Owner's Manual

IMPORTANT SAFETY INSTRUCTIONS

WARNING FOR YOUR PROTECTION
READ THE FOLLOWING:

KEEP THESE INSTRUCTIONS

HEED ALL WARNINGS

FOLLOW ALL INSTRUCTIONS

THE APPARATUS SHALL NOT BE EXPOSED TO DRIPPING OR SPLASHING LIQUID AND NO OBJECT FILLED WITH LIQUID, SUCH AS VASES, SHALL BE PLACED ON THE APPARATUS

CLEAN ONLY WITH A DRY CLOTH.

FOR INDOOR USE ONLY.

DO NOT BLOCK ANY OF THE VENTILATION OPENINGS. INSTALL IN ACCORDANCE WITH THE MANUFACTURER'S INSTRUCTIONS.

DO NOT INSTALL NEAR ANY HEAT SOURCES SUCH AS RADIATORS, HEAT REGISTERS, STOVES, OR OTHER APPARATUS (INCLUDING AMPLIFIERS) THAT PRODUCE HEAT.

ONLY USE ATTACHMENTS/ACCESSORIES SPECIFIED BY THE MANUFACTURER.

UNPLUG THIS APPARATUS DURING LIGHTNING STORMS OR WHEN UNUSED FOR LONG PERIODS OF TIME.

Do not defeat the safety purpose of the polarized or grounding-type plug. A polarized plug has two blades with one wider than the other. A grounding type plug has two blades and a third grounding prong. The wide blade or third prong are provided for your safety. If the provided plug does not fit your outlet, consult an electrician for replacement of the obsolete outlet.

Protect the power cord from being walked on or pinched particularly at plugs, convenience receptacles, and the point where they exit from the apparatus.

Refer all servicing to 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.

MAINS DISCONNECT: The plug shall remain readily operable. For rack-mount or installation where plug is not accessible, an all-pole mains switch with a contact separation of at least 3 mm in each pole shall be incorporated into the electrical installation of the rack or building.

If connected to 240V supply, a suitable CSA/UL certified power cord shall be used for this supply.

CAUTION
RISK OF ELECTRIC SHOCK
DO NOT OPEN

ATTENTION: RISQUE DE CHOC ELECTRIQUE - NE PAS OUVRIR

WARNING: TO REDUCE THE RISK OF FIRE OR ELECTRIC SHOCK DO NOT EXPOSE THIS EQUIPMENT TO RAIN OR MOISTURE

The symbols shown above are internationally accepted symbols that warn of potential hazards with electrical products. The lightning flash with arrowpoint in an equilateral triangle means that there are dangerous voltages present within the unit. The exclamation point in an equilateral triangle indicates that it is necessary for the user to refer to the owner's manual.

These symbols warn that there are no user serviceable parts inside the unit. Do not open the unit. Do not attempt to service the unit yourself. Refer all servicing to qualified personnel. Opening the chassis for any reason will void the manufacturer's warranty. Do not get the unit wet. If liquid is spilled on the unit, shut it off immediately and take it to a dealer for service. Disconnect the unit during storms to prevent damage.

The following is indicative of low altitude use; do not use this product above 2000m.

≤2000m
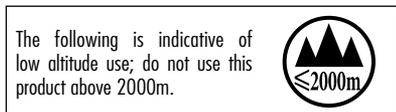
ELECTROMAGNETIC COMPATIBILITY

This device complies with part 15 of the FCC Rules and the Product Specifications noted on the Declaration of Conformity. Operation is subject to the following two conditions:

- this device may not cause harmful interference, and

- this device must accept any interference received, including interference that may cause undesired operation.

Operation of this unit within significant electromagnetic fields should be avoided.

- use only shielded interconnecting cables.

DECLARATION OF CONFORMITY

Manufacturer's Name: DigiTech

Manufacturer's Address: 8760 S. Sandy Parkway
Sandy, Utah 84070, USA

declares that the product:

Product name: Vocalist Live FX

Product option: all (requires Class II power
adapter that conforms to
the requirements
of EN60065, EN60742, or
equivalent.)

conforms to the following Product Specifications:

Safety: IEC 60065 -01+Amd 1

EMC: EN 55022:2006
EN 55024:1998
FCC Part 15

Supplementary Information:

The product herewith complies with the require-
ments of the:
Low Voltage Directive 2006/95/EC
EMC Directive 2004/108/EC.
RoHS Directive 2002/95/EC
WEEE Directive 2002/96/EC
EC Regulation 278/2009

With regard to Directive 2005/32/EC and EC
Regulation 1275/2008 of 17 December 2008,
this product is designed, produced, and classified
as Professional Audio Equipment and thus is
exempt from this Directive.

