It is best to have the level of the track adjusted so that in the loudest part of the song the first 2 red lights on the meters are lighting up but are not permanently lit. Setting the TRIM so both tracks are metering in this manner makes it easy to balance the mix between them with the EQ and faders.

EQUALIZING

EQ is used to boost and cut specific frequencies. The VCI-300 features 3 band EQ with low, mid and high. The knobs go from full cut (or kill) when turned all the way left, unity when facing straight up and 6 dB of boost when turned all the way to the right. EQ is used to balance the sound of 2 tracks that have been mastered differently, to make a track sound "right" on your particular system, or for creative mixing techniques. With EQ, less is usually better - when boosting do so sparingly. Cutting frequencies is also usually better than boosting them. For example if you have a track with too much mid range, rather than boosting bass and treble to compensate it is better to cut back the mid range. Every speaker system and room has a different frequency response so you will need to adjust your EQ to suit not only the music you are playing but the room you are playing it in.

MIXING IN THE NEXT TRACK

FINDING THE NEXT SONG

Once you have the first track playing you need to find the next song to mix in. Browse your library to find a suitable song. The BPM column is useful for finding a track with a similar tempo to the current song.

LOADING IT TO THE DECK

Before loading the next track ensure that the crossfader is over so that only the current playing track will play through the speakers. Load the next track to the right deck by pressing SCROLL + PFL B or using the keyboard or mouse.

PREVIEWING IN THE HEADPHONES

When you load a track to a deck, PFL (pre-fade listen) is automatically engaged for that deck. When PFL is on the track is sent into the headphones so that you can cue it up without it playing out to the speakers. The MONITOR SELECT knob controls the mix of what is sent to the headphones. You can balance the mix in the headphones between what is playing to the master out (MSTR) and the PFL channel (CUE). The "Monitor Level" knob controls the headphone volume.

FINDING THE RIGHT PART OF THE SONG

When the track is paused the platter is always in SCRATCH mode which allows you to scrub though and find the point you want the song to start. You can fast search through a song by pressing SHIFT and winding the platter, this will skip through the song at high speed.

VISUAL AID: TRACK OVERVIEW
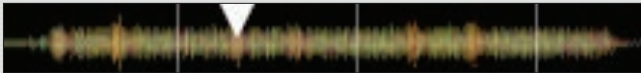
This view provides a complete overview of the waveform of the track and includes a marker to show the current position within the track. This view is useful for finding transitions within the track. The waveform is colored according to the spectrum of the sound; red representing low frequency bass sounds, 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.

TEMPORARY CUE

The temp cue function allows you to set a temporary cue point in a track that is not saved into the file. This is useful for finding a point in a song and then being able to easily start again from this point as you get your mix right. While paused you can use the platter to fine tune the playhead placement to ensure your cue point is set exactly on a downbeat.

If no temp cue is set, pressing the CUE button while playback is paused will create one at the current playhead location. Once the temp cue is set, holding the CUE button whilst paused will play from the temp cue point. Releasing the button will pause playback and return to the temp cue. This is good for stuttering in the start of a track.

If you press the PLAY/PAUSE button whilst you are holding down the CUE button, playback will continue when you let both buttons go. This allows you to cue a track in from pause mode and then continue playback once you know the mix is right.

The CUE button can also be pressed whilst the track is playing at any point to return to this point and put the deck in pause. To change the location of the temp cue put the deck in pause with the playhead at a different location and press the CUE button again.

VISUAL AID: MAIN WAVEFORMS
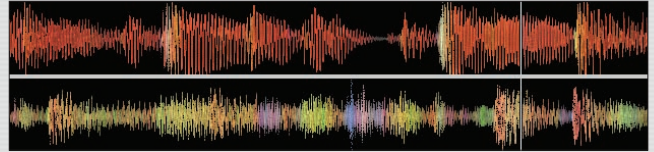
This view provides a close-up view of the track, including color-coding to show the frequency of the sound; red representing low- frequency bass sounds, green representing mid-frequency sounds and blue representing high-frequency treble sounds. You can also switch to a three-band spectrum view by holding the ctrl 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.

