



**VL3X**


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# Safety information

## Important safety instructions

1. Read these instructions.
2. Keep these instructions.
3. Heed all warnings.
4. Follow all instructions.
5. Do not use this apparatus near water.
6. Clean only with a dry cloth.
7. Do not block any ventilation openings. Install in accordance with the manufacturer's instructions.
8. Do not install near any heat sources such as radiators, heat registers, stoves, or other apparatus (including amplifiers) that produce heat.
9. Do not defeat the safety purpose of the polarized or grounding-type plug. A polarized plug has two blades with one wider than the other. A grounding-type plug has two blades and a third grounding prong. The wide blade or the third prong is provided for your safety. If the provided plug does not fit into your outlet, consult an electrician for replacement of the obsolete outlet.
10. Protect the power cord from being walked on or pinched, particularly at plugs, convenience receptacles, and the point where they exit from the apparatus.
11. Only use attachments/accessories specified by the manufacturer.
12. Use only with a cart, stand, tripod, bracket, or table specified by the manufacturer, or sold with the apparatus. When a cart is used, use caution when moving the cart/apparatus combination to avoid injury from tip-over. 
13. Unplug this apparatus during lightning storms or when unused for long periods of time.
14. Refer all servicing to qualified service personnel. Servicing is required when the apparatus has been damaged in any way, such as power-supply cord or plug is damaged, liquid has been spilled or objects have fallen into the apparatus, the apparatus has been exposed to rain or moisture, does not operate normally, or has been dropped.

## Caution

You are cautioned that any change or modifications not expressly approved in this manual could void your authority to operate this equipment.

## Service

- ▶ All service must be performed by qualified personnel.
- ▶ There are no user-serviceable parts inside.

## Warning

- ▶ To reduce the risk of fire or electric shock, do not expose this apparatus to rain or moisture and objects filled with liquids, such as vases, should not be placed on this apparatus.
- ▶ This apparatus must be earthed.
- ▶ Use a three wire grounding type line cord like the one supplied with the product.
- ▶ Be advised that different operating voltages require the use of different types of line cord and attachment plugs.
- ▶ Check the voltage in your area and use the correct type.

Voltage	Line plug according to standard
110 to 125 V	UL817 and CSA C22.2 no 42.
220 to 230 V	CEE 7 page VII, SR section 107-2-D1 / IEC 83 page C4.

- ▶ This equipment should be installed near the socket outlet and disconnection of the device should be easily accessible.
- ▶ To completely disconnect from AC mains, disconnect the power supply cord from the AC receptacle.
- ▶ The mains plug of the power supply shall remain readily operable.
- ▶ Do not install this device in a confined space.
- ▶ For use at an altitude of 2000 m or lower.
- ▶ Do not open the unit – risk of electric shock inside.

## EMC/EMI

Electromagnetic compatibility/  
Electromagnetic interference

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC rules.

These limits are designed to provide reasonable protection against harmful interference in residential installations. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation.

If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- ▶ Reorient or relocate the receiving antenna.
- ▶ Increase the separation between the equipment and receiver.
- ▶ Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- ▶ Consult the dealer or an experienced radio/TV technician for help.

### For customers in Canada

This Class B digital apparatus complies with Canadian ICES-003.

Cet appareil numérique de la classe B est conforme à la norme NMB-003 du Canada.

## Explanation of graphic symbols



The lightning bolt triangle is used to alert the user to the presence of uninsulated “dangerous voltages” within the unit’s chassis that may be of sufficient magnitude to constitute a risk of electric shock to humans.



The exclamation point triangle is used to alert the user to presence of important operating and service instructions in the literature accompanying the product.



# Before you begin

## About this document (VL3X reference manual)

This reference manual will help you learn understanding and operating your VL3X.

You can download the most current version of this reference manual from:

[tc-helicon.com/support/manuals/](http://tc-helicon.com/support/manuals/)

To get the most from your TC-Helicon product, please start by reading the printed quick guide that came with the product. Then proceed with this reference manual. Read it from start to finish, or you may miss important information.

## Getting support

If you still have questions about the product after reading this reference manual, please get in touch with TC-Helicon Support:

[tc-helicon.com/support/product/](https://tc-helicon.com/support/product/)

## VoiceSupport

VoiceSupport is the application that allows you to fully unlock the potential of your TC-Helicon product and stay in touch with the latest news, tips and tricks.

VoiceSupport key features include:

- ▶ Professionally authored preset libraries
- ▶ Direct access to product manuals
- ▶ Drag & drop Preset management
- ▶ Customizable content about your products
- ▶ Firmware upgrades
- ▶ Account management
- ▶ Access to TC-Helicon support

You can download VoiceSupport for Microsoft Windows and Mac OS X from:

[tc-helicon.com/products/voicesupport/](http://tc-helicon.com/products/voicesupport/)

## Please register your VL3X

To register your VL3X using the VoiceSupport software, launch VoiceSupport and click on the ACCOUNT button.

You can also go to

[account.tc-helicon.com](http://account.tc-helicon.com)

Registration of your product is NOT required to use VoiceSupport, download presets, update firmware or contact support.

# Introduction

## Welcome!

Thank you for purchasing VoiceLive 3 Extreme – or as we affectionately call it: **VL3X**.

Like the [original VoiceLive 3](#), VL3X brings you a wide array of vocal and guitar effects, plus a great multi-track looper.

But, you bought the *Extreme* – so what's NEW?

In a word... well, four words: Backing Tracks and Automation.

For more information, see [“Using Backing Tracks”](#) and [“Backing Track Sequence Recording \(Automation\)”](#).

As you discovered in the Quick Start Guide (the short manual that came in the box), VL3X is easy to use at the top level but offers unprecedented depth in both control and editing. We recommend you treat your VL3X like any other new instrument and dedicate some time to learning how to use it.

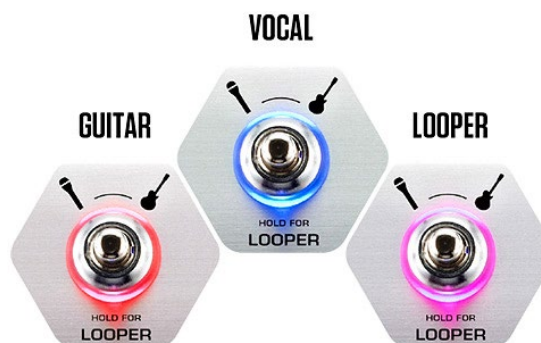
Yes, that means RTFM!

Read the... *full* manual.

## Concepts

Before we dive into the countless features of VL3X, let's establish some basic terms and concepts.

### Layers & footswitch mapping



VL3X is built on the fundamental concept of “layers”. From a design perspective, there are three Layers to work with:

- ▶ Vocal
- ▶ Guitar
- ▶ Looping / Backing Track

You may switch between Layers using the Layer footswitch, which we will discuss in more detail later in the manual.

Essentially, when you tap the Layer footswitch, the effects associated with the six effect footswitches (labeled  $\mu$ Mod, Delay, Reverb, HIT, Double/Comp, Harmony/Drive) will change from vocal effects to guitar effects or looping/backing track controls.

You can even remap footswitches *within a Layer* or *from one Layer to another*. This approach solves one of the most common requests from

our massively popular [VoiceLive 2](#) unit: “I love it – but I want the ‘X’ footswitch to be where the ‘Y’ footswitch is”.

We also recognize that Layers and remappable footswitches can be a bit daunting to learn. This is why we have designed the system to be consistent and straightforward. Once you have learned how to remap one footswitch, you know how to remap them all.



## Global Effects

VL3X allows you to define a specific Preset as the “Global” Preset. This defines all of the effects and parameters within that Preset and allows them to be easily applied to other Presets.

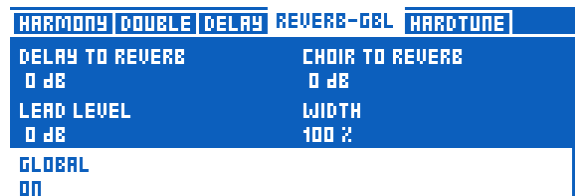
What does that mean for you? Easier, quicker Preset creation and access to consistent sounds!

Here is an example:

“I want to use this great reverb on a whole bunch of Presets. How do I do that?”

- ▶ First, edit the guitar reverb on your Global Preset (by default, this is Preset no. 491). Editing guitar settings is explained in greater detail in [“Editing the Guitar Layer”](#).
- ▶ Then go to each Preset where you would like to use the same Reverb, go to the Reverb settings and change the Global parameter to “On”.

Done! This Preset will now use the Reverb settings from the Global Preset.



Setting Global to on links an effect to the settings defined in the Global Preset

Global effects are available for each and every effect in the Vocal and Guitar Layers. There are endless possibilities for Global effects handling, but here are a couple we think you might like:

### Use the same guitar effects across all Presets

This essentially turns VL3X’s Guitar Layer into a series of stomp-boxes that you only need to set up once.

“How do I do that?”

- ▶ Simply edit ANY Preset until all of the guitar effects and footswitch assignments are how you like them.
- ▶ Enter the Setup menu and navigate to the System tab using the horizontal Arrow buttons.
- ▶ Dial the Control knob until the line saying “All Guitar FX Global: Off” is highlighted.
- ▶ Turn Mix knob 3 or Mix knob 4 under the display until “Off” changes to “On”. Done! Every Preset will now have the same guitar sounds.



Set All Guitar FX Global to “On” to use the same guitar effect in all Presets

### Make sure a particular effect always sounds the same

Want a certain Delay available in every Preset? No problem.

- ▶ Just edit the Global Preset’s Delay setting.
- ▶ Go to each Preset where you would like to use the same Delay, go to the Delay settings and change the Global parameter to “On”.

### Always use the same guitar amp model, but have everything else change

- ▶ Easy! Adjust the Global Preset’s Amp setting the way you want it.
- ▶ Go to each Preset where you would like to use the same Amp, go to the Amp settings and change the Global parameter to “On”.

### Updating Global settings

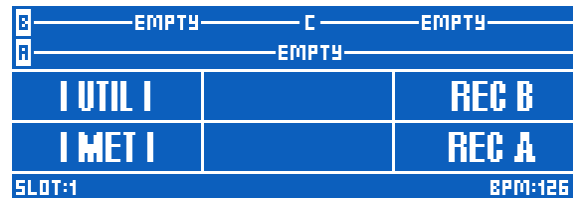
The Global system is “opt in”. This means each Preset carries its own individual settings until you change an effect to Global. Once that happens, the current Preset and Global Preset settings become shared.

Once you have changed an effect to Global ON, any edits you make within that Preset affect the Global settings as well. This means you don’t have to bounce back and forth between the Global and current Preset to make changes to Global effects.

It also means that you need to be aware of the above, so you don’t accidentally edit a Global setting, thinking you are only editing the current Preset. With great power comes great responsibility!

For more information, see [“Defining and using Global Effects”](#).

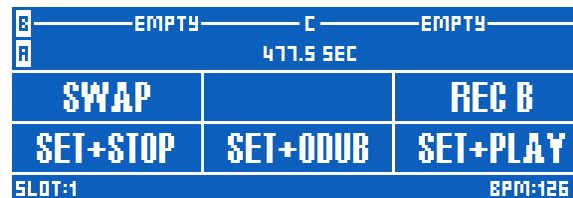
### Multi-track looper



*Looper – Main view*

Having access to multiple, independent loops allows for a lot of flexibility and functionality when looping. Our multi-track looper has some really amazing performance features that will help you to make great loops.

The Swap feature allows you to record two loops and alternate between them with the push of a footswitch. This is particularly useful for recording different “sections” of a song, (like a verse and chorus) and quickly moving between them.



*Looper – Swap feature*

**Loop length no longer matters.** In some loopers, your longest Loop Track will dictate the length of all others, which can be a big hassle. Imagine a “beat box” style rhythm that is 1 bar long and a guitar progression that is 8 bars long. In the past, you would have to record 8 bars of

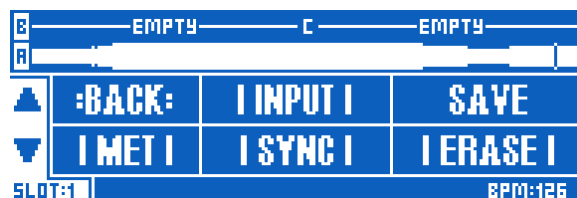
the “beat box” segment in order for there to be “enough” to play your guitar part over. Now, you can record unequal length phrases!

Record your 1 bar “beat box” on one Loop Track, then record your 8 bar guitar section on another.

There are a few different Sync modes in the Looper – so be sure to read the [“The Utility menu”](#) to familiarize yourself with the way they affect your loops.

## Store loops

Those of you who have jumped on board with looping have likely made a really, really good loop in the past – only to see it vanish into thin air when you power off the device. **VL3X allows you to store your creations right in the box!**



Loop Utility menu with Save function

Not only can you store your loops – **you can assign a stored loop to a Preset.** This, in our opinion, is a game changer.

Imagine recording a really cool ambient loop, synced to the tempo of your song, while you are at home – and then fire it off at your gig. If the band is using a click track, everything will line up perfectly with what you are playing, including all of your time-based vocal and guitar effects!

This storage ability removes a lot of the repetitive nature of building loops live in front of an audience. Sure, it's neat the first time you see someone build a loop live, but then it gets a bit boring. It often takes a while to get all of the “bits” of the loop recorded. You can do that work in advance and then add to things in real-time during performance.

## Backing Tracks and Automation

The new “killer” feature in VL3X is its ability to import **Backing Tracks**, assign them to a Preset and then record your effect changes throughout the song. When you hit the stage, your carefully designed performance can be presented to your audience, keeping your eyes up and feet free to better deliver a compelling performance.

No more “tap dancing” on the effects buttons. No more external track player. Just a great performance where you can concentrate on what you do best, playing music.

## Complete guitar effects

With [VoiceLive Play GTX](#), we introduced our first “complete” guitar effects suite. Previously, we had provided Chorus, Reverb, EQ and Compression blocks. VoiceLive Play GTX added Amp/Distortion and Delay to the options, greatly expanding the sound possibilities for guitar players.

VL3X takes that ball and runs with it. In fact, it pulls a [Forrest Gump](#) and runs straight out of the stadium and across the country!



Guitar effects in VL3X

The guitar effects in VL3X come from some of TC Electronic’s most successful effects, like [Corona Chorus](#), [Hall of Fame Reverb](#), [Vortex Flanger](#) and [Flashback Delay](#)!

When you couple those beautiful effects with great amp modeling, Drive/Boost, Compression, Rhythm/Tremolo, Wah-wah and Octave Down, you can truly manipulate your guitar and vocal sounds as a cohesive unit.

Imagine your time-based vocal and guitar effects being perfectly in sync, without having to set up complex timing systems or tapping tempo on multiple devices. Everything just lines up!

## Advanced monitoring

More and more people are jumping into the In Ear Monitor (IEM) pool. It's a great thing to do – but it can often require a fairly complex setup.

VL3X offers two features that make custom monitor mixing really easy for you.

### Monitor IN

Using the Monitor IN XLR connection, you can bring a “monitor or cue” mix into your VL3X, blending it with your own vocal, guitar and loop sounds. The incoming monitor IN does *not* get passed back out of the unit – so you can rest assured that it won't cause feedback.

### Headphone Mix

VL3X's headphone mix is independent of the output mix – allowing you to hear “what you want” in your headphones or IEMs, without affecting what comes from the main outputs.

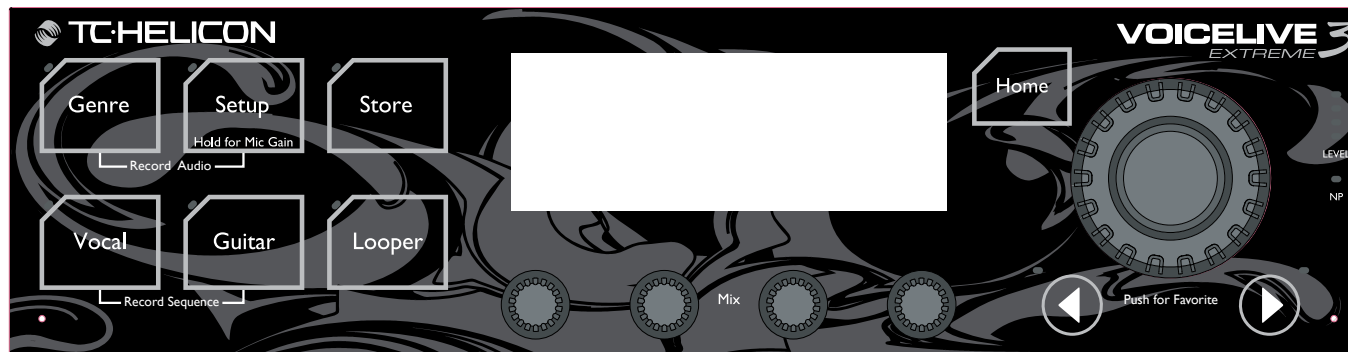


Headphone Mix

This monitoring capability can literally eliminate the need for expensive belt packs, transmitters, secondary mixers and other gear required for a custom IEM solution. Using our included Guitar/Headphone cable, you only use one cable to connect your guitar *and* headphones/IEM's to the unit!

## Top panel overview

Click or tap on an interface element to jump directly to its description.



Below is a brief description of the top panel controls and buttons. Full functionality for each will be described in more detail later.

### Genre button

Use the Genre button to find Presets based on their musical genre or featured effects. For example, you may want to restrict the Presets “visible” to you in VL3X to those that are defined as “Rock” or “Country” in nature.



Use the knob right under the genre indicator to select the desired Genre (e.g. Rock), and press the Genre button again. When browsing Presets, you will only see Presets assigned to this Genre, and the name of the selected Genre will be shown in the lower left corner of the display.

To remove the filter, tap the Genre button, set Genre to “All” and tap the Genre button again

### Setup button

Press the Setup button to access all system setup settings, including Input, Output, MIDI, Tone, Guitar and more.



For more information, see [“Setup”](#).

Press and hold the Setup button to enter the automated microphone and guitar gain setting mode.

### Store button

Use the Store button to store Presets. Tap once to activate the store procedure. Tap again to confirm. For more information, see [“Storing Presets”](#).



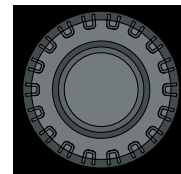
### Home button

Use the Home button to return to the “top level” interface. The screen will show the number of the current Preset and any effects associated with the current Layer.



### Control knob

Use the Control knob to move through Presets and scrolls up/down when in an edit screen.



When the “Home” screen is shown, you can press the Control knob to add or remove the current Preset from the Favorite genre. For more information, see [“Using Favorites”](#).

### Vocal button

Use the Vocal button to enter the Vocal edit screens. This is where you can make changes to the vocal effects for the current Preset.



For more information, see [“Editing the Vocal Layer”](#).

### Guitar button

Use the Guitar button to enter the Guitar edit screens. This is where you can make changes to any of the guitar effects for the current Preset.



For more information, see [“Editing the Guitar Layer”](#).

### Looper button

Use the Looper button to enter the Loop and Backing Tracks options screen. Here you can control several general Loop options.



When you’re in the Vocal or Guitar layer and have a Loop playing, the small red LED next to the Looper button will flash. This gives a visual indication that a loop is running.

For more information, see [“Loop button parameters”](#).

## Mix knobs

From the Home screen, turning any mix knob enters the Mix screens (Main, Headphones and Effects).



For more information on the Mix screens, see [“Using the Mix Controls”](#).

Within an Edit page, the mix knobs adjust parameter settings. Each mix knob controls the parameter shown right above it in the display.

## Arrow buttons

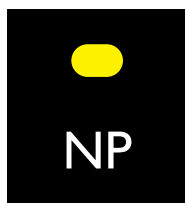
When you are on the Home screen, you can use the Arrow buttons to move through Presets.



When you are on an Edit screen, use the Arrow buttons to move between tabs.

## NP LED

The NP LED lights when NaturalPlay (chord) information is received via Guitar, MIDI, Aux, Looper or RoomSense.



## Level LEDs

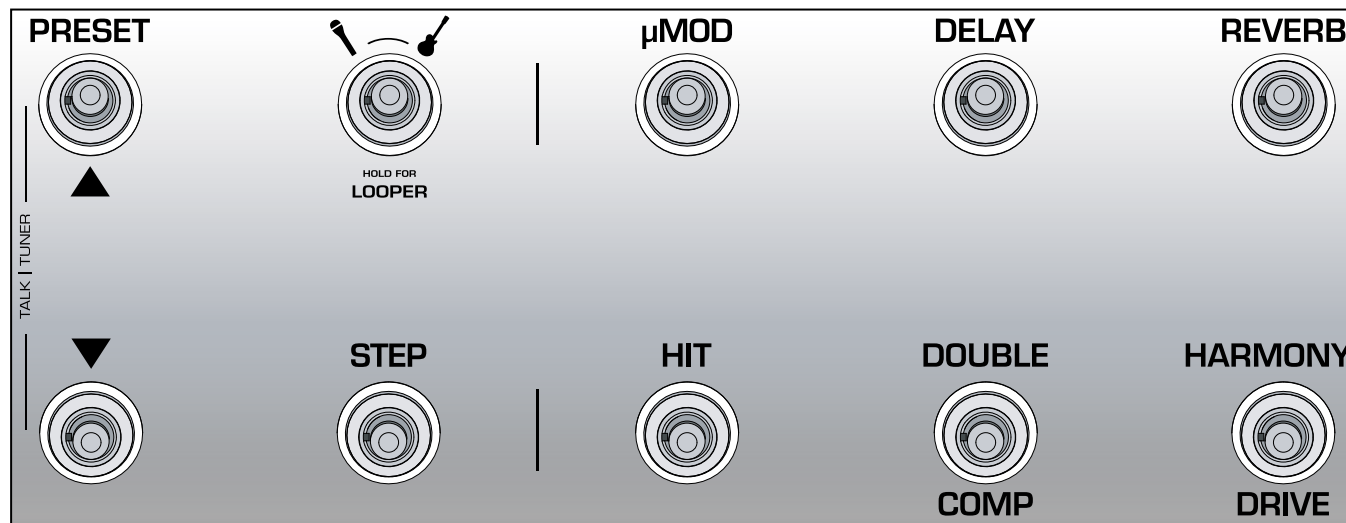
Read the level LEDs as follows:

- ▶ If you play your guitar without singing, the LEDs show your guitar level.
- ▶ If you sing and don't play guitar, the LEDs show your vocal level.
- ▶ If you play and sing, the LEDs show a combined level.



## Footswitches overview

Click or tap on an interface element to jump directly to its description.

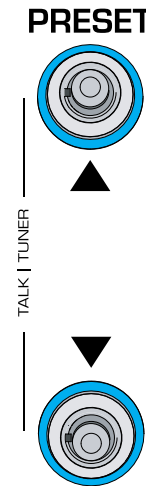




Below is a description of the footswitches on VL3X. Some switches will be discussed in more detail later in the manual.

### Preset up/Preset down footswitches

- ▶ Tap the Preset Up/Preset Down footswitches to move through Presets.
- ▶ Hold the Preset Up/Preset Down footswitches to quickly scroll through Presets.
- ▶ Tap both footswitches simultaneously to enter Talk/Tuner mode.



#### About Talk/Tuner mode

Talk/Tuner mode mutes guitar output, activates the guitar tuner and bypasses all vocal effects so you can speak to your audience.

You can still tap the Preset Up and Down Preset buttons while in Talk/Tuner mode to change presets. This is great for changing presets while addressing the audience to queue sounds for your next song.

To exit Talk/Tuner, press any button *other* than Preset Up or Preset Down.

For more information, see [“Talk/Tuner Mode”](#).

### Layer footswitch

To switch between the Vocal and Guitar effects layers, tap the Layer footswitch.

- ▶ **Vocal Layer active:** Layer footswitch LED lights blue.
- ▶ **Guitar Layer active:** Layer footswitch LED lights red.

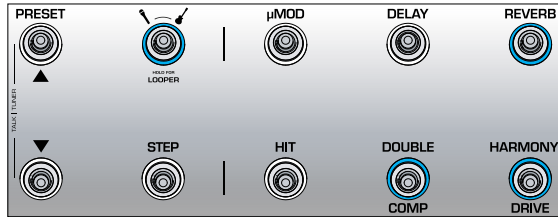
To access the Loop Layer, hold the Layer footswitch.

- ▶ **Loop/Backing Track Layer active:** Layer footswitch LED lights purple.

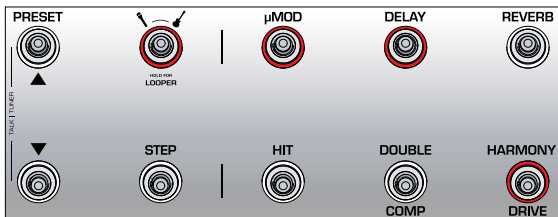
To return from the Loop or Backing Track Layer to the previously active Layer (Vocal or Guitar), hold the Layer footswitch.



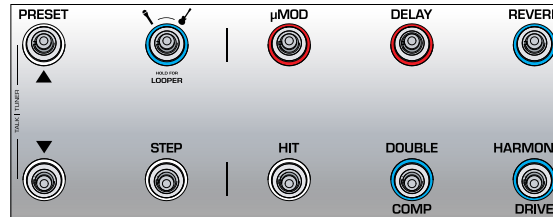
Here are a couple of examples showing how the effects footswitches might look when each Layer is active:



Vocal Layer with Reverb, Double and Harmony activated.




Guitar Layer with μMod (let's say it's Flanger for this example), Delay and Drive activated. If you were previously on the Vocal Layer, you would tap the Layer footswitch to move to the Guitar Layer, changing the footswitch LED color from blue to red.



Vocal Layer with some guitar effects remapped to vocal effect footswitches. You may find that you would like to “hang out” on a particular Layer (Vocal or Guitar) and have access to a key effect or effects from another Layer. Remapping footswitches allows you to do just that. This is best referred to as a “mixed Layer”. This is a more advanced operational mode that we will cover later.

## Step footswitch

- ▶ To move to the next Step within the current Preset (e.g. from 1 to 2), tap the Step footswitch. Not all Presets have Steps. 
- ▶ To move to the previous Step in the current Preset (e.g. from 2 to 1), tap the Preset Down footswitch.
- ▶ To enter the Step management screen, hold the Step footswitch.

## Step management



Step management

You can use the current Preset or a different Preset as a Step.

If you are using the *current* Preset, make sure that it sounds the way you want it to before you enter Step management.



Adding a Step to a Preset

If it is a *different* Preset, enter Step management and then use the Preset Up and Preset Down footswitches to locate the Preset you would like to add as a Step.



*Adding a different Preset as a Step*

- ▶ To accept changes, tap the Step footswitch.
- ▶ To delete the current step, tap the Layer footswitch.
- ▶ To cancel, press the Home button.

The Step footswitch can be globally reassigned to several different functions – such as Tap Tempo, HIT, Set Key, any Vocal or Guitar effect and more. We have found that remapping Step to enter/leave the Looper can be incredibly useful in performance, when you need quick access in and out.

For more information about Steps, see [“Using Steps”](#).

µMod footswitch

Tap the µMod footswitch to turn the micro-modulation (µMod) effect on or off.



The µMod block encompasses effects such as Chorus, Flange, Detune and Rotor.

This effect can be configured and used separately for the Vocal and Guitar layer. For more information, see [“Editing the Vocal Layer”](#) and [“Editing the Guitar Layer”](#).

Delay footswitch

Tap the Delay footswitch to turn the Delay effect (also known as echo) on or off.



The Delay block encompasses effects such as ¼ Note, Multi-Tap and Ping Pong.

This effect can be configured and used separately for the Vocal and Guitar layer. For more information, see [“Editing the Vocal Layer”](#) and [“Editing the Guitar Layer”](#).

**Tempo tapping**

- ▶ To access tempo tapping, *hold* the Delay footswitch.
- ▶ Tap the footswitch in time with your song. A few taps are enough.
- ▶ When you are happy with the tempo, stop tapping.

## Reverb footswitch

Tap the Reverb footswitch to turn the Reverb effect on or off.



The Reverb block encompasses effects such as Hall, Club, Room and Plate.

This effect can be configured and used separately for the Vocal and Guitar layer. For more information, see [“Editing the Vocal Layer”](#) and [“Editing the Guitar Layer”](#).

## HIT footswitch

Tap the HIT footswitch to activate or deactivate HIT. HIT can control:

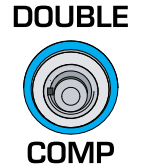


- ▶ Vocal HIT (blue)
- ▶ Guitar HIT (red)
- ▶ All HIT (purple)

HIT is covered in greater detail in [“Using the HIT footswitch”](#).

## Double/Comp footswitch

On the Vocal Layer, tap the Double/Comp footswitch to turn the Double effect on or off.



Double encompasses effects such as 1 Voice Tight, 2 Voices Wide and 4 Voices Wide.

For more information, see [“Double effect block/tab”](#).

On the Guitar Layer, tap the Double/Comp footswitch to turn the Compressor on or off.

For more information, see [“Comp\(ression\) effect block/tab”](#).

## Harmony/Drive footswitch

On the Vocal Layer, tap the Harmony/Drive footswitch to turn the Harmony effect on or off.



Harmony encompasses effects such as High (3<sup>rd</sup> up), Low (4<sup>th</sup> below) and Low & Lower (4<sup>th</sup> below and 6<sup>th</sup> below).

For more information, see [“Harmony effect block/tab”](#).

On the Guitar Layer, tap the Harmony/Drive footswitch to turn the Drive effect on or off.

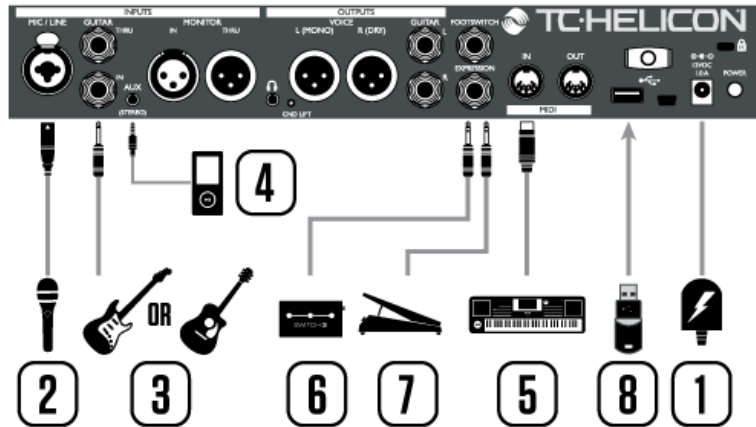
Drive encompasses effects such as Boost, Boost & Drive and Drive.

For more information, see [“Drive effect block/tab”](#).

## Back panel inputs and outputs

VL3X offers extremely robust input and output routing. Using the Monitor IN/THRU and dedicated Guitar outputs effectively, you can greatly reduce the amount of gear you need to take to a performance.

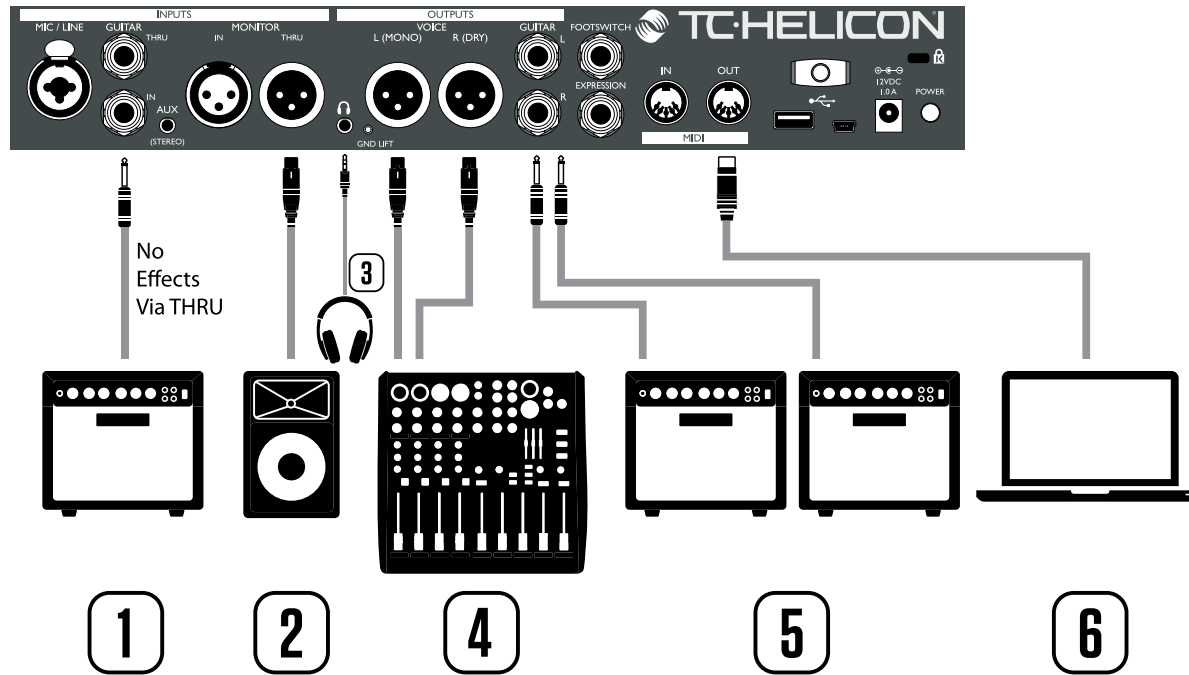
## Inputs



1. DC Power connector
2. XLR and 1/4" Combo jack input
3. 1/4" Guitar input
4. 1/8" Stereo Aux and XLR Monitor input jacks.  
Please note that Aux input and Monitor input are mutually exclusive. Only one may be used at a time.
5. MIDI Input
6. Footswitch. Connect a TC-Helicon Switch-3 or Switch-6 here. You can also connect a second expression pedal here – see [“Working with a second expression pedal”](#).
7. Expression pedal input
8. USB Host port

### VL3X inputs overview

## Outputs



you connect the Guitar Out(s) to your amp(s), guitar sounds will be removed from the Main outputs.