Rex C. Reed
Director, Engineering
Signal Processing
8760 S. Sandy Parkway
Sandy, Utah 84070, USA
Date: March 7, 2013

European Contact: Your local DigiTech Sales and Service
Office or

Harman Signal Processing
8760 South Sandy Parkway
Sandy, Utah
84070 USA
Ph: (801) 566-8800
Fax: (801) 568-7583

Warranty & Registration

We at **DigiTech**® are very proud of our products and back-up each one we sell with the following warranty:

1. Please register online at www.digitech.com within ten days of purchase to validate this warranty. This warranty is valid only in the United States.

2. DigiTech warrants this product, when purchased new from an authorized U.S. DigiTech dealer and used solely within the U.S., to be free from defects in materials and workmanship under normal use and service. This warranty is valid to the original purchaser only and is non-transferable.

3. DigiTech liability under this warranty is limited to repairing or replacing defective materials that show evidence of defect, provided the product is returned to DigiTech WITH RETURN AUTHORIZATION, where all parts and labor will be covered up to a period of one year. A Return Authorization number may be obtained from DigiTech by telephone. The company shall not be liable for any consequential damage as a result of the product's use in any circuit or assembly.

4. Proof-of-purchase is considered to be the responsibility of the consumer. A copy of the original purchase receipt must be provided for any warranty service.

5. DigiTech reserves the right to make changes in design, or make additions to, or improvements upon this product without incurring any obligation to install the same on products previously manufactured.

6. The consumer forfeits the benefits of this warranty if the product's main assembly is opened and tampered with by anyone other than a certified DigiTech technician or, if the product is used with AC voltages outside of the range suggested by the manufacturer.

7. The foregoing is in lieu of all other warranties, expressed or implied, and DigiTech neither assumes nor authorizes any person to assume any obligation or liability in connection with the sale of this product. In no event shall DigiTech or its dealers be liable for special or consequential damages or from any delay in the performance of this warranty due to causes beyond their control.

NOTE: The information contained in this manual is subject to change at any time without notification. Some information contained in this manual may also be inaccurate due to undocumented changes in the product since this version of the manual was completed. The information contained in this version of the owner's manual supersedes all previous versions.

Service/Contact Information

If you require technical support, contact DigiTech Technical Support. Be prepared to accurately describe the problem. Know the serial number of your device–this is printed on a sticker attached to the chassis.

Before you return a product to the factory for service, we recommend you refer to this manual. Make sure you have correctly followed installation steps and operation procedures. For further technical assistance or service, please visit our support page at digitech.com. If you need to return a product to the factory for service, you MUST first contact Technical Support to obtain a Return Authorization Number.

No returned products will be accepted at the factory without a Return Authorization Number.

Please refer to the warranty information, which extends to the first end-user. After expiration of the warranty, a reasonable charge will be made for parts, labor, and packing if you choose to use the factory service facility. In all cases, you are responsible for transportation charges to the factory. DigiTech will pay return shipping if the unit is still under warranty.

Use the original packing material if it is available. Mark the package with the name of the shipper and with these words in red: DELICATE INSTRUMENT, FRAGILE! Insure the package properly. Ship prepaid, not collect. Do not ship parcel post.

Table of Contents

Overview

Introduction

Thank you for choosing the Vocalist® Live FX by DigiTech®. The Live FX is a feature-packed live vocal effects processor which incorporates the latest musIQ® technology, studio-grade channel strip and vocal effects processing, Live Adapt, harmony generation, pitch correction, dbx® Advanced Feedback Suppression, and a built-in phrase looper. This combination of features provides you with professional, studio quality vocal effects when performing on-stage.

The Live FX begins with a global channel strip processing chain, referred to as the "Gold Channel" effects. This global set of 8 effects is used in all presets, providing the sonic foundation for your vocal sound. The Gold Channel effects comprise: Warmth, dbx® Compression, Pitch Correction, Lexicon® Ambience, 3-Band EQ, De-Essing, Noise Gating, and Low Cut.

