

User Guide

10th Edition (9.4.2)

Thanks for downloading Voloco!

About Voloco

Voloco is a voice-processing app that combines automatic tuning, harmony, and vocoding. Pick a track from your music collection or Voloco's free beat library to sing or rap over, and Voloco will guess the key of the track and tune your voice to that key.

- Apply automatic tuning or harmony to your recording
- Over 50 vocal effects
- Sing or rap over hundreds of free beats
- Change effects and settings after recording
- · Get featured and grow your fanbase

Intended Audience

This manual is designed to give intermediate and advanced users more insight into all of Voloco's features and to give a full description of all presets, effects, and processing tools, as well as give an overview of some of the music theory behind Voloco's scales, keys, effects and more.

About This Manual

The 10th Edition was written, edited and designed by Kaye Loggins with support from Resonant Cavity, the team behind Voloco. This manual uses the <u>Humaaans illustration library</u> by Pablo Stanley.

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11. SETUP & CONSIDERATIONS

Recording Environment

When recording audio, it's best to work in the quietest room possible to prevent any background noise or reflection. Your environment also matters – a bathroom may be more private, but a tiled wall can create a boomy, reflective sound. The duller the walls and area around you, the clearer sound you can achieve. This is the idea behind professional recording booths.

Microphones & Headphones

Voloco is designed to work with your iOS or Android device's built-in mics and speakers. The app can also accommodate a wide variety of headphones & external microphones, from the headset & mic that came with your smartphone to professional-grade microphones. Make sure any external microphone is compatible with your smartphone & connected before opening Voloco. If you have a professional stand-alone mic, you will need an audio interface compatible with your device to connect the mic on one end and your device on the other. There are a range of audio interfaces available for purchase that are compatible with both iOS and Android devices.

For the best audio quality, use at least a headset & mic, such as the headphones that came with your smartphone. Using headphones allows you to hear the backing track or beat and your vocal monitor (your voice through Voloco's effects) live while recording, without that sound getting picked up on your recording (called feedback – feedback is what to avoid)! When you don't have headphones plugged in, Voloco will not output monitor audio while recording.

When using a headset with built-in mic, it's recommended to hold the microphone near your mouth level rather than letting it dangle below your head. This microphone position allows a better recording quality to capture the sibilance of your voice, or the higher frequency sounds such as the "S" and "T" sounds your mouth naturally makes when singing or speaking. However, don't hold the mic too close – placing it directly in front of your mouth can result in blown-out, distorted audio. Roughly **6 inches** (15 cm) from your mouth is a good balance.

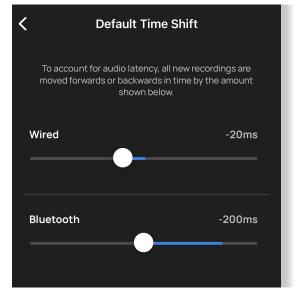


Bluetooth - Pros & Cons

Many people use Bluetooth headphones for the convenience of a wireless connection. Most Bluetooth headsets also have a built-in microphone for taking phone calls or recording audio.

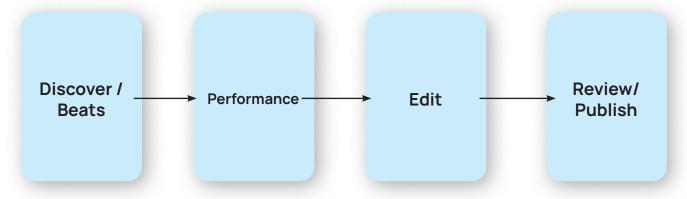
Some Voloco users like to use Bluetooth headsets while recording tracks, but this comes with a trade off: because Bluetooth is transmitting lots of information wirelessly, there can be a delay (or latency) between the backing track and your recorded vocals, as well as latency when listening to vocal monitoring, because of the time it takes to transmit audio + the time it takes Voloco to process your audio. When possible, use wired headphones/microphones with Voloco to reduce latency for the most accurate recording, keeping your vocals on top of the beat. However, if you do use Bluetooth headsets. Voloco will record audio from your device's built-in microphone, not the microphone in a Bluetooth headset. This is to eliminate latency and prevent out-of-time recording, and it produces a higher-quality audio recording. Recommendation: turn off Vocal Monitoring when using wireless headphones, as hearing your own vocals on a delay can be jarring and affect your vocal take. After recording, the **Time Shift** feature adjusts for audio delay over a backing track. To use Time Shift, tap the Time Shift button on an audio clip in the Edit View to adjust latency or adjust Default Time Shift in Settings - more info on page 37.





Voloco Workflow

Voloco uses a series of Views to prepare, record, edit, and review your track. The Views appear in the following order:



2. NAVIGATION

Home Page

The Home page is the first view you'll regularly see when you launch Voloco. Here you can access a curated feed of Tracks, Beats, and Playlists you'd like, selected according to your tastes and curated by Voloco's curation team. You can also check out what's Hottest in the Voloco community globally as well as by region.

Beats

Select pre-made and curated beats to use as the basis for your next track.

Tracks

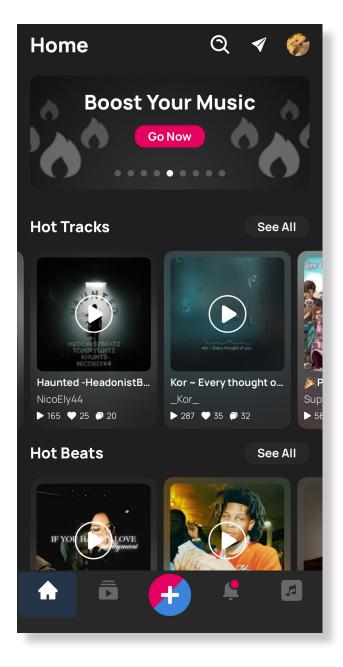
Listen to fully-produced Tracks made by fellow Voloco users.

Playlists

Groups of Tracks or Beats curated by users or by Voloco's curation team. This feature can also be used to group Tracks in Albums or EPs.

Curated Featured Playlists

Genre-specific playlists curated by the Voloco team. Check out genres such as Hip-Hop, R&B, Afrobeats & more as well as language-specific playlists.



Hot & Regional Playlists

Check out the hottest tracks in different regions of the globe.

Search

Search to Voloco library for Tracks, Beats, Playlists, or Artists. **Tap the magnifying glass** in the top right-hand corner of the screen.

Direct Messages

Search to Voloco library for Tracks, Beats, Playlists, or Artists. (See page 12)

Beats and Tracks Pages

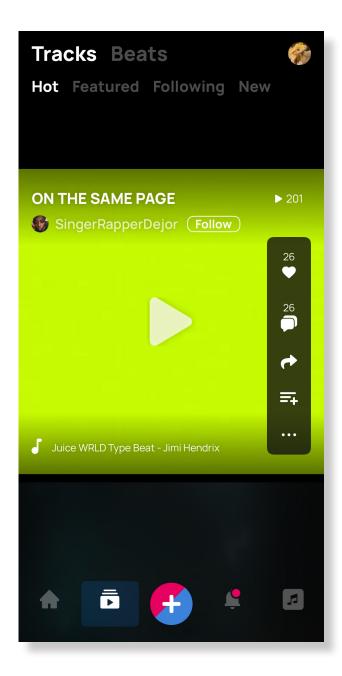
Here you can check out a steady flow of Beats and Tracks popular within the Voloco artist community. To access the Beats and Tracks pages, **Tap the Track Feed button**, second from left on the Navigation bar.

Beats

Select pre-made and curated beats to use as the basis for your next track.

Tracks

Listen to fully-produced Tracks made by fellow Voloco users.

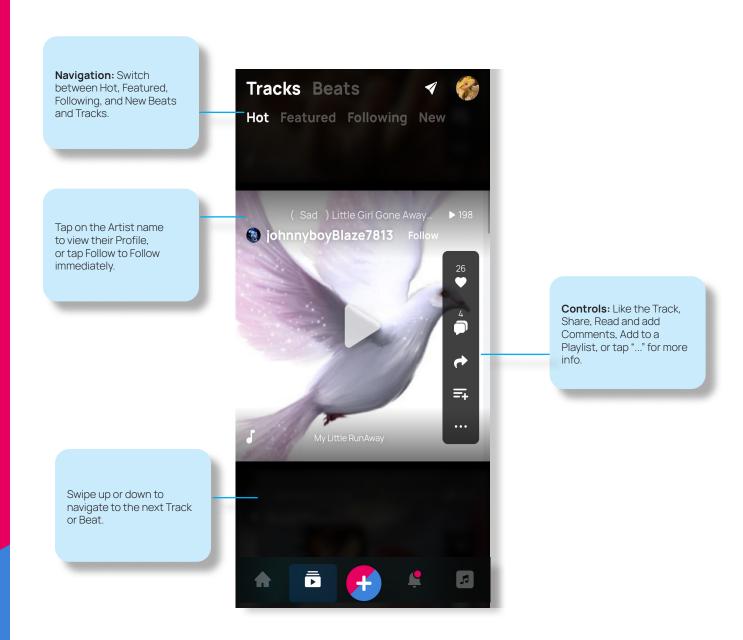


Tracks Page

Each track is shown with larger artwork and artist name. You can view play count, likes, & see more from the artist. If a Voloco Beat was featured, you can tap to create your own Track using that Beat.