6. **MIDI Out:** The MIDI Out jack sends MIDI Control Change messages (MIDI CCs) related to footswitches and buttons pressed on VL3X. If no CC is sent, there is likely no CC assigned to that particular action.

Currently, Vocal & Guitar effects ON/OFF and their respective levels are represented by MIDI Control Change messages.

If you experience hum from your guitar amp or PA, try pressing the GRND LIFT switch, located between the Headphone out and the Left XLR output.

### VL3X outputs overview

- 1. Guitar THRU:** If you only need chord detection and want to pass your dry guitar signal onto a different processor or record a dry guitar track, use the THRU jack to pass your guitar signal to your amp.
- 2. Monitor THRU:** The Monitor THRU jack allows you to receive an incoming Monitor IN signal from a mixer and pass it on to another monitor.
- 3. Headphone out:** Connect headphones or in-ear-monitors to the Headphone out and use the Headphone Mix to set up your personal mix.
- 4. Main Outputs:** The Main Outputs carry Vocals & Effects. If nothing is connected to the Guitar outputs, Main outputs also carry Guitar signals.
- 5. Guitar Outputs:** The Guitar outputs carry the Guitar signal. If only one output is connected, guitar output is automatically in MONO. When



# VL3X overview

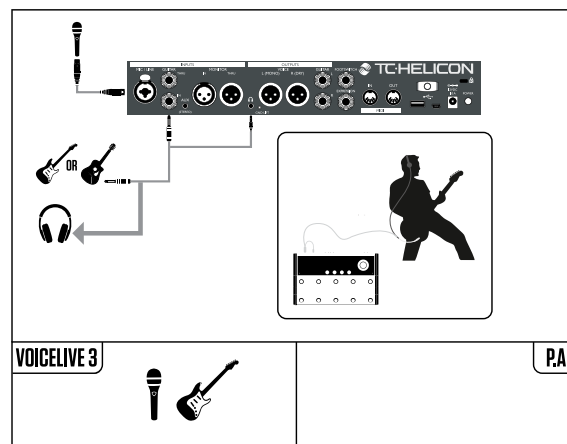
## Setting up

Instead of jumping directly into a whole bunch of descriptions of parameters and fine tuning controls, now is a good time to back up a bit and approach VL3X from a “Let’s use this thing!” perspective.

First, if you haven’t read through the Quick Start Guide that came in the box, we suggest you do so now.

The minimum gear you will need from here is:

- ▶ Your VL3X
- ▶ A microphone – either
  - ▶ Dynamic (e.g. a TC-Helicon [MP-75](#) or [MP-76](#), SM58, or OM5)
  - ▶ Condenser (e.g. a Beta 87A or enCore 300)
- ▶ An XLR cable (microphone cable) to connect your microphone to VL3X
- ▶ A guitar or MIDI keyboard, if applicable
- ▶ Headphones
- ▶ The Guitar/Headphone cable that came with your VL3X.



If you would prefer to use VL3X via your PA, you will need one or two additional XLR cables to connect VL3X’s XLR outputs to inputs at your mixer.

A lot of PAs are mono and only require one XLR connection. If you have a stereo PA, you will want to connect both VL3X XLR outputs to your mixer.

### Connecting VL3X to your mixer/PA

- ▶ Determine whether your mixer/PA is stereo or mono.
- ▶ Connect the appropriate number of cables from VL3X’s XLR outputs to the mixer/PA inputs (1 for mono, 2 for stereo).
- ! If your P.A. is Stereo, you will need to pan one channel left and the other one right in order to receive the benefits of VL3X’s stereo effects.
- ▶ Watch the “Craig’s Corner” episode about connecting to a mixer: [youtube.com/watch?v=qq0AOfIjs](https://www.youtube.com/watch?v=qq0AOfIjs)

## Diagram legend

The following icons are used in the diagrams in this manual.



*Microphone*



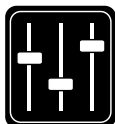
*Acoustic Guitar*



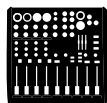
*Electric Guitar*



*Keyboard or other instrument*



*Monitor Mix*



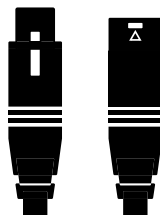
*Mixing Board*



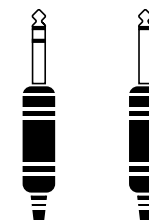
*P.A.*



*Guitar/Keyboard amp*



*XLR cables*



*TRS and TS cables*



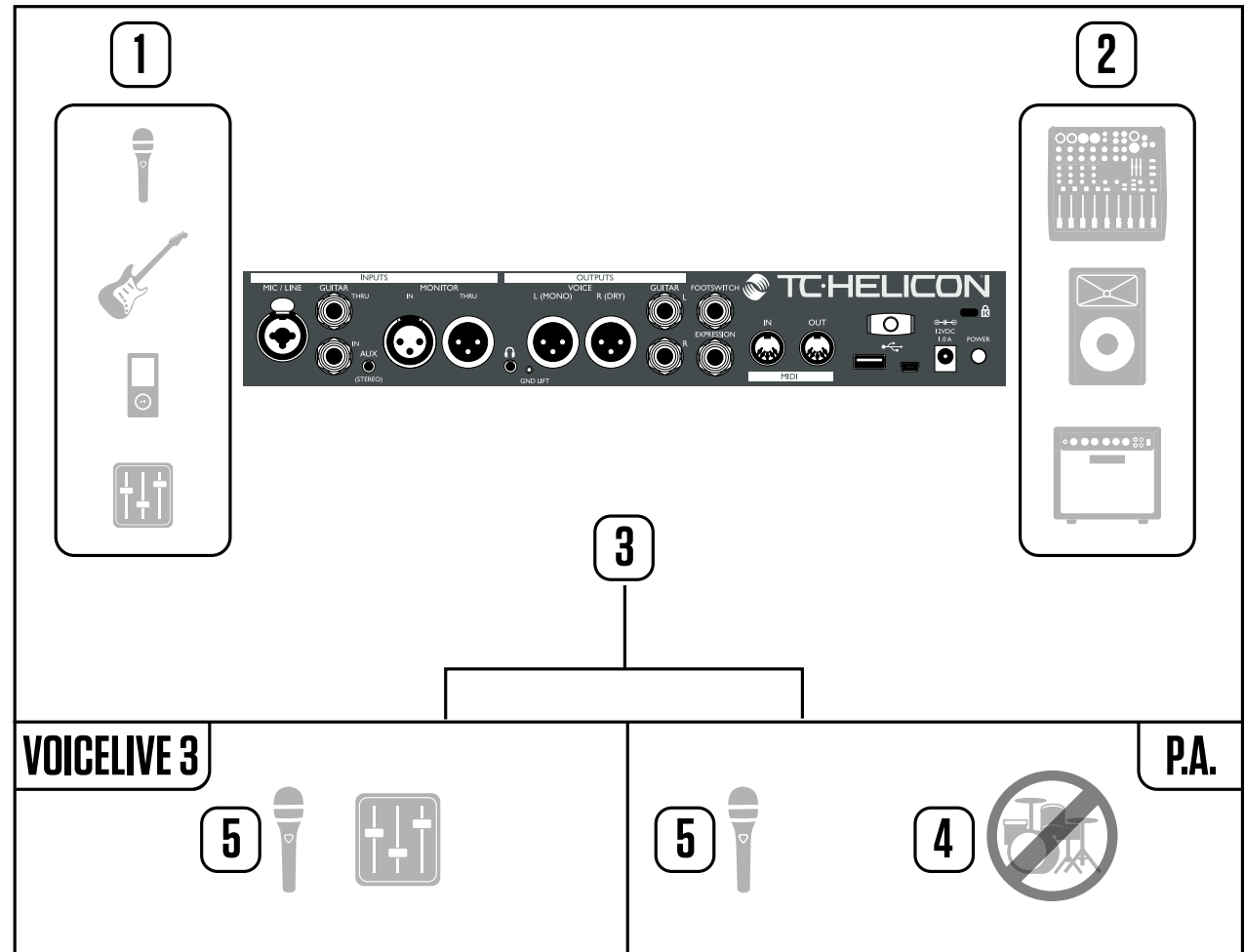
*1/8" cable (guitar cable)*

# Diagrams

On the following pages, you will see some connection diagrams. We have set things up to give you clear and concise representations of what goes where.

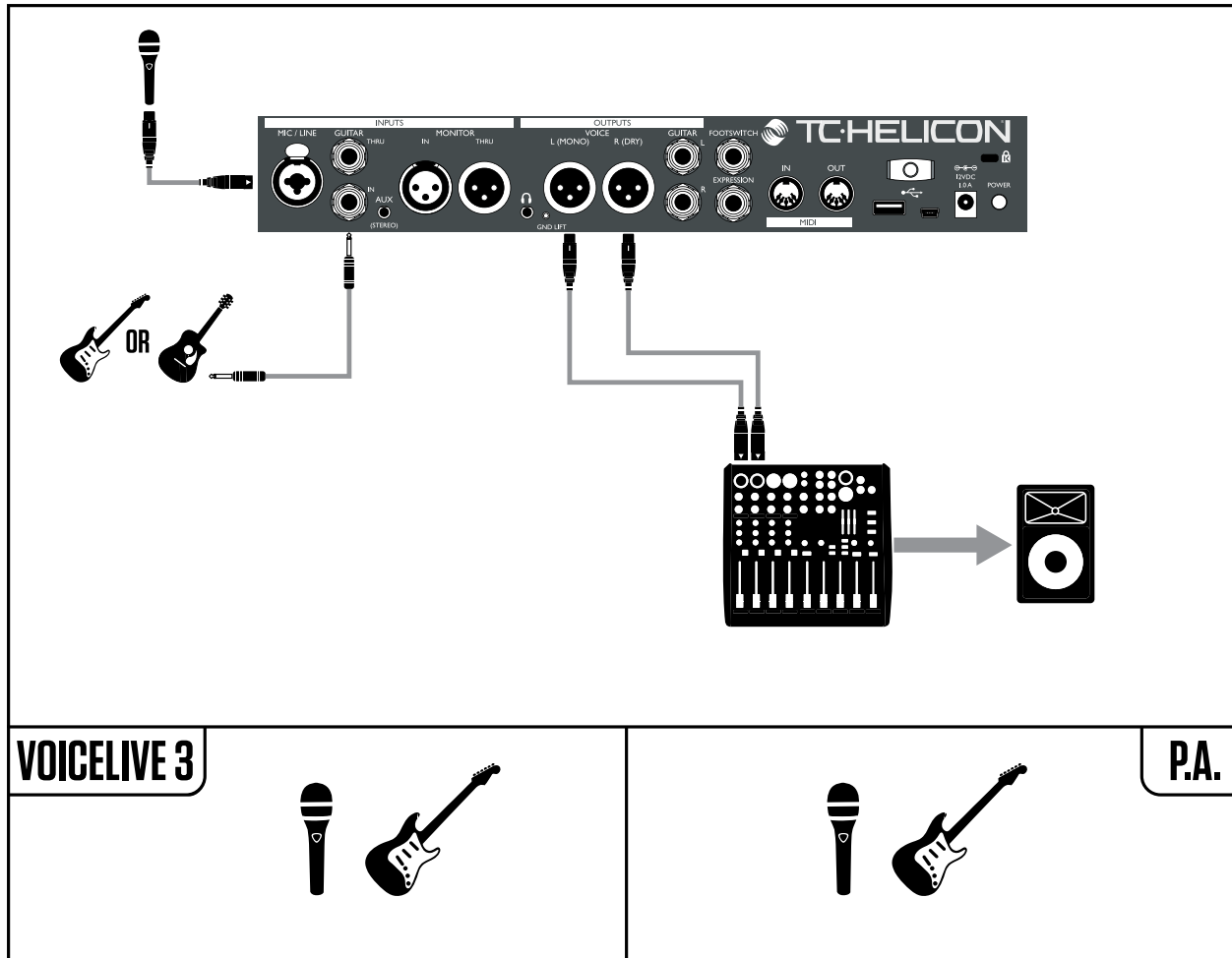
There are a few things we would like you to keep in mind as you look at the diagrams:

1. Inputs to VL3X will be to the left of the back panel image.
2. Outputs from VL3X will be to the right of the back panel image.
3. There are two boxes on the bottom of each diagram.
  - ▶ The VL3X box on the left shows “what you hear” from your VL3X headphone output.
  - ▶ The P.A. box on the right shows “what you hear” from the P.A. speakers.
4. We don’t account for other inputs/instruments when showing “what you hear” from the P.A., so you won’t see pictures of drums etc.
5. In a lot of cases, “what you hear” will be the same for both VL3X headphone output and P.A. – but it can also be different.



Reading the diagrams in this manual

Stereo PA connection for vocals (and guitar if applicable)



This diagram shows a “Stereo” output mode. Stereo sends a Left and Right signal via the XLR outputs to your PA or mixer.

This allows you to enjoy the full benefits of stereo audio effects.

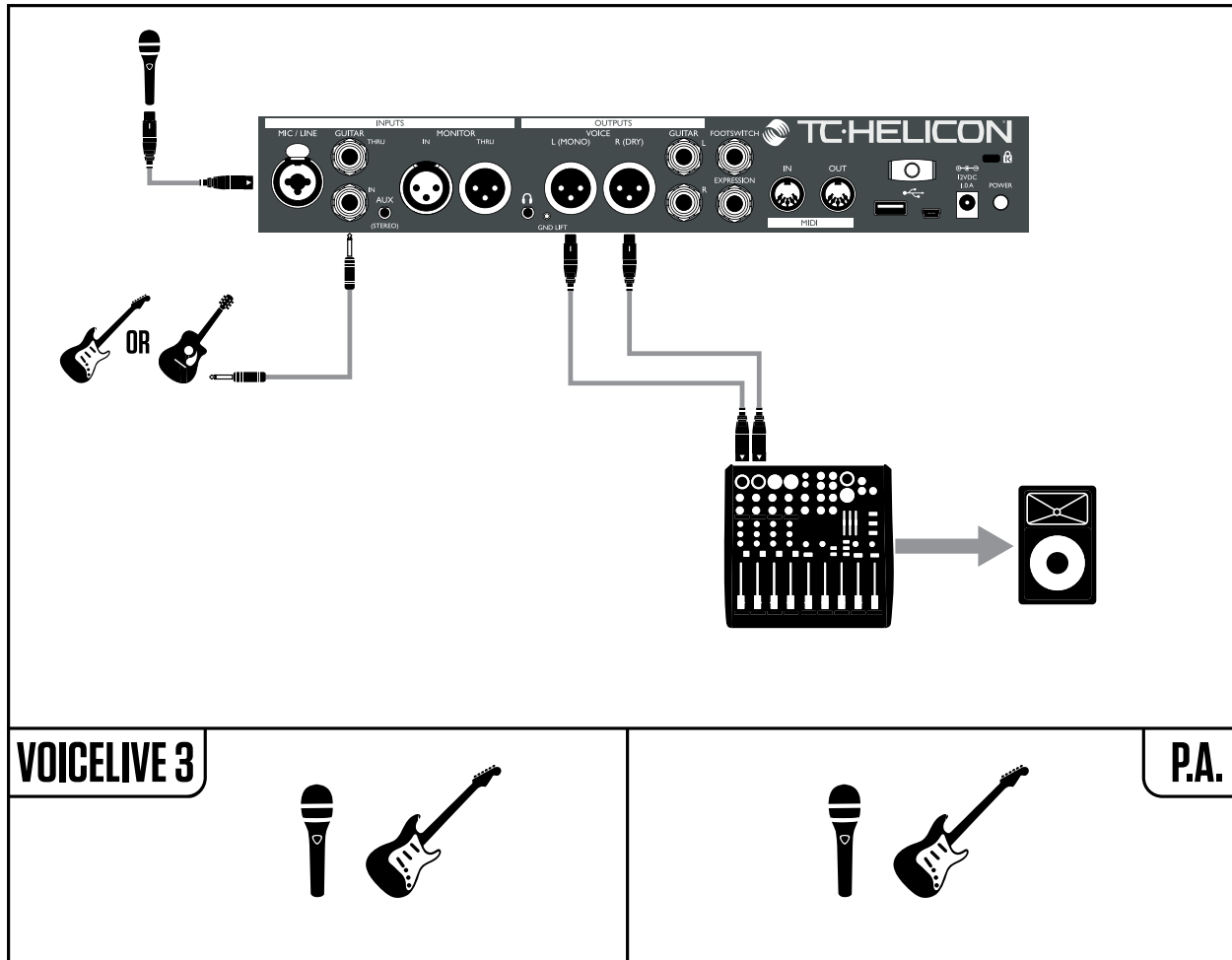
INPUT	OUTPUT	GUITAR	MIDI	TONE	SYSTEM	BUTTONMAP
OUTPUT MODE				XLR OUT LEVEL		
STEREO				MIC LEVEL		
HEADPHONE LIMITER				TALK TRIM		
0 dB				0 dB		

Setting Output Mode to Stereo

Changing VL3X from Mono (default) to Stereo output:

- ▶ Press Setup.
- ▶ Use the < or > Arrow buttons to move to the Output tab.
- ▶ Use the Control Knob to move the selection bar until XLR Output Mode is highlighted (white).
- ▶ Turn the Mix Knob directly below the XLR Output Mode box on the screen until the mode changes to Stereo.
- ▶ Press Home to exit.
- ▶ When choosing Stereo, ensure the PA is actually outputting a stereo signal. It’s common for a PA to have two speakers or speaker sets – but still be mono.

Dual Mono PA connection for vocals (& guitar if applicable)



This diagram shows a “Dual Mono” output mode. Dual Mono sends two mono signals from the XLR outputs on VL3X. One XLR carries the vocal sounds and the other XLR carries the guitar sounds.

This allows you to balance the vocal and guitar levels via your mixer. Dual Mono can be especially effective at a venue with a sound tech. The guitar and vocal signals are separated and can be controlled independently, making the tech’s mixing job easier.

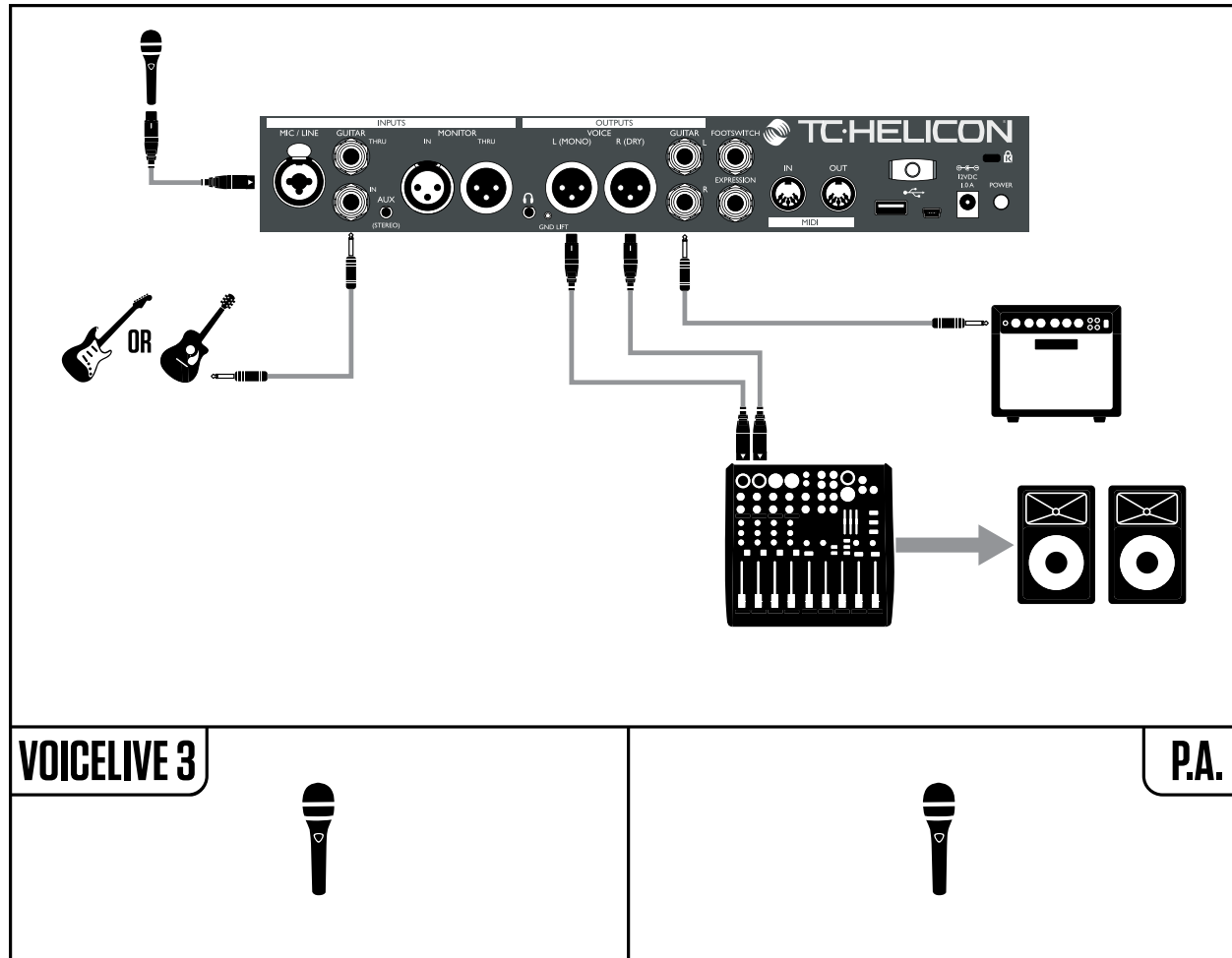
INPUT	OUTPUT	GUITAR	MIDI	TOPE	SYSTEM	BUTTONMAP
OUTPUT MODE		XLR OUT LEVEL				
DUAL MONO		MIC LEVEL				
HEADPHONE LIMITER		TALK TRIM				
0 dB		0 dB				

Setting Output Mode to Dual Mono

**Changing VL3X from Mono (default) to Dual Mono output**

- ▶ Press Setup.
- ▶ Use the < or > Arrow buttons to move to the Output tab.
- ▶ Use the Control Knob to move the selection bar until XLR Output Mode is highlighted (white).
- ▶ Turn the Mix Knob directly below the XLR Output Mode box on the screen until the mode changes to Dual Mono.
- ▶ Press Home to exit.

## Stereo vocals and a guitar amplifier



This setup is great if you have got a guitar amp and want to send VL3X's guitar sounds to that amp instead of to the PA.

You may want to make a quick adjustment to the guitar output if you are connected to an amp. It might be desirable to turn off VL3X's speaker simulations while preserving all of the other guitar effects. This will allow the "character" of your amp to stay the same from Preset to Preset.

Follow the instructions in ["Stereo PA connection for vocals \(and guitar if applicable\)"](#) to change your output mode to Stereo.

### Turning speaker simulation off

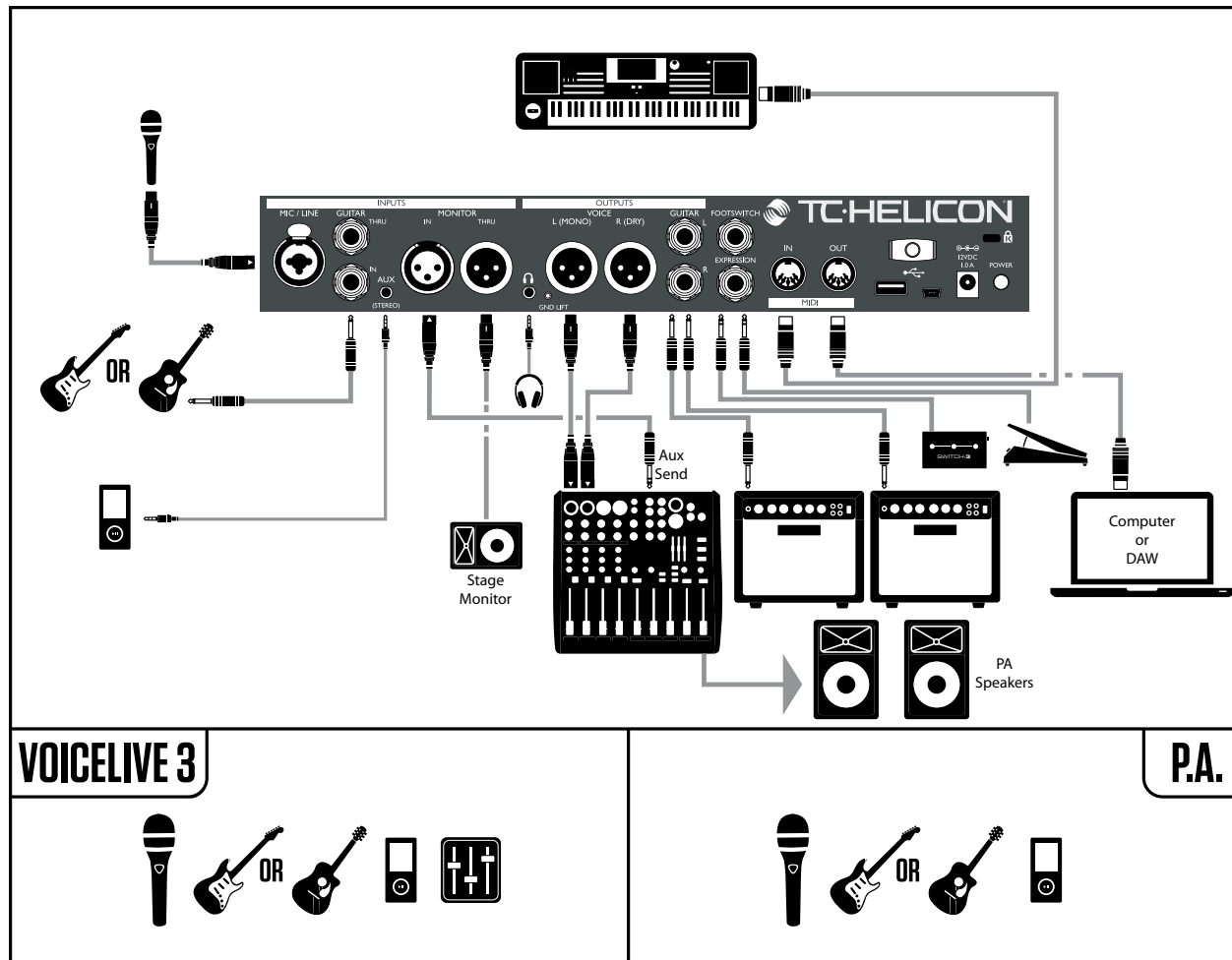
- ▶ Press Setup.
- ▶ Use the < or > Arrow buttons to move to the Guitar tab.
- ▶ Use the Control Knob to move the selection bar until Speaker Sim Enable is highlighted.
- ▶ Turn the Mix Knob directly below the display until the setting for Speaker Sim Enable changes from On to Off.
- ▶ Press Home to exit.

INPUT	OUTPUT	GUITAR	MIDI	TONE	SYSTEM	BUTTONMAP
INPUT GAIN	10 dB			PHASE		
				NORMAL		
SPEAKER SIM ENABLE				OUTPUT MODE		
OFF				UNITY GAIN		
GATE THRESHOLD						
-68 dB						

*Turning speaker simulation off*

For Mono vocals via the PA and guitar sounds via a guitar amplifier, follow the diagram above, but connect only the Left XLR output from VL3X to your PA and set the output mode to Mono.

## The kitchen sink – everything hooked up



It's unlikely that you will have absolutely everything seen here hooked up to VL3X – but this diagram can serve as a general connection diagram that you can use to configure your personal setup.

The setup shows:

1. Microphone
2. Guitar
3. Music Player
4. Incoming Monitor (or cue) mix from the Front Of House mixer
5. Monitor THRU to another monitor
6. Headphone out (possibly using the headphone/guitar cable and In Ear Monitor's)
7. XLR Outputs carry stereo vocals to the PA.
8. Guitar Outputs carry stereo guitar sounds to amps
9. Switch-3 and an Expression pedal for extra controls
10. MIDI IN for NaturalPlay chord information from a keyboard (NaturalPlay will “listen” to Guitar/Keyboard over the AUX input and will automatically switch between Guitar/Keyboard if they are both plugged in)
11. MIDI OUT to control a DAW, perhaps with backing tracks and/or show control software

Loop and Metronome sounds generated by VL3X are not shown, but any Vocal Loops will be sent out via the XLR outputs and Guitar loops will be sent out via the Guitar outputs.

The Metronome can be heard in the XLR Main Mix and headphone mix or just the headphone mix, depending on your mix settings.



## Quick troubleshooting tips

After following the VL3X Quick Start Guide and referring to the diagrams in [“Setting up”](#), you should hear your voice and instrument(s) via your VL3X.

Here are a few troubleshooting ideas if you are not hearing sound.

### “I’m not hearing my voice!”

Do the Level LEDs near the Control Knob light up when you sing?

No?

- ▶ Try a different cable.
- ▶ Try a different microphone.
- ▶ Did you go through the Auto-Gain procedure described in the Quick Start Guide?
  - ▶ Press and hold the Setup button.
  - ▶ Follow the on-screen instructions.
- ▶ Are you using a condenser microphone?
  - ▶ Press Setup.
  - ▶ Navigate to the Input tab.
  - ▶ Change the Input Type parameter to “Condenser”.

Yes?

- ▶ Is your PA receiving signal?
  - ▶ Check your PA manual for details on how to check input levels.
  - ▶ Turn up channel input trims until you see signal.

(If you have a separate mixer/amplifier)

- ▶ Is the PA turned on?
- ▶ Are the speakers connected?

### “I’m not hearing my guitar.”

- ▶ Check that your guitar is turned all the way up.
- ▶ Have you connected your guitar to an amp?
  - ▶ Is it turned on?
- ▶ If you are in Dual Mono mode, make sure both of the channels on your PA/mixer are turned up and unmuted according to your PA/mixer manual.
- ▶ Are you in Tuner mode?

Accidentally pressing the Preset up/Preset down footswitches simultaneously will enter Tuner mode, muting guitar output.

If you see a guitar tuner on the screen and the Preset up/Preset down LED’s are lit solid red, you are in Tuner mode. Press Preset Up or Preset Down to exit.

# Getting to know VL3X

## Amazing Grace

We can (and will!) fill page after page with descriptions of VL3X's fantastic features – but nothing beats hearing (and trying) them for yourself.

If you want to get an idea of VL3X's potential,

- ▶ plug in a microphone,
- ▶ connect VL3X to a set of speakers or your favorite headphones
- ▶ select Preset 10 and
- ▶ press the HIT footswitch (which in this Preset is associated with the Backing Track playback function, so it is shown as “Track” in the display).

You should now hear “Amazing Grace”. After the intro, start singing – and be amazed.

## A guided tour

While some product manuals take a path through all of the functions and features, we are going to lead you on a tour of VL3X from a practical use standpoint. If you follow along on your VL3X while reading the following pages, you will get a good grasp of most of the key features in the box.

It may seem as though we jump around through various menus and operations – but trust us that this is a good way to get to know the unit while making practical changes in the process. Stick with us!

## There's no place like Home

Using all the features described on the following pages, you might find yourself deep in some sub-menu or parameter list. Don't panic! Just press the Home button, and you will return to VL3X's "Home" screen. The Home screen shows...

- ▶ The number of the current Preset.
- ▶ The name of the current Preset.
- ▶ The effect blocks currently assigned to the six footswitches labeled  $\mu$ Mod, Delay, Reverb, Hit, Double/Comp and Harmony/Drive on the currently active Layer (Guitar or Vocal).  
For more information on accessing and editing effect settings, see ["Editing the Vocal Layer"](#) and ["Editing the Guitar Layer"](#).
- ▶ Backing Track (if assigned) Play/Stop/Pause indicators next to the preset number.
- ▶ "BT" or "SEQ" if a Backing Track is assigned to the preset.  
"SEQ" is shown in place of "BT" when a sequence (FX automation) has been recorded. More more information, see ["Backing Track Sequence Recording \(Automation\)"](#).



*The Home screen with the Backing Track ("BT") indicator*

Think of the Preset as a "container" for...

- ▶ the vocal/guitar effects settings,
- ▶ the Backing Track and
- ▶ the performance data that you have recorded.

Accordingly, when you load the Preset, all of these components are loaded too.

For more information, see ["Backing Tracks and Presets"](#).

## Using the Control knob

- ▶ While on the Home screen, the Control Knob moves through Presets.
  - ▶ Turning the knob clockwise (right) will move up through Presets.
  - ▶ Turning the knob counterclockwise (right) will move down through Presets.
- ▶ Pressing the control knob while on the Home screen will set the current Preset as a Favorite. For more information, see [“Using Preset Genres and Favorites”](#).
- ▶ On an Edit or System screen, the Control Knob acts as a vertical scroll control. Use it to navigate up or down through parameters and settings.

## Using the Arrow buttons

Use the two small Arrow buttons located beneath the Control knob to move through Presets and edit pages.

- ▶ While on the Home screen, use the Arrow buttons to move through Presets.
  - ▶ To select the next Preset, press the right Arrow button.
  - ▶ To select the previous Preset, press the left Arrow button.
- ▶ On an Edit or System screen, the Arrow buttons allow you to move left and right through the “tabs” in that menu.