Next are the "Vocal" effects. From Lexicon reverbs, to distortion and harmony effects, the Vocal effects are perfect for adding polish, texture, movement, and excitement to your vocals.

One of the most significant features of the Live FX is Live Adapt. Live Adapt uses the built-in analysis microphone or Aux In jack to provide automatic, real-time effect tempo adjustment, smart gating of non-vocal signals (built-in microphone only), and intelligent harmony generation using the detected key of the music.

Three rugged footswitches provide preset A/B part selection, preset navigation, bypassing of the Vocal effects, and hands-free control of the built-in phrase looper.

The rear panel boasts all the necessary connections for the performing singer, including a USB port for firmware updates and preset management using the free Vocalist Live Librarian software for Mac and PC.

With a quick-access user interface, a plethora of studio-quality effects, dbx Advanced Feedback Suppression, and state-of-the-art processing technologies, the Live FX gives you the tools you need to take center stage with confidence.

musIQ® & Live Adapt

musIQ is a revolutionary chord detection technology that analyzes the audio in real time and determines what notes are being played, while the musIQ harmony engine is capable of interpreting this note data along with the pitch of the singer to determine the most musically correct harmony note to generate.

The Live FX's Live Adapt feature uses this technology to provide even further functionality by adapting the noise gate threshold, the pitch effect key, and the modulation and delay effect tempo settings. With musIQ & Live Adapt, the Live FX can adapt to changes in your music, creating a truly dynamic performance.

Features

- Studio-Grade Mic Preamp, Vocal Processing, & Effects
- +48V Phantom Power
- dbx® Compression & Advanced Feedback Suppression
- Lexicon® Ambience & Reverb
- Latest musIQ® Technology & Built-In Analysis Mic
- Live Adapt for Real-Time Adaptive Control of Noise Gating, Pitch Effect Key, Harmony Key, & Effect Tempo
- Sound Check Feature for Auditioning & Quick Setup of Effects
- 70 Second Mono Phrase Looper (35 Seconds w/Undo)
- 99 User & 99 Factory Presets
- 24-bit/44.1kHz Audio Quality
- Easy-To-Read Backlit LCD Display
- USB Port for Firmware Updates & Preset Management
- Vocalist Live Librarian Software for Mac & PC

Included Items

- Vocalist Live FX Processor
- Power Supply
- Quick Start
- Safety/Compliance Information Sheet

The utmost care was taken while manufacturing your Live FX. Everything should be included and in perfect working order. If anything is missing or damaged, please contact your dealer at once.

User Interface & Connectors

Top Panel
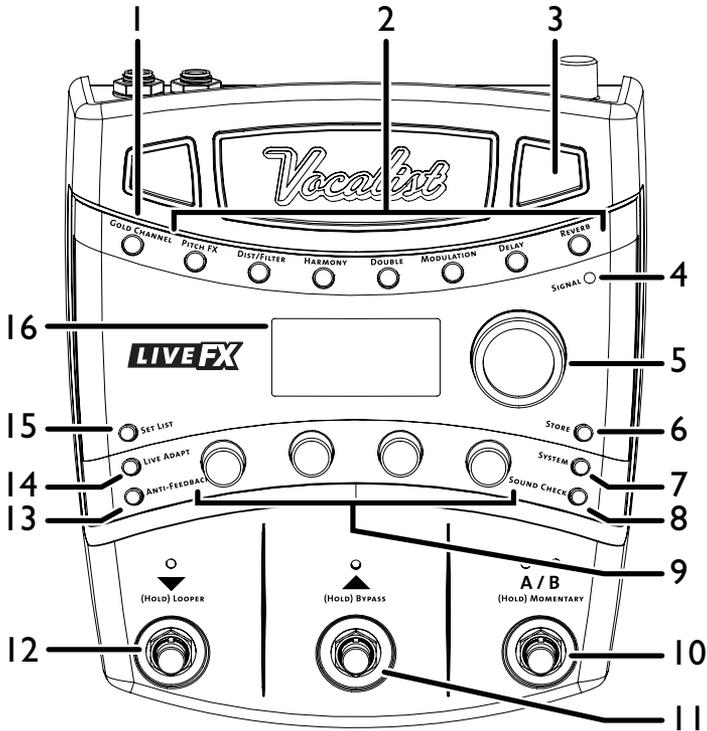
1. Gold Channel Button
Pressing this button turns the Gold Channel effects on and off. The Gold Channel effects provide channel strip style processing and are used to provide the sonic foundation for your vocal sound. Pressing and holding this button will enter the Gold Channel Edit menu, where the Gold Channel effects can be modified using the DATA encoder [5] and Edit knobs [9].