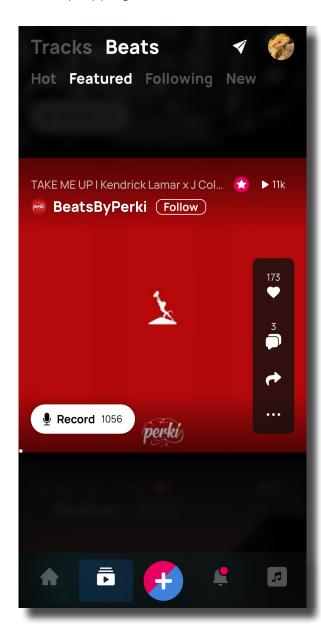
Hot/Featured/Following/New

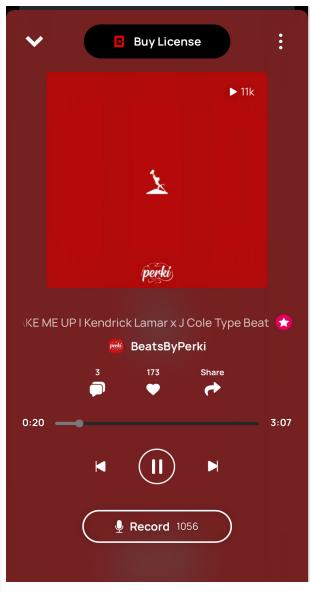
Tap each column to see Tracks sorted by their popularity on Voloco (Hot), Tracks selected by our curation team (Featured), tracks from Artists you follow (Following), or a feed of new tracks uploaded to the app (New). You can get Featured simply by uploading your best Tracks to your Profile! (for more on User Profiles, see page 9.)



Beats Page

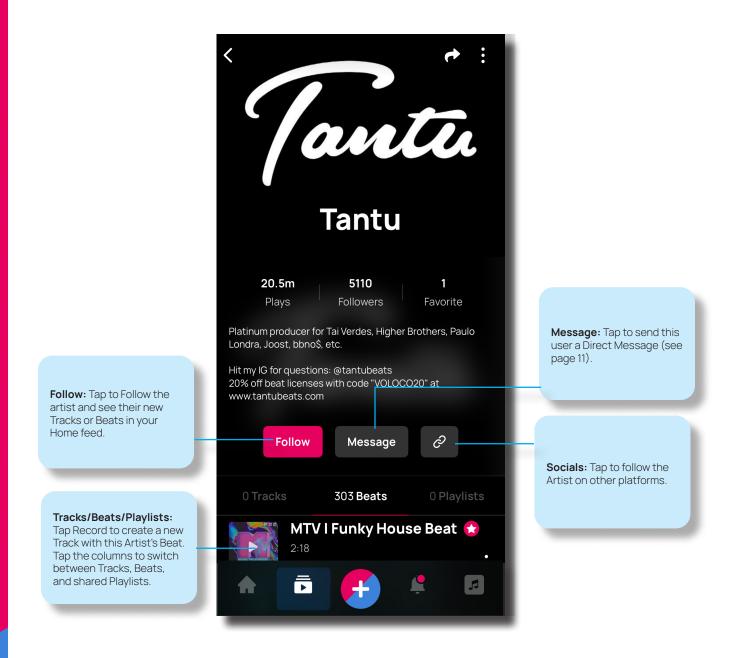
View list of beats with Artwork, Artist, Play Count, Duration, and Genre. A star appears if the Track has been Featured by Voloco. Tap a Beat to preview it. In the full-screen player, tapping **Buy License** will send you to an external link (provided by the artist) where you can purchase a license from BeatStars to use this beat commercially (Not all Beats are available for commercial use, but all are available to Record in Voloco). **Tap Record** to load the track into the Create View & select your effect to start recording. You can see how many Tracks have been created with this Beat on the Record button. **Tap on the Artist name** to see the Artist's profile including Tracks, Beats, and social media links (You can also import your own custom backing track by tapping the musical note icon in Performance View).





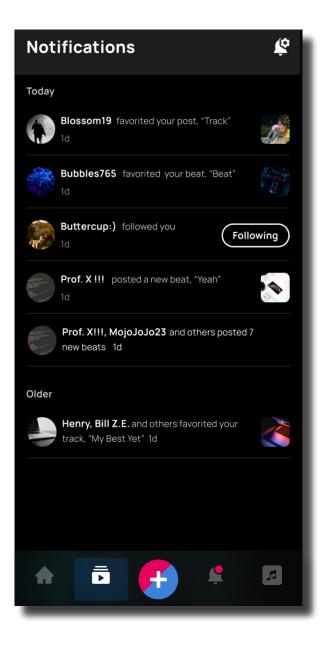
Profiles

Voloco Artist Profiles let you share your Tracks and Beats with other Voloco users around the world. You can Follow your favorite creators and see their new Tracks and Beats in your Home feed.



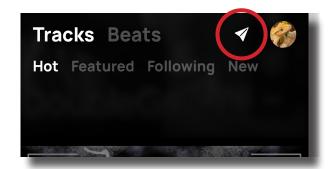
Notifications

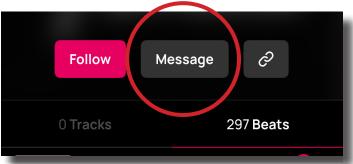
Your Notification Feed shows you when other users Favorite your Tracks and Beats, Follow you, or if your Track or Beat gets Featured by the Voloco team. You can also see new Tracks & Beats from other creators you Follow. Get to Notifications by **tapping the bell icon on the bottom of the screen in your Home feed**.



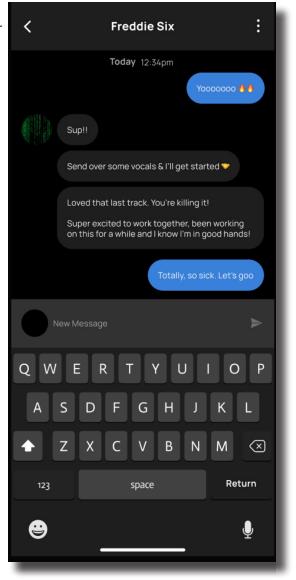
Direct Messages

You can message other Voloco users by **tapping the Direct Messages button** from the Home screen or by **tapping the Message button** on a user's Profile.



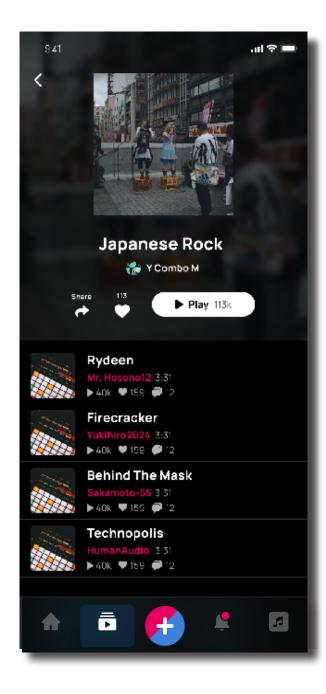


Within a Message screen, you can send a message or tap (...) to Block or Report a user. In your list of Messages, you can tap the Messages Settings button to only allow messages from Everyone, People you follow, or No one.



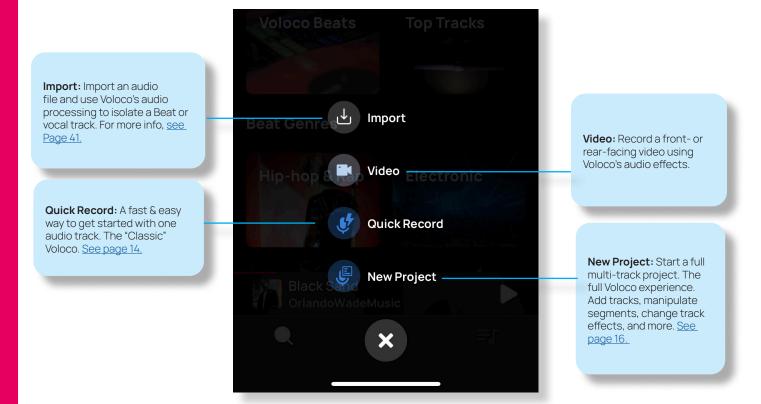
Playlists

Your can add your favorite Tracks from others, or compile your own Tracks to show your latest EP or Album with Playlists. **Tap the Add To Playlist button** when browsing tracks, or **Tap "..."** to add any Track to a Playlist. Playlists appear in your User Profile next to published Tracks and Beats. **Tap Share** within a Playlist to generate a Sharable Web Link for any Playlist.