For example, the Vocal edit screen has a separate tab or “page” for each vocal effect. The Arrow buttons move from left to right through these tabs.

## What is a Preset?

VL3X and many other TC-Helicon devices are based on the concept of “Presets”. Essentially, a Preset is a record of all the settings for a group of effects that you can recall quickly and easily.

The Preset concept is extremely flexible. A Preset can be general purpose – like a simple Reverb or Harmony sound. But a Preset can also represent a specific song or portion of a song via multiple effects and settings.

A good modern analogy for a Preset is a user account on a computer. Even though each user has access to the same hardware (CPU, RAM etc.) each user can change their desktop wallpaper, icons on the desktop, program behaviors and much more. When each user logs in, the computer recalls all of their custom settings.

Depending on how you like you to work with effects, you may find that you like to use a few general purpose Presets and turn effects on and off manually during your performance. Or you might be the kind of guy or girl who likes to spend a bit more time in advance of the performance to create Presets for all sorts of things. Or you may be somewhere in between. Any amount of editing or Preset manipulation is fine! You can get as “programmer” or “seat of the pants” as you like.



## Using Steps

A Step is, at its core, a Preset within a Preset. Here's how it works...

Let's use a typical song pop song structure as an example.

- ▶ Verse
- ▶ Chorus
- ▶ Verse
- ▶ Chorus
- ▶ Bridge
- ▶ Chorus

Now, let's assume that you want a completely different sound for your Verse, Chorus and Bridge sections. The HIT function is great if you need two variations within a song – but here, you'll obviously need more.

Now the easiest way to accomplish this is to make a separate Preset for each song section. This means that on stage, you now have to remember where those presets are and move between them for each part of the song. It's totally doable – but a bit more work than necessary.

Enter the STEP.

If you treat the Verse Preset as your starting point (perhaps name it simply with your song name), you can add Steps to that initial Preset to cover the other sections of your song, in the order that they are needed.

So, let's assume that you have created the three different presets that represent your three song sections. You'd now create "Steps" within your Verse Preset like this:

- ▶ Step 1: Verse
- ▶ Step 2: Chorus
- ▶ Step 3: Verse
- ▶ Step 4: Chorus
- ▶ Step 5: Bridge
- ▶ Step 6: Chorus

As you perform, you simply press the STEP button once for each song section as it comes along. It's a much simpler way to manage several presets in a song!

For more information about creating and deleting Steps within a Preset, see ["Step management"](#).

## Using Preset Genres and Favorites

If you are playing classical pop, you may not care much for Presets that have been optimized for Alternative rock – and vice versa. And if you have created or fine-tuned ten Presets for your show, you may now want to scroll through the hundreds of other Presets that you are working with in the studio. Genres to the rescue!

As described earlier, the Genre feature allows you to filter the Presets in VL3X based on the musical genre or primary effect.

### Using Genres

- ▶ Tap the Genre button.
- ▶ Use the Mix Knob to scroll through available Preset Genres.
- ▶ When you have found a Genre you would like to explore, tap the Genre button again to confirm and exit.

Pressing any other button – like HOME – to exit Genre selection mode will not select the current Genre. Make sure you use the Genre button to exit the menu and confirm your selection. The Genre button will be flashing to remind you to press it.

After selecting a Genre, you will notice that scrolling through Presets gives you fewer options than before. Presets are now filtered and only show options contained in your chosen Genre.

To return to seeing *all* Presets:

- ▶ Tap the Genre button.
- ▶ Use the Mix Knob to change the Genre to “All”.
- ▶ Press Genre again to exit.

### Using Favorites

Genre

There is a special Genre called Favorite which you can assign Presets to. Favorites can be used to quickly make a set-list or showcase of Presets, helping you to navigate more quickly through VL3X.

- ▶ To add a Preset to the Favorite Genre, simply press the Control Knob down while on the home screen. A small “FAV” tag will be shown in the bottom right corner of the display, indicating that the current Preset is now flagged as a Favorite. If you now enter the Genre menu and select the “Favorite” Genre, only Presets that you have selected as Favorites will be available as you change Presets – just as with other Genres.
- ▶ To remove the Favorite flag from a Preset, simply press the Control Knob again.

## What is NaturalPlay?

A device creating harmony voices and correcting what you are singing to the right scale is a wonderful thing. But how do you tell that device what key the next song is in? Do you have to program it as part of a Preset? Do you have to set it up for each song? What if you get it wrong on stage?

NaturalPlay to the rescue! If you have a guitar connected to VL3X, it will automatically guide key and scale for any Harmony voices or HardTune effects. You don't need to make any changes to the system for this to work. Just play your guitar normally (chords work best) and sing!

Similarly, if you connect a MIDI-enabled keyboard using a MIDI cable, VL3X will follow your playing to determine key/scale for Harmony voices and HardTune.

If you sing to pre-produced tracks and don't have a guitar or MIDI keyboard connected, VL3X will read key/scale information from a music signal present at the Aux jack – this might be a song from an MP3 player or smartphone. Finally, VL3X can also read key/scale information from the Monitor In jack.

As you see, NaturalPlay has you covered – no matter what your setup is.

## Using Global Key/Scale

If you do not have an instrument or a pre-produced song that can guide VL3X's Harmony and HardTune features, you may want to make a small change to the System setup so you can define the key and scale for the song you are singing and change Presets without having to change the Key setting each time.

- ▶ Press Setup.
- ▶ Use the < and > Arrow buttons to navigate to the System tab.
- ▶ Using the Control Knob to highlight Global Key/Scale.
- ▶ Change the Global Key/Scale to ON.  
This will set one global key/scale for all Presets in VL3X.
- ▶ You can change this global key/scale “on the fly” later.
- ▶ Press Home to exit.

INPUT	OUTPUT	GUITAR	MIDI	TONE	SYSTEM	BUTTONMAP	
CONTRAST		GLOBAL PRESET					
50 %		491					
GLOBAL NATPLAY SOURCE		ALL GUITAR FX GLOBAL					
OFF		OFF					
GLOBAL TEMPO		GLOBAL KEY/SCALE					
OFF		ON					

### Using Global Key/Scale

Once you get more familiar with VL3X, you may want to turn Global Key/Scale off in order to save a different Key/Scale per Preset.

## Setting Key/Scale manually

If you are a singer without an instrument, you may not want to rely on some external input. Instead, we'll set the Key/Scale for your song manually.

For simplicity, let's sing "Happy Birthday" in C using our Major 2 scale.

You will need to find C as your starting note (unless you have perfect pitch – then you are awesome).

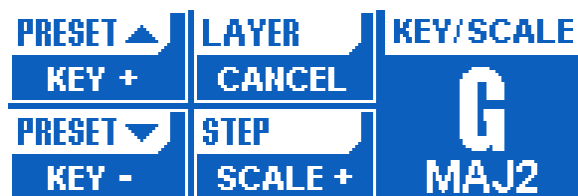
To set the key/scale:

- ▶ If it isn't selected, select the Vocal Layer by pressing the Layer footswitch.
- ▶ Press and HOLD the Harmony footswitch until the Set Key/Scale screen appears.
- ▶ Press the Preset up/Preset down footswitches until the key reaches C.
- ▶ If the scale is not already "Maj 2", tap the Step button repeatedly until the display shows Maj 2.
- ▶ Let the Key/Scale screen "time out" and disappear (by not doing anything for a few seconds).

Depending on the song you are singing, "Major 2" (MAJ2) may not be right for you.

To learn which scale Harmony notes are generated based on your input note, check out our Scale Chart.

[support.tc-helicon.com/entries/21051886-Scale-chart-for-TC-Helicon-products](https://support.tc-helicon.com/entries/21051886-Scale-chart-for-TC-Helicon-products)



*Setting Key and Scale*

## Let's try Harmony!

Navigate to Preset No. 2 (“Classic 3<sup>rd</sup> up”) using the Preset up/Preset down switches or the Control Knob.

- ▶ Make sure that you are on the Vocal Layer. The LEDs around the footswitches should be blue. If they are not, press the Layer button.
- ▶ You should see the Reverb, HIT and Harmony footswitch lit in blue. If Harmony and HIT are not lit, press the HIT button.

Even if you play an instrument that could be used for NaturalPlay, you may want to try setting the key/scale manually. Why? The manual settings can give a slightly different harmony output than the one you get when playing chords (NaturalPlay). You may prefer one or the other depending on the song you are playing and singing. It is not uncommon for advanced users to utilize NaturalPlay for some Presets and Key/Scale for others.



Preset 2 (“Classic 3rd up”)

If you are a guitar playing singer, you can play your guitar and sing now. You should hear a harmony following your lead vocal and also hear some guitar effects.

If you are a singer, and if you have set the key/scale correctly in the previous step, the harmonies should follow your lead melody correctly.

## Using the HIT footswitch

As you sing your song, with guitar or without, try tapping the HIT footswitch. In this Preset, HIT will activate and deactivate the Harmony effect each time you press the button – once on and once for off.



*HIT off*



*HIT on. Note the additional (highlighted) effects*

Practice using HIT to turn the Harmony on and off at interesting points in the song. This skill is essential for using the effects “in time” with your

music. It may take a while to get the hang of things if you have never used footswitch based effects before. Don't worry if you are not very good at it right away!

As you sing your song, with guitar or without, try tapping the HIT footswitch. In this Preset, HIT will activate and deactivate the Harmony effect each time you press the button – once on and once for off.

## Using individual effects

Next, turn off Harmony using the HIT button. Try tapping the Double button to add the Double effect to your voice. Do the same with Delay and  $\mu$ Mod. Try a few of the effects together and see what it sounds like.



## Change a button from Latched to Momentary mode

When you are turning effects on and off using the footswitches, the default behavior for each switch is to work in “latched” mode. This simply means that you press the button once to turn the effect on and again to turn the effect off.

Latched mode works for a lot of cases, but there are probably times when you would like an effect to be active as you hold the button down – and inactive as soon as you release it. This is called “Momentary” mode.

Since we just experimented with turning effects on and off, let’s change the way one of those effect footswitches operates.

- ▶ Press the Vocal button.
- ▶ Press and HOLD the right Arrow (>) to “jump” all the way to the last Vocal tab. This is a common behavior for the Arrow buttons. If you press and hold, you will jump to the far side of the effects/Presets pages. This can save you some time while editing. Curious about all those tabs and their parameters? Don’t worry – we will cover all the Vocal effects later!
- ▶ Now press the left Arrow (<) to navigate to the Buttonmap tab.

RYTHMIC	STUTTER	BUTTONMAP	EXPR PEDAL	PRESET
MOD	MODE	PARAM1	PARAM2	
MOD	LATCHED	-	-	
DELAY	MODE	PARAM1	PARAM2	
DELAY	LATCHED	-	-	
REVERB	MODE	PARAM1	PARAM2	
REVERB	LATCHED	-	-	

Buttonmap menu

- ▶ Use the Control Knob to scroll down and highlight the line starting with “HIT”.

RYTHMIC	STUTTER	BUTTONMAP	EXPR PEDAL	PRESET
REVERB	MODE	PARAM1	PARAM2	
REVERB	LATCHED	-	-	
HIT	MODE	PARAM1	PARAM2	
VOC HIT	LATCHED	-	-	
DOUBLE	MODE	PARAM1	PARAM2	
DOUBLE	LATCHED	-	-	

Selecting HIT in the buttonmap menu

- ▶ Use the Mix Knob right below “Mode” to change the mode of the HIT footswitch from Latched to Momentary.

RYTHMIC	STUTTER	BUTTONMAP	EXPR PEDAL	PRESET
REVERB	MODE	PARAM1	PARAM2	
REVERB	LATCHED	-	-	
HIT	MODE	PARAM1	PARAM2	
VOC HIT	MOMENTARY	-	-	
DOUBLE	MODE	PARAM1	PARAM2	
DOUBLE	LATCHED	-	-	

Changing Mode to Momentary

- ▶ Press the Home button. This will take you back to the main (or home) screen. Now, press the HIT button, just like you did before. Notice how the blue light only comes on while you hold the button down? That’s Momentary mode.

Try singing the same song again, pressing/holding the HIT footswitch when you want harmonies

to activate. Practice activating harmony for a single word or short phrase. It’s much easier in momentary mode!

Before you move on, go back into the Vocal Buttonmap screen and change HIT back to Latched mode.

RYTHMIC	STUTTER	BUTTONMAP	EXPR PEDAL	PRESET
REVERB	MODE	PARAM1	PARAM2	
REVERB	LATCHED	-	-	
HIT	MODE	PARAM1	PARAM2	
VOC HIT	LATCHED	-	-	
DOUBLE	MODE	PARAM1	PARAM2	
DOUBLE	LATCHED	-	-	

Changing Mode back to Latched

## Remapping a footswitch

Since you have just seen the Buttonmap page, this is a good time to remap a footswitch to a different effect.

Since there are 11 vocal effects and 9 guitar effects in VL3X, but only 6 footswitches, the ability to assign new functions to these footswitches gives you a lot of flexibility.

Let's remap  $\mu$ Mod to HardTune. Later, you can remap any footswitch as you wish, for this example, please follow along.

- ▶ Press the Vocal button.
  - ▶ Navigate to the Buttonmap tab using the < and > buttons.
  - ▶ Use the Control Knob to highlight the line starting with " $\mu$ Mod". It's at the top of the page.
- As you can see, the  $\mu$ Mod is assigned to the  $\mu$ Mod effect.
- ▶ Use the far left Mix Knob to remap the  $\mu$ Mod footswitch to HardTune.

ARHYTHMIC	STUTTER	BUTTONMAP	EXPR PEDAL	PRESET	
$\mu$ MOD	HARDTUNE	MODE	LATCHED	PARAM1	PARAM2
DELAY	DELAY	MODE	LATCHED	PARAM1	PARAM2
REVERB	REVERB	MODE	LATCHED	PARAM1	PARAM2

Remapping the  $\mu$ Mod footswitch to HardTune

- ▶ Press Home.

If you look at the top left corner of the screen, you should see HardTune there,  $\mu$ Mod will be gone.



$\mu$ Mod footswitch remapped to HardTune

When you press the  $\mu$ Mod footswitch, you will see that HardTune is now controlled by that button.

Remapping can be performed for any effect in VL3X. Vocal and Guitar effects are not restricted to their "home layers". **This means that you can remap a vocal effect to the guitar Layer – and vice versa.**

Since the Buttonmap page is available in each Preset, for both vocal and guitar layers, you can create a custom button mapping for every Preset in VL3X.

Here are some Buttonmap examples:

- ▶ Remap a Guitar effect to Shift, so you have easy access to the Octaver effect.

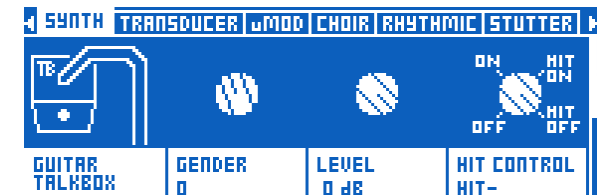


$\mu$ Mod footswitch remapped to Octaver

- ▶ Change a Vocal effect to Synth, so you can use the Talkbox effect.



Reverb footswitch remapped to Synth



- ▶ Move Guitar HIT from the Guitar Layer to the Vocal Layer, so you can change multiple guitar sounds/effects without leaving the Vocal

Layer. To control multiple Vocal and Guitar effects simultaneously without having to leave the current Layer, you can assign Vocal HIT to the HIT footswitch and Guitar HIT to the footswitch right next to it (Double)

2 CLASSIC 3RD UP		
HARDTUNE	DELAY	SYNTH
HIT	HIT	HARMONY

*Double footswitch on the Vocal Layer remapped to Guitar HIT*

Remember that remapping a *Guitar* effect to the *Vocal* Layer needs to be done via the *Vocal* Buttonmap.

## Talk/Tuner Mode

Before you get too far into playing your guitar through VL3X, it's a good idea to become familiar with the Talk/Tuner mode.

The tuner offers a couple of neat features for both guitar and vocals – so non-instrumentalists might want to read this section, too.

To enter Talk/Tuner mode, press both the Preset up and Preset down footswitches simultaneously for two seconds. Both footswitches will light up in red, and the tuner will be displayed.

When you enter Talk/Tuner mode, the guitar will be muted, so you can tune without your audience hearing it, and any vocal effects will be removed from the signal. The vocal effects are removed so you can talk to your audience without effects cluttering up what you are trying to say.

While in Talk/Tuner mode, you can still use the Preset up and Preset down footswitches to change Presets. This is especially handy if you are tuning, changing guitars or addressing the audience between songs and want to have the next needed Preset loaded when you are finished.

Setting the Talk Trim parameter to OFF allows you to also mute the microphone in TALK/TUNER mode. For more information, see [“Talk Trim parameter”](#).

### Exiting Talk/Tuner mode

To exit Talk/Tuner mode, simply press both the Preset up and Down button simultaneously again. When exiting, there is no need to hold for two seconds. You can also press any of the effect footswitches to exit Talk/Tuner mode.

## Guitar Effects

For those of you playing guitar, this is a good time to try out the various guitar effects in VL3X. If you are a vocalist without a guitar, go get a coffee or follow along to learn about the Guitar Layer...

Press the Layer footswitch. You should notice that VL3X's LEDs turn RED – indicating you are now on the guitar Layer. Look at the screen, too. You will see that the effect names have changed, and there is a small guitar icon in each of the boxes (there are small microphone icons in each Vocal Layer box).



*Guitar Layer active*

While playing your guitar, tap some of the footswitches to turn the various guitar effects on and off.

Change a guitar effect to Momentary mode as described in [“Change a button from Latched to Momentary mode”](#). However, press the Guitar button instead of the Vocal button to begin the

process. You are now in Guitar Edit mode, and you can move to the Buttonmap screen from there.

There is a separate Buttonmap screen for both the Vocal and Guitar Layer – but that’s a can of worms we can open later.

## Editing HIT

Return to the Vocal Layer by pressing Home. If you are on the Guitar Layer (indicated by red LEDs), press the Layer button until the Vocal Layer is active.

You can easily edit the effects contained within the HIT function. It is possible to have effects active when HIT is on or off. We refer to these two states as “HIT on” and “HIT off”. Think of them as two variations of a Preset.

- ▶ Press the HIT button a couple of times.
- ▶ Take note of which effects come on and off when HIT is active (HIT on) and inactive (HIT off).
- ▶ Now, let’s add an effect to the “HIT on” flavor of this Preset.
- ▶ Activate HIT.
- ▶ Now, turn on an effect that is currently off. For this example, try  $\mu$ Mod.



Preset 2 – HIT on

- ▶ Press HIT. Notice that  $\mu$ Mod (and Harmony) turns off.



Preset 2 – HIT off

- ▶ Press HIT again. You will see that  $\mu$ Mod comes back on, in addition to Harmony, which was previously activated by pressing HIT.



- ▶ If you save the Preset, your new HIT assignment will be saved and you can control both  $\mu$ Mod and Harmony with the single HIT button the next time you use the Preset.

## Tips and tricks for using HIT effectively

- ▶ If you would like an effect to be ON regardless of the HIT button’s state, just activate it for both HIT ON and HIT OFF. For some effects such as Reverb, it is common to leave them on all the time.
- ▶ HIT can control any or all of the effects for both guitar and vocals, or guitar/vocals simultaneously.
- ▶ Use the process described above while on the Guitar Layer to change the effects associated with Guitar HIT.

## Using ALL HIT

What’s better than being able to have separate HIT footswitches for the Guitar and Vocal Layer? How about one footswitch to rule them all? This feature is called ALL HIT, and you can easily assign it to a footswitch as described in [“Remapping a footswitch”](#).

- ▶ Press the Vocal button.
- ▶ Press and HOLD the right Arrow (>) to “jump” all the way to the end of the available effects pages.
- ▶ Use the < or > button to locate the Buttonmap page.
- ▶ Use the Control Knob to scroll down and highlight the line starting with “HIT”.
- ▶ Use the Mix Knob to change the HIT assignment from Voc HIT to ALL HIT.



*HIT footswitch remapped to ALL HIT*

uMOD	CHOIR	RHYTHMIC	STUTTER	BUTTONMAP
DELAY	MODE	PARAM1	PARAM2	
DELAY	LATCHED	-	-	
REVERB	MODE	PARAM1	PARAM2	
REVERB	LATCHED	-	-	
HIT	MODE	PARAM1	PARAM2	
ALL HIT	LATCHED	-	-	

*HIT footswitch remapped to ALL HIT*

- ▶ Press Home.

Now the HIT footswitch controls HIT for both Guitar and Vocal effects in this Preset. When you press HIT, you will see that it now lights up purple instead of blue, indicating that it’s controlling both vocal and guitar hit. There’s also a “wrench” icon instead of a microphone – showing you that you are no longer just controlling Vocal effects.

## HIT – Dynamic versus Snapshot

VL3X's default HIT behavior is “dynamic”, which means you can make edits to the effects contained within the HIT variation of the Preset by simply turning them on and off as described under [“Editing HIT”](#). It's a very quick and intuitive way of combining effects – especially while editing a Preset.

That being said: While on stage, you may want to turn an effect on or off during the song – but still have HIT activate and deactivate the specific effects you have defined.

Let's see an example:

### Using HIT in “Dynamic” mode (default)

You have saved the Preset with Reverb active all the time (ON) and Harmony only when you have turned on HIT (HIT ON).

You start the song with HIT turned off, so you just have Reverb (but no Harmony voices) on your voice. You decide that it would be nice to have some delay for a particular section, so you turn Delay on. Then, the chorus section of your song comes up – so you press HIT to activate Harmony. Reverb stays on and Delay goes off – just as you would expect.

Now when you press HIT again, Harmony turns off – but Delay comes back on with the Reverb. This may not be what you want.

### Using HIT in “Snapshot” mode

You might want HIT to ALWAYS turn on/off only those effects you have saved for HIT within the Preset.

That's where “Snapshot” mode comes in. No matter what effects are active at the time: HIT will always override them and just turn on/off what you have saved.

Typically “Dynamic” can be a great editing mode, while “Snapshot” can be a more “fool-proof” live performance mode.



## Changing HIT mode from Dynamic to Snapshot

- ▶ Press the Setup button.
- ▶ Use the < or > buttons to navigate to the System page.
- ▶ Use the Control Knob to scroll down to the HIT Behavior parameter.
- ▶ Change HIT Behavior from Dynamic to Snapshot.

INPUT	OUTPUT	GUITAR	MIDI	ZONE	SYSTEM	BUTTONMAP
GLOBAL NATPLAY	SOURCE	ALL GUITAR FX	GLOBAL	OFF		
GLOBAL TEMPO	OFF	GLOBAL KEY/SCALE	ON			
TUNER REFERENCE	440.0	HIT BEHAVIOR	SNAPSHOT			

*Changing HIT Behavior from Dynamic to Snapshot*

## Storing Presets

Since we are talking about storing a change to your Preset – let's do it.

Tapping the Store button accesses the Store screen, where you may name, assign and save your Presets.

In the upper part of the Store screen, you will see the current name of the Preset. Use the Mix Knobs under the display to control the following functions:

### Cursor (assigned to Mix Knob 1)

Use Mix Knob 1 to move the cursor (the currently selected character). This is handy for quickly navigating to a position in the Preset name.

### Letter (assigned to Mix Knob 2)

Use Mix Knob 2 to select the letter, number or symbol for the current cursor position.

### Ins(ert) / Del(ete) (assigned to Mix Knob 3)

- ▶ Turn Mix knob 3 clockwise (right) to insert an empty character (a blank) to the left of the currently highlighted character.
- ▶ Turn Mix knob 3 counter-clockwise (left) to the left to delete the currently highlighted character.

### Store to (assigned to Mix Knob 34)

Use Mix Knob 4 to select the Preset number where the current Preset will be stored.

- ▶ If you want to save the Preset where it currently is, do not change this value.
- ▶ If you would like to save the Preset to another location, change “Store To” to another number.  
The name of the selected Preset slot will be displayed in the upper part of the screen.

Using Store To is handy when you would like to make several Presets with similar sounds. You can create a “master” Preset and store it so a few different locations using Store To. You can then edit those copies further if you wish.



*Store menu*

When you are finished naming and assigning your Preset, simply press Store again to complete the operation.

### Storing Presets and HIT Behavior

When you have set HIT Behavior to “Snapshot” mode, you must save the Preset for each HIT state – on and off – in order for your changes to be stored. Prepare both variations of the Preset (on and off) and store them, like this:

- ▶ Turn HIT off.
- ▶ Turn the effects on that you would like to use when HIT is off.
- ▶ Press the Store button twice.
- ▶ Turn HIT on.
- ▶ Turn the effects on that you would like to use when HIT is on.
- ▶ Press the Store button twice.

## Tapping tempo

You can use Tap Tempo to have the tempo-based effects align with the tempo of your song.

- ▶ Press and HOLD the Delay footswitch.
- ▶ You should see the Delay footswitch pulse with a purple LED, and the current tempo (in beats per minute) will be displayed.
- ▶ Tap the Delay footswitch in time with the song you are performing (or about to perform).
- ▶ After a few beats, stop tapping the footswitch and wait for the Tempo display to disappear.
- ▶ If it is not already on, activate the Delay effect with its footswitch.
- ▶ You should hear your Delay “taps” trail off in time with the music.

There is another function in the tap tempo window that you may find handy. Let's try it.

- ▶ Enter Tap Tempo mode the same way you just did.
- ▶ You will notice that the Preset up and Preset down footswitches are lit solid blue.
- ▶ These footswitches allow you to increase or decrease the tempo in 1 BPM increments.
- ▶ For example, press the Preset down footswitch to decrease the tempo.

Manually adjusting the Tap Tempo can be handy if you want to set a specific tempo, e.g. when you have to follow a click track. And of course, both methods can be combined: Use tapping to “get close” to the desired tempo and use the Preset footswitches for fine-tuning.

## Using Global Tempo

Depending on how you would like to manage tempo within VL3X, you can choose whether tempo information is recalled from each individual Preset or managed globally.

If you would like to store specific tempos within your Presets, simply set the tap tempo as described in [“Tapping tempo”](#) and save the Preset.

If you would like to set one tempo and have all Presets “follow” it, you will need to head into the System menu.

- ▶ Press the Setup button.
- ▶ Use < or > to navigate to the System tab.
- ▶ Use the Control Knob to scroll down to the Global Tempo option.
- ▶ Use the Mix Knob to change the value to ON.
- ▶ Press the Home button.

INPUT	OUTPUT	GUITAR	MIDI	TOPE	SYSTEM	BUTTONMAP
GLOBAL NATPLAY	SOURCE	ALL GUITAR FX	GLOBAL	OFF		
GLOBAL TEMPO		GLOBAL KEY/SCALE		ON		
TUNER REFERENCE		HIT BEHAVIOR		SNAPSHOT		

*Global Tempo on*

Now, any tempo you tap will immediately be effective and be used for whatever Preset you choose.

## Editing an Effect

Now that we have heard some sounds, let’s edit an effect in a Preset. You can choose to edit either the Vocal or Guitar effects, whichever you like.

To edit the Vocal effects within a Preset, press the Vocal button.



Editing Vocal effects

To edit the Guitar effects within a Preset, press the Guitar button.



Editing Guitar effects

Both effect layers (Vocal and Guitars) have a series of “tabs”. There is a tab for each effect within a Preset, and there are a couple of extra tabs for other Preset options like Button Mapping and Expression Pedal assignment.

All the effect edit screens that you can access using these tabs have a similar structure. On

top of each edit screen, you will find simple and easy-to-use controls, while scrolling down using the Control Knob will show more parameters that offer more advanced parameters for deeper editing.

On the top level, most effects have four main parameters:

1. Style: Style sets the “sound” of the effect. For example, you might choose a “Hall” or “Studio” reverb type.
2. Parameter 1: The first parameter shown varies from effect to effect and will have a different name – it will not be called “Parameter 1”. To continue with the Reverb example, Decay time is located here.
3. Parameter 2: Again, this control will vary from effect to effect, but is commonly the Level control, which controls the overall volume of the effect.
4. Control: control sets the “state” of the effect and how it is controlled.
  - ▶ **Off:** The effect is inactive.
  - ▶ **On:** The effect is active, regardless of the status of the HIT button.
  - ▶ **HIT On:** This effect is active only when the HIT button is ON.
  - ▶ **HIT Off:** This effect is active only when the HIT button is OFF.

You may also change this control by pressing the footswitch associated with this effect (if it is mapped to a footswitch). This can be a quick way to set up several effects to come on or off when HIT is pressed.

The concept of “HIT on” and “HIT off” can be a little confusing at first – but you will soon get the hang of things. A user suggested this analogy:

“It can be useful to think of HIT on as “throwing a bunch of effects onto a table” and HIT off as “knocking or wiping a bunch of effects off of the table”. Effects that are on simply can’t be knocked off the table – and effects that are off can’t be put onto it using HIT.

Back to editing...

- ▶ Turn off ALL effect blocks but one. It doesn’t matter which effect you leave on, so long as you can clearly hear the effect. For this example, we assume that you are using the Harmony effect in the Vocal Layer.
- ▶ Press the Vocal button.
- ▶ Navigate to the Harmony tab.



Switching off all effect blocks except for Harmony

- ▶ Change the Style parameter using the Mix Knob directly below “Style” on the screen. Notice how the sound of the effect changes. It can be a subtle change or a drastic one, depending on the Style.



Changing the Harmony Style parameter

- Once you have chosen a Style that you like, you are 90% of the way there. We will skip over to the Level parameter now.
- ▶ Using the Mix Knob directly below the “Level” parameter, change the level (volume) of the effect. Find a setting that sounds good to you.
  - ▶ Now, turn on another effect. It still doesn't matter which one. Notice how the two effects interact with each other.



Navigating to the Delay tab

- ▶ Use the < or > Arrow buttons to navigate to the effect you just activated. In the image above, that's Delay.
- ▶ Try changing the Style of the newly activated effect. Find a style that sounds good with the other effect you had turned on.
- ▶ Adjust the Level control of the new effect to blend it with the first.

From here on in, EVERYTHING is advanced, specific editing. Try manipulating the other parameter on the screen, be it decay time, lead level, speed or whatever is shown there. Notice how it changes the sound of the effect.

Use the Control Knob to scroll down. You will see many, many different controls and parameters on each effect tab. **DON'T PANIC!**

Typically, advanced parameters are defined and loaded with the Style you choose and should sound pretty darned good as they are. If you have got some audio engineering experience or

own one of our other products, like VoiceLive 2, you may recognize some or all of the advanced controls.

If you don't recognize anything, there are two paths you can take:

1. Don't touch anything you don't recognize. Slowly back away from the advanced menu. There be dragons in that cave!
2. Turn every parameter as far as it will go in each direction and see what happens!

Whether you choose #1 or #2: It's totally fine. We can't tell you how fast or far to venture into the depths of VL3X. All we can do is recommend that you treat VL3X like any other instrument or skill you would try to learn and give things some time.

From our own experience, you know it's a good time to venture deeper into the menus and controls when you say to yourself: “Hmm. This would sound *perfect* if only the [X] was a bit more/less [Y]...”

Once you start thinking like that, you will know that your skills have moved beyond using Style, and you will likely find the experience of editing advanced parameters more thrilling than daunting.

Remember to go through the Store procedure after you have made changes to a Preset. Changes are not stored automatically. If you edit a Preset and switch to another Preset without storing, all changes you made will be lost.

## Defining and using Global Effects

Each effect in VL3X can load and use Global settings. Global settings make editing effects much easier and faster, but you need to understand the concept to use it effectively.

### How do Global Effects work?

First, you define a “Global Preset” in the System menu. This Preset is the Preset from which any other Preset can “pull” settings for any effect. Think of this Global Preset as a template or master.

In the screen shot below, you will see that Preset 491 has been defined as the Global Preset. You can change this to any other Preset if you like. However, we recommend making yourself familiar with editing the Global Preset and turning Global ON in other Presets before you reassign the Global Preset.

INPUT	OUTPUT	GUITAR	MIDI	TOPE	SYSTEM	EDIT	MAP
CONTRAST				GLOBAL PRESET			
50 %				491			
GLOBAL NATPLAY SOURCE				ALL GUITAR FX GLOBAL			
OFF				OFF			
GLOBAL TEMPO				GLOBAL KEY/SCALE			
ON				ON			

*Global Preset set to Preset no. 491*

If you invest some time into creating effects that you like in your Global Preset, you can then access these effects in any other Preset by simply setting one parameter.

We have defined a Global Preset for you already (the factory default is 491), but you can make your own.

### Tip: Keep your Global Preset safe

We suggest placing the global Preset in a location quite far from your other Presets in the box, so you don’t accidentally overwrite it. Any Presets that depend on the information in the Global Preset will be affected if you delete or change it.

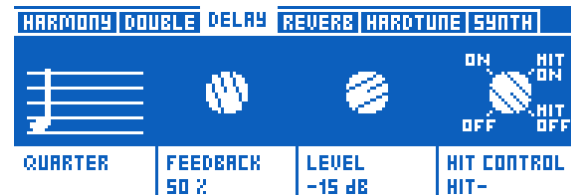


## Defining the Global Preset

- ▶ Press the Setup button.
- ▶ Use < or > to navigate to the System tab.
- ▶ Use the Control Knob to highlight “Global Preset”
- ▶ Use the Mix Knob below “Global Preset” to change its value to represent the Preset number you would like as your Global Preset.

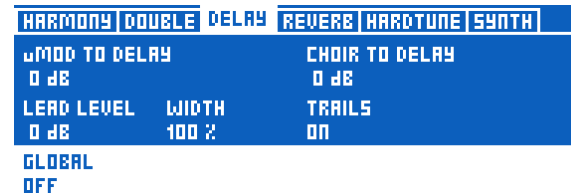
## Using an effect from the Global Preset

- ▶ Select a Preset that you would like to link to the Global Preset.
- ▶ Press the Vocal or Guitar button (depending on which effect you would like to edit).
- ▶ Navigate to the effect tab for the effect that you would like to link to the Global Preset – e.g. Delay.