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

GETTING THE TRACKS IN TIME

The playback speed of the track is controlled by the pitch slider. The range of the pitch slider is ± 6% from the track's initial tempo. Moving the slider up will slow the track down, moving it down will speed the track up. This allows you to take two tracks that are of different tempos and mix them together in time. The pitched BPM and the pitch % are shown in the ITCH GUI below the track name and artist. The simplest way to adjust the speed to match the other track is to move the pitch slider until the BPM value is the same as the track that is already playing. By repeatedly playing from the temp cue point and fine tuning the pitch slider you can get the tracks playing at exactly the same speed.

NOTE: ITCH can play your music at a large range of speeds with or without keylock, for more information see Pitch Shift or Key and Quartz Lock.

NOTE: You can easily match the tempo of one deck to the other by pressing the AUTO TEMPO button. See Auto Tempo for more information.

VISUAL AID: TEMPO MATCHING
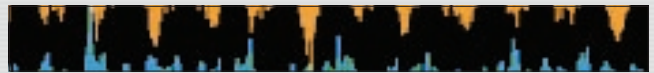
The Tempo Matching display area provides a helpful tool for beat matching. ITCH detects the beats within the track and places a row of orange peaks (for the track on the left side) above a row of blue peaks (for the track on the right side) in the Tempo Matching display area. When the two tracks are matched to the same tempo, the peaks will line up. 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.

DROPPING IT IN

The platter on the VCI-300 is touch sensitive and when ITCH starts is in NUDGE mode. In NUDGE mode, moving the platter backwards or forwards will temporarily bend the speed of the track faster or slower. This is for when you have two tracks mixed together but they are not quite in time. By "nudging" the platter back and forth you can ensure that the timing is aligned. When pressing the SCRATCH button, SCRATCH mode engages and the button lights to show this. In SCRATCH mode, touching and holding the platter will stop playback just like with a record. Moving the platter will scratch backwards and forwards through the track as if you were using vinyl. You can also NUDGE whilst in SCRATCH mode by turning the platter without touching the black top. You do this by using the clear plastic edges, this is a bit like using the rails on a turntable to get tracks in time.

The temp cue point is also useful to repeatedly start from a preset point in the track. This allows you to easily drop in a few times until you get it right.

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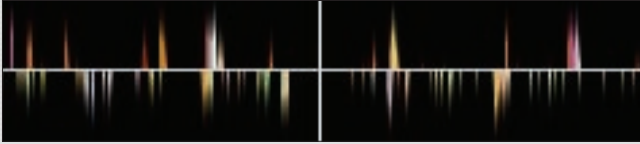
This view shows the position of beats within the track. When beat matching, this view helps align the downbeats of the two tracks. The markers are matched up when the two tracks are beat matched.

EXAMPLE:
The following is a demonstration of how to use 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.

BEAT SYNC

BEAT SYNC is an advanced feature that will automatically align the transients (usually the drums) in the two playing tracks. If you have dropped your next track in but it's not quite in time, by pressing SHIFT + AUTO TEMPO you can perform an automatic beat sync. When the current track is playing on the left side press SHIFT + the right hand AUTO TEMPO button. This will snap the right track's beats to be in time with the left hand side. BEAT SYNC works by snapping the two closest transients together, this means the timing of the two tracks has to be close before BEAT SYNC will work.

ADVANCED FEATURES

MIC AND AUX MIXING

The VCI-300 features a Microphone and an Auxiliary line input. The volume and equalization of these two inputs is controlled in software and each can be either assigned to the main mix or either side of the crossfader.

Click the MIC/AUX button to open the MIC/AUX mixing panel.