2. Vocal Effect Buttons
These 7 buttons turn each Vocal effect on or off when pressed. When each button is lit, the corresponding effect is enabled. Pressing and holding each of these buttons will display the corresponding effect's parameters in the LCD display, where they can be modified using the DATA encoder [5] and Edit knobs [9].

3. Live Adapt Mic
This built-in analysis microphone listens to the music being played in the room and adjusts settings in the Live FX automatically. It is used to adjust tempo for delay and modulation effects, adjust the key for generated harmonies and pitch effects, and adjust the noise gate threshold.

> **NOTE:** Whenever the Aux In jack is connected to an audio source, it will be used for Live Adapt features instead of the internal microphone. See "Live Adapt" on page 15

4. *Signal LED*

This LED lights when the mic input signal is detected. This LED will light green when a signal is present, yellow when approaching the A/D limiting point, and red when limiting occurs. Good practice is to set the microphone Input Gain knob so the Signal LED lights green regularly, lights yellow occasionally, but never lights red.

> **NOTE:** The Signal LED may also light red if the outputs clip due to the added gain from multiple enabled effects. If such a condition is encountered, simply lower the Input Gain knob on the back panel until the Signal LED no longer indicates clipping.

5. *DATA Encoder*

This encoder is used to navigate menus and edit certain parameters. Pressing this encoder selects different pages within the Gold Channel and System Edit menus.

6. *Store Button*

When pressed, this button initiates the preset store and copy functions. When a preset is edited, this button will light, indicating a change has been made to the currently loaded preset's stored settings.

7. *System Button*

This button enters the System Edit menu, where you can edit Live FX global system parameters for configuring the Live FX for your application.

8. *Sound Check Button*

This button enables and disables the Sound Check feature. Sound Check allows you to record a vocal loop which can then be used for auditioning and editing effect parameters.

9. *Edit Knobs*

These four knobs are used to edit the various effect and system parameters. They correspond to the available on-screen parameters as shown in the illustration to the right.

Edit 1 Knob   Edit 2 Knob   Edit 3 Knob   Edit 4 Knob
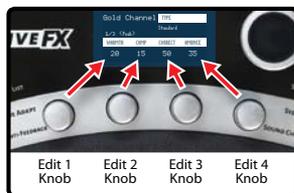
10. *A/B Footswitch*

The Live FX allows you to store two parts per preset: "A" and "B". Vocal effects can be independently enabled or disabled in each part. The A/B footswitch then allows you to toggle between these A/B parts. This feature can be helpful for applying dynamic effects within a song without having to navigate presets, such as enabling delays or distortion effects on certain words or vocal phrases. This A/B footswitch can be programmed in the System Edit menu for toggle, momentary, or automatic operation (see "A/B Footswitch Configuration" on page 28).

11. UP Footswitch

This footswitch selects the next preset up. Pressing and holding this footswitch for 2 seconds will bypass all Vocal effects (Gold Channel effects will not be affected). This "Vocal Effects Bypass" feature allows you to bypass all Vocal effects quickly, such as when talking to the audience between songs.

12. DOWN Footswitch

This footswitch selects the next preset down. Pressing and holding this footswitch for 2 seconds enters Loop mode, where you can record loops using the built-in phrase looper.

13. Anti-Feedback Button

Pressing this button enables and disables dbx Advanced Feedback Suppression (AFS). When the button is lit, AFS is enabled.

14. Live Adapt Button

Pressing this button globally enables and disables the Live Adapt feature. When the button is lit, the feature is enabled. Pressing and holding this button enters the Live Adapt menu, where each of the separate Live Adapt functions can be enabled or disabled.

15. Set List Button

Pressing this button enters Set List mode. Set Lists create a sequenced list of up to twenty presets, making it easy to sequence through presets during a performance. Pressing this button multiple times cycles through the available Set Lists. When the last Set List is selected, pressing this button again will exit Set List mode and return to Preset mode.