Delay effect block settings

- ▶ Use the Control Knob to scroll down to the “Global” parameter. It should say “Off”.



Global set to Off in the Delay block

- ▶ Change it to “On” using the mix knob right below the parameter.



Setting Global to On for the Delay block

- ▶ Settings from the Global Preset will be applied to this effect immediately.
- ▶ You will also see that the tab name has changed from “Delay” to “Delay-GBL” – indicating that this particular effect is using Global settings.

## Important: The link between the Global Preset and other Presets goes both ways

Before you make any tweaks to the effect you have just made Global, there is something you should know.

If Global is ON in any Preset and you make changes to the settings of the respective effect, this will change the settings of the Global Preset (and all other Presets where that particular effect is set to Global on).

That can be really handy – or a disaster, if you are not prepared for it.

## Using the Global Preset to copy effect settings into a Preset

As you just read, the link between the Global Preset and other Preset goes both ways. However, you can also use this feature temporarily to copy effect settings from the Global Preset to another Preset and then edit them independently.

- ▶ Select a Preset.
- ▶ Select an effect that should use the settings from the Global Preset as a starting point.
- ▶ Set Global for this effect to on.  
This will copy the settings for this effect from the Global Preset to the current Preset.
- ▶ Set Global for this effect to off again.  
This “breaks the link” between Global and current Preset, allowing you to modify the settings locally.

## MIDI Sync

MIDI sync allows you to send tempo information from an external device (computer, keyboard, sampler etc.) to VL3X and have it maintain the same tempo as the Master device.

To enable MIDI Tempo, navigate to the SETUP – MIDI menu and turn MIDI Tempo ON.

INPUT	OUTPUT	GUITAR	MIDI	TOPE	SYSTEM
SOURCE	USE			MIDI TEMPO	ON
INPUT CHANNEL				OUTPUT CHANNEL	1
INPUT FILTER				OUTPUT FILTER	NONE

*Setup – MIDI menu*

VL3X can act as a MIDI Tempo *slave* only. It cannot generate or send MIDI Tempo.

For more information, see [“Looping and MIDI Sync”](#).

# Backing Track Import

Let's now tackle the very first step in working with Backing Tracks: Getting them into your VL3X. For working with Backing Tracks, see [“Using Backing Tracks”](#).

First, you will need to get your hands on a **USB flash drive** (also called a USB memory stick or thumb drive). An external hard disk drive should work too, but please note that there is no official support for using external hard disk drives.

## Supported USB flash drive file systems

The USB flash drive needs to be formatted using the FAT32 file system. NTFS, HFS+ (the OS X file system) or other file systems cannot be read by VL3X.

Instructions for formatting a USB flash drive with FAT32 can be found here:

[wikihow.com/Format-FAT32](http://www.wikihow.com/Format-FAT32)

Next, you need to copy some Backing Tracks to the USB flash drive.

## Copying audio tracks to your USB flash drive

Your VL3X can only import MP3 or WAV audio files.

- ▶ Insert the USB flash stick into your computer and drag/drop your Backing Tracks onto the drive. You can also use a file manager application.
- ▶ Make sure to copy all audio files to the root directory of the flash drive. That means you should not put audio files into folders or sub-folders. Your VL3X will not find these files.
- ▶ Insert the USB flash drive stick into the USB Host Port on VL3X.
- ▶ Your VL3X will recognize all valid audio files in the root directory of the flash drive and make them available for import.
- ▶ Press the Store button once.
- ▶ Use the arrow buttons below the Control Knob to navigate to the TRACK IMPORT tab.



### Backing Track Import

- ▶ You will see a list of available Backing Tracks to import.

Please note that if the TRACK IMPORT tab was already selected when you inserted the USB flash drive, you will need to exit and re-enter that tab for the tracks to show up. The track list is not updated in real time, so the menu needs to redraw.

### Importing all tracks from a USB flash drive

- ▶ To import all tracks from the flash drive, choose “IMPORT ALL” on the TRACK IMPORT tab.
- ▶ Press and HOLD the Control Knob to begin the import process.
- ▶ A confirmation dialogue will appear.

### Importing a single track or selected tracks from a USB flash drive

- ▶ Use the Control Knob to scroll the list of tracks on the TRACK IMPORT tab.
- ▶ To select a track for import, tap the Control Knob when this track is highlighted. A small “x” will appear next to each selected track.
- ▶ Press and HOLD the Control Knob to begin the import process.
- ▶ A confirmation dialogue will appear.

## Backing Track audio format

The internal audio file format of VL3X for Backing Tracks is 16 bit resolution and 48 kHz sampling rate. If you convert your audio files to this format directly from the signal source (e.g. your DAW), you can save up to 60% of the import time.

If your audio files are MP3 files or WAV files with another resolution or sampling rate, they need to be converted. When the conversion is done, you can start using these tracks. This process can take a while.

Please note that VL3X will NOT show up as a hard drive when connected to your computer. A USB flash drive must be used for Backing Track import.

# Using Backing Tracks

## Backing Tracks and Presets

In this section we will discuss how Backing Tracks and Automation (Sequences) relate to VL3X Presets.

Think of the Preset as a “container” for...

- ▶ the vocal/guitar effects settings,
- ▶ the Backing Track and
- ▶ the performance data that you have recorded.

Accordingly, when you load the Preset, all of these components are loaded too.

If a Backing Track is associated with a Preset, holding the “Layer” button will enter the Backing Track player (rather than the looper). From the Backing Track player, you can control playback and sequence recording for that Preset.

## Associating a Backing Track with a Preset

- ▶ Press the Looper touch button.
- ▶ Use the > Arrow button (below the Control Knob) to navigate to the far right BACKING TRACK tab.
- ▶ On the BACKING TRACK tab, you will find a Backing Track parameter that allows you to choose a Backing Track.



### Selecting a Backing Track

- ▶ Use the Control Knob to highlight the Backing Track parameter.
- ▶ Use one of the Mix Knobs to select the Backing Track you would like to use from the list of tracks you have previously imported (see “Backing Track Import”).
- ▶ Save the Preset by pressing the Store button twice.

Now each time you load the Preset, the Backing Track will also be loaded. Press/hold of the Layer button now takes you to the Backing Track player instead of the Looper.

You will also notice that the LOOPER and PRESET tabs disappear from the Looper button’s

menu when you choose a Backing Track. This is to simplify the menus and only show what is relevant to your current setup.

If you change the Backing Track parameter back to NONE, the LOOPER and PRESET tabs will reappear.



*Backing Track set to “None”*

## Backing Track Gain

Track gain allows you to adjust the gain of a particular Backing Track on a per-Preset basis.

Please note that the first place you should go to adjust the overall level of your Backing Tracks is the MIX page(s). There is a TRACK control in the Main and Headphone mix screens.

MAIN MIX		HEADPHONE MIX	EFFECTS MIX
GUITAR	LOOPER	AUX	MAIN OUT
-6 dB	0 dB	2 dB	0 dB
METRONOME	TRACK		
-15 dB	0 dB		

Track level control on the Main mix screen

Once you have got the general balance between your Vocal, Guitar, Loop, MET, Aux and Track levels, you can use the Track Gain parameter to tweak an individual track to blend optimally in a particular Preset.

If you associate a Backing Track with multiple presets, you'll need to adjust the Track Gain parameter in each one.

## Playing Backing Tracks associated with a Preset

There are three ways to play Backing Tracks.

### Playing Backing Tracks using the Backing Track interface

Press and hold the LAYER button to enter the Backing Track player.



Backing Track interface

You will now see transport and sequence recording controls as described here:



Backing Track player controls – bottom row, left to right

- ▶ Track Selection Menu: Opens a screen that allows you to choose a track – similar to the file selector dialog box in your computer's operating system with the following controls (from left to right):



Backing Track Selection menu

- ▶ Backing Track list (right half of the screen):
- ▶ Use the Preset UP/DN footswitches to browse the available Backing Tracks.



- ▶ Press the STEP footswitch to select the currently highlighted Backing Track.
- ▶ Press the LAYER footswitch to cancel Backing Track selection.
- ▶ Skip Back
- ▶ Skip Forward
- ▶ Stop: Stop playback of the Backing Track.
- ▶ Play: Start Backing Track playback.



*Backing Track player controls – top row, left to right:*

- ▶ Function Menu: Opens a menu with Backing Track related functions with the following controls (from left to right):



*Backing Tracks Function menu*

- ▶ Door icon: Back to the Backing Track player transport control screen
- ▶ Trash icon: Delete Sequence. You need to hold this button to perform this action.
- ▶ Disk icon: Save Sequence.
- ▶ USB icon: Export Sequence to USB.
- ▶ Home icon: Exit the Backing Track player.
- ▶ Disk icon: Save Sequence Recording
- ▶ Undo icon: This is an (unlimited) Multi-layer Undo feature.

- ▶ Circle/R icon: Use this to initiate Sequence recording. Press and hold to change to “Sequence Overdub” mode. More on this under [“Overdubbing”](#).

### Playing Backing Tracks using a footswitch Buttonmap assignment

Once you have associated a Backing Track with a Preset, you can map any of the six effect footswitches in this Preset to play, pause and stop the Backing Track.

Here is how to assign footswitches to Backing Track control functions:

- ▶ Press the Vocal or Guitar button (depending on which Layer you’d like to assign the track playback button to). If you want to, you can put a track playback button on *both* layers.
- ▶ Use the left or right Arrow buttons to navigate to the BUTTONMAP tab.
- ▶ On the BUTTONMAP tab, you can assign the “TRACK START” function to any button.

	RHYTHMIC	STUTTER	BUTTONMAP	EXPR PEDAL	PRESET
ROW 1		MOD	DELAY		REVERSE
		TRACK START	DELAY		REVERSE
		MODE	MODE		MODE
		-	LATCHED		LATCHED
ROW 2		HIT	DOUBLE		HARMONY
		VOC HIT	DOUBLE		HARMONY

*Assigning Backing Track control to an effect footswitch using the Buttonmap*

Use the assigned button to control Backing Track playback as follows:

- ▶ Press: Play
- ▶ Press again: Pause
- ▶ Press again: Play
- ▶ Press & Hold: Stop and return to the beginning.

### Playing Backing Tracks using a Switch-3, Switch-6 or the STEP footswitch

Here is how to assign Backing Track playback to a Switch-3, a Switch-6 or the STEP footswitch on your VL3X.

- ▶ Press the SETUP button.
- ▶ Use the left or right Arrow to navigate to the FOOTSWITCH tab.
- ▶ Use the Control Knob to select the row containing the switch that you would like to modify.
- ▶ Use the Mix knob to change the button assignment to TRACK START.
- ▶ There are also controls for STOP, FWD and BACK if you want more control.

If a Backing Track is playing and a sequence exists, it's not possible to change presets. You'll need to pause or stop the Backing Track playback before presets can be changed.



*Assigning Backing Track control to a footswitch on a Switch-3 using the Buttonmap*

Please note that the Switch-3, Switch-6 and STEP assignments are **global** and will work for any Preset that you have assigned a Backing Track to. This is useful because you don't have to sacrifice an effect footswitch in each Preset that has a Backing Track.

## Backing Track Sequence Recording (Automation)

First, a definition of automation as it relates to VL3X:

- ▶ You can record your button presses on both the Vocal and Guitar layers (including Steps) within a Preset while the Backing Track is playing.
- ▶ When you play back the track in the future, your recorded button presses are executed automatically.

This means that you can theoretically perform an entire song with just one touch of a button on your VL3X. To do so, you would simply press the track start button – and everything else happens as you recorded it into the sequence.

What gets recorded into the sequence?

When recording a Sequence, any vocal or guitar effect footswitch you toggle (including HIT and ALL HIT, plus any STEP changes) will be recorded.

What does not get recorded into the sequence?

Parameter changes (like panning etc.) are not recorded. We don't track real-time changes to things that are "under the hood".

## How should I approach sequence recording?

There are two schools of thought for recording performances.

a.) The “experienced live performer approach”: You already know the exact “moves” you would normally make during the performance of a song and just want to go for it.

b.) The “studio wizard approach”: You want to “build” the song one part at a time, perhaps using controls that would be physically impossible to replicate in real-time.

If you fall under a) above, you would simply

- ▶ fire up the Backing Track player screen,
- ▶ press the RECORD button,
- ▶ perform your song as normal, pressing all buttons and
- ▶ press STOP when you are finished.

Now when you press PLAY, you’ll see that your “moves” have been recorded and any effect or STEP changes will happen automatically as the song progresses.

If you fall under b), you may want to take your time to build the perfect Sequence. When doing so, you may not know what effects to use or when exactly to make changes. In that case, we suggest working on “just the vocals” or “just the guitar” first. Work your way through the song, focusing on guitar or vocal effect changes.

You can still use any of the Record/Overdub methods described below – but stick to just the one instrument until it’s just right. Then, make sure you’re in Overdub recording mode (so the guitar or vocal changes you have already recorded will be preserved), change to the other Layer (Guitar or Vocals) and begin building up the remaining effects.

## Fixing Sequence Recording mistakes

If you have made an error when recording your Sequence, there are three ways to fix it.

### Redo it

Simply go back to the beginning of the track and press RECORD again. Please note that this is a destructive recording process – so everything you previously recorded will be overwritten. You would have to do this as many times as necessary until you get everything right. This is the most time consuming approach.

### Punch in and out

Using the Control Knob, scroll through the Backing Track until you find the location of the error. Move the play head slightly before the mistake using the Backing Track playback controls and press RECORD. This will “punch in” and begin recording new sequence data at that point. You can press STOP when you’re finished. Any existing sequence data that exists after you press stop will remain in place. You can replace small or large sections of the sequence using this method.

### Overdubbing

Use Overdub mode. To activate Overdub mode, press and hold the RECORD button.



*Overdub Mode activated (indicated by the Circle icon)*

Once you are in overdub mode, pressing the button again will begin an overdub recording. This will add any new button presses into the sequence while preserving existing ones. To deactivate Overdub mode, press and hold the RECORD button again.

# Importing and Exporting Performances

We've made it really easy to import and export

- ▶ a Preset,
- ▶ the associated Backing Track and
- ▶ Sequence information.

The file format is called "package", with the ".VL3pkg file" suffix.

You can use the Import/Export feature to back up your own work or share it with other people.

**TC-Helicon is NOT responsible for maintaining copyright integrity on audio tracks. If you don't own the track, don't share it without express permission of the owner!**

## Performance Export

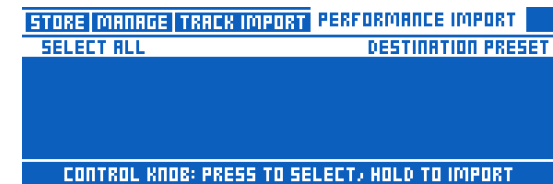
- ▶ From the Backing Track screen, press the Preset UP button to enter the Function menu.
- ▶ Press the Reverb button (USB flash stick icon) to export your performance.
- ▶ A notification is shown when export is complete.



*Performance Export function (USB flash stick) in the Backing Track function menu*

## Performance Import

- ▶ With your USB flash stick inserted, press the STORE button.
- ▶ Use the > arrow button to navigate to the PERFORMANCE IMPORT tab.



*PERFORMANCE IMPORT tab*

- ▶ On the PERFORMANCE IMPORT tab, you can select the performance package(s) you would like to import and also choose the Preset number destination.
- ▶ Use the far right MIX knob to select the destination Preset location.

Keep in mind that if you choose a Preset location that already contains Preset data (with or without a sequence) that Preset data will be overwritten.

## Direct to USB Recording

Another great feature of VL3X is the ability to stream stereo audio directly to a connected USB flash drive.

Here is how to use Direct to USB Stereo Recording:

- ▶ Simply connect your FAT32-formatted USB flash drive to the host port.
- ▶ Wait about 5 seconds for the device to be detected and set up.
- ▶ To initiate recording, press and hold the GENRE and SETUP buttons simultaneously for about 2 seconds.
- ▶ To stop recording, press and hold the GENRE and SETUP buttons simultaneously again for about 2 seconds.

### Notes about Direct to USB Recording

Each time you start and stop recording, a new file is generated on your USB flash drive.

The audio captured is a direct mirror of the main output signal. This recording is always in two channel stereo format and also includes Backing Tracks or loops, if you are using these features.

Recordings have a maximum length of 120 minutes.

If you bring a camera to your show, you can easily capture video from the camera and audio from the VL3X, making for a super easy performance video with good quality! Simply mute the camera audio in your editor and replace it with the VL3X audio. *Just don't call TC-Helicon for video editing support...*

## USB Audio

USB Audio in VL3X acts similarly to the equivalent function in other TC-Helicon devices. It utilizes the generic USB Audio drivers in Windows and OS X to provide 2 Channel Stereo Input and Output.

### Notes about USB Audio

USB Audio is always Stereo / 16 bit / 48 kHz in both directions.

Please note that USB Audio and the Backing Tracks feature are mutually exclusive – i.e., you cannot use them at the same time.

Audio sent to the device can be used in two ways:

### Using USB Audio as an Aux

To use USB audio as an Aux, simply connect VL3X to your computer using a USB cable and designate it as the audio output device in your computer. With this setup, a stereo audio signal will be streamed to VL3X that you can sing/play along with. This audio signal will also guide NaturalPlay if no guitar or MIDI signal is present.

### Using USB Audio as Input(s) to VL3X effects

In this mode, the audio signal coming in over USB will be sent down the vocal and guitar signal paths. The signal on the LEFT side of the USB Audio stream is processed via the vocal path. The signal on the RIGHT side of the USB Audio stream is processed via the guitar path.



## USB Input Mode

To control the way USB audio is handled inside the unit, you have three modes to choose from. They are located directly beneath the “INPUT TYPE” parameter on the SETUP > INPUT page under the “USB MODE” parameter.

### Stereo setting

The Stereo setting works as described under [“Using USB Audio as an Aux”](#). Incoming USB audio is routed to the XLR and Headphone outputs. This is best used when you want the audience to hear the USB audio signal, too. NaturalPlay is driven by this input if there’s no Guitar or MIDI data.

### DAW (Digital Audio Workstation)

#### Tracking setting

This mode operates in the same way as Stereo with one exception: Incoming audio is *not* passed to the XLR outputs. It is still present in the headphone output. This allows you to listen to tracks from your recording software, sing/play along, then record the vocal and guitar back to your DAW without the guide tracks.

Please note that if you want guitar and vocal recorded on separate tracks in your DAW, you’ll need to perform two passes of performance, each recorded to a separate new track, once for singing and once for guitar playing.

### DAW Insert setting

Use this mode for “post processing” a previously recorded vocal or guitar from your DAW.

Typically, a dry vocal or guitar part (i.e., a part that may have been edited and re-timed, but has no effects) is sent to the USB L (vocal) or USB R (guitar) output from your DAW to your VL3X where it heads down the signal path and gets effects added to it.

#### *Notes about DAW Insert mode*

To receive and record the processed audio back in your DAW, you will need to create a new “destination” track.

Please note that sending and processing audio via USB will introduce latency, so you’ll likely have to “nudge” the processed track back a bit to line it up with the other tracks.

## USB Output Mode

In DAW TRACKING mode only, you may change the USB OUTPUT MODE setting (on the Setup > Output tab) from SAME AS XLR to Dry Vox L/ Guitar R. This will send your dry, unprocessed vocals to the Left USB out channel and the processed guitar signal to the Right USB channel.

Attempting to change this parameter in the other USB INPUT modes will result in a <LOCKED> message.

## Setting up USB Audio

### Setting up USB Audio in Windows

When Windows detects a new audio device, it will automatically set the device as “Disabled”. The Audio Device Manager also “Hides Disabled Devices” by default. This means that you may not see VoiceLive 3 in your “Playback” or “Recording” devices tabs.

To fix this, right-click on the Playback or Recording tab and uncheck “Hide Disabled Devices”. Then, click on VoiceLive 3 in both your Playback and Recording tabs and “Enable” the device.

Here’s a video that shows you how:

[youtube.com/watch?v=8-M5WBc3qJE](https://www.youtube.com/watch?v=8-M5WBc3qJE)

This will allow you to use VL3X as your input and output device.

### Setting up USB Audio in OS X (Mac)

Your Mac should automatically detect VL3X as an audio device when it is connected, and install the correct driver. You will then have to open the Audio MIDI Setup utility and set your VoiceLive 3 as the “Playback” and “Recording” device(s), depending on how you’d like to use VL3 in your setup.

### DAWs

When using a Digital Audio Workstation, you’ll need to choose the driver type for your audio de-

vices. If you are using VL3X with no other audio devices connected to your DAW – i.e., like a regular external audio interface –, then you should choose a WDM, Direct Sound or “Generic Low Latency ASIO Driver” (Cubase) setting.

It is not advisable to use WASAPI – especially with Audacity – since it puts the audio into “Loopback mode” and feeds input into output.

### Round-trip audio latency

There is roughly 70 milliseconds of round-trip latency through VL3X. When you have recorded vocal/guitar parts to tracks in your DAW, you’ll need to offset them accordingly in order for them to line up with other audio.

Programs like Cubase allow you to offset tracks individually. Otherwise, manually “sliding” the track works very well.

### DAW Audio + MIDI Data Timing

If you are using MIDI data/sync from a DAW such as Ableton alongside USB audio (as you might do when performing live), you may need to adjust Ableton’s MIDI offset in order to have the USB audio line up correctly with the internal VL3X metronome. The USB audio takes a tiny fraction of time to go “through” VL3 to the outputs, so you’ll need to delay MIDI data from your computer to compensate.

The best way to achieve the above is to send an audio metronome (along with MIDI clock) from Ableton via USB to your VL3X. You should hear

the metronome from Ableton coming from the VL3X. Then, activate the internal MET in VL3X on the Loop Layer. In Ableton, go to the Setup/MIDI page and use MIDI Send Offset until you hear the audio metronome from Ableton and the internal VL3X metronome line up perfectly. It may take some experimentation, but +70ms or so is a good starting point.

## Using the Mix Controls

As you probably have realized by now, there is a lot going on under the hood of your VL3X. Wouldn't it be great if you could control the levels of the signals going in and out of VL3X?

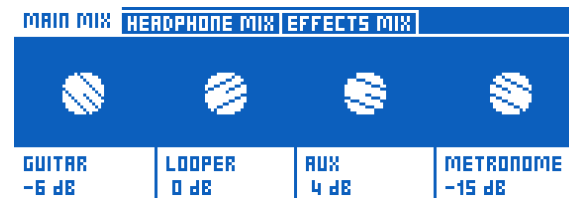
As it turns out, you can – and you do not even have to press any buttons.

- ▶ While on the Home screen, touch (move) any of the four Mix knobs right below the display to enter the Mix screen. There are actually three separate mix pages or “tabs”:
  - ▶ Main Mix
  - ▶ Headphone Mix
  - ▶ Effects Mix

Select the mix you want to control using the Arrow buttons under the Control knob. The last selection will be remembered, so when you use the Mix knobs later, you will be editing the previously selected mix.

### Main Mix

Main Mix controls the sounds that come from the XLR Out and Guitar Out jacks.



Main Mix controls

Use the Mix knobs to adjust the levels of the signals shown on screen. Scroll down using the control knob to see and adjust additional levels.

- ▶ Guitar
- ▶ Looper
- ▶ Aux
- ▶ Main Out
- ▶ Metronome
- ▶ Track

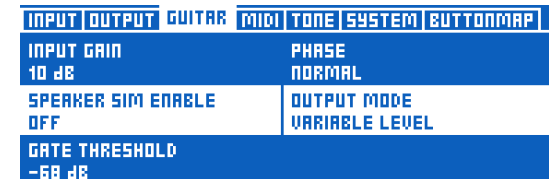
Keep in mind that if you are connecting the Guitar Out jack to a guitar amplifier, you likely want a fixed output level. In the Guitar tab of the Set-up menu, you will find a parameter called Output Mode that controls this.

- ▶ If you set Output Mode to Unity Gain (this is the default), this will set one master output volume for the guitar signals coming from the Guitar Out jack.



Output Mode set to Unity Gain

- ▶ If you wish to vary the output level of the Guitar Out (e.g. when you are connecting VL3X to a mixer or recording interface), change the setting to Variable Level.



Output Mode set to Variable Level

You can set the levels of both Aux and Metronome signals to Off if you wish to remove their sounds from the XLR outputs and only use them over your headphones or IEMs.

## Headphone Mix

Headphone Mix allows you to independently set the signal levels for the headphones or IEM connected to the Headphone jack. In other words: You can have a headphone or in-ear-monitoring mix that is independent of what goes out to the XLR outputs.



*Headphone Mix controls*

Use the Mix knobs to adjust the levels of the signals shown on screen. Scroll down using the control knob to see and adjust additional levels.

- ▶ Guitar Trim
- ▶ Loop Trim
- ▶ Metronome
- ▶ Headphones
- ▶ Main (Trim)
- ▶ Monitor
- ▶ Aux Level
- ▶ Track Level
- ▶ RoomSense
- ▶ Room Limit
- ▶ Room LoCut
- ▶ HP Limit (Headphone Limiter)

The Guitar Trim and Loop Trim controls allow you to increase or decrease the levels of Guitar and Loop relative to the Main Mix settings. The one

limitation this imposes is that you cannot set the Guitar or Loop controls in the Main Mix to Off and still hear them in your headphones.

### Headphone Limiter parameter

Use the Headphone Limiter parameter to set the limiter level for the headphone output.

0 dB allows for maximum potential headphone output. Levels below 0 dB (-3 dB etc) will restrict or “limit” the maximum potential headphone output. When using in-ear monitors, you may want to set the limiter in order to prevent hearing damage by transient loud noises such as feedback.

## Effects Mix

Effects Mix allows you to adjust the overall sound of your presets.

- ▶ **Voices:** Controls the overall level of any voices generated by VL3X. This includes Harmony, Double and Choir.
- ▶ **Voc Reverb:** Controls the overall level of the Vocal Reverb effect across your presets. If you find yourself in a venue that has a lot of (or very little) natural Reverb, you may not have the time to adjust the Reverb settings in all your Presets manually. Instead, use this control to better match the Reverb settings in your Presets to the physical space you are in.
- ▶ **Guitar Reverb:** Performs the same function as Voc Reverb for the Guitar Reverb in all your Presets.

## Tips and tricks for working with layers and effects

As we discussed in [“Concepts”](#) and [“Footswitches overview”](#), VL3X is comprised of three “Layers”: Vocal, Guitar and Looper.

Tapping the Layer button will give you access to the Layer you would like to control: Guitar or Vocal. Press and hold the Layer button to access the Looper.

Keep in mind that as we discuss editing Vocal or Guitar effects, **the editing process is independent of the Layer you are currently controlling.**

Put another way: You can have the Vocal Layer active (blue LEDs will show that you can use footswitch to control the vocal effects), but simply press the Guitar button (the blue one on the top panel) to enter and edit the Guitar effects.



*Editing Vocal effects while on the Guitar Layer*

As there are no effects linked to the Looper Layer, we will cover Looper operations in a separate section of this manual.

### General Vocal & Guitar Layer usage

The basic concepts of accessing effect settings and going from simple to advanced editing are explained in [“Editing an Effect”](#).

In addition to the effects tabs in the Vocal and Guitar edit screens, you will find the Buttonmap, Expression and Preset tabs.



*Editing Guitar effects while on the Vocal Layer*

## Footswitch tab: Remapping footswitches

We have already made some changes on the Buttonmap tab in [“Remapping a footswitch”](#) – so you have seen it before. Let’s dig a little deeper into it now.

- ▶ Enter the Vocal or Guitar edit screen.
- ▶ Navigate to the Mic Control or Footswitch tab.

Earlier in the [“VL3X overview”](#), we remapped a footswitch and changed the Mode from Latched to Momentary.

On the Footswitch tabs, each effect footswitch is represented by sets of two lines. Use the Control Knob to select a set, for example  $\mu$ Mod.

The first word in the first column is the name of the effect footswitch, as it is printed on the device. The name of the effect currently assigned to this footswitch is shown directly below it.

For now, you should see  $\mu$ Mod with  $\mu$ Mod directly underneath. If you are on the Guitar edit page, you will see  $\mu$ Mod and G  $\mu$ Mod respectively.

- ▶ Assign another effect to the  $\mu$ Mod footswitch by turning the Mix Knob directly below the parameter.

It doesn’t matter if the effect you choose here is already mapped to another button. For example, if you choose Harmony, you will now have Harmony mapped to both the  $\mu$ Mod button *and* the Harmony button (default). That’s OK – it just shows how remapping works.

- ▶ Press the Home button to return to the Home screen.  
You will see that the effect you have chosen is now shown in the top left corner of the screen and will activate if you press the  $\mu$ Mod button.

Typically, remapping footswitches is great for three situations:

- ▶ “That darn button is in the wrong place! I hate where it is and want to move it!”
- ▶ “I would like footswitch access to an effect that isn’t already assigned to a button.”  
For example, you might want access to Synth – so you decide to remap the Delay button.
- ▶ “I want access to a guitar effect on the vocal page.”  
For example, remapping the Double footswitch to Guitar HIT will give you access to guitar effects on the Vocal Layer – right beside Vocal HIT.

### Parm1 and Parm2

By now, you know how to remap footswitches and choosing between Latched and Momentary mode. But what are the other two parameters – Parm1 and Parm2 – good for?

Parm 1 and Parm 2 are part of the Loop Trigger Buttonmap. If you assign Loop Trigger to a footswitch, you need to choose which loop and which track you would like to trigger when you tap that footswitch.

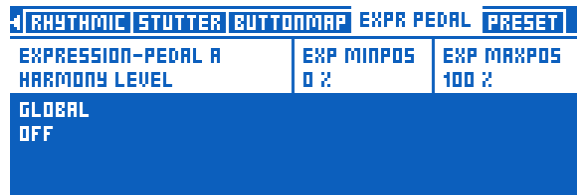
- ▶ Parm 1 defines which Loop Slot you are using (see [“Basic loop concepts and terms”](#)).
- ▶ Parm 2 defines which track (or combination of tracks) you would like to trigger when pressing the button.  
The available options are Loop A, Loop B, Loop C, A&B or A&C.

Learn more about the Looper in [“The Looper”](#).

## Expression Pedal tab: Getting the most out of your expression pedal

If you have connected an expression pedal to your VL3X, you can define what the expression pedal should control in each Preset.

Being able to define the expression pedal “target” in each Preset gives you a lot of flexibility from one pedal.



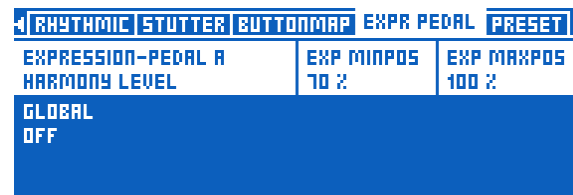
### Setting the Expression Pedal target

- ▶ Use the Expression pedal parameter to choose from many controllable “targets”.
- ▶ Use the Exp MinPos parameter to define the parameter value that should be associated with the minimum (down) position of the expression pedal.
- ▶ Use the Exp MaxPos parameter to define the parameter value that should be associated with the maximum (up) position of the expression pedal.

The MinPos and MaxPos parameters can be useful when you would like to limit the effective range of the pedal.

For example, if you assign the expression pedal to control harmony volume, you may want the harmonies to turn down slightly when you rock the pedal all the way back – but not turn them off

completely. To achieve this effect, you would set MinPos to something higher than 0% (try something like 50 or 70%). This allows you to make large (easy to perform) movements with the pedal without changing the level of the harmonies too drastically.



### Setting Expression Pedal MinPos and MaxPos

It can be useful to limit the expression pedal range for parameters such as Guitar Volume, Harmony Volume, Delay Feedback, Rhythmic Depth etc.

### Working with a second expression pedal

If you want to, you can use a second expression pedal with your VL3X. Connect this second Expression pedal to the Footswitch jack.

As opposed to the expression pedal connected to the Expression jack (which can be used differently in each Preset), the pedal connected to the footswitch jack only has a global setting – it will control all Presets in the same way. To use a second expression pedal:

- ▶ Press Setup.
- ▶ Navigate to the Buttonmap tab.

- ▶ Select the Footswitch Jack parameter and set it from Switch-3 to Expression pedal.

### Calibrating your expression pedal

If you are connecting an expression pedal, it must be calibrated.

- ▶ To enter the calibration screen, press the Setup button.
- ▶ Use the < and > arrows to navigate to the “Pedal Calibration” tab.



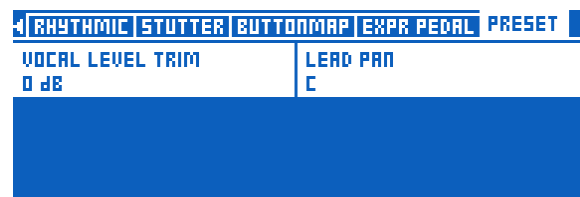
### Expression Pedal Calibration

- ▶ Follow the on-screen instructions.

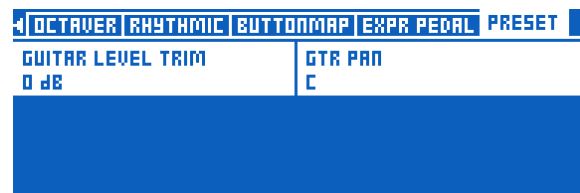
### The Preset tab

The Preset tab allows you to make changes to the Preset as a whole.

Most importantly, you can adjust the overall level of the Vocal or Guitar signals within a Preset. This allows you to balance your Presets so they all have the same apparent volume.