The knobs can be controlled with the mouse and the drop down box allows you to choose where you'd like each source to be sent. There are also physical gain controls next to both the MIC and the AUX inputs on the hardware. These knobs control the gain before the signal is sent up to ITCH for mixing.

There is an emergency thru switch located next to the AUX input. This sends the MIC and AUX directly to the master volume knob and completely disconnects the computer from the signal path. If you are using mains power, this allows you to use an MP3 or CD player as a sound source whilst switching laptops.

NOTE: Ctrl - Click to reset a knobs position.

PITCH SHIFT

The PITCH SHIFT buttons allow you to offset the pitch of the track to give you access to different speed ranges. Pitch shifting up will make the track faster and pitch shifting down will make it go slower. The maximum pitch shift is 12 steps up and 12 steps down.

Even when you have pitch shift engaged the pitch slider range is always ±6% from the base pitch you are shifted to. Pressing both pitch shift buttons at once will reset the pitch shift to zero.

KEY AND QUARTZ LOCK

KEY LOCK

Normally when changing the speed of a track you will hear a change in the pitch of the music. With KEYLOCK is on, even when you change the speed, the pitch stays the same. This is useful to avoid two tracks sounding out of tune when mixing them together. KEYLOCK has scratch detection, so that it automatically turns off when scratching for a natural scratching sound.

QUARTZ LOCK

When QUARTZ LOCK is on, the pitch is reset to zero. This overrides any PITCH SHIFT or slider settings. Any pitch setting you might have will return once you turn QUARTZ LOCK off.

CUE POINTS

The VCI-300 features three Cue/Loop slots. To create a cue point, press one of the CUE/IN buttons for the deck. The button will light up to show that there is a point set. To delete a cue point hold SHIFT and press the CUE/IN button for the point you want to delete.

Once a cue point is set, you can jump to it at any time by pressing the relevant CUE/IN button. Whilst playback is paused, hitting a cue point will play from that point as long as the CUE/IN button is held down. It returns to the cue point and pause when the button is let go. You can also jump to cue points using keyboard shortcuts – 1 through 3 for the cue points on the left deck and 6 through 8 for the right deck cue points. If this this is done using the keyboard while the track is playing, the cue point will be repeatedly triggered, producing a stuttering effect.

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.

VISUAL AID: CUE POINT STATUS

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 track 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.

LOOPS

Once you have set some cue points, you can add outpoints to them to turn them into loops. Pressing the OUT button once will set the loop outpoint and turn LOOP on. Both the CUE/IN and OUT buttons will light to indicate that you are in a loop and playback will loop between the cue point and the outpoint. Pressing the OUT button a second time will turn LOOP off. Holding SHIFT and pressing the OUT button will delete that outpoint. By holding the OUT button and moving the platter you can adjust the position of the outpoint to fine tune your loop. By holding the OUT button and pressing the CUE/IN button at the same time, the playhead will jump to the outpoint and turn LOOP off. Loop areas show up green in the main waveform display.

AUTOLOOPING

Auto looping allows you to create loops that will automatically be in time with the music. This is great for creating loops on the fly and other creative mixing techniques. The loop length can range from 1/8 to 16 beats, based on the track BPM (tracks must have a BPM tag set for autolooping to be available). Set the loop length using the HALF and DOUBLE buttons on the VCI 300. The current autoloop length is displayed on the ITCH deck underneath the time display. Press the AUTOLOOP button to activate a loop of the set length, which is snapped to the beat closest to the playhead. The length can be adjusted while the loop is active using the HALF and DOUBLE buttons, and the loop disabled by pressing AUTOLOOP once more.

AUTO TEMPO

To simplify getting your tracks in time, ITCH features auto tempo. Pressing the AUTO TEMPO button for a deck will disengage the pitch slider on that deck and automatically match it's tempo to the other deck. Auto tempo requires a BPM value for each track to work. While auto tempo is on, the AUTO TEMPO button will flash for that deck.