16. LCD Display

This easy-to-read backlit LCD display provides the visual feedback necessary for operating the Live FX.
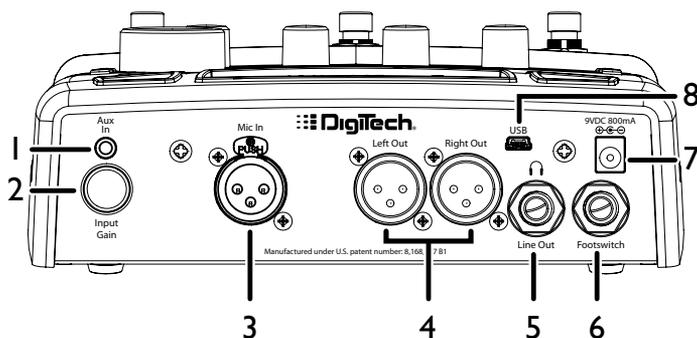
1. *Aux In Jack*
Connect a portable music player or the outputs of a mixer to this stereo 1/8" jack. Audio from an external device plugged into this jack can be used either for musIQ analysis or merely mixed in with the vocal signal at the output stage.

2. *Input Gain Knob*
This knob controls the input gain of the Mic In jack.

3. *Mic In Jack*
Connect your microphone to this XLR input jack using a balanced XLR microphone cable.

4. *Left/Right XLR Out Jacks*
These balanced outputs carry the stereo signal when configured for stereo operation. When the outputs are configured for mono operation, both Left and Right Outputs will carry the same mono-summed signal.

5. *Headphone/Line Out Jack*
This is an unbalanced, 1/4", stereo output and can be used for connecting headphones or connected to the line level inputs of another device. This output carries the same mix that is presented at the XLR outputs. When the outputs are configured for mono operation, both left and right channels will be mono-summed and stereo imaging will be lost.

6. *Footswitch Jack*
Plug an optional DigiTech FS3X Footswitch to this jack for full-time control of the Live FX's built-in phrase looper. You can also connect a volume or expression pedal to this jack for continuous control of various vocal effect parameters. For more information, see "FS3X Footswitch Control" on page 25 and "Volume/Expression Pedal Control" on page 26.

7. *Power Jack*
Connect only the included power supply to this jack. The Live FX can only be powered using the external adapter.

8. *USB Port*
Connect a Mini USB cable from this port to your computer to use the Vocalist Live Librarian software (available for Mac and PC) for preset management and firmware updates.

Connection Diagrams

Cable Diagrams

Stereo Connection to Live FX Aux In

1/8" Stereo Cable

Left Channel (+)

Ground

Right Channel (+)

Left +

Ground

Right +

Left Channel

Ground   Left +

Right Channel

Ground   Right +
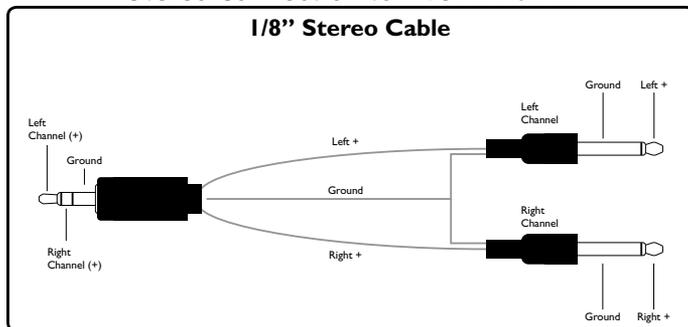
Use a cable like this when connecting a stereo 1/4" feed to the Live FX's Aux In jack.

NOTE: You can also use the above cable when connecting a mono signal to the Aux In jack–such as when connecting an aux send or direct output from the mixing console. This type of connection could be used to send a "guitar only" signal to the Live FX for use with Live Adapt. Simply use only one of the 1/4" plugs and leave the other disconnected.