*Preset tab for the Vocal Layer*



*Preset tab for the Guitar Layer*

When you are adding effects to the (Vocal or Guitar) signal path, each of these effects inevitably adds some gain (volume) to the signal chain. This means that after adding several effects, your Preset may end up louder than it started. At this point, you may want to compare the apparent level of the current Preset to other Presets in VL3X – and then use the Level Trim controls on the Preset tab for Vocal or Guitar to make adjustments.

There is also a Pan control available in both the Vocal and Guitar Preset tabs that allow you to pan the vocal or guitar signal left or right. The default setting is “C” (for “Center”). It can be especially useful to assign Guitar Pan to an expression pedal if you would like to create stereo guitar loops, which we will discuss later.

Additionally, you can create some interesting vocal sounds by panning the lead vocal completely

to one side and then add effects. There’s a Delay Pan control in the Delay edit parameters too. Try panning the lead vocal to the far right and the Delay Pan to the far left for interesting results.



# Editing the Vocal Layer

## Introduction

Press the Vocal button to enter the Vocal edit screen.

For more information about editing Style, Level, Control and other parameters associated with each effect, see [“Editing an Effect”](#).



## Harmony effect block/tab

Harmony is TC-Helicon's most popular effect – and some might argue the most impressive one, too.

The Harmony effect creates harmony vocals from your lead voice. This harmony can contain up to four voices, each with different intervals, key/scale sources, pan, humanization and other settings.

Harmony can be used to add a single voice of harmony, up to a larger “group” sound depending on your application.

### Harmony effect block parameters

The Harmony effect block has the following parameters that allow you to adjust the effect:

- ▶ Harmony Style
- ▶ Lead Level
- ▶ Level
- ▶ Hit Control
- ▶ Humanization Style
- ▶ Humanization Amount
- ▶ Vibrato Style
- ▶ Vibrato Amount
- ▶ NaturalPlay Source
- ▶ Tuning
- ▶ Mode (for each voice)
- ▶ Voicing (for each voice)
- ▶ Level (for each voice)
- ▶ Gender (for each voice)
- ▶ Pan (for each voice)
- ▶ Portamento (for each voice)
- ▶ Portamento Smoothing (for each voice)
- ▶ Attack
- ▶ Release
- ▶ Hold Release
- ▶ Low Gain
- ▶ Low Frequency
- ▶ High Gain
- ▶ High Frequency
- ▶ Mid Gain
- ▶ Mid Frequency
- ▶ Mid Bandwidth
- ▶ Global

### Tips and tricks for working with the Harmony effect

- ▶ “Subtle” is often better when using any Harmony effect. Typically, when we hear complaints about the created voices sounding “robotic” or “fake”, it can be attributed partially to the Harmony voices being overly loud in the vocal mix.
- ▶ Level settings of -6 or dB lower can often yield great results, even if the voices aren't immediately obvious.
- ▶ “High” and “Low” styles are the most commonly used harmonies in popular music. If you are a male or have a lower voice, try “High”. If you are female or have a higher voice, try “Low”.
- ▶ When using a multi-voice Harmony style like “High & Low” or “High & Higher”, try adjusting the Pan and Level parameters in the Vocal Edit screen to adjust the location and volume of each voice.
- ▶ To expand on the above, try turning on Voice 3 and Voice 4. Set each to copy the settings of the existing two voices. Pan them opposite to the existing voices and reduce their level slightly. This puts one “High & Low” pair on the Left and Right of the stereo field with “High” being slightly dominant on one side and “Low” on the other.

High Low Lead High Low  
 Harm. (1) Harm. (2) Voice Harm. (3) Harm. (4)  
 < Left Right >

*Panning Harmony Voices*

To further expand, try adjusting the Smoothing and Humanization parameters for each of the four voices, so that each voice ends up a bit different from the other.

- ▶ On the Buttonmap tab of the Setup menu, you can remap the Step footswitch to various controls. Try remapping the Step footswitch to Harmony Hold. When the Harmony effect is active, press the Step footswitch (now assigned to Harmony Hold) to “fix” the current harmony note and hold it. You can then sing other notes as the Harmonies continue to sing the note you held.
- ▶ We suggest to also changing the Step Button Mode to Momentary to avoid accidentally turning Harmony Hold on and letting it hold a note indefinitely. You will find that brief use of the effect is typically the best approach.

INPUT	OUTPUT	GUITAR	MIDI	TONE	SYSTEM	BUTTONMAP
STEP BUTTON FUNCTION		STEP BUTTON MODE				
HARM HOLD		MOMENTARY				
MIC SWITCH FUNCTION		MIC SWITCH MODE				
VOC HIT		LATCHED				
FOOTSWITCH JACK						
SWITCH-3						

*Changing Step Button Mode to Momentary*

## NaturalPlay, Scale, Fixed & Pedal Modes

VL3X offers a completely new way of combining harmony voice modes that allows you to make some really great sounds.

In previous products, all harmony voices were defined by a single “type” – i.e., they were guided by an instrument (NaturalPlay) or defined by a fixed key and scale. In VL3X, you can define a different method of harmony note output for each voice!

The new “Mixed Mode” harmonies allow you to, for example,

- ▶ set one voice to follow your guitar (NaturalPlay),
- ▶ the second voice to follow a key/scale,
- ▶ a third voice to only sing a single “Fixed” note and
- ▶ a fourth voice to only sing the “root” note of any chords you are playing on your guitar (Pedal).

This flexibility allows you to create some very sophisticated setups and vocal arrangements.

You can mix and match any of the available modes for the four harmony voices. You could have three NaturalPlay voices and a fixed voice, or two scale-based voices, one fixed and one NaturalPlay voice. It’s completely up to you!

HARMONY	DOUBLE	DELAY-G&L	REVERSE	HARDTUNE
MODE V1	MODE V2	MODE V3	MODE V4	
NATPLAY	FIXED	PEDAL	SCALE	
V1 VOICING	V2 FIXED	V3 PEDAL	V4 SCALE	
LOW	+0 (G4)	+0	UNI	
V1 LEVEL	V2 LEVEL	V3 LEVEL	V4 LEVEL	
0 dB	0 dB	0 dB	0 dB	

*Mixing NaturalPlay, Fixed, Pedal and Scale modes in one Preset*

Keep in mind that when you are using mixed mode harmony, you will need to define the correct key/scale (Scale) or note (Fixed) and play your instrument (NaturalPlay/Pedal) in order for the combination of voices to sound good together. Otherwise, a Fixed voice could be singing a completely inappropriate note for your song.

Harmony can suffer from “warbles” when sound other than your voice is picked up via your microphone. Check out this “Craig’s Corner” video for a bit of TC-Helicon Harmony history and some advice on reducing warble:

[youtube.com/watch?v=pT-CCTmv2ZM](https://youtube.com/watch?v=pT-CCTmv2ZM)

## Double effect block/tab

Often referred to as “Doubling” or “Double Tracking”, the Double effect mimics a singer recording multiple versions of the same vocal passages and playing them back simultaneously. The small differences in timing and pitch that result from the two recordings create a more full and “doubled” sound.

It’s quite common in contemporary music for some sort of Double effect to be active during the entire song, albeit with varying intensity.

### Double effect block parameters

The Double effect block has the following parameters that allow you to adjust the effect:

- ▶ Double Style
- ▶ Humanization Amount
- ▶ Level
- ▶ Hit Control
- ▶ Humanization Style
- ▶ Portamento
- ▶ Portamento Smoothing
- ▶ Level (for each voice)
- ▶ Panning (for each voice)
- ▶ Gender (for each voice)
- ▶ Voicing (for each voice)
- ▶ Portamento (for each voice)
- ▶ Portamento Smoothing (for each voice)
- ▶ Lead Level
- ▶ Global

### Tips and tricks for working with the Double effect

- ▶ “Tight” Double styles will have less pitch and timing variation than “Loose” styles will. Tight styles therefore tend to be a bit more subtle even at higher effect levels.
- ▶ Try turning the “Lead Level” parameter to OFF when using one of the “Wide” styles. This will effectively remove your voice from the middle of the stereo field and helps recreate the wide-panned vocal style that can be heard on many recent recordings.
- ▶ Adding some “1 Voice Tight” Double effect when using the Harmony effect can add some presence to your lead voice, preventing it from being overpowered by the Harmony.
- ▶ Adding some “4 Voices Wide” Double effect when using the Harmony effect can significantly enhance the “group” sound of the Harmony voices, especially when using two or more Harmony voices.

## Vocal Delay effect block/tab

Delay is often referred to as “echo” and emulates sound “bouncing” or repeating at regular intervals. As opposed to Reverb – whose reflections of sound can be somewhat chaotic in the representation of a physical space – Delay is much more consistent in its sound output.

Typically, Delay is used either as a special effect, with levels high enough to be clearly heard, or as a more subtle companion to Reverb.

Using Delay as a special effect can create very interesting highlights within a performance but can, like Reverb, become distracting or overwhelming when used too heavily.

Stereo Delays can be especially interesting if you are performing with a stereo PA or for studio recording.

### Delay effect block parameters

► Global

The Delay effect block has the following parameters that allow you to adjust the effect:

- Delay Style
- Feedback amount
- Level
- Hit Control
- Source
- Tempo
- Filter Style
- Ducking
- Division Left
- Delay Left
- Division Right
- Delay Right
- Feedback Left
- Feedback Left to Right
- Feedback Right
- Feedback Right to Left
- Low Cut Frequency
- High Cut Frequency
- EQ Insert
- Ducking Threshold
- Ducking Amount
- Ducking Time
- Lead to Delay Level
- Panning
- Harmony to Delay Level
- $\mu$ Mod to Delay Level
- Choir to Delay Level
- Lead Level
- Width
- Trails

## Tips and tricks for working with the Vocal Delay effect

- ▶ Make sure to set the correct tempo for any Preset with Delay, either
  - ▶ via tempo tapping (see [“Tapping tempo”](#)) or
  - ▶ on the Delay Edit tab.

Delay timed to your song sounds great, while off-time delays can sound terrible.

- ▶ Experiment with different amounts of the Feedback parameter. More Feedback creates more echoes, while very low amounts of feedback can create “Call and Answer” style effects.
- ▶ Try out the various Filter Style options within the Delay Edit screen. They allow you to make the “echoes” of your Delay sound different. These filter styles can add interesting effects to your delays – such as megaphone, radio or lo-fi sounds – or mimic the sound of classic analog and digital hardware delays.

HARMONY		DOUBLE	DELAY	REVERB	HARDTUNE	SYNTH
CLASSIC SLAP	FEEDBACK	LEVEL		HIT CONTROL		
	0 %	-18 dB		HIT+		
SOURCE	TEMPO	FILTERSTYLE		DUCKING		
TIME	120 BPM	MEGAPHONE		OFF		
DIV L	DELAY L	DIV R		DELAY R		
1/8	110 ms	1/8		110 ms		

*Filter Style parameter*

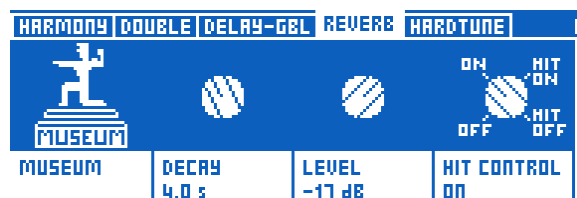
- ▶ When using Delay on both your guitar and vocals, experiment with using the same OR different divisions on each Delay to create interesting rhythmic landscapes.

## Vocal Reverb effect block/tab

Reverb is one of the most basic effects. You will probably find some form of Reverb at every live performance and on every recording.

Essentially, Reverb simulates a physical space and how the sound of your voice is positioned in it. Typically, Reverbs are defined by the space they are trying to replicate or the device/processor/medium used to generate the reverb effect.

With the above in mind, you will see Reverb styles in our products with names like “Amsterdam Hall” or “Hockey Arena” when representing a *physical space*. You might see “Plate” or “Spring” when referring to the *type of device* used to create a particular kind of Reverb.



Reverb tab

### Reverb effect block parameters

The Vocal Reverb effect block has the following parameters that allow you to adjust the effect:

- ▶ Reverb Style
- ▶ Decay
- ▶ Level
- ▶ Hit Control
- ▶ Early Reflections
- ▶ Reverb Tail Level
- ▶ Predelay
- ▶ Ducking
- ▶ Low Color
- ▶ High Color
- ▶ High Factor
- ▶ Diffuse
- ▶ Modulation Speed
- ▶ Modulation Depth
- ▶ Ducking Threshold
- ▶ Ducking Amount
- ▶ Ducking Time
- ▶ Lead to Reverb
- ▶ Harmony to Reverb
- ▶ Delay to Reverb
- ▶ Choir to Reverb
- ▶ Lead Level
- ▶ Width
- ▶ Global

### Tips and tricks for working with the Vocal Reverb effect

- ▶ “Timing” your Reverb to the song you are performing can really enhance your overall sonic “landscape”. Try picking shorter Reverbs (lower decay time) for faster songs and longer Reverbs (higher decay time) for slower songs.
- ▶ A 1.3 second Decay Time is very common for mid-tempo popular music.
- ▶ Timing a Reverb so that it “breathes” with your song can sound great. By “breathing” we mean that the Reverb ends on a beat, or every other beat, for example.
- ▶ Use this calculator to figure out what Reverb time to set in order to “time” your effect to the song: [nickfever.com/delay-calculator/](http://nickfever.com/delay-calculator/)  
Use the chart provided on this page to determine which note division to use. If, for example, you would like your Reverb to end on every other beat, use the ½ note result.
- ▶ *Overuse* of Reverb can make your vocals sound washed out and hard to understand.
- ▶ *Underuse* of Reverb can result in a flat sounding vocal. However, it’s very common in contemporary pop music to use very little or no Reverb, opting instead for Doubling, HardTune and other effects. Listen to popular records from your favorite genre and analyze how they are using reverb.
- ▶ When using Reverb on both vocals and guitar, it can be useful to use the same settings or at



least the same “Style” for each, so the listener gets the impression of vocals and guitar being in the same simulated physical space.

## HardTune effect block/tab

This effect has become very, very common in recent years. Most people remember when Cher released the song “Believe”, featuring the first commercially represented use of heavy and robotic-sounding pitch correction.

Since the release of “Believe”, there have been many advances in pitch correction technology, allowing both extreme *and* subtle or transparent vocal correction. It’s a misnomer to only equate vocal pitch correction with AutoTune™ and T-Pain™. Subtle use of pitch correction is a staple of almost every recording, and many live performances too.

### HardTune effect block parameters

The HardTune effect block has the following parameters that allow you to adjust the effect:

- ▶ HardTune Style
- ▶ Gender
- ▶ Shift
- ▶ Hit Control
- ▶ Key Source
- ▶ Rate
- ▶ Amount
- ▶ Window
- ▶ Manual Key
- ▶ Manual Scale
- ▶ Note Select
- ▶ Note Enable
- ▶ Global

### A neat little bit of music history...

The Beatles used pitch correction on their albums! How?

Back then, a control called “VariSpeed” on their tape recorders was used to manipulate the playback speed – and therefore the pitch of recorded material. Often, it was done for effect, but VariSpeed was used for all sorts of purposes.

It’s fun to keep that fact in mind when people disparage modern music for its use of pitch correction or any other effect or recording technique. The Beatles used every tool available to them at the time, just like today’s musicians do!

Here is an interesting article about the Beatles and their use of VariSpeed:

[ofbuckleyandbeatles.wordpress.com/  
2010/12/05/  
beatles-production-tricks-part-ii-varispeed/](http://ofbuckleyandbeatles.wordpress.com/2010/12/05/beatles-production-tricks-part-ii-varispeed/)

## Tips and tricks for working with the HardTune effect

- ▶ When you want the “HardTune” sound, choose the “Pop” style.
- ▶ It takes some practice to sing the right way and get the most out of HardTune. Practice sliding and gliding from note to note, in order to emphasize the jumps in pitch provided by the “Pop” setting. After a while, you will be able to enhance the effect as you sing.
- ▶ When you are using HardTune with a wedge monitor or in-ear monitors (IEMs), it’s totally normal to hear some “phasing” type sounds as your natural voice interacts with the corrected voice output from VL3X. Check out this “Craig’s Corner” video for more about phasing:  
[youtube.com/watch?v=KWrEluiDXsA](https://www.youtube.com/watch?v=KWrEluiDXsA)
- ▶ If you would like subtle correction that still respects any key/scale you have set for Harmony, try the “Correct Natural” style.
- ▶ To emulate some of the effects used on the Beatles recordings, try the “Gender Bender” style and turn the Gender control down a few clicks to slightly lower the sound of your voice.
- ▶ Any time the HardTune effect is active, Global Pitch Correction settings in the Setup menu are temporarily overwritten. When the HardTune effect is turned off, any settings from Global Pitch Correction will reactivate.

## Synth effect block/tab

Synth effects are created when a “carrier” sound modifies a signal (your voice) to create an interesting combination of the two elements.

Common use includes the classical guitar “talk box”, where the notes played on an electrical guitar dictate the pitch and sound of the voice output, regardless of what you sing. You don’t have to use a guitar though – it could also be sounds from a keyboard or other instrument.

VL3X offers polyphonic (more than one note at a time) Synth effects, so you can play chords on your instrument and have them act as the “carrier” sounds. It’s a really great effect to have fun with!

We have also included several “carrier” sounds in VL3X, so you may use the Synth effect block without an instrument signal.

### Synth effect block parameters

The Synth effect block has the following parameters that allow you to adjust the effect:

- ▶ Synth Style
- ▶ Gender
- ▶ Level
- ▶ Hit Control
- ▶ Carrier
- ▶ Lead Mix
- ▶ Note Source
- ▶ Carrier Shift
- ▶ Carrier Mix
- ▶ Resonance
- ▶ Global

### Tips and tricks for working with the Synth effect

- ▶ When using the Synth block to generate the well-known talk box effect of the seventies, it really pays to know exactly the notes you want to output and practice them ahead of time. It sounds great when you play the right melody – but the effect can lose its luster pretty quickly if you meander around or play the wrong notes for the song.
- ▶ With the above in mind, there’s nothing wrong with shredding a crazy solo either!
- ▶ Synth effects tend to best be used as an accent during a particular passage of a song, not full-time.
- ▶ Manipulating the way you sing/speak words into the microphone while Synth is active can greatly increase the effectiveness of the sound. Elongating vowels and/or over-pronouncing consonants will really make the effect stand out.

## Transducer effect block/tab

The Transducer effect is often referred to as “Megaphone” or “Distortion”, but it really covers any manipulation of gain structure and EQ filters. Distortion and filter effects are common across Rock, Pop, Country, Hip Hip, EDM and other genres.

### Transducer effect block parameters

The Transducer effect block has the following parameters that allow you to adjust the effect:

- ▶ Transducer Style
- ▶ Routing
- ▶ Post Gain
- ▶ Hit Control
- ▶ Distortion Type
- ▶ Distortion Amount
- ▶ Low Cut
- ▶ High Cut
- ▶ Threshold
- ▶ Pres Gain
- ▶ Pres FC
- ▶ Pres Bandwidth
- ▶ Global

### Tips and tricks for working with the Transducer effect

- ▶ The first and most important tip is that any distortion or EQ filter effect can be very prone to feedback, so bear this in mind when connecting your VL3X to a 50,000 watt stadium PA or the system at your local pub!
- ▶ Use of Gate within the Transducer advanced edit parameters can reduce the chances of feedback when the effect is active. Set the threshold such that the gate “opens” to let your voice through but closes (mutes) very soon after you finish singing.
- ▶ This “Craig’s Corner” video covering feedback can help a lot for both general PA use and Transducer effects: [youtube.com/watch?v=VIN1RJ4gcAo](https://www.youtube.com/watch?v=VIN1RJ4gcAo)
- ▶ Changing the Buttonmap setting for the footswitch assigned to the Transducer effect from Latched to Momentary allows you to quickly add doses of the effect to specific words or phrases in your song. Simply remap one of the Vocal Layer footswitches to Transducer and change its Mode to Momentary – see “Footswitch tab: Remapping footswitches”.

μMOD	CHOIR	RHYTHMIC	STUTTER	BUTTONMAP
μMOD	MODE	PARAM1	PARAM2	
TRANSDUCER	MOMENTARY	-	-	
DELAY	MODE	PARAM1	PARAM2	
DELAY	LATCHED	-	-	
REVERB	MODE	PARAM1	PARAM2	
REVERB	LATCHED	-	-	

*μMod footswitch remapped to Transducer*

## Vocal $\mu$ Mod effect block/tab

Pronounced “Micro Mod”, the  $\mu$ Mod block includes effects like micro-pitch shifting (hence Micro Mod), Flanger, Chorus, Rotor and more.

These effects can be subtle, like “Thicken”, or quite extreme with “Tube Up” or “Alien Voice-over”.

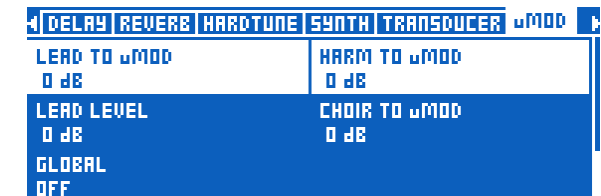
### Vocal $\mu$ Mod effect block parameters

The Vocal  $\mu$ Mod effect block has the following parameters that allow you to adjust the effect:

- ▶  $\mu$ Mod Style
- ▶ Level
- ▶ Hit Control
- ▶ Speed
- ▶ Detune
- ▶ Depth
- ▶ Width
- ▶ Phase
- ▶ Wave
- ▶ Inverse Phase
- ▶ Delay Left
- ▶ Delay Right
- ▶ Low Cut Frequency
- ▶ High Cut Frequency
- ▶ Feedback Left
- ▶ Feedback Right
- ▶ Cross Feedback Left
- ▶ Cross Feedback Right
- ▶ Lead to  $\mu$ Mod
- ▶ Harmony to  $\mu$ Mod
- ▶ Global

### Tips and tricks for working with the Vocal $\mu$ Mod effect

- ▶ Try combining  $\mu$ Mod set to one of the “Clone”, “Wider” or “Thicken” styles with your Harmony or Double effects to increase the depth of sound.
- ▶ Songs like “Believe” by Lenny Kravitz use Flanger to create its iconic sound.
- ▶ If you use styles like “Cylon” or “Alien Voice-over”, it’s probably best to use them for small sections of a song or for a fun effect while addressing the audience, rather than a full-time effect.
- ▶ The advanced controls allow you to determine which other effects, like Harmony, are sent to the  $\mu$ Mod block. This allows you to add  $\mu$ Mod effects to whichever components of the signal you would like and keep other signals “clean”.



*Lead to  $\mu$ Mod and Harm(ony) to  $\mu$ Mod parameters*

- ▶ Remember that 0 dB means “high volume” – not “no volume”!
- ▶ Most level controls max out at 0 dB, but a few – such as Guitar Trim in the Headphone Mix – can go higher.

## Choir effect block/tab

Formerly a part of the Harmony effect block, Choir was split into its own effect in the TC-Helicon VoiceLive Touch 2. Separating these effects gave us the opportunity to provide more styles and parameters for controlling the Choir sound. We have defined Choir as its own effect block in VL3X too, so you have extra control over the way it sounds.

Choir makes a great companion to Harmony, especially when you are trying to create a “group” sound. You can use Choir by itself too, which can give its own unique flavor to the vocal.

### Choir effect block parameters

The Choir effect block has the following parameters that allow you to adjust the effect:

- ▶ Choir Style
- ▶ Level
- ▶ Hit Control
- ▶ Lead to Choir
- ▶ Harmony to Choir
- ▶ Global

### Tips and tricks for working with the Choir effect

- ▶ When using Choir with Harmony, start with a low level setting and move up from there. Using too much Choir level can make the overall output sound a bit robotic or “effected”.
- ▶ With the above suggestion, keep in mind that high levels of Choir can be used to create a very pronounced effect sound – which could be just what you want.
- ▶ The “Speaking” style can be used with any kind of Hip Hop, Rap, Spoken Word etc. to add a sense of a group saying something together.

## Vocal Rhythmic effect block/tab

Rhythmic effects use VL3X’s tempo to chop, break up, pan or otherwise manipulate your voice in time with the music.

Depending on how you set the depth and target controls, Rhythmic can be mild or wild and apply to either your lead vocal or the Harmony voices.

### Vocal Rhythmic effect block parameters

The Vocal Rhythmic effect block has the following parameters that allow you to adjust the effect:

- ▶ Rhythmic Style
- ▶ Target
- ▶ Depth
- ▶ Hit Control
- ▶ Division
- ▶ Type
- ▶ Global

### Tips and tricks for working with the Vocal Rhythmic effect

- ▶ Using Vocal Rhythmic in combination with Guitar Rhythmic can create some really interesting sounds.
- ▶ Try increasing and reducing the “Depth” parameter to alter the relationship between the lead or harmony voices and the Rhythmic effect.
- ▶ Setting the “Target” parameter to Harm Level and using a long division makes the Harmony voices swell and fade slowly.
- ▶ Try changing the Type parameter to create dramatic variations in the output sound.
- ▶ Rhythmic can benefit from momentary use, applying the effect to brief sections of your vocal. Try remapping the Rhythmic effect to a footswitch and set its mode to Momentary.

μMOD	CHOIR	RHYTHMIC	STUTTER	BUTTONMAP
μMOD	MODE	PARAM1	PARAM2	
RHYTHMIC	MOMENTARY	-	-	
DELAY	MODE	PARAM1	PARAM2	
DELAY	LATCHED	-	-	
REVERSE	MODE	PARAM1	PARAM2	
REVERSE	LATCHED	-	-	

*μMod footswitch remapped to Rhythmic, Mode changed to Momentary*



## Stutter effect block/tab

Stutter is essentially a small sampler, used to make a quick recording of your vocal and play it back repeatedly, in time with the music. Depending on the division setting, the sample used for the Stutter effect can be longer or shorter.

Stutter is great for Pop, Hip Hop and EDM genres, but can find a home in any style of music when used creatively.

### Stutter effect block parameters

The Stutter effect block has the following parameters that allow you to adjust the effect:

- ▶ Stutter Style
- ▶ Division
- ▶ Direction
- ▶ Hit Control
- ▶ Path
- ▶ Capture
- ▶ Global

### Tips and tricks for working with the Stutter effect

- ▶ It takes some practice to learn when to press the stutter button in relation to your singing in order to get a good working sample. Take some time to experiment with the timing of footswitch pressing and the division parameter to see how the two interact.
- ▶ There is a Direction parameter that can play a reversed version of the sample. Try changing it from Forward to Reverse.
- ▶ Stutter is much easier to control and integrate into your performance when the button is set to Momentary operation. When remapping Stutter to a footswitch, remember to set that footswitch to Momentary.
- ▶ Stutter can be used in a similar fashion to Harmony Hold – see [“Tips and tricks for working with the Harmony effect”](#). Try starting the stutter effect on a note, then sing around that stutter note with your lead voice while the stutter runs. It can help to mimic the stutter sound with your lead voice while you do this. Phrases like “yeah”, “nah-nah” etc. can work well.

## Vocal Buttonmap tab

Buttonmap is probably one of the coolest new features in VL3X.

- ▶ Don't like where the Harmony button is?  
Remap it!
- ▶ Want to have direct footswitch access to an effect that isn't  $\mu$ Mod, Delay, Reverb, HIT, Double (Comp) or Harmony (Drive)?  
Remap it!
- ▶ Don't feel like switching between the Vocal and Guitar Layer?  
Remap a Vocal button to a Guitar effect or vice versa!
- ▶ Want to trigger a loop with one button from the Vocal or Guitar Layer?  
Remap a button to Loop Trigger!

## Remapping buttons

- ▶ Use the Control Knob to highlight the button you would like to remap. Physical button names are on the top in each selection box, and the mapped button is on the bottom.
- ▶ Use the Mix Knob on the far left to change the button mapping.
- ▶ If you wish, set the footswitch to Momentary mode using the Mix Knob under the Mode column.

## Tips and tricks for working with the Buttonmap

- ▶ There are separate Buttonmap tabs on the Vocal and Guitar edit screens. They are independent of one another, so you can remap footswitches for each Layer.
- ▶ When you have remapped a footswitch, the Home display will show you which effect has been remapped. If you forget where you have remapped a button, look there.
- ▶ Vocal effects have a small microphone image next to them, Guitar effects have a small guitar, and system controls have a small wrench. This can help you to see what the remapped footswitch will affect.
- ▶ When remapping footswitches from one Layer to another, footswitches from another Layer (Guitar effects used on the Vocal Layer and vice versa) will be dimly lit in either blue (Vocal) or red (Guitar) when they are off to remind you that pressing that footswitch will activate an effect from a different Layer. This is a good reminder showing you at a glance which inter-Layer remappings you have made.

## Remapping Loop Triggers

Loop triggers allow you to map a specific loop to a specific button, PER PRESET. This can be used for a loop you have saved and want to integrate into every performance of a specific song or can even be used to store an entire song that you can associate with the Preset.

Remapping a Loop Trigger is slightly different from the Vocal or Guitar effects because you need to define a couple of additional parameters. For more information about the Looper, see [“The Looper”](#).

First, you need to select a particular Loop (slot) from which the Trigger should use tracks.

Next, you determine which Track or Tracks that particular footswitch will trigger when pressed. Essentially the Loop Trigger acts as a simple start/stop for the tracks you have recorded.

The available options are Track A, Track B, Track C, Track A&B and Track A&C.

You can assign multiple footswitches to different loop triggers and switch between them at will.

μMOD	MODE	PARAM1	PARAM2
LOOP TRIGR	-	SLOT 3	TRACK A&C
DELAY	MODE	PARAM1	PARAM2
DELAY	LATCHED	-	-
REVERB	MODE	PARAM1	PARAM2
REVERB	LATCHED	-	-

*μMod footswitch remapped to triggering Loop Tracks A and C from Loop Slot 3*

μMOD	MODE	PARAM1	PARAM2
LOOP TRIGR	-	SLOT 3	TRACK A&C
DELAY	MODE	PARAM1	PARAM2
DELAY	-	SLOT 3	TRACK B
REVERB	MODE	PARAM1	PARAM2
REVERB	LATCHED	-	-

*Delay footswitch remapped to triggering Loop Track B from Loop Slot 3*

Keep in mind that tempo/metronome settings are saved with each Loop. Accordingly, triggering a Loop using a remapped footswitch will invoke these settings. This means that when you have mapped Loop Tracks from two different Loop Slots to two footswitches and they have different tempos, the other tempo-dependent effects in your VL3X – such as Delay and Rhythmic – will change tempo to follow the newly activated loop.

A footswitch remapped to a Loop trigger has a special “loop” icon and shows which Loop Slot and track is associated with it in the display.

7	TWO HIGH	
2	S-S ACC	S-S B
1	HIT	DOUBLE
1	REVERB	HARMONY

*μMod footswitch remapped to Loop Slot 3 / Tracks A and C, Delay footswitch remapped to Loop Slot 3 / Track B*

# Editing the Guitar Layer

## Introduction

Press the Guitar button to enter the Guitar edit screen. For more information about editing Style, Level, Control and other parameters associated with each effect, see [“Editing an Effect”](#).



## Amp effect block/tab

The Amp effect not only simulates physical amplifiers, but also provides controls for

- ▶ EQ (pre and post)
- ▶ Gain (pre and post)
- ▶ Tube/Transistor simulation and
- ▶ speaker emulation.

The level of EQ control in the Amp block is huge, providing controls for both the pre-gain and post-gain stage parametric EQ – something that most real-world amplifiers don't offer.

There are multiple controls for each low, mid and high EQ including bandwidth (commonly known as "Q") and frequency.

If you don't like one or more of the factory Amp Styles, the EQ options allow you to change it to suit your particular taste and tone requirements.

AMP	DRIVE	DELAY	REVERB	COMP	WAH	MOD	OCTAVER
LOW POST	MID POST	HIGH POST					
8 dB	-18 dB	-6 dB					
LO PRE	MID PRE	HI PRE	LOCUT FC				
0 dB	11 dB	12 dB	20 Hz				
LO F PRE	MID F PRE	HI F PRE					
160 Hz	659 Hz	3620 Hz					

Adjusting Amp EQ settings

### Amp effect block parameters

The Amp effect block has the following parameters that allow you to adjust the effect:

- ▶ Amp Style
- ▶ Pre Gain\*
- ▶ Post Gain\*
- ▶ Hit Control
- ▶ Low Post Gain\*
- ▶ Mid Post Gain\*
- ▶ High Post Gain\*

### Pre Gain Stage Parametric EQ parameters:

- ▶ Low Pre Gain
- ▶ Mid Pre Gain
- ▶ High Pre Gain
- ▶ Low Frequency Pre Gain
- ▶ Mid Frequency Pre Gain
- ▶ High Frequency Pre Gain
- ▶ Low Bandwidth Pre Gain
- ▶ Mid Bandwidth Pre Gain
- ▶ High Bandwidth Pre Gain

- ▶ Pre Gain\*
- ▶ Post Gain\*

- ▶ Amp Mode (Tube/Transistor)
- ▶ Amp Sag

### Post Gain Stage Parametric EQ parameters:

- ▶ Low Post Gain\*
- ▶ Mid Post Gain\*
- ▶ High Post Gain\*
- ▶ Low Frequency Post Gain
- ▶ Mid Frequency Post Gain
- ▶ High Frequency Post Gain
- ▶ Low Bandwidth Post Gain
- ▶ Mid Bandwidth Post Gain
- ▶ High Bandwidth Post Gain

- ▶ Speaker Gain
- ▶ Speaker Frequency
- ▶ Speaker Bandwidth
- ▶ Low Cut Frequency
- ▶ Global

\* These parameters are displayed twice: First at the top of the menu to allow for quick access, then again in the respective section.