Whilst auto tempo is engaged, the playback speed is controlled by the pitch slider of the deck that doesn't have auto tempo turned on. Both decks will follow any changes you make to this deck. If you have both decks in auto tempo mode, they will follow a "ghost tempo" which is the tempo that you were at when you started using auto tempo.

On the ITCH GUI there is a "pitch navigator" that shows you how far away the slider is from the current auto tempo value. This can be used to get the pitch slider into the right position before switching back to manual tempo mode.

CENSOR/REVERSE

Pressing CENSOR reverses playback temporarily. When released playback resumes from where the playhead would have been if censor was not pressed. It is used to censor out portions of a song. Pressing CENSOR + SHIFT will toggle reverse playback.

RECORDING

ITCH can capture recordings of your mix output, mic, or aux input channel. Recording controls are grouped into a strip above the right deck. Select the source to record from the drop down menu. The recording meter shows the signal level that will be recorded to disk. The Mix source records the master output signal, post faders and EQ, pre master gain. Adjust the recording level using the controls for the applicable source being recorded. To show and hide the channel controls for MIC and AUX, click the MIC/AUX button below the clock. Click the REC button to start and stop recording. To save the recording to disk, type a filename into the text field, and click save. Recordings are saved as 16 bit 44.1 kHz stereo AIFF files into the Recordings folder inside your main library folder.

USING THE LIBRARY

ITCH 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.

MAIN LIBRARY VIEW

CRATES

ITCH 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. The Crate area is on the left hand side of the library.

For example, you could organize your files into the following crates, where any one track would be filed in more than one crate.

- Hip Hop
- French Hip Hop
- UK Hip Hop
- Instrumental Hip Hop
- Old School Hip Hop
- Hip Hop LPs

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.

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. Subcrates can be opened and collapsed. This way you can have a large number of crates but still keep them easy to browse.

SEARCHING

ITCH includes a search function to help you find files quickly and easily. Just enter text into the search box and ITCH will 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. Press ESC or the X button on the right of the search box to clear the search.

BROWSING

To browse through your files, just move up/down with the navigation controls. You can also browse through your files using the platters on the controller, clicking on the SCROLL button and then moving the platter will move up or down the library.

In ITCH, pressing the BROWSE button will open the browse panel above the main file library. The filters are GENRE, BPM, ARTIST, and ALBUM. You can narrow down your search by selecting the specific genre, BPM or name of the track you're looking for, and ITCH will show the results on the main library window. You can move between the four filters with the left/right keys on the navigation controls, the computer keyboard or by clicking with the mouse.

LIBRARY ICONS

The column at the far left shows the status of each track, examples of these icons are below.

ITCH 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 iTunes but is corrupt

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

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

Tracks that are read-only have a locked icon.

SETTING UP COLUMNS

The track information display area can be customized to display any of the columns listed below.

- album
- artist
- bitrate
- BPM
- comment
- composer
- filename
- genre
- grouping
- label
- length
- location
- remixer
- sampling rate
- size
- track
- year

Clicking on the triangle at the top right of the library will show the list so you can turn fields on and off. You can resize columns by grabbing the edge and dragging to the width you want.

TAGGING

EDITING ID3 TAGS

Much of the information associated with each file can be edited from within ITCH. Double click on the field within the main library to edit it. 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.

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.

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

ALBUM ART

MP3 files can contain album art. 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.

PREPARE

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

IMPORT

You can load files into ITCH by pressing the import button. This will open the import panel, where you can navigate the file system of your computer to locate your audio files. Click on files (or folders containing files) and drag them onto the crate list. You can add files into the main library by dropping them onto the "All" heading in the crate column, or into a specific crate or subcrate. You can also import by dragging files and folders directly from Windows Explorer (PC version) or Finder (Mac version) into the ITCH library.

REVIEW

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 orange. 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 have played.