Stereo Connection from Live FX Line Out

1/4" Stereo Cable

Left Channel (+)

Ground

Right Channel (+)

Left +

Ground

Right +

Left Channel

Ground   Left +

Right Channel

Ground   Right +
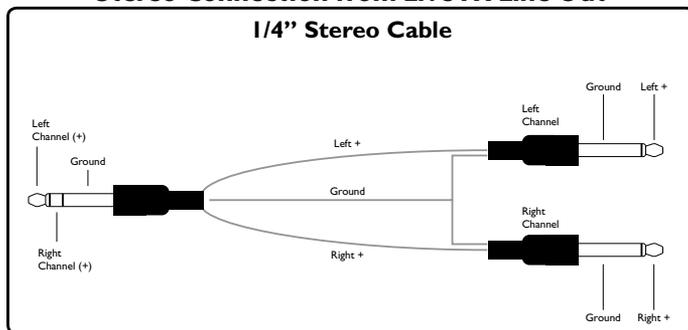
Use a cable like this to connect the Live FX's 1/4" Headphone/Line Output to the 1/4" line inputs of another device.

NOTE: Connecting a mono TS cable to the 1/4" stereo Headphone/Line Output jack is not recommended. If you require a single mono feed from the 1/4" stereo Headphone/Line Output, it is recommended that you use a stereo cable as shown above and use only one of the TS plugs, leaving the other disconnected. You will then need to turn STEREO mode off in the System Edit menu (see "Stereo" on page 29).

Mono Application

Line Input

Computer w/Vocalist Live Librarian Software
(optional)

Harman Power Supply

Portable Music Player
(optional)

Microphone

Headphones
(optional)

DigiTech FS3X Footswitch or Volume/Expression Pedal
(optional)
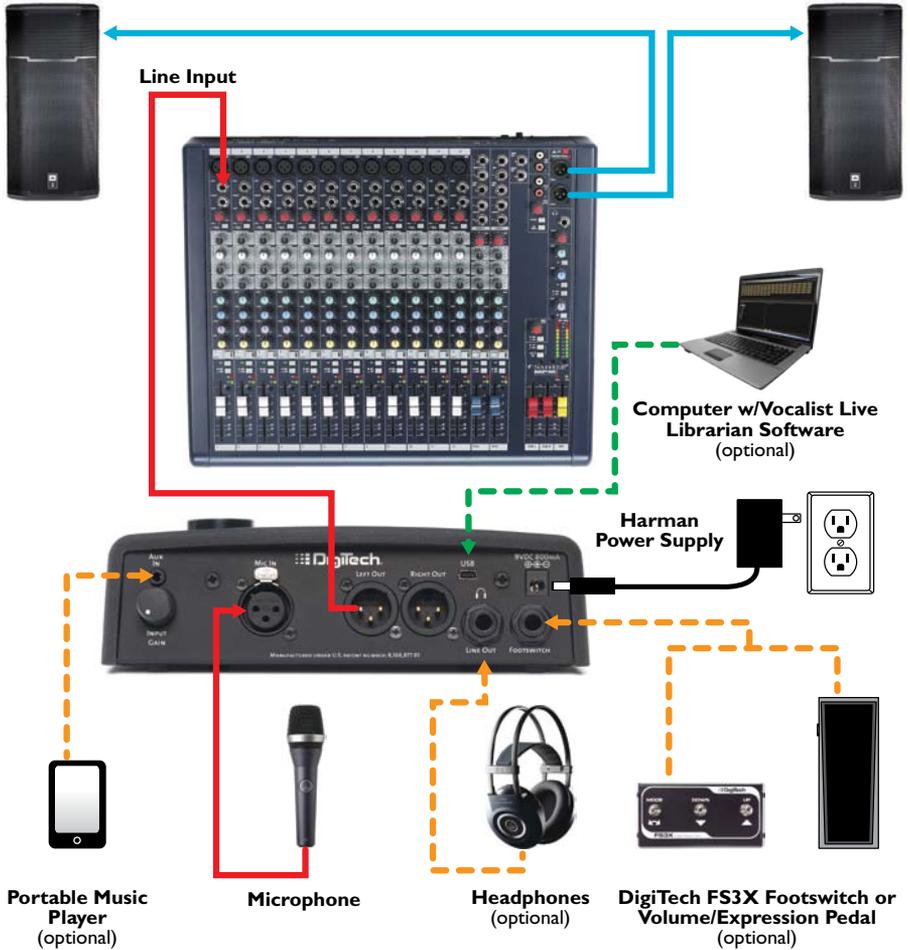
NOTE: This application requires that the Live FX be configured for mono operation. See "Stereo" on page 29 for further information. Whenever the Aux In jack is connected to an audio source, it will be used for Live Adapt features instead of the internal microphone.