## Tips and tricks for working with Amp simulation

- ▶ On some amplifiers, what is called “PreGain” and “PostGain” in VL3X is called “Gain” and “Volume” respectively.
- ▶ More PreGain results in more distortion at high levels. If you want a crunchy or distorted sound, turn down the PostGain, adjust PreGain until you reach the amount of distortion you like, then turn up PostGain until the output volume is similar to that of other guitar Presets. You can do this by ear.
- ▶ Styles that have “Clean”, “Crunch” etc. in their names can still be adjusted to have more, less or no distortion using the PreGain and Post Gain controls.

## Drive effect block/tab

VL3X's Drive effect can act as a Boost, Drive or both.

Essentially, the Drive block has its own set of PreGain and PostGain parameters, which are independent from the Amp simulation block. When Boost is active, these settings replace the currently active Amp settings, changing your sound.

There are a few preconfigured Drive styles – make sure you give them a try.

### Drive effect block parameters

The Drive effect block has the following parameters that allow you to adjust the effect:

- ▶ Drive Style
- ▶ Pre Gain
- ▶ Post Gain
- ▶ Hit Control
- ▶ Global

### Tips and tricks for working with the Drive effect

- ▶ Since the Amp settings are replaced by the Boost settings when Boost is active, it's possible to make your amp quieter or less distorted when Boost is active.
- ▶ You should probably avoid setting PreGain and PostGain for the Amp and Boost blocks to wildly different values. You may encounter unwanted feedback or drastic volume changes. Test settings in rehearsal before trying them out at a gig.
- ▶ Boost can be used when playing acoustic guitar, simply to raise the level slightly for a solo etc.



## Guitar Delay effect block/tab

The Guitar Delay block works in the same manner as the Vocal Delay block. Please see [“Vocal Delay effect block/tab”](#) for an overview of the Vocal Delay block.

### Guitar Delay effect block parameters

The Guitar Delay effect block has the following parameters that allow you to adjust the effect:

- ▶ Delay Style
- ▶ Feedback
- ▶ Level
- ▶ Hit Control
- ▶ Source
- ▶ Tempo
- ▶ Filter Style
- ▶ Ducking
- ▶ Division Left
- ▶ Delay Left
- ▶ Division Right
- ▶ Delay Right
- ▶ Modulation Depth
- ▶ Modulation Speed
- ▶ Ducking Threshold
- ▶ Ducking Amount
- ▶ Ducking Time
- ▶ Feedback Left
- ▶ Feedback Left to Right
- ▶ Feedback Right
- ▶ Feedback Right to Left
- ▶ Low Cut Frequency
- ▶ High Cut Frequency
- ▶ Width
- ▶ Trails
- ▶ Global

### Tips and tricks for working with the Guitar Delay effect

- ▶ There are benefits to using the same Delay division for both guitar and vocal effects. You can sync up the “taps” of the echoes on both signals and create some very interesting effects.
- ▶ With the above in mind, using similar – but different – Delay divisions can also be very effective. For example, try ¼ note on your Vocal and 1/8 note on the Guitar.
- ▶ “Slap” echo is a very common guitar setting for classic country music sounds.
- ▶ Using Delay effectively can make a very simply played guitar passage sound much more complex. “The Edge” from U2 makes heavy use of Delay.
- ▶ Using Delay briefly can highlight a portion of a song quite effectively. Listen to “Tangerine” by Moist. In the verses, they use a brief “Ping Pong” type delay to expand a mono guitar to the stereo field. (0:42 into the video) [youtube.com/watch?v=6tkY81YGB44](https://www.youtube.com/watch?v=6tkY81YGB44) (Sorry for the less-than-awesome video quality on this one.)

## Guitar Reverb effect block/tab

The Guitar Reverb block works in the same manner as the Vocal Reverb block. Please see [“Vocal Reverb effect block/tab”](#) for an overview of the Vocal Reverb block.

Using surgical skills that would make Victor Frankenstein green with envy, we have transplanted TC-Electronic’s popular [Hall of Fame Reverb](#) pedal into VL3X’s Guitar Layer. Now you can enjoy the classic HoF sound alongside your vocal effects!



*Guitar Reverb block set to TC Electronic’s Hall of Fame Plate reverb*

### Guitar Reverb effect block parameters

The Guitar Reverb effect block has the following parameters that allow you to adjust the effect:

- ▶ Guitar Reverb Style
- ▶ Decay
- ▶ Level
- ▶ Hit Control
- ▶ Early Reflections
- ▶ Reverb Tail Level
- ▶ Predelay
- ▶ Ducking
- ▶ Low Color
- ▶ High Color
- ▶ High Factor
- ▶ Diffuse
- ▶ Global
- ▶ Modulation Speed
- ▶ Modulation Depth
- ▶ Ducking Threshold
- ▶ Ducking Amount
- ▶ Ducking Time
- ▶ Width
- ▶ Global

### Tips and tricks for working with the Guitar Reverb effect

- ▶ Try using same style of Reverb for both Vocal and Guitar. This helps “glue” the two sounds together into a shared physical space.
- ▶ Using a very obvious Reverb during a solo section can help differentiate the solo from the rest of the song.
- ▶ If you are playing very fast, heavy music you may be tempted to use no Reverb at all. Typically, if you listen to a recording of this type of guitar sound, there will be a small amount of Reverb used. Try one of the “Cozy Corner” or “Wool” type Reverbs for a very subtle addition of the effect.

## Comp(ression) effect block/tab

Compression is used across almost all modern music production styles, from studio to live. In a nutshell, Compression “brings the loudest bits and quietest bits” of the music closer together in apparent volume, creating a more even sound.

For guitar, using compression can

- ▶ enhance sustain or attack,
- ▶ limit levels and/or
- ▶ smooth out your overall sound.

For acoustic guitar, it is common to use some compression full-time, while compression is often used during solos and boosted sections for electric guitar. That being said: Like with any other effect, there are really no rules. Use what sounds good to you!

In studio recording, Compression is common on almost every track or group of tracks.

Compression can raise the output level of your guitar – so be aware that it can also contribute to feedback.

### Compression effect block parameters

The Compression effect block has the following parameters that allow you to adjust the effect:

- ▶ Compression Style
- ▶ Threshold
- ▶ Ratio
- ▶ Hit Control
- ▶ Attack
- ▶ Release
- ▶ Makeup Gain
- ▶ Global

### Tips and tricks for working with the Compression effect

- ▶ “Threshold” is the level at which the Compressor begins to affect the sound. The lower the Threshold (-30 dB is lower than -20 dB), the sooner the Compressor will engage.
- ▶ “Ratio” determines “how much” Compression takes place. Ratio is typically defined as “1:X ratio” where “X” is the number of decibels (dB) of reduction in level for every 1 dB over the “Threshold” value. This can sound confusing, but simply try to think of “lower Threshold and higher Ratio” as “more Compression”.

## Wah (Wah-Wah) effect block/tab

If you haven't heard "Voodoo Child (Slight Return)" by Jimi Hendrix (or later Stevie Ray Vaughan) go listen to it now. That's Wah in a nutshell.

[youtube.com/watch?v=d81fdU8EP28](https://www.youtube.com/watch?v=d81fdU8EP28)

*(In fact, there's also some interesting delay effects and reverb in there, too.)*

Wah is basically a carefully constructed EQ filter that you can sweep up and down the frequency spectrum with a foot-operated pedal.

### Wah effect block parameters

The Wah effect block has the following parameters that allow you to adjust the effect:

- ▶ Wah Style
- ▶ Resonance
- ▶ Level
- ▶ Hit Control
- ▶ Type
- ▶ High Cut (only for Type = Manual)
- ▶ Pedal Minimum (only for Type = Manual)
- ▶ Pedal Maximum (only for Type = Manual)
- ▶ Frequency Maximum (only for Type = Touch or Auto)
- ▶ Sensitivity (only for Type = Touch)
- ▶ Response (only for Type = Touch)
- ▶ BPM (only for Type = Auto)
- ▶ Shape (only for Type = Auto)
- ▶ Order
- ▶ Global

### Tips and tricks for working with the Wah-wah effect

- ▶ Our Wah effect block also includes a few "Touch Wah" styles that simulate moving a foot pedal based on your playing volume and pace. If you don't have an expression pedal, try one of the "Touch" styles.
- ▶ Playing with Wah can increase your chances of feedback, since this effect is boosting a range of frequencies. Of course, Jimi would have a great argument for feedback being a good thing!
- ▶ Try combining the Wah effect with Octaver for a Wah-Bass sound.

## μMod effect block/tab

Similar to the Vocal version of this effect, μMod provides micro-pitch shifting and timing effects for your guitar. Some of the most famous μMod effects include Flanger, Chorus and Detune.

We have conspired with TC-Electronic's guitar pedal gurus – namely Tore Mogensen – to recreate two of their best modulation effects for VL3X: [Vortex Flanger](#) and [Corona Chorus](#).



*Guitar μMod block set to Corona Chorus Fast style*

### Guitar μMod effect block parameters

The Guitar μMod effect block has the following parameters that allow you to adjust the effect:

- ▶ μMod Style
- ▶ Level
- ▶ Hit Control
- ▶ Speed
- ▶ Detune
- ▶ Depth
- ▶ Dry Gain
- ▶ Width
- ▶ Phase
- ▶ Wave
- ▶ Inverse Phase
- ▶ Delay Left
- ▶ Delay Right
- ▶ Low Cut Frequency
- ▶ High Cut Frequency
- ▶ Feedback Left
- ▶ Feedback Right
- ▶ Cross Feedback Left
- ▶ Cross Feedback Right
- ▶ Global

### Tips and tricks for working with the Guitar μMod effect

- ▶ Modulation effects aren't just for electric guitars. Styles like "Silky Detune" and "Medium Detune" can really enhance the sound of an acoustic guitar.
- ▶ Flanger creates a very "obvious" effect and can make an electric guitar part stand out from the rest of the song.
- ▶ Chorus sounds great for both acoustic and electric guitar.

## Octaver effect block/tab

When we released VoiceLive Play GTX, lots of folks loved the guitar processing, but kept on asking for a single guitar effect addition: an Octaver. The ability to “play bass” on your guitar opens up a whole new world of song composition, especially when looping.

The Octaver is a monophonic pitch shifter that allows you to play single-line guitar parts and have them shifted to another note. The most common use, as we mentioned above, is to simulate a bass guitar – but there are other implementations as well. You can blend your original guitar signal with a shifted signal to create some great sounds!

### Octaver effect block parameters

The Octaver effect block has the following parameters that allow you to adjust the effect:

- ▶ Octaver Style
- ▶ Shift
- ▶ Mix
- ▶ Hit Control
- ▶ Global

### Tips and tricks for working with the Octaver effect

- ▶ When using the Octaver effect, remember to play one note at a time. Unlike some of our other pitch shift processing, Octaver is monophonic, not polyphonic.
- ▶ Try turning the Mix % control up or down to blend some of your regular guitar sound with the shifted effect.
- ▶ When simulating a bass line, it helps to “play like a bassist” . Your bass parts will sound much more convincing if you approach them with a bass player’s ear.

## Guitar Rhythmic effect block/tab

The Guitar Rhythmic block basically works in the same manner as the Vocal Rhythmic block. Please see [“Vocal Rhythmic effect block/tab”](#) for an overview of the Vocal Rhythmic block.

For the Guitar Rhythmic block, we have included an improved “tremolo” sound to better replicate the classic effect.

### Guitar Rhythmic effect block parameters

The Guitar Rhythmic effect block has the following parameters that allow you to adjust the effect:

- ▶ Rhythmic Style
- ▶ Target
- ▶ Depth
- ▶ Hit Control
- ▶ Division
- ▶ Type
- ▶ Global

### Tips and tricks for working with the Guitar Rhythmic effect

- ▶ Using Chopper or Pan based Rhythmic effects can add a lot of flavor to your sound, especially when used as a special effect.
- ▶ Similar to the suggestions for Delay, experiment with using the same Delay and Rhythmic divisions for guitar and vocals. Conversely, try different divisions to create more exotic sounds.

## Guitar Buttonmap block/tab

The Guitar Buttonmap works in the same manner as the Vocal Buttonmap. Please see [“Vocal Buttonmap tab”](#) for an overview of the Vocal Buttonmap.

Keep in mind that the Vocal and Guitar Buttonmap settings are independent of each other, representing the Vocal and Guitar layers respectively. To learn how you can create inter-Layer mappings, see [“Remapping a footswitch”](#).



# The Looper

## Introduction

VL3X has a three-track Looper, which is an extremely powerful performance tool. We have taken our experiences from past products – including [VoiceLive Touch 2](#) and [VoiceLive Play](#) – to create our most exciting and flexible Looper ever.



## Loop button parameters

Press the Loop button to access the following parameters.



### Current Slot display

The Current Slot display shows you which Slot the Looper is currently working with. You can't change the slot from here. This is just a reference so you don't have to go back to the Looper Layer to know what Slot you're on.

### Mix Looper to NP parameter

Use the Mix Looper to NP parameter to mix the audio output from the Looper into the NaturalPlay algorithm.

This is not an individual audio path (like guitar), but rather is mixed into the existing audio to supplement it. If, for example, you play guitar chords into the Looper, you could sing a cappella with the recorded loop part and it would keep Harmony/HardTune in key.

However, if you play chords on your guitar that are completely unrelated to the recorded loop audio, the system may get confused by conflicting information.

### Auto Met On parameter

If you set the Auto Met On parameter to ON, the Metronome will activate as soon as you press RECORD.

### Auto Met Mute parameter

If you set The Auto Met Mute parameter to ON, the Metronome will mute when you finish your first recording on any track.

### ODub Decay parameter

Use the Overdub Decay parameter to reduce the level of any previous loop (per track) when an Overdub is recorded. This prevents audio level overloading. Typically 98% is a good setting, but lower levels will allow you to creatively “morph” from one loop into something completely different as older overdubs are “pushed down” in level.

## Queue ODub parameter

If you set Queue Overdub parameter to ON, each overdub will be forced to start at the beginning of that track's loop. If you press ODub at any point during playback, the ODub will hold off until the track "comes around again" then will automatically begin the ODub.

## Met Follows Playback parameter

If you set the Met Follows Playback parameter to ON, the Metronome will mute and unmute automatically whenever the Loop is playing. This prevents the metronome from continuing after you press STOP.

## Basic loop concepts and terms

Let's make sure that you understand the basic concepts and the terminology used in this chapter.

- ▶ **Loop:** A “loop” or “Loop Track” is a basic recording of music (or any kind of audio, for that matter) that can be recorded and then played back repeatedly.
- ▶ **Overdub:** Something that is recorded while another, previously recorded piece of audio/music is being played back. In theory, you could pile up hundreds of overdubs, turning one basic loop into a complex piece of music.
- ▶ **Loop Track:** In each *Loop Slot* (see below), VL3X allows you to store three separate Loops: Loop Track A, Loop Track B and Loop Track C.  
Depending on the setting you made in the Sync sub-menu (see [“Sync sub-menu”](#)), you can either switch between these three tracks or play them in certain combinations (Loop Tracks A and B or Loop Tracks A and C). Remember that each of these Loop Tracks can encompass one or many overdubs.
- ▶ **Loop Slot:** A Loop Slot is a place where you can store the Loops you have recorded. Each Loop Slot can contain three *Loop Tracks* as described above (A, B and C).

### Loop Slots/Loop Tracks, Presets and the Buttonmap

You can assign Loop Slots and Loop Tracks to footswitches using the Buttonmap feature, and these settings are stored as part of every Preset. This allows you to select a Preset that will not only contain your Vocal and Guitar settings, but also the basic building blocks for a song, mapped to your VL3X's footswitches.

## Entering and exiting Loop mode

To enter Loop mode, press and hold the Layer button. The LED of the Layer footswitch will turn purple, and the screen will display Loop Tracks and other information.

The loop screen shows a combination of controls, which relate to the six footswitches, and track “thumbnails” that show you what you have recorded.

To exit Loop mode and return to the previously active Layer (Vocal or Guitar), press and hold the Layer button.



*Loop mode activated*

## Your first loop

Just to get you started, let's make a quick loop.

- ▶ If you are not already on the Looper Layer, go there now by pressing and holding the Layer button.

## Setting up the metronome

- ▶ Let's turn on the Metronome (MET) so you can make your loop to a consistent beat. As you can see, there are six segments in the display, which correlate to the six footswitches. The lower left segment is labeled "MET" and represents the HIT footswitch.
- ▶ Tap the HIT footswitch.



*Metronome settings*

The HIT footswitch will begin flashing purple, indicating that the Metronome is now active. If you are using headphones, you should hear a Kick Drum Metronome.

- ▶ If you don't hear a metronome sound over your headphones:
  - ▶ Press the Home button.
  - ▶ Move any of the MIX knobs to access the Mix page.
  - ▶ Navigate to the Headphone Mix page using the Arrow buttons.
  - ▶ Turn up the Metronome Level.

- ▶ Press and hold the Layer button to re-enter the Looper.

If you are connected to a PA, you should hear a Kick Drum Metronome.

- ▶ If you don't hear a metronome sound over your P.A.:
  - ▶ Press the Home button.
  - ▶ Move any of the MIX knobs to access the Mix page.
  - ▶ Navigate to the Main Mix page using the Arrow buttons.
  - ▶ Turn up the Metronome Level.
  - ▶ Press and hold the Layer button to re-enter the Looper.
- ▶ The flashing HIT button now represents Tap Tempo, so you can tap in a new tempo now if you wish. While you are tapping, the current tempo will be displayed. When you stop tapping, the unit will return to the main Loop screen.
- ▶ If you haven't tapped a new tempo, press BACK (μMod footswitch) to return to the main Loop screen.



## Start recording

- ▶ When you are ready to start recording, press the footswitch associated with REC A (the Harmony/Drive footswitch) to begin recording your first Loop Track. You can sing, play your guitar, or do both.
- ▶ When you reach the end of the segment you want to record, try to press the REC A footswitch as close to the beat as you can. Our LoopAssist feature helps with this, but try to be as accurate as possible.

## Set + Overdub versus Set + Play

- ▶ While recording your first basic loop, you will see two new options on the screen:



Set + Play and Set + Overdub

- ▶ To finish recording the current loop and immediately have it played back, tap the footswitch associated with **Set+Play** (Harmony/Drive).
  - ▶ To finish recording the current loop and immediately go into overdub mode (allowing you to record additional takes over the first one), tap the footswitch associated with **Set+ODub** (Double/Comp).
- Your new loop will be played back, and you can record additional takes. This is a great feature to use if you have rehearsed your loop performance and want to quickly build up loop components on top of one another

## Overdubbing

- ▶ For this example, let us end your first basic loop recording by tap the footswitch associated with Set+Play (Harmony/Drive). You should hear your loop (Loop Track A) playing back.

Next, let's overdub something on Loop Track A.

If you think of your Loop Track A as a cake, that first recording is the base Layer of the cake, and overdubs are more layers of cake, or jam, or whipped cream... *Mmm. Cake.*

- ▶ When you are ready, press ODUB A (Harmony/Drive footswitch) and record an overdub.
- ▶ When you are finished, press END ODUB (Harmony/Drive footswitch).



Ready for overdubbing



Recording an overdub

- ▶ If you would like to add several different overdubs, you can keep the overdub recording running and add new parts each time the loop begins again.

### Recording Loop Track B

- ▶ Now, while Loop Track A is still playing back, we will record something else onto Loop Track B. Yes, it's another cake!
- ▶ When you are ready, press REC B (Reverb footswitch).



Recording Loop Track B

- ▶ Now what makes working with separate Loop Tracks so interesting is that your second Loop Track (Loop Track B) can be longer than Loop Track A. Still, you will get the best results when Loop Track B is a multiple of the number of beats in Loop Track A.
- ▶ For example, if Loop Track A is four beats (one bar), make Loop Track B 8 or 16 beats (two or four bars). If you record longer than one multiple, but less than two, silence will fill in the gap.
- ▶ You will see the same Set+Play and Set+ODub options you saw when recording Loop Track A.

Choose one, and press it when you are finished recording.

- ▶ If you chose Set+Odub, continue to record overdubs until you are finished, then tap End Odub.

### Understanding Loop Track length

To get a better understanding of how Loop Tracks of different lengths are played back in SMART Sync mode (see [“SMART”](#)), start by recording a simple loop of just counting numbers.

- ▶ **Loop Track A:** Record the words “one, two, three, four” as close to the metronome beats as you can.
- ▶ **Loop Track B:** Record the words “one, two three, four, five” as close to the metronome beats as you can.

When playing back, you will notice that the two tracks line up for the first “four”, then Loop B says “Five” and goes silent for three more beats, then repeats.

ONE	TWO	THREE	FOUR	FIVE			
-----	-----	-------	------	------	--	--	--

LOOP B

ONE	TWO	THREE	FOUR	ONE	TWO	THREE	FOUR
-----	-----	-------	------	-----	-----	-------	------

Other Sync modes are discussed in more detail later – see [“Sync sub-menu”](#).

Next, let's try Swap.

## Undo and Redo

Have you made a mistake, maybe in your fourth or fifth overdub? No reason to throw away the whole track. You can easily undo your last overdub (i.e., remove it from the Loop Track) – and if you change your mind, you can restore it.

- ▶ To undo the last overdub, tap the Looper footswitch.
- ▶ To redo (“undo the undo”, thereby restoring the last overdub), tap the Looper footswitch again.

## Using Swap

Swap is a great new feature that allows you to maintain your Loop Track A, while moving seamlessly between two additional tracks (Loop Track B and Loop Track C).

We are still following our “Your first loop” example, and at this point, you should have recorded Loop Track A and Loop Track B. Let’s move on to recording Loop C.

- ▶ When you are ready to record a new Loop Track as Loop C, tap Swap. Loop Track B will stop playing, and you will begin recording LOOP C.



### Using Swap

- ▶ You will see the same Set+Play and Set+ODub options you saw when recording Loop Track A ( see [“Set + Overdub versus Set + Play”](#)).
- ▶ Choose one, and press it when you are finished recording.

- ▶ If you chose Set+ODub, continue to record overdubs until you are finished, then tap End ODub.
- ▶ Now, tap Swap. You will see in the display that Loop Track C continues to play until it reaches its end, then VL3X automatically switches to Loop B!



Press ALL STOP to stop recording

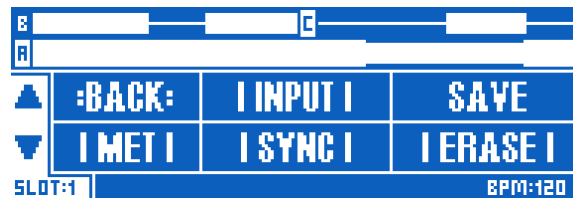
- ▶ Stop loop playback by pressing ALL STOP (HIT footswitch). This completes our tutorial.

## The Utility menu

We will now explore the UTIL(ity) menu, where you will find many of the Looper options.

- ▶ Tap the footswitch linked to the Utility menu (the  $\mu$ Mod footswitch) to enter the Utility menu.
- ▶ If you see “SWAP” in the top left menu segment, press and *hold* the  $\mu$ Mod footswitch to enter the Utility menu. This press/hold action is designed to allow the Swap button to do double duty, depending on whether you have a “B” and “C” loop recorded.

Once you have entered the UTIL menu, you will see several new menu options.



Utility menu

### Back

Tap BACK ( $\mu$ Mod footswitch) to move “up” from the Utility menu or one of its sub-menus until you are back on the main loop screen.

### Input sub-menu

Tap INPUT (Delay footswitch) to open the Input sub-menu. In the Input sub-menu, you choose which input(s) the Looper will record. This feature allows you to use a specific input or inputs for various loops (e.g. your microphone for a beat-box section and your guitar for a chord progression), while preventing sound from other inputs entering your loop.

With the above in mind, you could be playing guitar and singing simultaneously, while only recording your voice *or* your instrument into the Looper. This gives you a lot of flexibility.

The available input options are:

- ▶ **Voc+Guit:** For recording your vocals (with effects) and your Guitar.
- ▶ **Guitar**
- ▶ **Aux:** For recording the signal at your VL3X’s Aux jack.
- ▶ **Voc:** For recording your vocals (with effects).
- ▶ **All:** For recording vocals, guitar and the Aux signal.

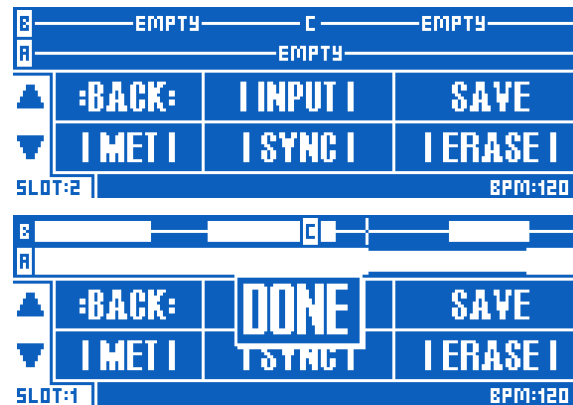


Loop input sub-menu

- ▶ Select the option you want to use by tapping the respective footswitch.
- ▶ Press BACK to exit the INPUT menu.

### Save

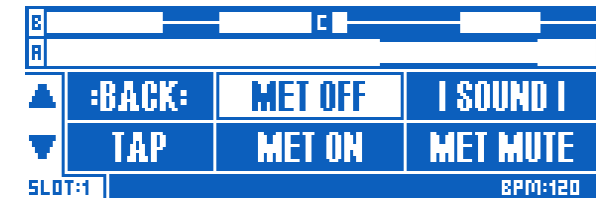
- ▶ Tap SAVE (Reverb footswitch) to store your loop to the current Loop Slot.  
The current Loop Slot number is shown below the UP and DOWN arrows on the far left of the Loop display.
- ▶ To switch to another Loop Slot, press the Preset up and Preset down footswitches.  
The Loop Slot number is saved with your other Preset information and is automatically recalled when you load a Preset.
- ▶ Undo/Redo information is NOT stored with the Loop when saved.



*Saving your Loop to the current Loop Slot*

### Metronome sub-menu

Tap MET (the HIT footswitch) to enter the Metronome sub-menu. In the Metronome sub-menu, you can turn the metronome on or off and change its sound.



*Metronome sub-menu*

The options in the Metronome sub-menu are:

- ▶ **MET ON:** Tap MET ON (Double/Comp footswitch) to turn on the metronome and all related sync features.  
The Metronome is more than a simple “click track”. It generates an audio signal guiding you when you are recording loops – but it also syncs with and controls the tempo.
- ▶ **MET MUTE:** Tap MET MUTE (Harmony/Drive footswitch) to mute the audio output for the Metronome. If you mute the Metronome, it will still be active for tempo and LoopAssist™, but it won’t make any sound.
- ▶ **MET OFF:** Tap MET OFF (Delay footswitch) to turn off the metronome and all related sync features.

Please note the difference between MET OFF and MET MUTE: When you turn the Metronome off, VL3X’s LoopAssist™ no longer guides your recordings, and the Loop may fall “off time” with other time based effects like Delay or Rhythmic.

- ▶ **TAP:** Tap TAP (HIT footswitch) rhythmically to define a new tempo. While you are tapping a tempo, the Preset Up and Preset Down footswitches will be lit in blue, indicating that you can use them to fine-tune the tempo in BPM steps.
- ▶ **SOUND:** Tap SOUND (Reverb footswitch) to open a new sub-menu where you can choose which sound the metronome should make. When you have chosen a sound you like, press BACK.



Metronome sound sub-menu

**Metronome level**

As you can adjust the audio output for the Main Mix and Headphone Mix independently (see “Mix knobs”), it’s your choice if the audience hears the metronome or not.

**Tempo and Metronome**

As long as you haven’t recorded anything into a Loop Slot, you can freely define the tempo for your loop using the TAP button.

Once you have recorded a Loop with the Metronome ON, the tempo will be locked – meaning it

cannot be changed later. To change the tempo, you would have to delete the Loop completely or switch to another Loop Slot.

If you record a Loop with the Metronome OFF, you can still change the tempo later.

**Sync sub-menu**

Tap SYNC (the Double/Comp footswitch) to enter the Sync sub-menu. In the Sync sub-menu, you can define how VL3X’s Looper should sync to a given tempo.

The options in the Sync sub-menu are described below.

**SMART**

Select SMART to use all features of VL3X’s LoopAssist™.

LoopAssist™ chooses how and when to trim and extend loops, based on what you have already recorded.

Pressing the SWAP button will toggle between Loop Track B and Loop Track C, making the change when you reach the end of the current loop. Loop Tracks A and B or Loop Tracks A and C can play simultaneously.

SMART enforces a relationship between the primary Loop Track (track A) and Loop Tracks B and C.

In other words: Loop Tracks B and C can exist as a multiple (in bars) of Loop Track A, but they cannot be shorter.

See the QUANTIZE section below for a step-by-step comparison between SMART and QUANTIZE. It’s much easier to hear and see than to read about!

## SERIAL

When you choose SERIAL in the Sync sub-menu, Loops are played back one after the other, waiting for each loop to finish before proceeding to the next.

In SERIAL mode, Loop Tracks A, B and C play independently and cannot be played at the same time.

This mode is useful if you have three song sections or progressions and want to alternate between them. Of course, you do not have to progress from Loop A to B to C in that order – you may play back loops in any order.

## QUANTIZE

Just like SMART, QUANTIZE uses VL3X's LoopAssist™ feature. It will make your loops fall onto the nearest beat of the current tempo. But other than SMART, QUANTIZE does not extend or trim Loops.

For a good example of the difference, try this:

- ▶ In the Sync sub-menu, select SMART.
- ▶ Record a *short* loop on Loop Track A.
- ▶ Record a *longer* loop on Loop Track B.
- ▶ Let them play back and take note of how it sounds (and looks in the display).
- ▶ Delete both loops from Loop Tracks A and B (see [“Erase sub-menu”](#)).
  
- ▶ Now, record a *longer* Loop on Loop Track A.
- ▶ Record a *shorter* Loop on Loop Track B.
- ▶ Notice that the shorter “B” loop is automatically extended with empty space to match Loop Track A.
- ▶ Once again, delete both Loops.
  
- ▶ In the Sync sub-menu, select QUANTIZE.
- ▶ Record a longer loop on Loop Track A.
- ▶ Record a shorter loop on Loop Track B, and try to make it divisible into Loop Track A. For example, if Loop Track A is four bars long, make Loop Track B two bars. Notice how Loop Track B now loops multiple times for each loop of Track A. This is a better mode if you would like to record a longer Loop Track A (perhaps a chord progression) and a shorter Loop Track B (perhaps a beatbox section).

Our apologies for such a long list of steps – but it’s probably best to see and hear the differences in action to fully understand how Smart and Quantize modes work.

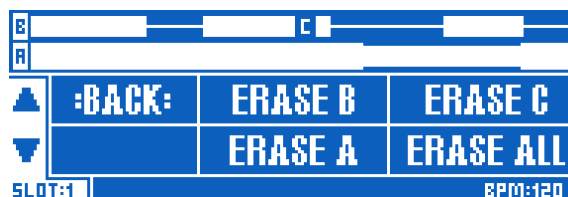
**FREE**

This one's easy to explain: No metronome or other sync. Loops are all recorded completely independently and can take any form/length. Go crazy!

**Erase sub-menu**

Tap ERASE (the Harmony/Drive footswitch) to enter the Erase sub-menu. In the Erase sub-menu, you will find options for erasing your Loops:

- ▶ Erase Loop Track A
- ▶ Erase Loop Track B
- ▶ Erase Loop Track C
- ▶ Erase All Loop Tracks



*Erase sub-menu*

**Erasing loops directly**

You can easily delete a single loop without having to go to the Erase sub-menu.

While you are on the main Loop screen, simply press/hold the ODUB button for a Loop Track (Reverb or Harmony footswitches respectively).



## Loop limits

Individual Loop Tracks can be up to 8 minutes.

Your total remaining loop time, across all slots and tracks, can be displayed by pressing and holding the GENRE button for two seconds. Look for “FREE LOOP STORAGE” to find out how much you have left. It should be a lot! Press any button to exit the “About” screen.

## Loop import

Creating loops inside your device is awesome – but sometimes it’s great to be able to import a loop from another source. We’ve added the ability to import .WAV files, assign them to a specific Loop Slot and Track and we even guess the tempo of the loop you’re bringing in!

To start, you’ll need to have a loop ready to import.

There are some considerations for the formatting and length of your loop:

- ▶ This device accepts .WAV files in a variety of formats: (16 bit/44.1 kHz, 24 bit/44.1 kHz, 16 bit/48 kHz, 24 bit/48 kHz).
- ▶ 24 bit / 48 kHz is the optimal format and will result in the fastest import time.
- ▶ Import of MP3, AAX, FLAC and other formats is *not* supported.
- ▶ All imported loops must be in 4/4 time.
- ▶ If you are using a DAW to create your loops, check for “Trail Length” or an equivalent parameter in the render settings for your program. You need to set that amount to zero! If you don’t, the output file could have a small “pad” of blank space automatically added, which will throw off the tempo guessing feature and loop “tightness”.

- ▶ For example, in Reaper, you will find this parameter in Options > Preferences > Rendering under “Trail length when Rendering project or stems, or Freezing Tracks”.
- ▶ The bar length (the number of 4 beat bars in the loop) of all imported loops has to be a power of two in order for tempo-guessing and syncing to work correctly. Acceptable bar lengths are 1, 2, 4, 8, 16, 32, 64, 128 and so on.
- ▶ You can use unequal bar-length loops, as long as you adhere to the rule above. A 2 bar and a 32 bar loop will work when imported to different tracks.

### Where do I get loops?

Well, you can make them yourself in your DAW (recording software), or you can search the web for free or paid downloadable loops.

A decent free loop resource is Looperman:

[looperman.com/](http://looperman.com/)

The loops on Looperman are user-created, so they vary in quality, but generally they loop well, which is key.