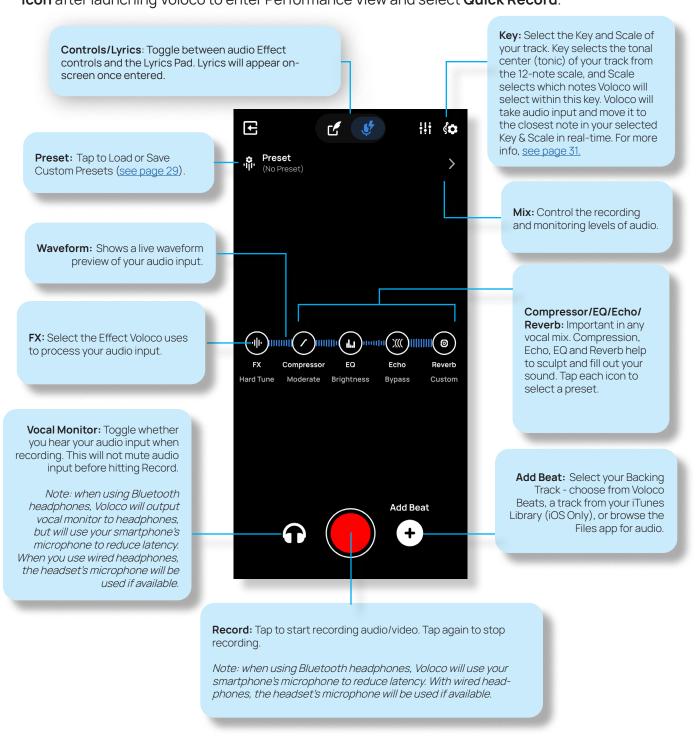
3. GETTING STARTED

To start creating with Voloco, **Tap the Pink & Blue + Icon** after launching Voloco. For more info on importing an existing track or video to isolate a Beat or vocal track, see Importing (Page 41).

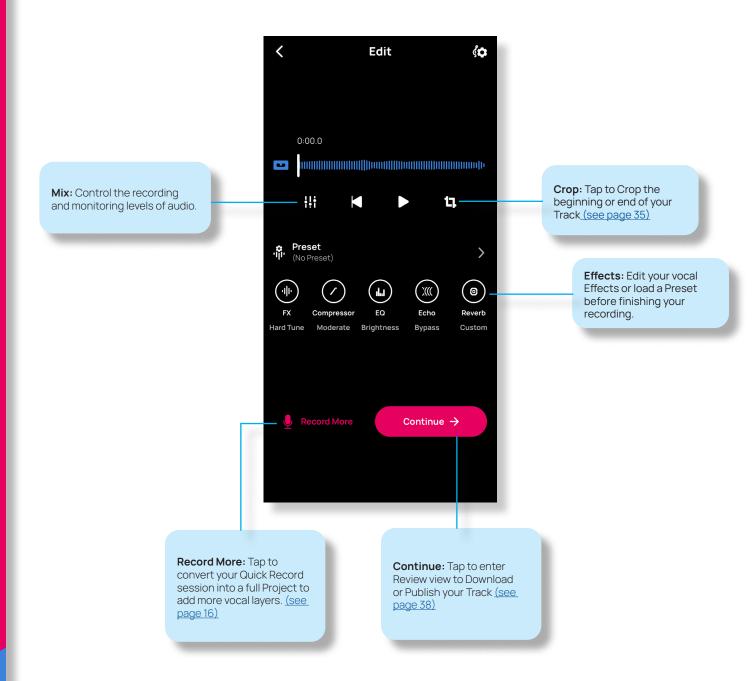


4. QUICK RECORD

Quick Record is a fast & easy way to get started in Voloco with one Vocal track and one Beat - the "Classic" Voloco experience. For multi-track recording, start a New Project (see page 16). When you enter Quick Record, you'll be in Performance View. Performance View is your toolkit - the place where you'll set your effects and actually record audio for your Tracks. **Tap the + Icon** after launching Voloco to enter Performance View and select **Quick Record**.

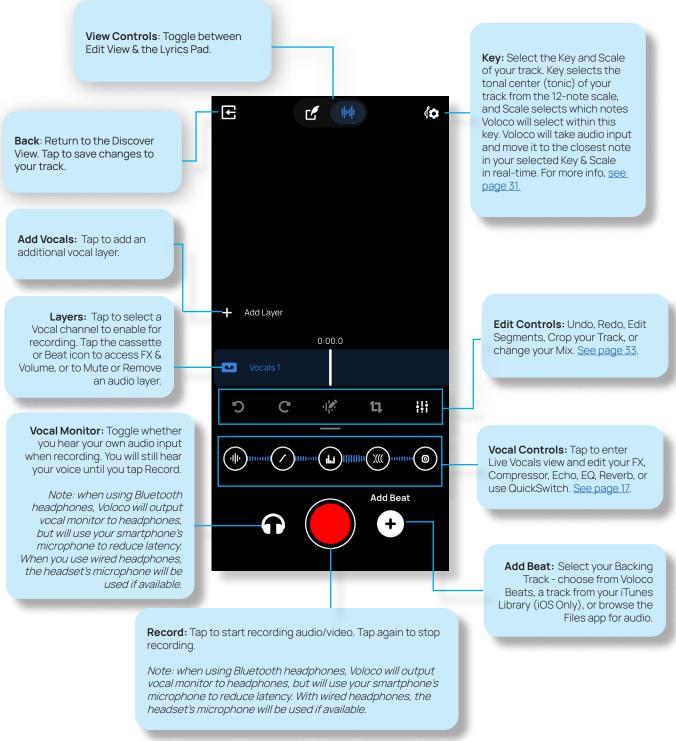


When you tap the Record button again to end your recording, the Edit view appears. All Effect controls function the same as Performance view, and you can make changes to your FX, Compressor, EQ, Reverb, or Key/Scale after recording in addition to the following options:



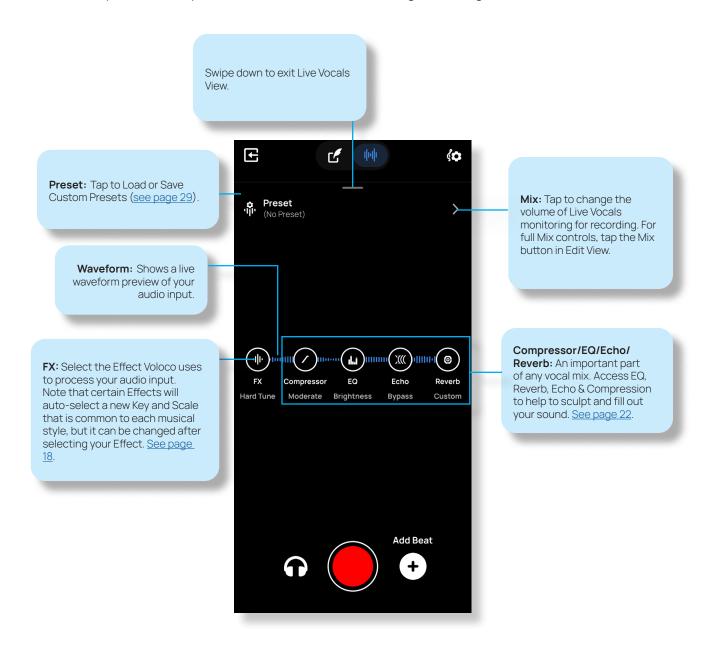
5. CREATING A PROJECT

New Project gives you the full Voloco experience. This is your toolkit - the place to set Effects and record audio. To access New Project, **tap the + Icon** and select **New Project**. For more info on importing an existing track or video to isolate a Beat or vocal track, see Importing (Page 41).



Live Vocals View

Tap on any of the Vocal Controls or swipe up on the Vocal Control panel to enter Live Vocals view. Here, you can edit your Vocal sound before or during recording.





Selects the Effect that Voloco uses to process your audio input. Scroll along the bottom of the screen to select your Effect group, then tap on an Effect preset to load that sound. Note that certain Effects will auto-select a new Key and Scale that is common to each musical style, but it can be changed after selecting your Effect. For effects with Pitch correction strength or Arpeggiator speed settings, these controls will appear when that Effect is selected.

There are 9 Groups of Effects:

Starter

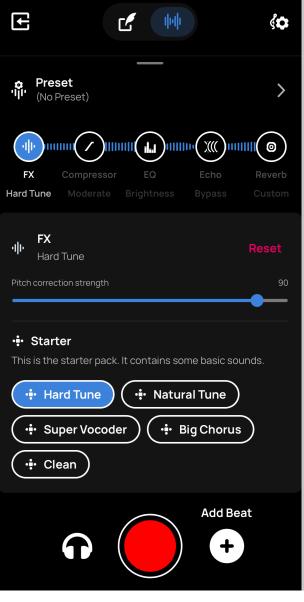
Hard Tune: The classic, "digital" pitch correction used by countless rappers and singers alike. This preset uses a hard, more electronic sound.

Natural Tune: Similar to Hard Tune, but a less pronounced effect with a more natural, rounded tone.

Super Vocoder: Instead of hard-tuning your vocal input, a vocoder takes the formant (character) of your voice and feeds it into a synthesizer for a more "robotic" effect.