SCRATCH LIVE COMPATIBILITY

ITCH uses the same library as Rane Serato Scratch LIVE. If you are an existing Scratch LIVE user all your music, loops and cue points will be available in ITCH. If you create a library in ITCH and then install Scratch LIVE the music loops and cues from ITCH will automatically be available in Scratch LIVE. Any changes made in either program will be written to the library so if you have existing cue and loop points, be aware of this when moving between systems.

USING EXTERNAL DRIVES

Any external hard drive connected to your computer will show in the import panel. You can load files by navigating the hard drive and locating your audio files. Then drag them onto the library, or into crates or subcrates just like you would do when importing from the hard drive of your computer. The crate information for files on your external drive is stored on the drive itself. This means if you add tracks on an external drive to your library and then plug that external drive into another machine running either ITCH or Scratch LIVE, the crates and tracks will automatically be visible in the library.
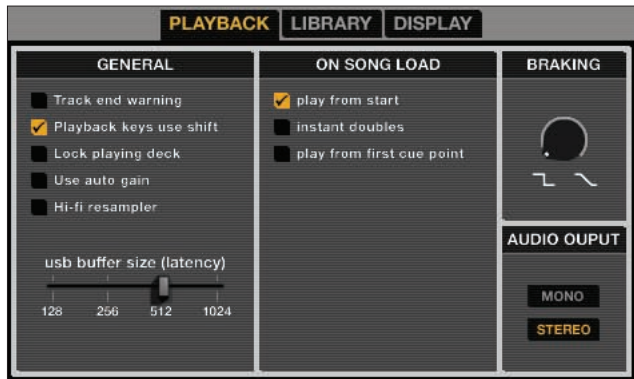
SOFTWARE SETUP

The ITCH setup screen has controls to personalize and maintain your ITCH system.

Click the associated tabs to switch between three groups of options; Playback, Library, and Display.

PLAYBACK OPTIONS

GENERAL

TRACK END WARNING
Enables warning flash of the virtual deck for the last 20 seconds of the track. Does not apply to any tracks under one minute long.

PLAYBACK KEYS USE SHIFT
With this option on, all cue point, loop, and general playback keys on the computer keyboard require shift or caps lock to function.

LOCK PLAYING DECK
When this option is checked, you can only load a track to a deck if it is paused.

USE AUTO GAIN
Check this if you want to use an automatically calculated gain value for songs with overviews built.

HI-FI RESAMPLER
This significantly reduces digital distortion at very slow or very fast playback speeds, increasing the CPU load slightly. This option is on by default.

ON SONG LOAD

These options affect the state of tracks when first loaded to the deck.

PLAY FROM START
Positions the playhead at the start of each track when loaded. 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. This option is overridden by 'Instant Doubles' and 'Play from First Cue Point' options.

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. This setting overrides the play from start option.
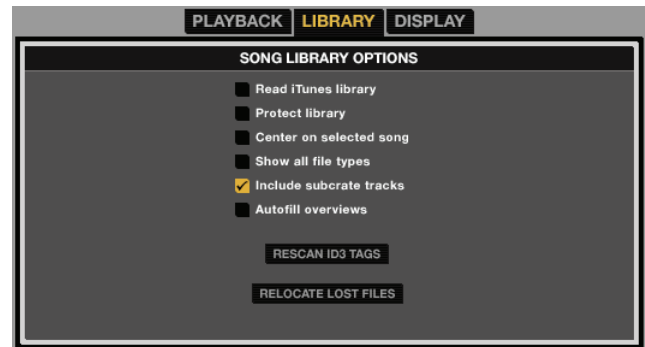
BRAKING

This controls how fast the track stops when the deck is paused. Counterclockwise, the stop is immediate. Clockwise rotation increases the stopping time from a finger grab all the way to a slow turntable power-down.

AUDIO OUTPUT

Sets the audio output to Stereo or Mono.

LIBRARY OPTIONS

SHOW ITUNES LIBRARY

Shows the current default iTunes library and iTunes playlists in ITCH.