Wherever you create or obtain your loops, make sure that the start and end points are “tight” to the beats. If you have empty space at the beginning or end, audio won’t loop correctly. Having empty space at the start or end of your loop is essentially equivalent to creating a loop in the device and not pressing the buttons on time.

## Importing loops

### Organizing and naming loops properly

First, put the loops that you would like to import onto a USB flash stick.

The USB flash drive needs to be formatted using the FAT32 file system. NTFS, HFS+ (the OS X file system) or other file systems cannot be read by VL3X.

You'll need to create a folder called "VL3\_Loops" on this flash stick and put all of your loops there. If you put your loop audio files in the root directory of the flash stick instead, they'll be seen by the Backing Track import screen instead. The sub-folder simply allows you to organize things a bit better.

You may want to name or rename the tracks in a way that makes it easy for you to remember where they should be going in your VL3X.

Of course, you'll find your own way of making it all work for you, but a logical, consistent file naming system is something that to really should consider – especially if you are working with a lot of file imports or you have downloaded files from multiple providers.

It can help to include Key and/or Tempo and bar information in the file name too.

For example, if you plan to import three different loops to tracks A, B, C respectively on Slot 1, you may want to name the loops something like:

- ▶ "Drums 120BPM 4bars"
- ▶ "Bass 120BPM Bsharp 2bars"
- ▶ "Synth 120BPM Bsharp 8bars"

If you're geeky, you can actually name your loops such that the Import screen will automatically populate with the correct slot, track and vocal/guitar tags.

To do this, name your Loops as follows:

- ▶ SLOT#\_TRACK\_VOC\_userinfo for vocal loops or
- ▶ SLOT#\_TRACK\_GTR\_userinfo for guitar loops.

The Slot, track and vocal/guitar tags will determine what goes into the import screen. The last underscore and text allows you to still amend a useful name to the file ("userinfo").

For example, if we wanted to import some drums to Slot 20, Track B, Guitar and have VL3X name that loop file "Electrodrum", the correct file name would be:

- ▶ SLOT20\_B\_GTR\_Electrodrum.wav



The Loop Import page with the "SLOT1\_A\_GTR\_electrodrum120.wav" file selected

- ▶ Once you have named and moved the tracks onto your USB flash stick, plug the USB flash stick into your VL3X.
- ▶ Press the STORE button and navigate to the LOOP IMPORT tab using the < > arrows. You'll be presented with a screen showing a list of all the compatible audio files available for import. If you have copied files from a Mac to the USB flash stick, you may see files with a leading dot on the Loop Import screen. These files (usually invisible on a Mac) are created by Apple's operating system. Ignore them; they cannot be imported.
- ▶ Scroll up and down with the Control Knob to select a file. Press to flag the file for import. You can flag multiple files or choose "Select All" at the top.



Loop Import page

Next to each selected audio file name, you'll see Slot and Track destination parameters along with a "Vocal"/"Guitar" toggle.



Loop Import page with Slot and Track Destination and Vocal/Guitar flags

### Vocal and guitar tracks in imported loops

Please note that each “Track” in the Looper actually records a stereo Vocal *and* a stereo Guitar track to facilitate routing of guitar loops to the guitar outputs.

When importing an audio file as a loop, you can choose whether this file should go to the Vocal or Guitar sub-track. This is handy if you want to ensure that a particular loop sound comes out of the guitar direct outs.

You can also use this feature to combine two (identical length, sample-accurate) audio files on one Loop Track.

This means that if you find e.g. a cool drumbeat and a bass line, you could import one to “vocal” and the other to “guitar”. This way, your Loop Track now contains a “rhythm section”.



Two audio files set for import to the same slot and track, one assigned to the Vocal sub-track and the other assigned to the Guitar sub-track

- ▶ Use the Control Knob to navigate up and down through the audio file list and set the Slot/Track and Vocal/Guitar parameters using the Mix Knobs.
- ▶ Tap the Control Knob to flag each audio file for import. A \* will appear next to each selected file.
- ▶ Press and hold the Control Knob to begin the import process.



Loop import confirmation dialog

If you’re importing a large number of files, go and watch X-Files for a bit. You do watch X-Files, right?

Once the files have finished importing, you’ll likely want to go and play around with them.

- ▶ Enter the Loop Layer and navigate to a Slot you’ve imported a loop to using the UTIL and Preset Up/Dn buttons.

- ▶ If you press Play, you should see that the tempo of the Loop Slot has been set to the tempo of your imported loop. Magic!

If the device didn’t get the tempo quite right, you can tap the MET button to bring up a list of alternate tempos that match the length of the imported loop. Tempo alternatives will be half time or double time.

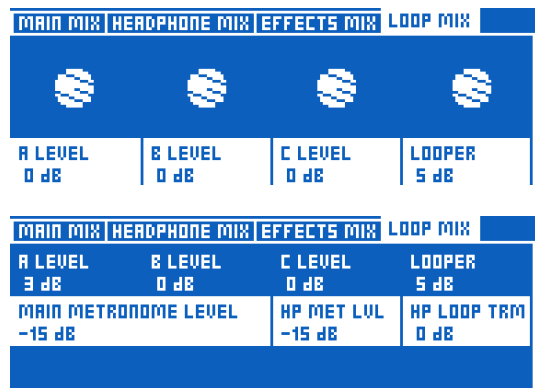
If the tempo is way off, it’s likely that the loop isn’t tight to the timing, is in a non-4/4 time signature or is does not have a “power of two” bar length.

## Loop Mixer

We understand that audio files – especially those gathered from the Internet – can have wildly varying volume levels. This is why we added a loop mixer!

When you access the Mix page via the Mix Knobs, you'll notice a new tab called Loop Mix.

On this tab, you will find level controls for Track A, Track B, Track C and the Master Loop Level, plus some other handy controls if you scroll down.



Mix page – Loop Mix tab

### Understanding and using the Loop Mixer

First, when you import a loop into an empty track, we automatically set the loop mixer Track level at -18 dB. We have found this to be a good starting point for the very compressed/limited loops you'll tend to find "in the wild". This initial setting will allow you to listen to the loop without blowing up your headphones or PA. Adjust to taste.



Loop Mix tab with imported tracks set to -18 dB

From there, what you hear is what you get with the Loop Mixer. Now this is more complex under the hood than it seems, so let's use an example:

- ▶ You would like to adjust the mix between your imported loop and your live vocals/guitar.
- ▶ You reach for the Mix Knobs and turn down the imported Loop Track with the drums on it. Now, you can hear your vocals and guitar clearly alongside the drum track. (Remember that you can also use the Guitar control on the Main mix page to further blend the guitar with the vocals and Loop Track.)
- ▶ If you overdub a vocal or guitar (or aux) performance *on top* of the drum loop that you just

turned down, the newly overdubbed part *will not be turned down*. It will be recorded exactly as you hear it.

- ▶ After hearing the newly recorded drum loop with the overdubbed part, you can turn up and down that track however you like.

We like to think of it as "bouncing to tape" (if you're old enough to remember tapes): You are taking the existing track at the level you hear it and re-recording it with the "live" vocal/guitar/aux signals that you hear. Then, you're turning up or down that newly bounced audio.

If this text isn't doing justice to the process, simply import a loop, adjust the level how you want it, record an overdub and then go back to turn the loop up or down again. You'll see what we're getting at.

Of course, the Loop Mixer doesn't just work with imported loops. It will work with *any* loop that you've got in the device.

#### Where Loop Mix settings are stored

Loop Mixer *Track values* (A, B, C) are saved to the Loop Slot – so remember to go into the Looper's UTIL menu and use Save.

The other mix settings are *global*, so the Loop Mix is a bit different – but who wants to have to redo all those volume tweaks every time you load a Loop Slot? We sure don't!

The overall LOOPER level control is simply a mirror of the LOOPER level control on the Main Mix page – and it is still *global*. We just put it on the Loop Mix page for convenience.

You'll also find MET levels if you scroll down on the Loop Mix Page. Those levels are global as well.

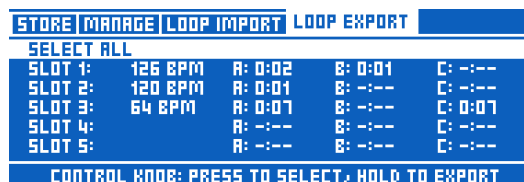
## Loop export

Exporting loops is simpler than the import process, because you don't have to worry about file types, sizes or durations.

Just click and hold the Control knob, and all 6 stereo .WAV files for the selected Loop Slot (3 tracks with vocal/guitar for each) are saved to the USB flash stick that you have plugged into the device.

### Exporting a loop

- ▶ Press STORE and navigate to the Loop Export tab using the < or > arrows.
- ▶ Scroll to the Loop Slot you'd like to select using the Control Knob and click the Control knob once to select it.
- ▶ A small X will appear next to a selected Loop Slot.
- ▶ If you'd like to export all Loop Slots, simply click on the "SELECT ALL" option at the top of the list.
- ▶ Press and hold the Control Knob to confirm and initiate export.
- ▶ If there's a large number of Loops... it may be time to watch a few more X-File shows.



Loop export tab

## Loop management

When you have read the Looper chapter, you know that each loop uses a SLOT as the “container” both for the loop audio tracks and the general settings for how the Looper should behave (synchronization, metronome etc.).

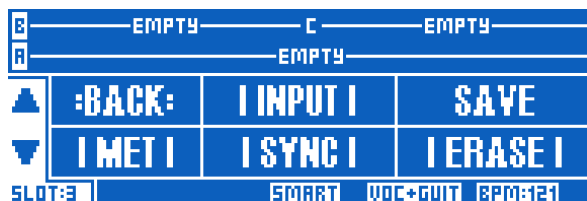
With so many settings available, we’ll need to discuss where settings are (Slot or Preset), how you save them and why.

Let’s start by exploring the Looper UTIL menu.



The UTIL menu button on the Looper Layer

We already know that many settings related to the way the Looper records and behaves are contained in the UTIL menu on the Looper Layer. Parameters such as Metronome on/off, Metronome sounds, the Sync mode, Loop Input etc. are all here. These parameters are saved when you use the SAVE command in the UTIL menu.



The UTIL menu on the Looper Layer

Saving via UTIL stores the settings and loop audio to the selected *Loop Slot* – not to the *Preset*.

While the UTIL menu is displayed, you can also access an additional menu by pressing the Looper button.

### Loop Slot sub-menu

LOOP SLOT	PRESET	BACKING TRACK
CURRENT SLOT		MIX LOOPER TO NP
3		OFF
AUTO MET ON		AUTO MET MUTE
ON		OFF
QDUE DECAY		QDUE QDUE
99 %		OFF

UTIL – Loop Slot submenu (the Backing Track tab is only available in VL3X)

This submenu contains additional parameters that will be saved when you use the SAVE command in the UTIL menu. This includes things like the ability to have the Metronome come on and off with the looper playback.



## Preset sub-menu

LOOP SLOT	PRESET	BACKING TRACK
LOOPER LOAD SLOT		
3		
LOOP TRIGGER A	SLOT	TRACK
	CURRENT	A
LOOP TRIGGER B	SLOT	TRACK
	CURRENT	A

### *UTIL – Preset submenu*

This submenu contains parameters related to the specific Preset you are currently on. For example, these parameters will allow you to load a specific Loop Slot when loading a Preset.

For a loop performance, the combination of Slot-based and Preset-based controls allow you to load both the settings for the Looper and the vocal/guitar sounds you need by simply changing to the appropriate Preset.

## Navigating Presets while using the Loop Layer

You can change presets when in the Looper Layer. If you do this and happen to change to a Preset that will normally load a Loop Slot... it won't. Why? Since you are already in the Looper Layer, we assume that you are performing/recording a loop and just want to use the effects from other Presets.

To use a Slot associated with a Preset you moved to while recording a Loop in a different slot, you will need to move away from the Preset and back again to load the saved Slot.

Here is an example: Preset 1 loads Loop Slot 1, Preset 2 loads Loop Slot 2. Now if you are recording a Loop on Slot 1 (via Preset 1) and you switch – within the Loop Layer – to Preset 2, it won't load Loop Slot 2. When you have finished your recording (still on Slot 1) you'll need to move away from Preset 2 and back again in order to load Slot 2.

# Loop Triggers

It is possible to assign any Track or Track combination (A, B, C, A&B, A&C) from Slots 1 to 50 to a button on your VL3X or Switch-3 or Switch-6 and play these Tracks back at any time. This is called a Loop Trigger.

## Loop Triggers and Presets

You can map an audio effect – such as HardTune – to a button and use it in multiple Presets, where you have individual settings for this effect in each Preset. Loop Triggers work the same way. You can think of each Loop Trigger as a “pointer” to a specific Loop Slot/Track(s). You can assign up to eight (A-H) Loop Triggers in each Preset.

## Assigning Loop Trigger footswitches

### Assigning Loop Triggers to VL3X footswitches

You can assign Loop Triggers A to H to VL3X footswitches using the BUTTONMAP tab on the Vocal or Guitar Layer. Simply pick the footswitch (Delay, Reverb, Harmony etc.) and assign a Loop Trigger to it.

	MOD	CHOIR	RHYTHMIC	STUTTER	BUTTONMAP
ROW 1	MOD			DELAY	REVERB
	LOOPTRIG A			DELAY	LOOPTRIG B
	MODE			MODE	MODE
	-			LATCHED	-
ROW 2		HIT		DOUBLE	HARMONY
		LOOPTRIG C		DOUBLE	LOOPTRIG D

Assigning a Loop Trigger to a footswitch

### Assigning Loop Triggers to Switch-3 or Switch-6 footswitches

To assign Loop Triggers to footswitches on your Switch-3 or Switch-6, go to the SETUP > FOOTSWITCH tab.

	MOD	TONE	SYSTEM	MIC CONTROL	FOOTSWITCH
FOOTSW-1					FOOTSW-2
LOOPTRIG A					LOOPTRIG B
MODE					MODE
-					-
LOOP INPUT					CYCLE 2
CYCLE 1					CYCLE 3
VOC+GUIT					VOC
					GUITAR

Assigning a Loop Trigger to a Switch-3 footswitch

## Assigning Loops to Loop Triggers

To set up what goes in each Loop Trigger, go to LOOPER > PRESET.

Here, you will see Loop Triggers A to H with a setting for SLOT and TRACK.

LOOP	SLOT	PRESET	BACKING TRACK
LOOP TRIGGER A	SLOT		TRACK
	1		A
LOOP TRIGGER B	SLOT		TRACK
	16		A&C
LOOP TRIGGER C	SLOT		TRACK
	50		A&B

### Assigning Loop Slots and Tracks to Loop Triggers

Simply choose which Loop Slot and Track(s) you want to trigger with each button, and you're done.

Additionally, if you'd like to globally assign Loop Triggers, you can turn on "Global Triggers" at the bottom of the menu. That makes all of the Trigger assignments the same across all Presets.

LOOP	SLOT	PRESET	BACKING TRACK
LOOP TRIGGER G	SLOT		TRACK
	CURRENT		A
LOOP TRIGGER H	SLOT		TRACK
	CURRENT		A
GLOBAL TRIGGERS			
ON			

### Global Triggers parameter

Don't forget to save your Preset (press STORE twice) after making changes to Loop Triggers.

## Looping and MIDI Sync

The easy question is: “Will the VL3X looper stay in time with MIDI Tempo I send to it?”

The answer is a bit more complex – but essentially “yes”.

If you have not yet recorded a loop and are feeding MIDI Tempo to VL3X, the MET will be set to the incoming tempo, and the loop will be recorded at that tempo.

If you change tempo *after* recording your loop, the loop will *not* time-stretch or otherwise transform to stay on time. This is consistent with VL3Xs existing looper behavior. Tempo gets “locked” after you record your first loop.

The exception to the above is at the end of a loop. When the end of a loop comes around, it will attempt to restart the loop on the next MIDI Tempo beat. This allows for minor drift in the incoming MIDI Tempo value. Again, it’s not intended for changing tempo during the performance with the looper running, but can adjust to slight variations.

Additionally, the looper will respond to MIDI Tempo values with precision higher than 1 beat per minute. So if you send a tempo such as 118.4 BPM from Ableton, VL3X *will* follow that tempo, although the display will show 118.

In practice, it’s pretty cool. You can...

- ▶ play audio and control the tempo from your DAW,
- ▶ have your Guitar and Vocal Delay and Rhythmic effects line up with the audio track
- ▶ record and play back loops in time with your DAW audio tracks.

In short: VL3X and a laptop are a really powerful music presentation setup!

# Setup

## Introduction

Setup contains all of the system-wide parameters for VL3X. Each page or tab is described in its own section of this chapter.

- ▶ Tap the Setup button to enter the system menu.
- ▶ Tap the Arrow buttons to switch between the tabs of the system menu.



## Input tab

The Input page contains settings for all of the inputs in VL3X.

### Mic Gain parameter

Use the Mic Gain parameter to adjust the input level for the Mic input.

If you have completed the Auto-Gain procedure from the Quick Guide, you likely won't need to adjust this.

To adjust the gain manually, do the following.

- ▶ Plug in your microphone.
- ▶ If you have a condenser microphone, change Input Type to Condenser.
- ▶ Sing at your loudest.
- ▶ Turn the Input Gain parameter up until only the green and yellow LEDs of the Level indicator light up.
- ▶ If you see the red LED light, turn Input Gain down until the red LED no longer lights. This is your optimal Input Gain setting.

### Input Type parameter

Use the Input Type parameter to select your microphone type. Choose the one that best matches your setup.

The available options are:

#### **Dynamic Mic**

E.g. SM58, OM5, MP-70 etc.

#### **Condenser Mic**

Activates +48V phantom power. This will temporarily mute the microphone to avoid audible "pops" over your PA.

#### **MP-75 Mic, MP-76 Mic or E835 FX Mic**

Selecting one of these microphone types will enable Mic Control. For more information, see "[Mic Control tab](#)".

### Mic Clip Protection parameter

Use the Mic Clip Protection parameter to activate a circuit that will avoid signal clipping at the microphone input stage.

## Global Pitch Correct parameter

Use the Global Pitch Correct parameter to apply auto-chromatic pitch correction to your incoming microphone signal. This feature is separate from the HardTune effect block and will be overridden when HardTune is active.

We like to think of Global Pitch Correction as “a little help”, gently guiding you to the next nearest semitone at all times. Since this correction is always chromatic, you can still sing a “wrong” note (relative to the current key/scale of your song), but it does help with your overall pitch.

Parameter range: 0 to 100 %

Try a setting of circa 40% for a transparent sound.

If you hear “phasing” between your natural voice and corrected voice, this is totally normal.

Check out this “Craig’s Corner” video for more information on pitch correction phasing:

[youtube.com/watch?v=KWwEluiDXsA](https://www.youtube.com/watch?v=KWwEluiDXsA)

## Lead Delay parameter

Use the Lead Delay parameter to apply latency compensation between your lead voice and effects.

Parameter settings:

### None

Your lead voice is passed through the unit as quickly as possible, regardless of the number of effects and their latency.

### Voice Sync

Your lead voice is dynamically delayed (ever so slightly) so that any generated voices – such as Harmony – are “lined up” together perfectly. The amount that your lead voice can be delayed is dependent on the number of generated voices.

### Auto

Similar to Voice Sync, Auto delays your lead voice relative to the overall latency of all active effects, not just generated voices. While this mode is the most accurate in terms of timing, it can also introduce the most significant feeling that “what you sing” comes “out of the box” a split second later. For some, this latency is unnoticeable, for others, it’s distracting.

Try the various modes to determine which one works best for the “feeling” and the resulting sound output.

## Lead Mute parameter

Use the Lead Mute parameter to mute all incoming lead vocal signals.

Parameter settings: on/off.

When Lead Mute is on, it mutes either microphone or line level signals, whichever is plugged into the combo jack. Lead Mute is great for “post processing” prerecorded dry vocals.

### Post processing prerecorded dry vocals:

- ▶ Send the “dry” vocal from your DAW to the Mic/Line input.
- ▶ Turn Lead Mute on.
- ▶ Record the resulting effects-only signal to a new track in your DAW.
- ▶ Blend the original “dry” vocal track and new “wet” vocal tracks together in the mix.



## Aux Gain parameter

Use the Aux Gain parameter to control the level of the signal received at the Aux input jack. If you are getting distortion when connecting an external music source to the Aux input, try turning this control down.

## Aux Vocal Cancel parameter

When you activate Aux Vocal Cancel, VL3X will attempt to remove vocals from recorded stereo music coming into the Aux input.

Please note that the ability for Voice Cancel to “work its magic” is highly dependent on the mix of the incoming music. Stereo recordings with vocals directly in the middle and instruments panned far to the left and right tend to work the best.

## Monitor Level parameter

Use the Monitor Level parameter to control the level of the signal received at the Monitor input jack. If your incoming monitor mix is distorting, try turning this parameter down.

## RoomSense Auto-Detect parameter

Use the RoomSense Auto-Detect parameter to add the RoomSense microphones built into your VL3X to the available NaturalPlay sources.

Parameter settings:

- ▶ On:  
VL3X will “listen” to the RoomSense microphones for Key/Scale information if no Guitar, MIDI or Aux signal is present.
- ▶ Off:  
VL3X will ignore any music “heard” by the RoomSense microphones.

## Output tab

### XLR Output Mode parameter

Use the XLR Output Mode parameter to select the output mode for VL3X.

Parameter settings:

- ▶ **Stereo:**
  - ▶ The left XLR output jack carries the left stereo channel.
  - ▶ The right XLR output jack carries the right stereo channel.
- ▶ **Mono:**
  - ▶ The left XLR output jack carries the summed (with effects) mono vocal & guitar channel signals.
  - ▶ The right XLR output jack carries the mono vocal signal without effects.
  - ▶ The dry channel includes Tone and Auto-Chromatic Pitch Correction (if applicable).
  - ▶ The dry channel does *not* contain HardTune effect(s).
- ▶ **Dual Mono:**
  - ▶ The left XLR output jack carries the summed (with effects) mono vocal channel.
  - ▶ The right XLR output jack carries the summed (with effects) mono guitar channel.

### XLR Output Level parameter

Use the XLR Output Level parameter to set the relative level of the signal going to the XLR outputs.

Parameter settings:

- ▶ **Mic Level:** Typically the best setting when connecting to a mixer/PA. This level closely replicates that of a microphone going directly into the mixer.
- ▶ **Line Level:** When connecting to a mixer/PA line inputs, this setting is a good choice.

### Guitar Jacks Mode

You may select from three modes to direct your backing track and guitar to the guitar outputs. Especially when working with Backing Tracks, this allows for maximum flexibility.

#### **Guitar setting**

The Guitar settings acts as the “normal” or “default” mode, sending guitar signals from the ¼” outputs in mono or stereo (depending on whether you have one or both jacks connected).

#### **Track L / Guitar R setting**

With the Track L / Guitar R setting, Backing Tracks (summed mono) are sent out the left Guitar ¼” output, while your guitar signal (summed mono) is sent out the Right Guitar ¼” output.

#### **Backing Track setting**

With the Backing Track setting, Backing Tracks are routed to the guitar outs.

If both outputs are connected, the signal is in stereo. If one is connected, the signal is summed to mono.

This mode allows you to have a two-component Backing Track where “the click” is sent to one ¼” output and “the track” to the other. These signals can then be independently routed wherever you

wish. Usually, you will have “the track” go to the front-of-house mixer and “the click” to a stage/monitor mix (or the drummer). If you’re listening to Backing Tracks over your headphones, you’ll hear the split tracks as described here, with “the click” on one side and “the track” in the other.

### More information about mixing and configuring outputs properly

- ▶ For a tutorial on PA basics, Yorkville has an extremely useful “PA Primer” guide (PDF): [yorkville.com/downloads/other/basicpaprim-er.pdf](http://yorkville.com/downloads/other/basicpaprim-er.pdf)
- ▶ There is also a great “Craig’s Corner” video episode covering Mixer Setup with TC-Helicon devices: [youtube.com/watch?v=qq0AOfafIjs](https://youtube.com/watch?v=qq0AOfafIjs)
- ▶ And another with tips on eliminating feedback: [youtube.com/watch?v=VIN1RJ4gcAo](https://youtube.com/watch?v=VIN1RJ4gcAo)

### Talk Trim parameter

Use the Talk Trim parameter to adjust the volume of your lead voice when “Talk/Bypass” mode is engaged. It’s not uncommon for performers to want a little bit more or less volume through the PA when effects are bypassed.

Setting the Talk Trim parameter to OFF allows you to mute the microphone during TALK/TUNER mode. When used in combination with pressing/holding the Preset UP/DN buttons to enter TALK/TUNER (which mutes the guitar), you can effectively mute both guitar and vocal output from VoiceLive 3.

This can be used as a “break mode”, if you’re away from the stage. Aux signals still pass to the outputs – so you can play “80’s TV Theme Tribute Band Volume 1” while you have a beer.

## Guitar tab

### Input Gain parameter

Use the Input Gain parameter to adjust the input level for the Guitar IN. To set this correctly, do the following:

- ▶ Plug in your guitar.
- ▶ Turn your guitar's volume control to maximum.
- ▶ Play the loudest you normally would.
- ▶ Turn the Input Gain parameter up until only the green and yellow LEDs of the Level indicator light up.
- ▶ If you see the red LED light, turn Input Gain down until the red LED no longer lights. This is your optimal Input Gain setting.

### Phase parameter

Use the Phase parameter to invert the phase of the guitar signal.

Parameter settings:

- ▶ **Normal:** Signal phase is maintained as it is at the guitar input.
- ▶ **Inverted:** Incoming signal phase is reversed. It can sometimes be beneficial to invert the phase of a guitar to prevent feedback from stage monitors. This is especially applicable to acoustic guitars

### Speaker Sim Enable parameter

Use the Speaker Sim Enable parameter to switch the speaker simulation portion of the guitar Amp effect block on or off.

Parameter settings:

- ▶ **On:** Speaker simulations are active. This is a good setting for use with a PA or FRFR (Full Range, Flat Response) speaker.
- ▶ **Off:** Speaker simulations are turned off. This is a good global setting if you are plugging into a nice amplifier and want to maintain its "sound" relative to the guitar effects.

## Output Mode parameter

Use the Output Mode parameter to specify if guitar output levels should be variable or fixed.

Parameter settings:

- ▶ **Unity Gain:** Maintains a constant guitar level output, regardless of Mix settings. If you have an expression pedal connected and have it set to control guitar volume, the guitar output level will be affected.
- ▶ **Variable Level:** Changes to the guitar level on the Mix screen will affect the level of the guitar outputs.

This parameter is only applicable to the ¼” guitar outputs, not the XLR outputs. The XLR outputs always allow variations of guitar level via the mix screen, as long as no ¼” guitar outputs are connected.

## Gate Threshold parameter

Use the Gate Threshold parameter to set the threshold for the guitar gate. A gate “closes” or mutes the sound when it reaches a specific low volume threshold.

To set the gate effectively, play a note or chord, letting it ring out for a while. You will notice that it reaches a certain volume and then goes completely silent. This indicates that the gate has “closed”, effectively muting the output. The key is to find a gate threshold setting that allows for your instrument to naturally ring and sustain, but still reduces noise when you are not playing. You will need to experiment to find the optimal setting for your personal style and needs.

## MIDI tab

### Source parameter

Use the Source parameter to determine which MIDI input VL3X should use.

Parameter settings:

- ▶ USB:  
VL3X receives MIDI information from the USB port.
- ▶ MIDI:  
VL3X receives MIDI information from the hardware MIDI IN port.

### MIDI Tempo parameter

Use the MIDI Tempo parameter to ON to have VL3X follow the MIDI tempo from an external MIDI clock source, e.g. a DAW.

### Input Channel and Output Channel parameters

Use the Input Channel parameters to set the MIDI Channel that VL3X “listens to”.

Use the Output Channel parameter to set the MIDI Channels that VL3X uses for sending MIDI data.

These parameters are useful if you have multiple MIDI devices and want to send specific commands to individual devices.

## Input Filter and Output Filter parameters

Use the Filter parameters to filter specific MIDI information from the incoming or outgoing MIDI data stream.

These parameters are helpful if you would like VL3X to respond to certain types of information – like program changes – but not others, such as Continuous Controller (CC) messages.

The parameter setting you choose here tells VL3X what *not* to send or respond to.

### Control Change setting

All Control Change messages are filtered.

### Program Change setting

All Program Change messages are filtered.

### PC + CC setting

Program and Control change messages are filtered.

### Notes setting

#### (Input Channel Only)

MIDI Note information is filtered.

### Notes + CC setting

#### (Input Channel Only)

MIDI Note and Control Change messages are filtered.

### Notes + PC setting

#### (Input Channel Only)

MIDI Note and Program Change messages are filtered.

### Notes + PC + CC setting

#### (Input Channel Only)

MIDI Note, Program and Control Change messages are filtered.

## Transpose parameter

Use the Transpose parameter to shift incoming MIDI note data up or down by up to 4 octaves.

If the output note after transposition falls outside the available MIDI notes (i.e., if it is really high or really low), the nearest octave note will be used instead. For example, if you have set Transpose to -4 octaves, but the note falls too far outside of the acceptable MIDI note value range, the system will try the next nearest transposition octave of -3. If -3 is also too low, it will try -2 etc.



## Pitchbend Range parameter

Use the Pitchbend range parameter to define the range that pitch bend information can affect the current note(s). This value is represented in semitones. The default value is 12 (1 octave).

## Split Note parameter

It is possible to define a specific area of your MIDI keyboard for VL3X to respond to. Use the Split Note parameter to define a split point. Use the Split Direction parameter to control whether notes above or below that note are included.

Parameter settings: C-1 to G9

## Split Direction parameter

It is possible to define a specific area of your keyboard for VL3X to respond to. Use the Split Note parameter to define a split point. Use the Split Direction parameter to control whether notes above or below that note are included.

- ▶ **Above:** Any notes above the Split note are “listened to” for MIDI note information.
- ▶ **Below:** Any notes below the Split note are “listened to” for MIDI note information.

## Vibrato Boost parameter

Use the Vibrato Boost parameter to set how VL3X should process incoming MIDI modulation data.

Parameter settings:

- ▶ **Boost:** The modulation data received via MIDI is added to the vibrato already applied to Harmony voices.
- ▶ **Manual:** The modulation data received via MIDI is directly controlling the Vibrato amount.

## Sysex ID parameter

Use the SysEx ID parameter to set the SysEx ID that is used for addressing devices.

If you are using VoiceSupport for firmware updates and/or Preset management, you need to set the SysEx ID to 0.

## Tone tab

VL3X is equipped with a voice-optimized Tone block that applies Compression, EQ, Gating and a De-esser to the lead voice. The settings for these components are not stored as part of Presets, they are applied globally.

We recommend using the “Adaptive” settings for Compression, EQ, and Gating as a starting point and only adjust these components of the Tone block manually if you run into specific issues.

### Tone parameter

Use the Tone parameter to switch the Tone block on or off.

### De-ess parameter

Use the De-ess parameter to adjust the amount of adaptive de-essing (removal of “sss” sounds) that should be applied to your voice. The default setting is 50.

## Compression mode parameter

Use the Compression Mode parameter to choose between adaptive (automatic) and manual compression.

Parameter settings:

- ▶ **Adaptive:** Automatically adjusts compression settings as you sing.
- ▶ **Manual:** Compression settings are static and manually set.

## Compress parameter (Adaptive Compression mode only)

Use the Compress parameter to control the amount of adaptive compression applied to your voice. 50 is the default.

## Threshold parameter (Manual Compression mode only)

Use the Threshold parameter to set the signal level where compression should be applied.

### Ratio parameter (Manual Compression mode only)

Use the Ratio parameter to set the amount of compression that should be applied when the signal level is over the Threshold. The Ratio is defined as a “1:X” ratio, where “X” is the number of decibels (dB) of reduction in level for every 1 dB over the “Threshold” value.

### Gate parameter

The gate turns down the volume of the microphone/line signal when the input signal falls under a certain threshold.

Use the Gate parameter to choose between adaptive (automatic) and manual compression.

Parameter settings:

- ▶ **Off:** No Gate is applied.
- ▶ **Adaptive:** The Gate is adjusted automatically.
- ▶ **Manual:** The Gate threshold can be set by the user.

### Lead Atten(uation) parameter (Adaptive & Manual Gate mode only)

Use the Lead Atten(uation) parameter to set the attenuation of the lead voice once the signal falls under the threshold.

### Harm(ony) Atten(uation) parameter (Adaptive & Manual Gate mode only)

Use the Harm(ony) Atten(uation) parameter to set the attenuation of the harmony voices once the signal falls under the threshold.

### Threshold parameter (Manual Gate mode only)

Use the Threshold parameter to set the threshold for the Gate. When the signal level falls under this value, the gate is activated and attenuates the signals as specified by the Atten(uation) parameters.

### EQ Mode parameter

Use the EQ Mode parameter to choose between adaptive (automatic) and manual equalization.

Parameter settings:

- ▶ **Adaptive:** Automatically adjusts equalization settings as you sing.
- ▶ **Manual:** Equalizer settings are static and manually set.

### Shape parameter (Adaptive EQ mode only)

Use the Shape parameter to control the amount of adaptive equalization applied to your voice. The default setting is 50.

### Warmth parameter (Adaptive EQ mode only)

Use the Warmth parameter to adjust the character of adaptive equalization. When you set it to On, the equalization will sound warmer.

### Low / Mid / High gain parameters (Manual EQ mode only)

Use the Low, Mid and High Gain parameters to set the amount of signal boost (gain) or attenuation that should be applied to the low, mid and high bands of the EQ.

Parameter range: -12 to 12 dB.