Big Chorus: This duplicates your voice into multiple notes in your selected Key and Scale, creating a large chorus effect common in pop, RnB & electronica.

Clean: This effect doesn't process pitch-correction or a vocoder, and simply uses audio filtering technology to remove background noise.





Modern Rap I

Like a Boss.

World Wide I/II/III: A unison preset with two voices with slightly different pitch correction settings. Each voice has a unique and dynamic spectral panning effect to create an impression of swirling stereo effects.

Triple Double: A three voice preset with two slightly different unison voices and a subtle third voice pitched an octave down.

Bodyguards: Deep pitch & vocoder. Bodyguards uses a unison voice in the center of the stereo field, and two voices on the left and right sides with a lower octave pitched down and formant compression to create the effect of two bodyguards flanking your voice.

Big Fella: A higher pitched vocoder effect, Big Fella alters the formant shape of your voice to change your perceived body size.

Shadow Bass: A lower octave sits below your voice with heavy pitch correction. **Light Distortion:** Adds mild distortion to the voice with a lower-octave effect.

Modern Rap II



Congrats: A chordal sound with chorus effect, inspired by the vocals of Post Malone's "Congratulations."

2% Helium: Electronic pitch-correction with formant effects reducing the perceived size of the vocal tract, resulting in a higher tone.

Force Field: Hard pitch-correction & vocoder effects with a rough shine.

Super High: Formant thinning and one-octave pitch correction for sky-high vocals. **Cranked:** Formant thinning with crunchy, blown-out distortion, great for backing vocals.

Baby Voice: A smoother high-pitched effect - infantilising.

Jazz

Lush jazz vocal harmonies.

Lullaby: Soft, night-time seventh chords evoking midcentury bebop ballad progressions. **Cocktail Hour:** Harmonically dense suspended chords with added high voices.

Atomic Swing: Obtuse chords utilizing jazz's modal interchange, launching into the stratosphere.

Harmony Heaven: Sweet, rich harmony layers that create a unique progression up the scale.



P-Tain

Extreme pitch correction plus sexy seventh chords. Perfect for RnB and rap.

Looking Sharp: A basic rap/RnB pitch-correction sound that you know and love

Get Low: Rap/RnB pitch-correction at a lower octave for a deeper tone.

So Smooth: A classic Minor 7th chord for your smoothest tracks.

Star Duet: Pitch correction with a subtle two-tone chorus.

Talkbox

Classic and future electro-funk sounds.

Classic: A talkbox emulation sound inspired by Zapp & Roger. **Fat Saw:** A buzzy two oscillator patch with a lower octave.

High Harmony: Stacked harmony with a classic pitch-bent tremolo effect typical in funk.

Metal Mouth: Power chord harmonies and crunch inspired by heavy metal.

Organ: Stacked octaves mimic the sound of an electric organ.

Sci Fi: Takes the talkbox sound to outer space with LFOs that modulate FM synthesis.

Spooky

Eerie, fearsome, and slightly threatening.

Behind You: Pitch correction with eerie, delayed whispers right over your shoulder. **Alien Warlord:** Pitch correction with vocoder for a deep, authoritative and UFO appropriate sound.

Ghost: Vocoder with a frail, after-death growl.

Angry Bells: A harmonization preset with harmonics detuned to resemble bell spectra. **Medium Demon:** A frequency-modulated, LFO effect for experimentation. Only slightly demonic.

LOL

lol is an initialism for laugh (ing) out loud and a popular element of internet slang.

Vibrato: Moves the pitch of the input up and down in a repeating pattern. **Vibrato Chorus:** Same as the above effect, but adds a doubling chorus sound.

Drunk Tune: A loose, pitch-corrected effect that moves in and out of in- and out-of-tune.

Chipmunk Chorus: A squeaky, high-formant-filtered lead with backing harmonies.

Vocal Fry: I mean, like, it's kind of a growly kind of effect, you know? Yeah...

Sitar Hero

Inspired by Indian classical music.

A Drone Supreme: Chorus with a free-flowing melodic run. **Ascension:** Melodic vocoder with a soft gated stutter.

Om: Run up and down the scale with a strong backing drone & delay.

Interstellar: Multiple tone centers along the scale create clusters of harmony.



Bon Hiver

Lush harmonies in the style of Bon Iver's song "Woods."

Night Chorus: A full-bodied 7th chord effect in the style of the artist.

Crystal City: 7th Chords with the low end scooped out & mild frequency modulation. A

light, airy effect.

Grand Organ: Like a combination of Night Chorus & Crystal City, a deep 7th chord with

crisp, breathy high-end.

Glass Circles: High-end 7th chords with extra tonal dynamics and overtones.

Duft Pank

Funky vocoder sounds similar to a certain French electronic duo.

Danger Bot: A low-octave robotic vocoder.

Dirty Transmission: Upbeat vocoder with steady gated stutter & jumping octave effects. **Another Dimension:** This vocoder introduces a funky lick of harmony on top of a gated

volume effect.

Echo Beams: Low-octave robotic vocoder with a pulsating phaser effect.

Wormhole

Vocoder presets from a different galaxy.

Demogorgon: A low-octave effect with heavy phaser.

Andromeda: This effect uses step-sequenced frequency modulation for a razor sharp

sound.

Lost Astronaut: Similar to Andromeda with a stronger, more pronounced frequency mod-

ulation.

Pulsar: Vocoder with a consistent pulsating, on-off gated stutter.

Subspace: Vocoder & high frequency overtones with a rhythmic, loose stutter.

Expanse: Intense, slow frequency modulation up and down the spectrum.

8 Bit Chip

Funky bleeps and bloops inspired by classic video games.

Super Bloop: Intense & driving melody with pitched vocoder.

Mega Maze: An arpeggiated melodic rhythm with syncopated delays.

Phasers on Stun: Bit-crushed rhythmic octave jumps.

Space Invasion: Heavy delay & reverb with step-sequenced modulation.

Beat the Boss: Extreme gated stutter with an 8 Bit sound.



An important combination in any vocal mix, EQ, Reverb, & Compression help to sculpt and fill out your sound.

Equalizer

Equalizer (or EQ) works by lowering or amplifying certain frequencies of a sound, whether high, low, or mid-range, to create a color or overall tone.

Bypass: No reverb (the effect is "bypassed").

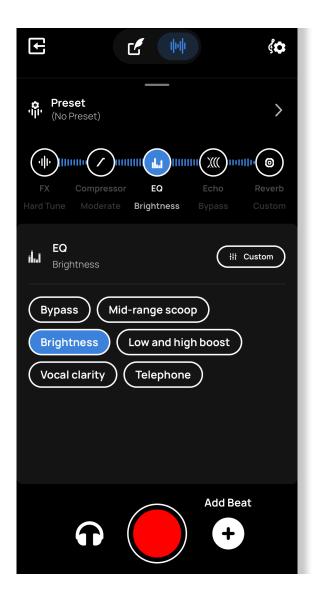
Mid-range scoop: A widely-used effect that lowers the mid-range of the sound, creating a combination of crisp highs and deep lows.

Brightness: Adds a sheen to high-end sounds including the sibilance of consonant sounds.

Low and high boost: Similar to mid-range scoop, but works by turning up the low and mid-range rather than cutting out the middle.

Vocal Clarity: Accentuates notable frequencies in the vocal range to provide clear, up-front vocals.

Telephone: Cuts out the low and high end, leaving the middle for a canned, phone-like sound.





With Voloco Premium, you can unlock all custom parameters of EQ to sculpt your sound as you see fit. **Tap Custom** in the EQ panel to activate.

High Pass Frequency: All frequencies above this value are preserved ("passed"), while all frequencies below it are filtered out. Use this to remove unnecessary low-end frequencies in your voice.

Hz values: Use these controls to sculpt each frequency range from 200 (low) to 8,000 (high). You can start with the included presets to get a sense of how EQ affects your sound, and build from there.

High Shelf Gain: Increases the gain (volume) of the high end frequencies overall. Boost this control to give your sound a crisp high-end or lower it for a more muted tone.



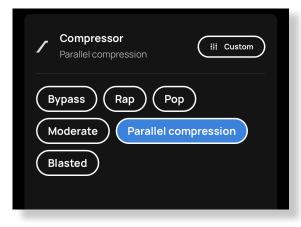


Compressor

One of the most widely-used audio effects. Compression works by reducing the amount of dynamics (loud and quiet) in an audio signal, allowing it to sound heavier, clearer and more powerful.

Bypass: No compression (the effect is "bypassed").

Rap: All-around vocal compression to add definition to rhythm.



Pop: Adds depth to the low-middle range with crisp high-end.

Moderate: A more subtle effect compatible with most vocals.

Parallel compression: Mixes the compressed audio signal with your original, non-compressed audio signal for a lighter effect to add clarity and dynamic while still getting the volume boost and punch of compression.

Blasted: Intense compression. Loud and clear, with less dynamics. Useful for heavy tracks, but could be overbearing for a softer one.



With Voloco Premium, you can unlock all custom parameters of the Compressor to sculpt your sound as you see fit. **Tap Custom** in the Compressor panel to activate.