Stereo Application

Line Inputs

Computer w/Vocalist Live
Librarian Software
(optional)

Harman
Power Supply

Portable Music
Player
(optional)

Microphone

Headphones
(optional)

DigiTech FS3X Footswitch or
Volume/Expression Pedal
(optional)
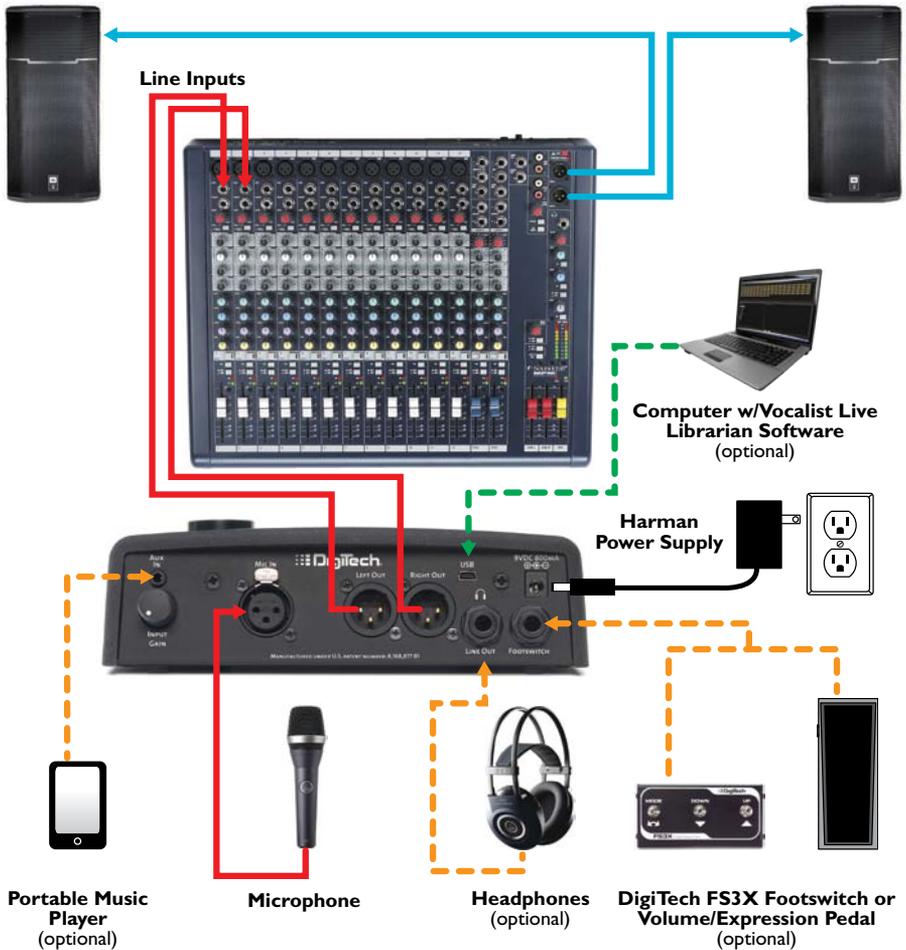
NOTE: This application requires that the Live FX be configured for stereo operation, which is the default configuration. See "Stereo" on page 29 for further information. Whenever the Aux In jack is connected to an audio source, it will be used for Live Adapt features instead of the internal microphone.