NOTE: ITCH cannot play files that have been protected by Digital Rights Management systems, such as those sold through the Apple iTunes Music Store.

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

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

SHOW ALL FILE TYPES
Enable this option to show all files when importing tracks into your library. If this option is not selected, only files that ITCH can play will be displayed.

INCLUDE SUBCRATE TRACKS
Displays the tracks from any subcrates in their parent crate. With this off browsing in a crate will not show tracks that are in any subcrates of that crate.

AUTOFILL OVERVIEWS
Automatically generates the track overview as soon as a track is loaded as fast as the CPU will allow. If this option is off, the track overview information is filled in as the track plays.

RESCAN ID3 TAGS
Re-reads file tags for the entire library. Use this function if you have edited or modified file tags in other software.

TIP: Rescanning the tags is a handy way to identify any files that can't be found, for example, if the files have been re-named or moved. These tracks are shown red in the library pane, with a question mark icon in the status column.

RELOCATE LOST FILES
If you've moved some files which are already in your library, they will show up as not found and be displayed in red. Drag and drop a folder from Finder (Mac) or Explorer (Windows) onto the relocate lost files button to search it, and any sub-folders, for files currently marked as not found in your library. Doing this will update the database with their new location.

DISPLAY OPTIONS
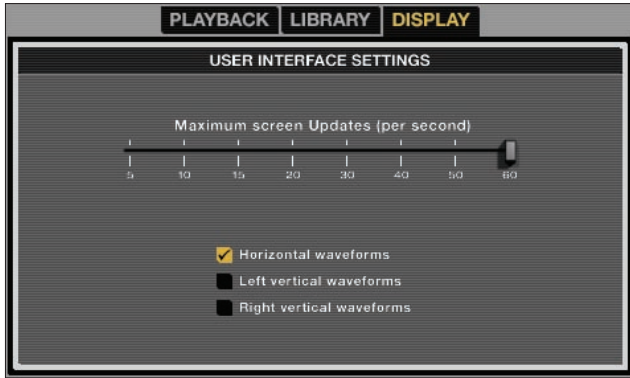
MAXIMUM SCREEN UPDATES

This slider allows you to lower ITCH's screen refresh rate and potentially use less CPU. Users with slower computers or those running a recording program at the same time might like to do this if they are having performance issues. The default setting is 60 Hz, or refreshed 60 times per second. This setting applies to the entire ITCH user interface; the Virtual Decks, the Waveforms, the library, and the setup screen.

HORIZONTAL WAVEFORMS

Display the main waveforms horizontally across the bottom of the screen.

LEFT VERTICAL WAVEFORMS

Display the main waveforms vertically on the left side of the screen.

RIGHT VERTICAL WAVEFORMS

Display the main waveforms vertically on the right side of the screen.

SOFTWARE VERSION

The ITCH software version is displayed in the bottom left corner of the setup screen.

The check for updates button will launch your web browser and take you to http://www.serato.com to tell you if there are updates available for your version of the ITCH software.

ITCH

SUPPORT

SOFTWARE UPDATES AND ONLINE SUPPORT

For ITCH software updates and online support visit the ITCH website:
http://www.serato.com/itch

To help us with your support enquiry please have the following
information available.

- ITCH software version
- Operating System
- Computer model and specifications

OFFICIAL SUPPORT CHANNEL

For VCI-300 hardware support and customer service, included warranty
cover, contact your local Vestax distributor:

Or visit the website http://pcdj.vestax.com

TROUBLE SHOOTING

The following suggestions may help you if you are experiencing poor
performance with ITCH. For more troubleshooting help visit http://www.
serato.com/itch

- Check for updates using the CHECK FOR UPDATES button
  or by visiting http://www.serato.com/itch
- Close other open programs
- Disable wireless networking
- Disable bluetooth
- Disable antivirus software
- Increase the USB buffer size
- Unplug other USB devices
- Run your laptop connected to power
- Run the VCI-300 on a power supply

Vestax Corporation