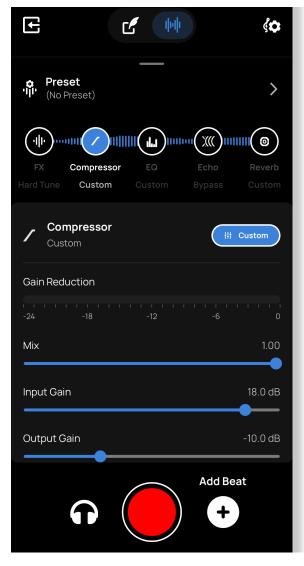
Gain Reduction: A live view of the amount of reduction currently being applied to your vocal in decibels.

Mix: The ratio of Dry (uncompressed) to Wet (compressed) sound. A blend of compressed and uncompressed audio is also referred to as *parallel compression*.

Input Gain: Increases the gain (volume) of the audio into the Compressor. Boost this value to get a more aggressive Compressor sound.

Output Gain: Increases the gain (volume) of the audio out of the Compressor. Boost this value to bring your vocals back to a listenable volume if the compression is reducing your volume too much. Lower this value if your Compressor settings are making your vocals too loud.

Attack: The speed in milliseconds in which the Compressor engages Gain Reduction once the volume threshold level has been met. A faster Attack will result in a more aggressive compressed sound, and a slower Attack will sound more transparent.



Release: The speed in milliseconds in which the Compressor stops Gain Reduction once the volume of the input falls below the threshold level. A faster Release will result in a more aggressive compressed sound, and a slower Release will sound more transparent.

Ratio: The amount of compression applied to the audio once the volume threshold has been met. A higher Ratio will result in a more compressed sound (more Gain Reduction).

Auto Threshold/Threshold: The input level at which the Compressor will engage. A lower Threshold will result in a more Compressed sound. If you aren't getting the amount of compression you want with your current settings, lowering the Threshold and/ or increasing the Input Gain will help. Auto Threshold will automatically find the ideal Threshold.



Reverb creates the sound of a space for the vocals to sit in, whether large or small.

Bypass: No reverb (the effect is "bypassed").

Stereo width: Wide reverb effect best heard in headphones.

The rest of the reverb effects evoke spaces described by their names:

Large hall Small club Long and narrow Cathedral Medium room

Custom Reverb

With Voloco Premium, you can unlock all custom parameters of Reverb to sculpt your sound as you see fit. **Tap Custom** in the Reverb panel to activate.

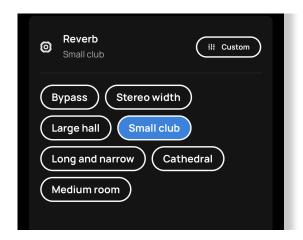
Mix: Adjusts the ratio of Wet to Dry signal. The higher the Mix, the louder Reverb will sound.

Width: Adjusts the amount the Reverb tail will bleed into the left and right sides of the Stereo field.

Damp: Dampens the Reverb tail and adjusts how long the Reverb will ring out after receiving input.

Room Size: Adjusts the size of the artificial "Room" the Reverb exists in. A larger Room Size will add more reflections and density to the sound.

Pre-Delay: Adjusts the amount of time before the Reverb tail will begin sounding. A longer Pre-Delay can assist to add clarity to your mixdown & make your Dry signal stand out more.







Echo adds delay to your audio to evoke space or add a rhythmic effect. Echo speeds are linked to your Track's master BPM.

Bypass: No Echo (the effect is "bypassed").

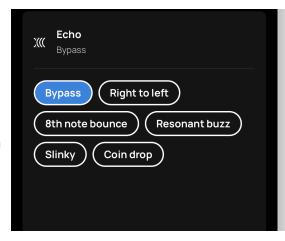
Right to left: Stereo delay that bounces back and forth from Right to Left.

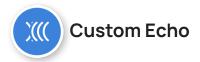
8th note bounce: Fast 8th note delay to accentuate fast vocal runs.

Resonant buzz: Also known as "Slapback" delay. Really fast!

Slinky: Moderately fast delay with a long decay for spacious sound.

Coin drop: Fast stereo delay with a louder presence in the mix.





With Voloco Premium, you can unlock all custom parameters of the Echo to sculpt your sound as you see fit. **Tap Custom** in the Echo panel to activate.

Duck Delay: Also known as *Sidechain Compression*. This will turn down the volume of your Delay trail under your Dry vocals. Useful for creating a cleaner mix and subtler Echo effect.

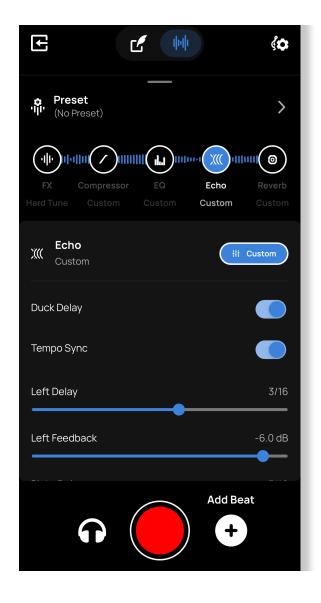
Tempo Sync: This will toggle the timebased parameters below between free-time millisecond values and beat divisions that are synced with your Project's Tempo.

Left Delay: The amount of time in milliseconds or beat divisions before the Echo will engage on the left stereo channel.

Left Feedback: The level that the left channel of the Echo will be fed back into itself. A higher Feedback value will create more echoes for a longer time.

Right Delay: The amount of time in milliseconds or beat divisions before the Echo will engage on the right stereo channel.

Right Feedback: The level that the right channel of the Echo will be fed back into itself. A higher Feedback value will create more echoes for a longer time.



X-over Feedback: The level that the left and right channels of the Echo will be fed back into the opposite stereo channel. Use this value to create a ping-pong Echo effect.

Dry Level: The volume of the dry, unaffected vocal. Increase this value to make your unaffected vocals louder in the mix for a subtler Echo effect.

Wet Level: The volume of the wet, affected Echo chain. Increase this value to make your Echo chain louder in the mix for a more prominent Echo effect.



You can group FX, Compressor, EQ, Echo, and Reverb settings into a custom Preset that you can recall throughout Voloco. Note that Segment Panning and Segment Volume does not save to a given Preset.

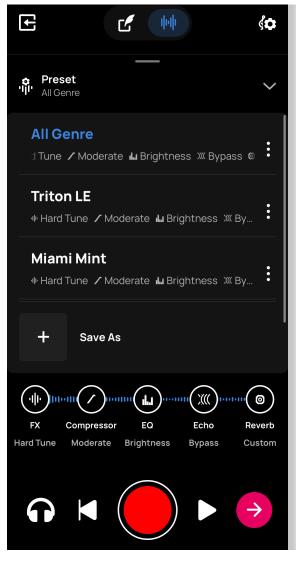
Tap the Preset Drawer in Live Vocals view to expand the Preset drawer. Tapping on any saved Preset will change your current Effects settings to that Preset and automatically update FX, Compressor, EQ, Echo and Reverb settings to match that Preset.

Tap "Save As" to save your current Effects Settings as a new Preset.

Tap "..." on a saved Preset to Edit the Preset's Name or Delete the Preset.

Tip: When a Preset is loaded and the Effects are altered, the Preset will rename "[Preset Name] (edited)" in the interface. If you Save the changes to the Preset, all Segments in your current Project using that Preset will update

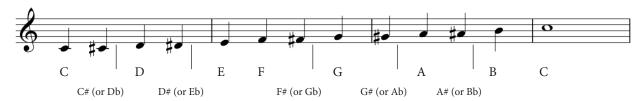
to reflect the new settings. If you Save an edited Preset as a New Preset, only the altered segment will change.



About Keys & Scales

What are Keys?

Almost all pieces of Western music are in a particular **key**. When you hear someone say, "In the Key of D," that means the pitch D sounds like the "home" sound, or the most "stable" note in the key. This stable, home note is sometimes called **tonic**. There are 12 notes in most Western music:



Scales are a collection of notes in a certain key that evoke a certain sound or emotion. Generally speaking, most people hear major keys as "happy" or bright, and minor keys as "sad" or dark. Scales are chosen by the way the different notes relate to one another, and you can have the same kind of scale in a different key (For example, **C minor** and **D minor** both evoke the same "sad" sound, but have different "home" notes or tonic notes).

Try to experiment with the different scales in Voloco to discover what kind of feeling each scale evokes for your track. When using a backing track or beat, Voloco will automatically select the Key and Scale for your Beat, but you can change it manually if you wish.

6 Keys & Scales

Tap the "Key" button in Performance View to view Keys and Scales.

Major: One of the most commonly used scales in Western Music, a generically "happy" and warm tone. Major third, major 7th.