### Low / Mid / High Freq(ue)ncy parameters (Manual EQ mode only)

Use the Low, Mid and High Freq(ue)ncy parameters to set the frequencies of the low, mid and high bands of the EQ.

Parameter range: 20 to 20480 Hz.

### Mid BW parameter (Manual EQ mode only)

Use the Mid BW parameters to set the bandwidth of the EQ's mid band.

Parameter range: Narrow, 0.11 to 8.77, Wide.



## System tab

### Global Tempo parameter

Use the Global Tempo parameter if you want to use one global tempo setting instead of using the tempo settings stored as part of each Preset.

When Global Tempo parameter is set to On, any tempo set via...

- ▶ Tempo Tapping (see [“Tapping tempo”](#)),
- ▶ the Delay effect edit screen or
- ▶ Loop Metronome (see [“Metronome sub-menu”](#))

will apply across *all* Presets. The tempo values stored in Presets will be overridden as long as Global Tempo is On.

### Global Preset parameter

Use the Global Preset parameter to define a Global Preset that should be used as a starting point/reference for all Presets where effect blocks are set to Global ON.

Usually, you will find the Global setting at the bottom of every effect block edit screen. As soon as you change Global from OFF to ON within an effect block, the corresponding effect settings from your the Global Preset will be applied to that effect.

For more information, see [“Important: The link between the Global Preset and other Presets goes both ways”](#).

### Global Key/Scale parameter

Use the Global Key/Scale parameter if you want to use one global key/scale. When Global Key/Scale parameter is set to On and you set the Key and Scale parameters in a Preset’s Harmony block edit screen, this key and scale will apply to all Presets and the effects that utilize key and scale information.

## All Guitar FX Global parameter

Use the All Guitar FX Global parameter to “lock” the guitar effects in their current state. This is a great feature if you would like to use one “set” of guitar effects across all Presets, much like individual stomp boxes instead of having guitar effects change with every Preset.

## Global NatPlay Source parameter

Use the Global NatPlay Source parameter to define a global signal source for the NaturalPlay feature. Use this parameter if you want to make sure that only audio or control data from a specific source is used to determine key/scale. For more information, see [“What is NaturalPlay?”](#).

Parameter settings:

- ▶ Auto:  
VL3X “listens” to any audio or control data coming from the Guitar input/MIDI or USB port/Aux input/RoomSense microphones to determine the key/scale that should guide Harmony voices and HardTune.
- ▶ Guitar:  
Audio received at the Guitar input is used to determine key/scale.
- ▶ MIDI:  
MIDI note messages received at the MIDI IN jack are used to determine key/scale.
- ▶ Aux:  
Audio received at the Aux input input is used to determine key/scale.
- ▶ RoomSense:  
Audio received by the built-in RoomSense microphones is used to determine key/scale.

## Mix RoomSense to NaturalPlay

This parameter allows you to have audio from the RoomSense mics blended with other incoming NaturalPlay information (like guitar) to enhance accuracy.

In fact, if the audio received by the RoomSense mics has sufficient chord information, it can set key/scale without other input. That means you can stop playing guitar or MIDI and have VL3X automatically start “listening to the band” for key/scale cues.

### Tuner Reference parameter

Use the Tuner Reference parameter to set the reference frequency for the built-in tuner.

The default setting is 440 Hz.

### Hit Behavior parameter

Use the Hit Behavior parameter to define how manually switching effect blocks on or off should affect the HIT function.

For more information, see [“HIT – Dynamic versus Snapshot”](#).

### Aux In Type parameter

Use the Aux In Type parameter to specify the signal you are feeding to the Aux in jack. Available settings are “Live” and “Tracks”.

Setting this parameter correctly improves NaturalPlay chord detection.

## Contrast parameter

Use the Contrast parameter to set VL3X's display contrast.

Depending on the angle that you view the screen from, different contrast settings may make things easier to read.

## Mix Screen Time-out parameter

Use the Mix Screen Time-out parameter to set the time, in seconds, that the mix screen is active before it automatically times out and the display returns to the last used Layer.

## Mic Control and Footswitch tabs

Every VL3X Preset has its own Buttonmap tabs, allowing you to remap the six effect footswitches ( $\mu$ Mod, Delay, Reverb, HIT, Double/Comp and Harmony/Drive) both for the Vocal and the Guitar Layer. For more information, see [“Remapping a footswitch”](#).

In addition to these Preset-specific mapping features, the parameters on the Setup menu’s Mic Control and Footswitch tabs allow you to map features to

- ▶ the switch (or switches) on your Mic Control-enabled microphone
- ▶ the Step footswitch on your
- ▶ and the footswitches on your optional Switch-3 or Switch-6.

## Mic Control tab

### Mic Switch Function parameter

Use the Mic Switch Function parameter to activate Mic Control and assign a function to the switch/switches on your Mic Control-enabled microphone (MP-75, MP-76, Sennheiser e 835 fx).

Set the microphone you will be using on the INPUT TYPE parameter on the INPUT menu first! E.g., to map all four switches of a MP-76, you will need to select that Microphone type first. For more information, see [“Input tab”](#).

### Mic Switch Function parameter settings

- ▶ Off
- ▶ µMod
- ▶ Delay
- ▶ Reverb
- ▶ Vocal HIT
- ▶ Double
- ▶ Harmony
- ▶ Transducer
- ▶ HardTune
- ▶ Rhythmic
- ▶ Stutter
- ▶ Choir
- ▶ Synth
- ▶ Harmony Hold
  - We have tweaked Harmony Hold to automatically turn on Harmony, if it isn't on already. That saves you a button press!
- ▶ STEP
- ▶ Tap Tempo
- ▶ Bypass
  - Bypass can be used as a MUTE if you set TALK TRIM to OFF in the SETUP menu.
- ▶ ALL HIT
- ▶ Preset UP/DN
  - Use Preset UP/DN as follows to scroll through VL3X presets:
    - ▶ Tap to use Preset UP
    - ▶ Hold to change directions
    - ▶ Tap to use Preset Down
    - ▶ Repeat hold to change direction again
- ▶ Preset Step
  - ▶ Hold to change Preset
  - ▶ Tap for STEP

- ▶ Tuner
- ▶ 1 Button Looper
  - Control the Looper with just one button! Here is how it works:
    - ▶ Tap for REC/PLAY/ODUB.
    - ▶ Double tap for STOP.
    - ▶ Double tap and hold for CLEAR.
 Please note that with *any* one-button looper, there is a small “burp” of audio if you double-tap and hold for erase when the loop is stopped (not if it's playing). If you want to avoid this, you will need to map STOP/ERASE to a dedicated button instead.
- ▶ Loop PLAY/REC
- ▶ Loop STOP/ERASE
- ▶ Loop UNDO
- ▶ (Backing) Track Start
- ▶ Preset UP
- ▶ Preset DOWN

All targets can be set to Latched (tap on/tap off) or momentary (hold on/release off).

\* Harmony must be active for this to have an effect.

\*\* Tapping the Mic switch will switch to the next or previous Preset. Holding the Mic switch will reverse direction (increment/decrement).

## Mic Switch Mode parameter

Use the Mic Switch Mode parameter to set the operation mode of the switch on your Mic Control-enabled microphone.

- ▶ **Latched:** Tap the Mic switch to activate the assigned effect, tap it again to deactivate it.
- ▶ **Momentary:** The assigned effect is on only when you keep the Mic switch pressed.

For more information, see [“Change a button from Latched to Momentary mode”](#).

## Footswitch tab

### Step Button Function parameter

Use the Step Button Function parameter to re-map the Step footswitch to another function.

One of the following functions can be mapped to the Step footswitch. This setting is not stored as part of your Presets, it is applied globally. The Step footswitch LED will light in blue (Vocal), Red (Guitar) or Purple (Loop/System), depending on what you have assigned to it.

### Step Button Function Parameter settings

- ▶ Step
- ▶ Pitch Cor
- ▶ All Mute
- ▶  $\mu$ Mod
- ▶ Delay
- ▶ Reverb
- ▶ Voc HIT
- ▶ Double
- ▶ Harmony
- ▶ Transducer
- ▶ HardTune
- ▶ Rhythmic
- ▶ Stutter
- ▶ Choir
- ▶ Synth
- ▶ Harm(ony) Hold\*
- ▶ Set Key
- ▶ Tap Tempo
- ▶ Bypass
- ▶ G  $\mu$ Mod (G = guitar)
- ▶ G Delay
- ▶ G Reverb
- ▶ G HIT
- ▶ G Comp
- ▶ G Drive
- ▶ G Amp
- ▶ G Rhythm
- ▶ G Octaver
- ▶ G Wah
- ▶ G Mute
- ▶ All HIT
- ▶ Looper\*\*
- ▶ Loop Input Cycle

- ▶ Tuner
- ▶ 1 Button Looper
- ▶ L(oop) Erase All
- ▶ (Backing) Track Start

\* Harmony must be active for this to have an effect.

\*\* Toggles the Loop/Backing Track Layer. You may find this a more convenient way of entering the Loop Layer quickly, compared to holding the Layer button.



## Step Button Mode parameter

Use the Step Button Mode parameter to set the operation mode of the Step button.

- ▶ **Latched:** Tap the button to activate the assigned effect, tap it again to deactivate it.
- ▶ **Momentary:** The assigned effect is on only when you hold down the footswitch.

For more information, see [“Change a button from Latched to Momentary mode”](#).

## Footswitch jack parameter

You can use the Footswitch jack on your VL3X to connect either a TC-Helicon Switch-3, a Switch-6 or a second expression pedal.

Parameter settings:

- ▶ **Expression Pedal\*:** Use this setting if you have connected an expression pedal to the Footswitch jack.
- ▶ **Switch-3:** Use this setting if you have connected a Switch-3 (optional) to the Footswitch jack.
- ▶ **Switch-6:** Use this setting if you have connected a Switch-6 (optional) to the Footswitch jack.

\* For information, see [“Working with a second expression pedal”](#).

## Expr(ession) Pedal Function parameter

If you have connected a second expression pedal to the Footswitch jack, use the Expr(ession) Pedal Function parameter to assign a function to this expression pedal.

### Expression Pedal Function parameter settings

The second expression pedal can be assigned to one of the following controls:

- ▶ Off
- ▶ Lead Octave Down
- ▶ Lead Octave Up
- ▶ Harmony Octave Down
- ▶ Harmony Octave Up
- ▶ Harmony + DoubleLevel
- ▶ Delay + Reverb Level
- ▶ Harmony Level
- ▶ Double Level
- ▶ Vocals  $\mu$ Mod Level
- ▶ Vocals Delay Level
- ▶ Vocals Reverb Level
- ▶ Synth Level
- ▶ Lead Level
- ▶ Vocal  $\mu$ Mod + Delay + Reverb Level
- ▶ Vocal Level
- ▶ Aux Level
- ▶ Vocal Delay Sends
- ▶ Vocal Reverb Sends
- ▶ Rhythm Depth
- ▶ Rhythm Division
- ▶ Stutter Division
- ▶ G  $\mu$ Mod Level (G = Guitar)
- ▶ G Delay Level
- ▶ G Reverb Level
- ▶ G Delay + Reverb Level
- ▶ G Rhythmic Depth
- ▶ G Rhythmic Division
- ▶ G Amp Post Gain
- ▶ G Amp Pre Gain
- ▶ G Level
- ▶ G Pan

- ▶ Looper Level
- ▶ Headphone Level
- ▶ G Delay Send
- ▶ G Reverb Send

## Exp(ression) Min(imum) Pos(ition) parameter

If you have connected a second expression pedal to the Footswitch jack, use the Exp(ression) Min(imum) Pos(ition) parameter in the Setup menu to define the parameter value that should be associated with the *minimum* (down) position of this second expression pedal.

For more information, see [“Expression Pedal tab: Getting the most out of your expression pedal”](#).

## Exp(ression) Max(imum) Pos(ition) parameter

If you have connected a second expression pedal to the Footswitch jack, use the Exp(ression) Max(imum) Pos(ition) parameter in the Setup menu to define the parameter value that should be associated with the *maximum* (up) position of this second expression pedal.

For more information, see [“Expression Pedal tab: Getting the most out of your expression pedal”](#).

## FOOTSW-1 to FOOTSW-3 or FOOTSW-1 to FOOTSW-6 parameters

These parameters are only available when the Footswitch jack parameter has been set to Switch-3 or Switch-6.

### FOOTSW parameter settings

Each Switch-3 or Switch-6 footswitch can be assigned to one of the following controls:

- ▶ STEP
- ▶ PITCH COR(rection)  
(Global in SETUP, not HardTune)
- ▶ ALL MUTE
- ▶ μMod
- ▶ Delay
- ▶ Reverb
- ▶ Voc(al) HIT
- ▶ Double
- ▶ Harmony
- ▶ Transducer
- ▶ HardTune
- ▶ Rhythmic
- ▶ Stutter
- ▶ Choir
- ▶ Synth
- ▶ Harm(ony) Hold\*
- ▶ Set Key
- ▶ Tap Tempo
- ▶ Bypass
- ▶ G μMod (G = Guitar)
- ▶ G Delay
- ▶ G Reverb
- ▶ G HIT
- ▶ G Comp(ressor)
- ▶ G Drive
- ▶ G Amp
- ▶ G Rhythm
- ▶ G Octaver
- ▶ G Wah
- ▶ G Mute
- ▶ ALL HIT
- ▶ Go Looper (enter looper Layer)

- ▶ Loop Input
- ▶ Tuner
- ▶ 1But(ton)Looper
- ▶ LPlayRec (Looper Play Record Overdub)
- ▶ LStopErase (Loop Stop Erase)
- ▶ Loop Undo
- ▶ L(loop) Erase All
- ▶ Loop Trigger A-H
- ▶ Track Start
- ▶ Track Stop
- ▶ Track Forward
- ▶ Track Backward
- ▶ Seq Rec (Sequence Recording)
- ▶ Seq Undo (Sequence Recording Undo)

\* Harmony must be active for this to have an effect.

\*\* Toggles the Loop/Backing Track Layer. You may find this a more convenient way of entering the Loop Layer quickly, compared to holding the Layer button.

### Loop Controls on Switch-3 and Switch-6

If you have connected an (optional) [Switch-3](#) or [Switch-6](#) to your VL3X, you can use it to control some functions for Track A of the Looper.

For more advanced interaction with the Looper, we still recommend using the Loop Layer, since the user interface changes contextually based on actions you perform.

Keep in mind that loop controls assigned to Switch-3 oder Switch-6 still adhere to the options for the currently active Loop Slot, like Sync, MET, Input etc.

## FOOTSW MODE parameters

Use the (three or six) Mode parameters below the FOOTSW parameters to set the operation modes of the footswitches on a TC-Helicon Switch-3 or Switch-6 connected to your VL3X.

- ▶ **Latched:** Tap the footswitch on your Switch-3 or Switch-6 to activate the assigned effect, tap it again to deactivate it.
- ▶ **Momentary:** The assigned effect is on only when you hold down the footswitch.

For more information, see [“Change a button from Latched to Momentary mode”](#).

## Pedal Calibration tab

For more information on pedal calibration, see [“Calibrating your expression pedal”](#).

## Product info tab

The Product Info tab contains important information about your VL3X, including:

- ▶ Installed Firmware Version
- ▶ Serial Number
- ▶ Manufacture Date

This information is valuable if you ever need to contact [TC-Helicon support](#).

Make sure you provide this information when creating a support incident!

# Appendix

## MIDI CC List

For effects that can be switched on or off:

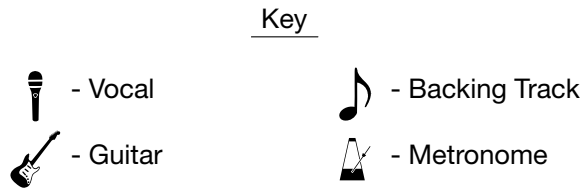
Value 1-63 = off, 64-127 = on

CC No.	
1	Harmony Vibrato Boost
16	Guitar – Rhythmic
17	Guitar – Delay
19	Guitar – Compressor
21	Guitar – $\mu$ Mod
23	Guitar – Octaver
25	Guitar – Amp
27	Guitar – Wah
29	Guitar – Boost
30	Vocal Harmony – Key (C, C#, D, D#, E, F, F#, G, G#, A, A#, B) – values 0-11 respectively
31	Vocal Harmony – Scale (MAJ1, MAJ2, MAJ3, MIN1, MIN2, MIN3, CUST) – values 0-7 respectively
46	Guitar – Reverb
47	Guitar – HIT
50	Vocal – Vocoder/Synth
51	Vocal – Rhythmic
56	Vocal – HIT
104	Vocal – Choir
110	Vocal – Harmony
111	Vocal – Double
112	Vocal – Reverb
113	Vocal – HardTune
115	Step – value represents Step Number, i.e. 1 = Step 1, 2= Step 2 etc.
116	Vocal – $\mu$ Mod
117	Vocal – Delay
118	Vocal – Transducer
119	Harmony Hold
123	ALL NOTES OFF

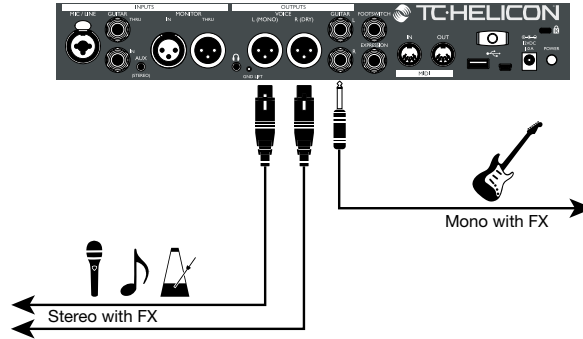


# Output Mode Chart

## VOICELIVE 3 Extreme Output Modes

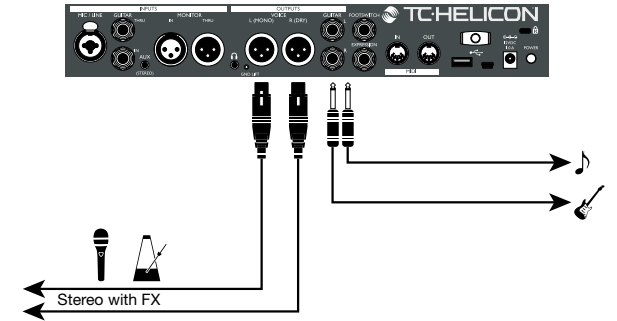


### STEREO GUITAR JACKS MODE: GUITAR

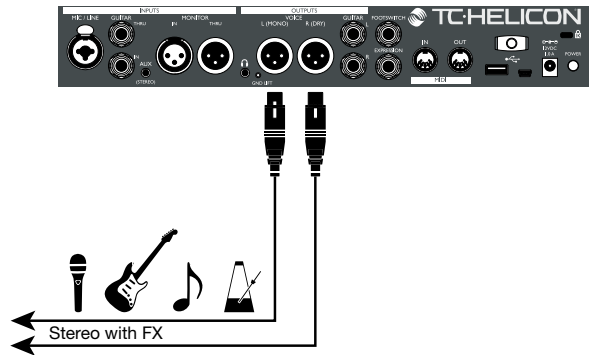


### STEREO

GUITAR JACKS MODE: GUITAR R / TRACK L

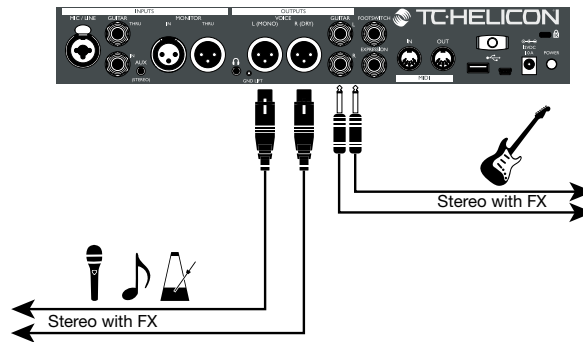


### STEREO



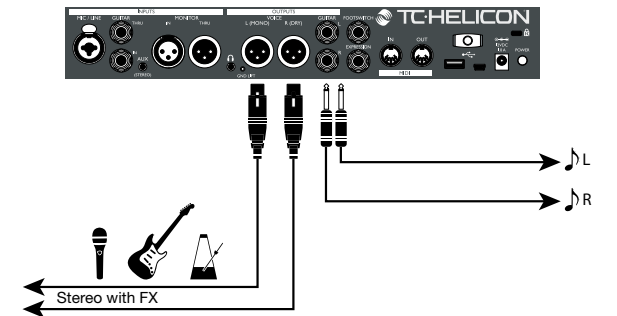
### STEREO

GUITAR JACKS MODE: GUITAR

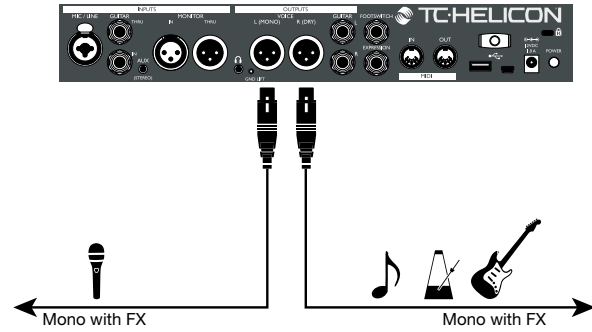


### STEREO

GUITAR JACKS MODE: BACKING TRACK

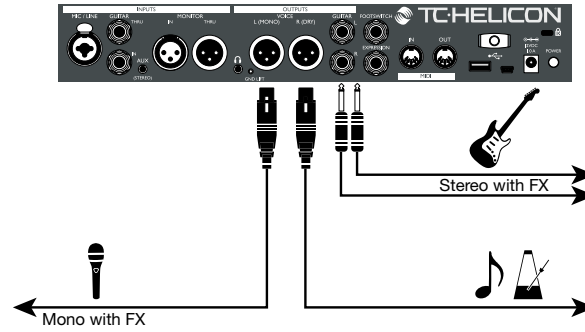


## DUAL MONO



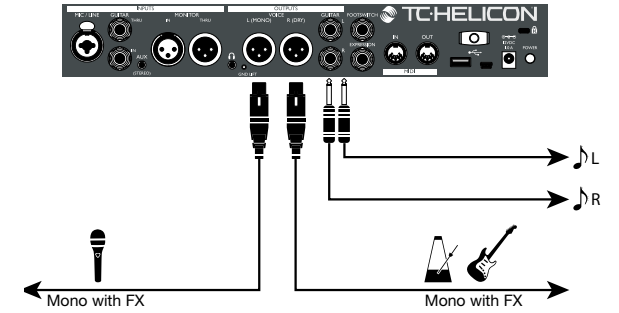
## DUAL MONO

GUITAR JACKS MODE: GUITAR



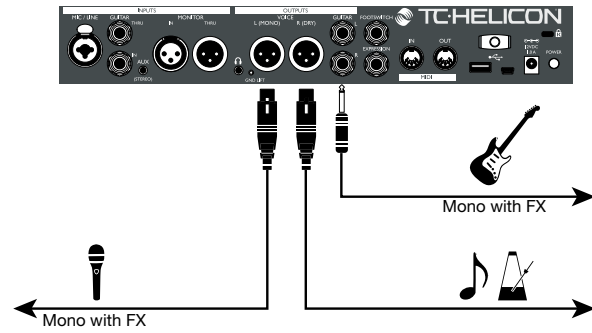
## DUAL MONO

GUITAR JACKS MODE: BACKING TRACK



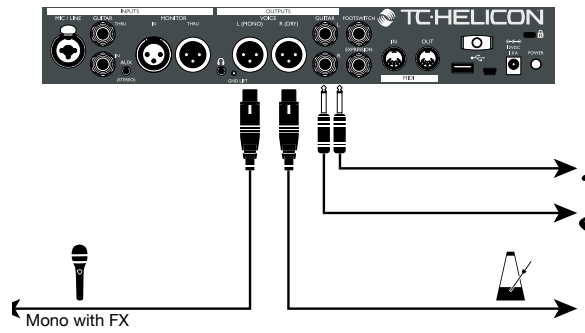
## DUAL MONO

GUITAR JACKS MODE: GUITAR

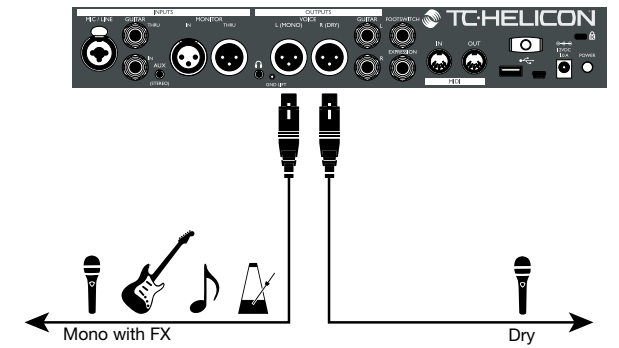


## DUAL MONO

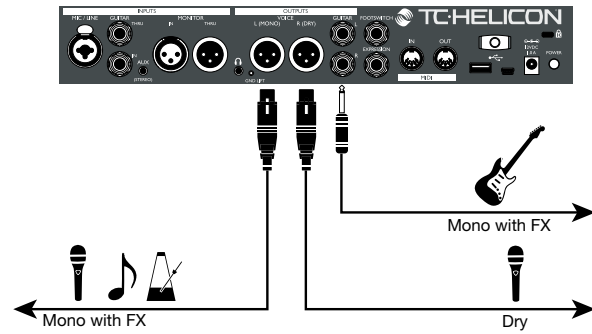
GUITAR JACKS MODE: GUITAR R / TRACK L



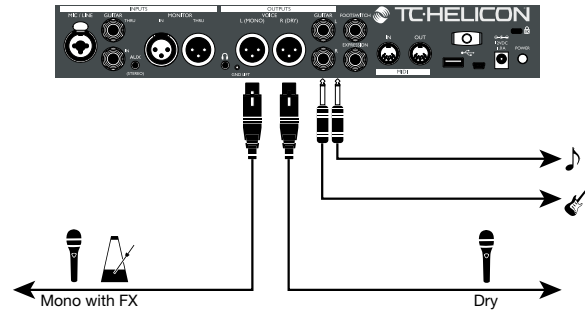
## MONO



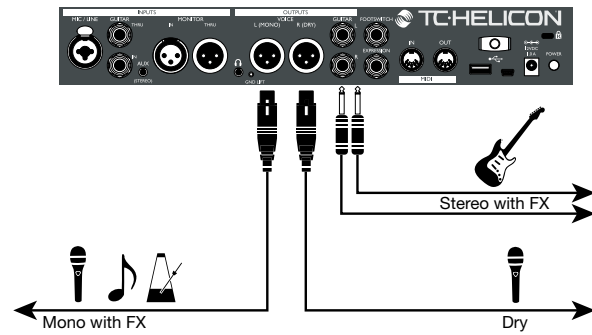
### MONO GUITAR JACKS MODE: GUITAR



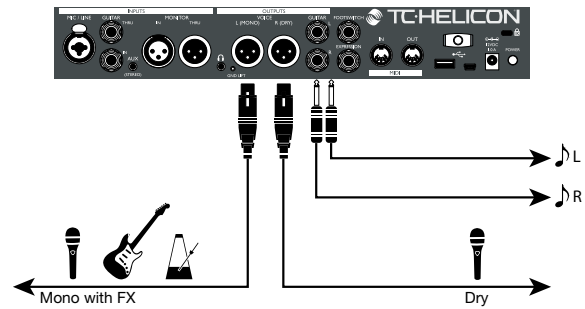
### MONO GUITAR JACKS MODE: GUITAR R / TRACK L



### MONO GUITAR JACKS MODE: GUITAR



### MONO GUITAR JACKS MODE: BACKING TRACK



## System Maintenance/Factory Reset

You can boot VL3X in a special System Maintenance that will allow you to perform several system maintenance functions, including a factory reset.

### Entering System Maintenance Mode

- ▶ Turn off your VL3X.
- ▶ Unplug headphones (if attached)
- ▶ Using a toothpick or a small wire (we recommend a straightened paper clip), press the button that is inside the Headphone jack. The button is small and at the very end of the inside of the jack. You don't need to use much force – so please be gentle. You will feel a small click when the button presses.
- ▶ With the button held down, press the power switch on your VL3X.
- ▶ Wait until you see the System Maintenance Screen.  
You should see the System Maintenance screen immediately. If you see the “normal” VL3X screen (without the “System Maintenance” banner on top), you haven't pushed the button inside the headphone jack correctly. Try again.
- ▶ Choose the desired option from the menu using the Control Knob.

### Updating the firmware using a USB flash drive

If you cannot update the firmware of your VL3X using VoiceSupport software, you can perform a firmware update with a USB flash drive.

- ▶ Format the USB flash drive to the FAT32 file system (see the manual of your computer/operating system for instructions).  
Reformatting a USB flash drive will erase all data on it.
- ▶ Copy the “.syx” file containing the firmware update to the USB flash drive.
- ▶ Insert the USB flash drive into the USB host port on your VL3X.
- ▶ Boot your VL3X in System Maintenance as described in [“Entering System Maintenance Mode”](#).
- ▶ Select the “Update from USB drive” option.

# Technical Specifications

<b>INCLUDED EFFECTS</b>	
VOCAL EFFECTS	µMod, Echo & Delay, Reverb, Harmony, Double, Transducer, Rhythmic, HardTune & Correction, Choir, Stutter, Vocoder, Adaptive Tone
GUITAR FX	Amp Modeling, Drive, Delay, Reverb, Compression, Resonant Filter, Wah, µMod (Flange, Chorus, De-tune), Shifter, Rhythmic/Tremolo, Talkbox (part of Vocoder)
<b>CONTROL</b>	
	250 factory presets
	Memory for 500 presets
	10 steps per preset
	10 footswitches
	6 preset-assignable footswitches for enabling/disabling FX blocks
	Backing track & FX automation control via footswitches
	Detailed editing
	Genre and Styles preset categories
<b>DESIGN</b>	
<b>SIZE</b>	
Height	3 inches (76 mm)
Width	13.8 inches (350 mm)
Depth	8.5 inches (216 mm)
<b>WEIGHT</b>	
Weight	5 lb. (2.3 kg)
<b>CONSTRUCTION</b>	
	Anodized extruded aluminum and steel chassis
	Rubberized edit/mix knobs
	Recessed rubberized handle
	192 x 64 blue STN LCD, white backlight display
	Tri-colored Footswitch Light ring
	Capacitive touch edit controls with LED indicators

<b>CONNECTIONS</b>	
<b>ANALOG INPUTS</b>	
Voice	
Connector	Combo Balanced XLR/Balanced TRS 1/4" phone jack
Input Impedance Balanced	3.08 kOhm
Mic Input Level @ 0 dBFS	-52 dBu to +7 dBu
Line Input Level @0dBFS	-40 dBu to +19 dBu
EIN @ Max Mic Gain Rg = 150 Ohm	-127 dBu
Mic SNR	>100 dB at typical Mic Input gain
Phantom Power	+48V (on/off via setup menu)
A to D Conversion	24 Bit, 128 x oversampling bitstream, 110 dB SNR A-weighted
Guitar	
Connector	1/4" phone jack
Guitar Input Impedance	1 MOhm
Guitar Input Level @ 0 dBFS	-2 dBu to 14 dBu
Guitar Input SNR >108 dB	
A to D Conversion	24 Bit, 128 x oversampling bitstream, 110 dB SNR A-weighted
Monitor	
Connector	Balanced XLR
Input Impedance Balanced	25 kOhm
Monitor Input Level @ 0 dBFS	+16 dBu
Aux	
Aux	1/8" stereo mini jack
Aux Input Level @ 0 dBFS	+2 dBu
<b>ANALOG OUTPUTS</b>	
Voice	
Connectors	Balanced XLR
Output Impedance Balanced/Unbalanced	300/150 Ohm
Output Range 0 dBFS	Line Level: +14 dBu; Mic Level: -2dBu
Dynamic Range	>109 dB, 20 Hz to 20 kHz
Frequency Response	+0/-0.3 dB, 20 Hz to 20 kHz
D to A Conversion	24 Bit, 128 x oversampling bitstream, 115 dB SNR A-weighted
Guitar	
Connectors	1/4" TRS phone jack
Output Impedance Balanced/Unbalanced	442/221 Ohm
Output Range 0 dBFS	Line Level: +14 dBu; Mic Level: -2dBu
Dynamic Range	>105 dB, 20 Hz to 20 kHz note

D to A Conversion	24 Bit, 128 x oversampling bitstream, 106 dB SNR A-weighted
Headphone	1/8" Mini stereo jack, 50 Ohm, +14 dBu max
Guitar thru	
Buffered Guitar Input	
Connector	1/4" TRS phone jack
Output Impedance Bal/UnBal	270/540 Ohms
Monitor thru	
	Direct connection to Monitor input
	Connector: Balanced XLR



<b>CONTROL</b>	
USB	USB A, Mini-B
MIDI	In/Out 5 Pin DIN
Pedal	1/4" TRS phone jack
Mic Control	Using TC-Helicon MP-75, TC-Helicon MP-76 or Sennheiser e 835 fx microphone
<b>SAFETY AND REGULATIONS</b>	
<b>POWER</b>	
External Power Supply Mains Voltage	100 to 240 VAC, 50 to 60 Hz (auto-select)
Power Consumption	< 14 W
<b>SAFETY</b>	
EMC – Complies with	EN 55103-1:2009, EN 55103-2:2009, FCC CFR 47 Part 15B and ICES-003:2004 4th Ed
Safety – certified to	IEC 65, EN 60065, UL6500 and CSA IEC 65, EN 60065, UL6500 and CSA
<b>ENVIRONMENT</b>	
Operating Temperature	32° F to 122° F (0° C to 50° C)
Storage Temperature	-22° F to 167° F (-30° C to 70° C)
Humidity	Maximum 90 % non-condensing