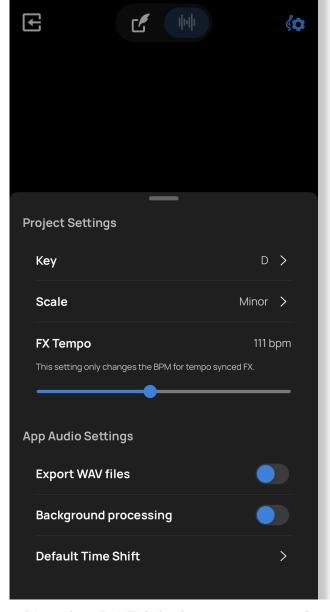
Minor: Also one of the most commonly used scales in Western Music, a generically "sad" and cold, serious tone. Minor third, minor 6th. minor 7th.

Harmonic Minor: Same as Minor, but with a Major 7th note. Harmonic minor is associated with a "spooky" mood in popular culture.

Whole Tone: Each note is equidistant, a whole step above each other note. This results in a classic "spooky" horror sound or a "fantasy" sound.

Just Intonation: Just Intonation uses a series of whole-number ratios to create a scale, rather than dividing an octave into 12 equidistant notes. This is useful if the backing track you're using is tuned in Just Intonation (sometimes called Pure Intonation).

Major Pentatonic: One of the most commonly used scales globally in many different kinds of music. A 5-note scale consisting of a Tonic note, a major 2nd, a 5th, a major 6th, and a major 3rd.



Minor Pentatonic: Similar to a Major pentatonic, with a minor 3rd. This is also a very commonly used scale globally and is similar to the Blues scale, with a few less notes.

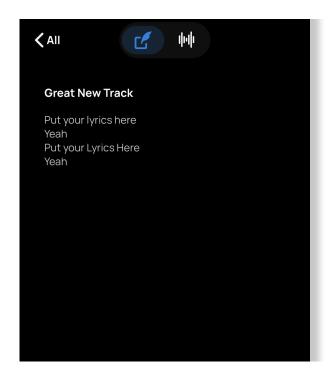
Blues: Similar to the Minor Pentatonic scale, but with a distinctive sharp 4th note in-between the 4th and 5th in the scale that gives it the "bluesy" tone.

Chromatic: Every note in the 12-note system - this will correct your audio input to the closest note, but won't give the scale any specific color besides what you sing into it.

Lyrics Pad

Tap the Lyrics selection at the left of the Controls on the top of the screen to bring up Voloco's lyrics pad. Lyrics will be available while you are recording. Your lyrics will be saved by Title, and the next time you open the Lyrics Pad, a list of lyrics will appear. Tap the + icon to create a new set of lyrics, or tap "..." next to an existing song to Share or Delete those lyrics.

You can select between manual lyrics or the **Auto Lyrics** option, which will generate lyrics using Al based on a prompt. Note that the lyrics generated are experimental.



Pitch Correction vs. Vocoder

Voloco's Effects presets use one of two types of vocal processing effects to create unique sounds: **Pitch Correction** and **Vocoder** effects.

Pitch Correction works by detecting the incoming pitch of recorded audio (in this case, your vocals) then calculates the closest neighboring desired pitch within a specified key or scale. Pitch correction technology was used sparingly in high-end studios until 1997, when pitch correction technology became widely available due to improvements in mathematic signal processing with computers. These effects will give a more modern sound common in contemporary hip-hop, RnB, and pop.

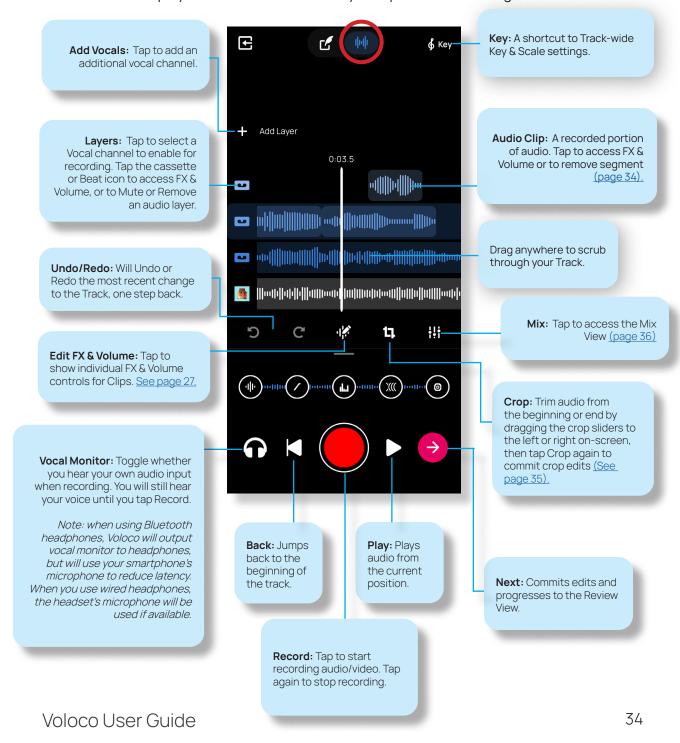
The vocoder sound dates back much further, to the late 1920s, and consists of multiple channels of information that the device is processing in real-time. Vocoders capture the vocal characteristics of the voice - in this case, the formant (tone), sibilance, and pitch. These characteristics are then applied to the carrier signal (in Voloco vocoder presets, the carrier signal is a synthesizer tone). This allows a musical tone, such as a synth, guitar, violin, or any instrument, to take on vocal characteristics and "talk." Vocoders were very popular in the 1970s and 1980s and can be heard in countless funk, boogie, experimental, and krautrock recordings, as well as house, techno, and trance later into the 1990s and beyond.

Experimenting with both of these types of effects is crucial to finding the perfect tone for your track. Using the descriptions above can help you craft your sound.

6. EDITING

Editing is where you can refine your mix, effects, Keys/Scales, EQ, manipulate Segments, or crop your track. **Tap the Edit View toggle at the top of the screen** (the waveform icon to the right) to enter Edit View.

Tapping any audio channel will select it for recording. The currently selected track will be highlighted. If you Record over part of an existing clip, a new clip will overwrite the existing one ahead of the playhead. Add a new Vocal layer to preserve both segments.



Editing Segments

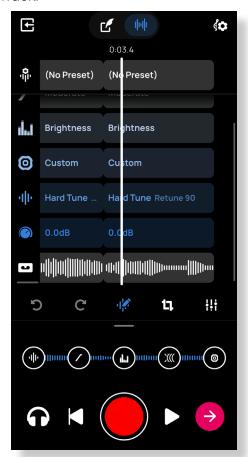
You can move and trim Segments or change the Volume, Panning, Compressor, EQ, Reverb, and Effect on each individual audio clip in Edit View, even within one audio channel. First, tap on the Segment. You can press and hold the Segment to drag the Segment thru the Timeline or drag the Endpoints to Trim this Segment.

Time Shift: Push this Segment's time backwards or forwards to adjust for audio latency from wireless headphones or a delayed performance. <u>See page 30.</u>

Copy: Copy the current segment. Scrub through the Timeline and **tap on the Cursor**, then **tap Paste** to Paste the copied Segment.

Split: Splits the current segment at the current Cursor location. Use this feature to move part of a Segment or change Effects in the middle of a previous take.

Remove: Deletes this Segment without deleting the Track.





Tapping **FX & Volume** will show this view. Tap on any parameter to change.

Note: Key & Scale are track-wide effects. Edit Key & Scale by tapping on the Key button in Performance or Edit Views.

Note: Clip Volume and Track Volume are independent of each other. Track Volume is applied after Clip volume in the mixdown.



1. Tap the Crop button in Edit View to access the menu.





2. Drag the Start and End sliders to pick the beginning and end of your Track. Crop affects the entire Project, including all Audio Tracks.

3. **Press the Crop button again** to commit edits. The section of the track that was cropped out remains on-screen, but is greyed out and won't be played or exported when you save your Track. You can change or remove the Crop later.



Control the recording and monitoring levels of audio. You can see a colored meter that shows input volume. The meter will turn red if input volume is peaking (above normal range).

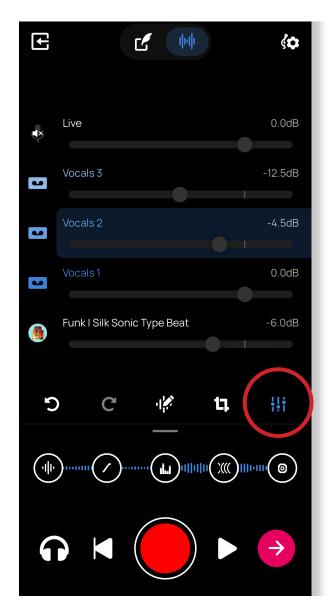
Live: Your Vocal Monitor. Disabled when no headphones are connected. Note that when you adjust this level, any new recorded audio segment will be automatically set to that level (see Editing Segments, page 34)

Vocals: Control the volume of multiple Vocal channels in your mix. Note that this level is independent of the volume of a Segment - the sum of the Segment volume and this value will be what you hear in your mix.

Backing Track Volume: Volume of the backing track in monitoring and recording.

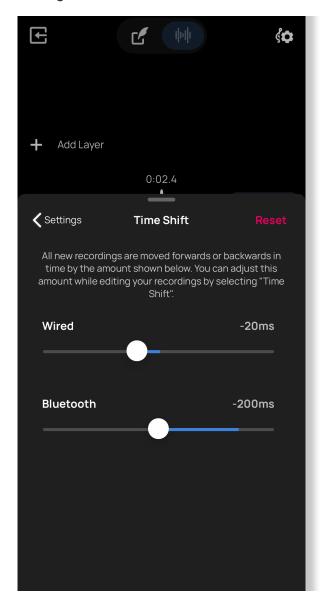
Tap the icon of any audio channel to Mute or access FX & Volume controls (see Editing Segments, page 34).

Note: Clip volume (in Edit View) and Track volume are independent of each other. Track Volume is applied after Clip Volume in the mixdown.



Time Shift

When using certain types of microphones and headphones, especially Bluetooth devices, audio can be recorded at a delay due to the latency caused by a wireless connection. Although we recommend using Wired headphones with Voloco to avoid latency, **Time Shift** allows you to correct for audio latency (delay) in the vocal track by moving the backing track in time to match the vocal. The **Default Time Shift** settings (left) in the Settings menu will be applied to all new recorded audio clips. Voloco defaults to **-200 milliseconds for Bluetooth connections**, **-20 milliseconds for Wired Connections on iOS**, **and -25 milliseconds for Wired Connections on Android**. You can also adjust individual segments in the Edit View after recording by tapping on the segment and tapping Time Shift (right). If you aren't noticing any audible delay in your recordings, there is no need to adjust this setting.

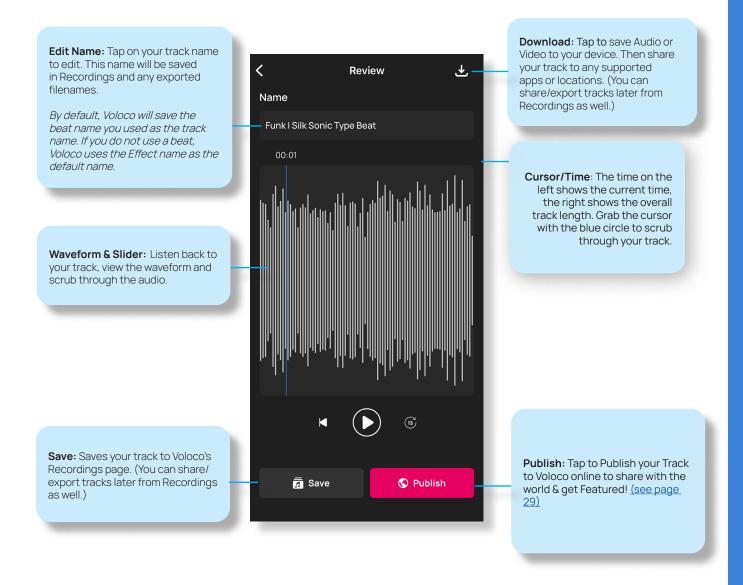




7. REVIEW

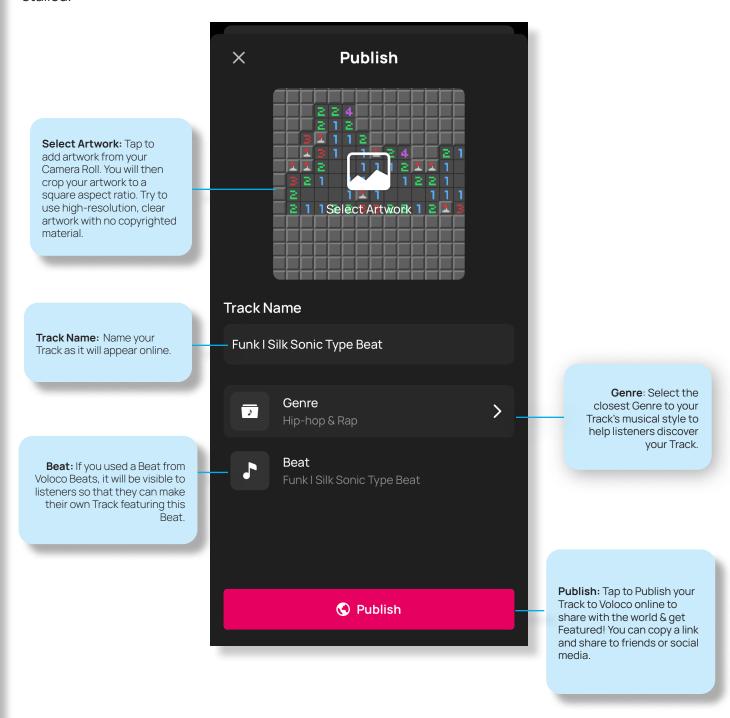
The Review View appears once you **tap Continue** after recording in Quick Record or **tap the pink arrow** after recording in a Project.

When you enter Review, your audio will be flattened into a single audio track for exporting. If you would like to export only your vocal layers without your Beat or backing track, **mute your Beat before exporting**. This is useful if you plan on editing your vocals later in a DAW or other audio software. You can repeat this method to export single tracks, or just your backing track.



8. PUBLISH

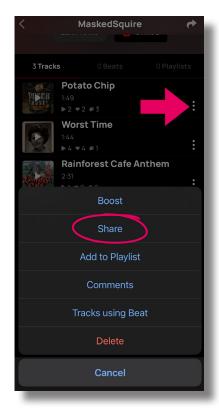
The Publish View appears once you tap Publish in the Review view. This allows you to publish your Track to Voloco online to share with others, even if they don't have the Voloco app installed.



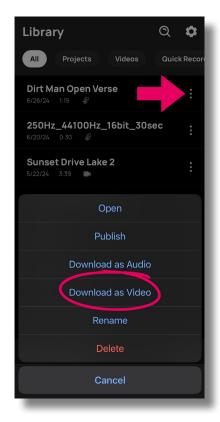
9. SHARING CLIPS TO SOCIAL MEDIA

You can share Clips of your Tracks to Social Media platforms in two ways: by generating a 15-second clip, or exporting a full video.

To share a 15-second clip, **Tap the** "..." next to your published Track on your Profile. You can then use the scrubber to select your desired 15-second clip. Then Tap Continue and choose the social media platform you'd like to post to.







If the social media platform you want to share to isn't available, or you want to download a full-length video, **Tap the "..."** next to your track **in your Library**. Then **Tap Download as Video**.

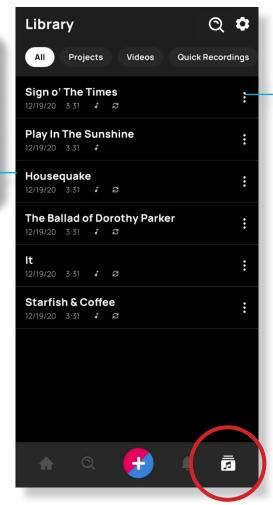
10. RECORDINGS

Recordings

Recordings shows all tracks that have been saved after recording. Access Recordings by tapping on the **Recordings** icon in the bottom right hand corner of the screen when launching Voloco. **Tap on a track** to play. You can Edit & Share your Tracks after recording

here.

Track: Displays Track Name, Date Recorded, Length, and whether track was recorded as Audio or Video. By default, Voloco will save titles as the Voloco Beat name, or, if no Beat is used, the Effect name.



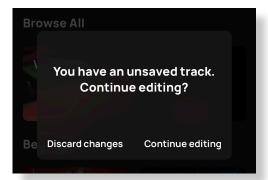
More: Open your Track for further editing, Share your track to any supported apps or locations using the iOS Share Sheet or Android File Sharing, plus Rename or Delete your Track.

Favorite Beats

Tap on Favorite Beats near the top of the Recordings View to see your favorited Beats by other users (requires a Voloco Account).

Recover Project

If you exit Voloco without saving, Voloco will recover the project and will alert you when you next enter the app. You can save your recording before exiting Voloco by tapping the Back button in Performance View. Tapping Discard changes will permanently delete your Track.

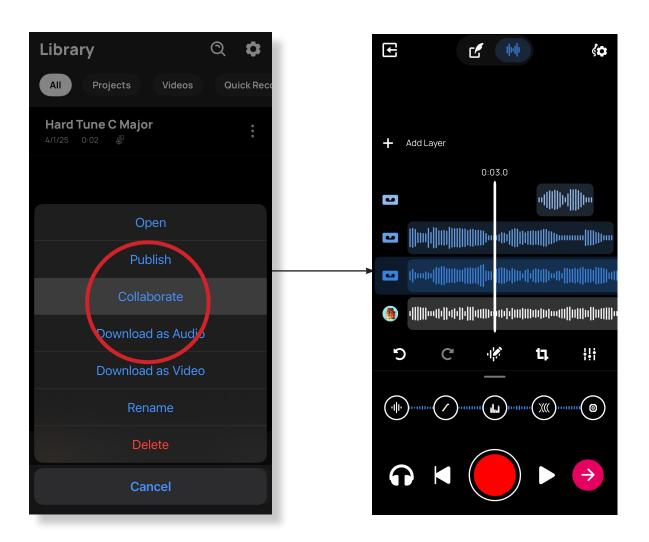


11. COLLABORATION

You can Collaborate with other Voloco users to complete your Project. Send your full session, with all vocals, Beats, FX and Segments to allow your collaborators to add additional verses, mixdowns, and more. To begin, **Tap the three dots** next to your Project in your Library, then **Tap Collaborate**. You can choose to send a link to the project outside of Voloco, or send it in a Direct Message to another Voloco user. If you recieve a collaboration, it will appear in your library.

When you send a Collaboration link, your collaborator will edit a new copy of the Project, **not** your original Project. You can utilize the Collaboration feature to do multiple rounds of edits by sending your edited track back to your collaborator, and so on - until it's ready to be Published.

Note: Collaboration is a Voloco Premium feature. If your collaborator does not have Voloco Premium, they will be prompted to subscribe before collaborating.

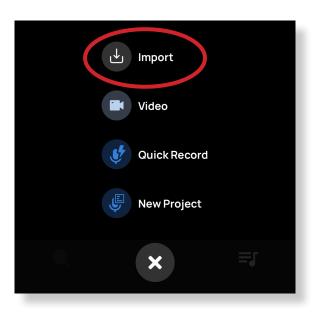


12. IMPORTING

Want to use a beat that isn't available on Voloco Beats? Voloco offers built-in tools to import any audio track and filters to isolate vocals and beats, even from flattened audio.

Start by **tapping the + icon in Discover View**, then **tap Import**.

You can then select audio from a video on your Camera Roll, iTunes (iOS only), or your Files. (Note: DRM-protected music in iTunes is not available for import. To hide DRM-protected music from your list, you can turn on "Hide DRM Tracks in iTunes" in Settings.)



Use as a Beat Use these to record vocals over the selected track. As-Is Only select this option for instrumental tracks with no vocals. Remove Vocals Remove vocals and use instrumental as a backing track.

Use as a Beat

Use these to record vocals over the selected track.

As-Is: Only select this option for instrumental tracks with no vocals.

Remove Vocals: Remove vocals and use instrumental as a backing track.

Voloco will import the file, remove vocals, then insert the result into Edit View. While this tool is powerful, working with an original instrumental track is always ideal, and you may hear digital artifacts in the resulting Beat.

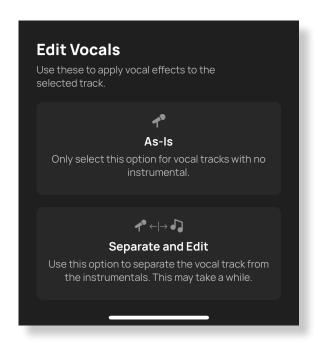
Edit Vocals

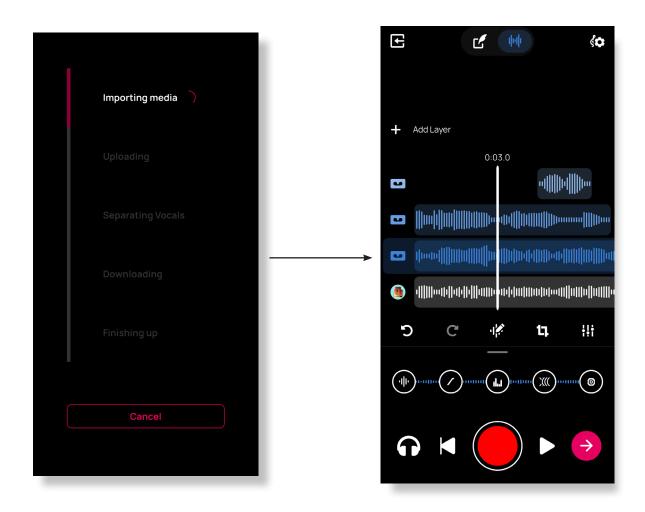
Use these to apply vocal effects to the selected track.

As-Is: Only select this option for vocal tracks with no instrumental.

Separate and Edit: Use this option to separate the vocal track from the instrumentals. This may take a while.

Voloco will import the file, separate the vocals, then insert the result into Edit View, where you can add Effects. You may hear digital artifacts in the resulting vocal.

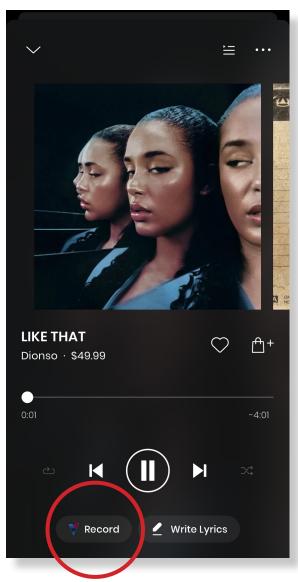




13. USING VOLOCO WITH BEATSTARS

Voloco has partnered with BeatStars, the world's most popular marketplace for buying and selling beats, to allow you to instantly record from any Beat in the BeatStars library that allows free downloads. **Download the BeatStars app** from the App Store or Play Store, browse for a beat, then **tap Record** to load the Beat into a new Project in Voloco. Note that the free version many beats may contain audio watermark tags placed by the beatmaker, and you may still need to purchase a license via BeatStars if you plan on releasing your Track commercially. You can also purchase a BeatStars license from many beats in the Voloco Beat library by tapping Buy License (see page 8).

BeatStars has also become the exclusive partner to offer Beats on the Voloco platform. To add Beats to our directory, subcribe to BeatStars with a paid account, then upload your Beats to your BeatStars profile & a Voloco Artist page is auto-generated. You can then claim your Artist page to customize & grow your fanbase.



14. SETTINGS

The Settings page can be reached from the Discover View or My Tracks by **tapping the gear icon (or your Voloco Profile picture)** in the top right hand corner of the screen.

Voloco Profile

A Voloco Profile allows you to showcase your approved Beats and Tracks, as well as Favorite other users' Beats and Tracks.

Tap Sign In to Voloco to create a Profile or sign into an existing Profile via Google, Facebook, or Apple (iOS Only).

Once you've signed into a Profile, you can view your Profile by **tapping on your Profile Name in Settings**.

Here you can view your approved Beats and Tracks as well as edit your Profile Picture, Username, and Bio.

You can also sign in to view & edit your Profile at http://voloco.resonantcavity.com/.

App Settings

Hide DRM tracks in iTunes (iOS Only):

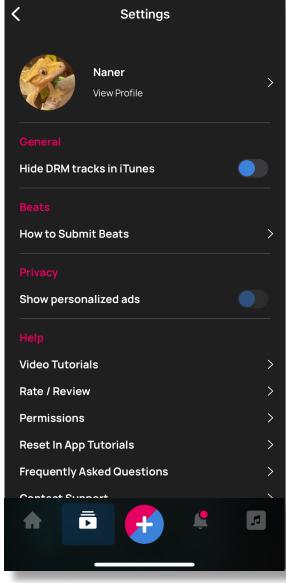
Automatically hides tracks in your iTunes Library that contain Digital Rights Management that cannot be loaded into Voloco and used for recording.

Export WAV files (Premium Only): Toggle between lower-quality compressed audio or lossless WAV audio. WAV audio takes up more storage on your device, but is higher quality. Useful

if you plan on editing your vocals in a DAW or other editing app. (Tracks recorded with WAV will show a "WAV" icon in My Tracks View).

Background audio processing (iOS Only): Allows Voloco to access Background App Refresh. Useful for connecting Voloco with third-party audio apps such as Audiobus.

Prevent Feedback (Android Only): Uses audio filtering & latency protection to prevent feedback noise while monitoring audio. Using headphones to record prevents feedback overall.



Settings (cont.)

Privacy

Show personalized ads: Toggle whether personalized ads are enabled throughout the app.

<u>Help</u>

Video Tutorials: Links to a <u>Voloco's YouTube channel</u> showing the basics of Voloco along with advanced techniques.

Rate / Review: Rate or Review Voloco in the App Store.

Permissions (iOS Only): Links to the iOS Settings app & Voloco preference pane allowing Voloco access to your Microphone, Camera, Siri & Search, Notifications, Background App Refresh, and Cellular Data. *Note: Voloco needs access to your Microphone at a minimum to record Audio, and Camera to record Video.*

Frequently Asked Questions: Links to the Voloco FAQ page.

Social Media (Android Only): Links to Voloco Social Media accounts.

Contact Support: Pre-populates an email to Voloco support with your Voloco App version, iOS/Android software version, and iOS/Android device model.

Voloco Premium

Manage Subscription: In iOS, takes you to the App Store Subscriptions page where you can renew, manage, or cancel your Premium subscription.

Restore Purchases (iOS Only): Restore your Premium Subscription from the App Store if you've deleted and reinstalled Voloco.

Account

Sign out: Sign out of your Voloco Account. You can sign back in by using your Google, Facebook, or Apple (iOS Only) account.

BeatStars Account: Manage the connection to your BeatStars account.

Delete Account: Permanently deletes your account (**Warning**: If you complete account deletion, your user data will be immediately erased and is not recoverable.) Tracks in progress you've recorded in Voloco are saved on your device, not your Voloco account.