Using Aux In Jack w/Live Adapt
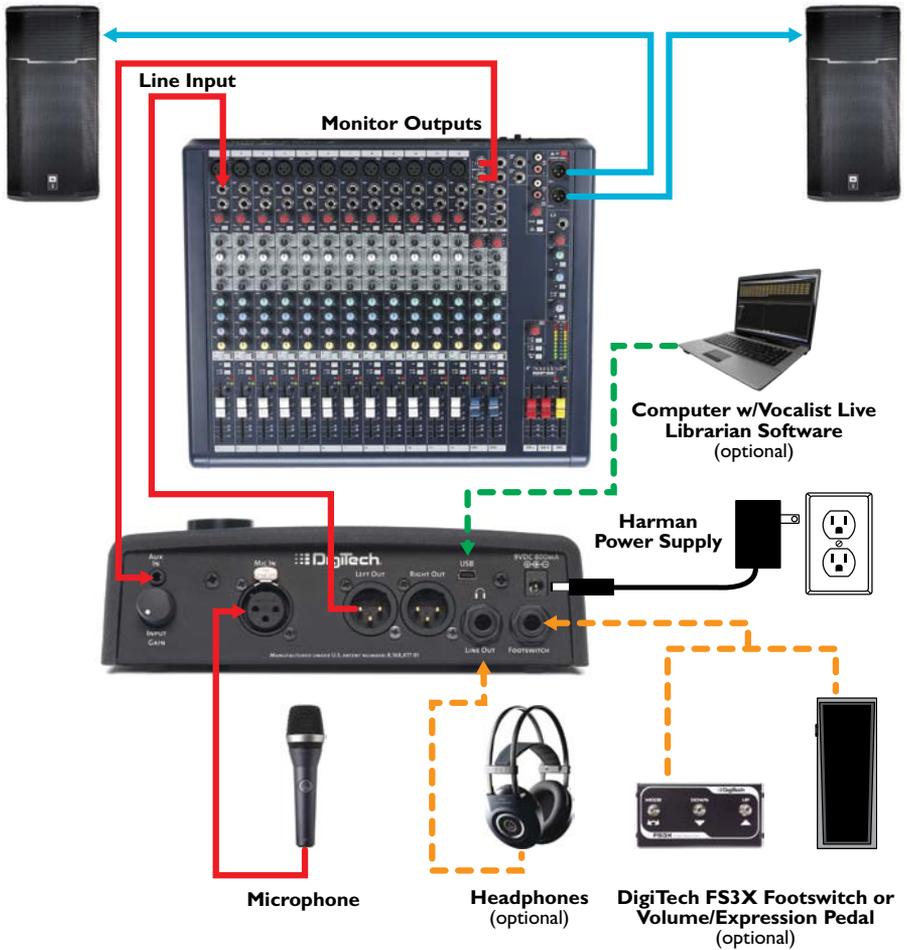
Line Input

Monitor Outputs

Computer w/Vocalist Live Librarian Software
(optional)

Harman Power Supply

Microphone

Headphones
(optional)

DigiTech FS3X Footswitch or Volume/Expression Pedal
(optional)

NOTE: Whenever the Aux In jack is connected to an audio source, it will be used for Live Adapt features instead of the internal microphone.

Operating The Live FX

This section of the manual describes how to navigate and use the various features of the Live FX.

Gold Channel Effects

The "Gold Channel" effect processing section is the first effect module in the signal chain and provides channel strip style processing. The Gold Channel effects comprise the following 8 effects: Warmth, Compressor, Pitch Correction, Ambience, EQ, De-Esser, Gate, and Low Cut. These effects provide the sonic foundation for your vocal sound and are used as the front end on all presets.

To globally bypass/enable the Gold Channel effects:

1. Press the **<Gold Channel>** button. When the Gold Channel button is lit, the Gold Channel effects are enabled. When the button is not lit, these effects are bypassed.

To edit Gold Channel settings:

1. Press and hold the **<Gold Channel>** button. The **<Gold Channel>** button will begin flashing and the LCD display will now display the Gold Channel effect parameters.

2. Start singing into the microphone or use the Sound Check feature (see "Sound Check" on page 14 for further information). Turn the **<DATA>** encoder to select a Gold Channel Type. Think of these "Types" as preconfigured presets for the Gold Channel parameters. Once you've selected the Gold Channel Type which most closely resembles the sound you are after, you can proceed or turn the corresponding **<Edit>** knobs to fine tune the various parameters.

3. Press the **<DATA>** encoder to navigate the various pages within the Gold Channel Edit menu and use the corresponding **<Edit>** knobs to make any further parameter adjustments.

4. When finished, press the **<Gold Channel>** button to exit.

NOTE: Changes to Gold Channel effect parameters do not need to be stored to a preset, since these effects are global and independent of presets.

Vocal Effects

The "Vocal" effects processing section comes after the Gold Channel effects processing section and comprises the following 7 effect modules: Pitch FX, Distortion/Filter, Harmony, Double, Modulation, Delay, and Reverb. Unlike the Gold Channel effects, Vocal effect settings are independently stored to each preset.

To bypass/enable a Vocal effect module:

1. Press the corresponding effect button (e.g., **<Pitch FX>**, **<Dist/Filter>**, etc.). When the effect button is lit, the corresponding effect is enabled. When the effect button is not lit, the corresponding effect is bypassed.

2. If you wish to store the Vocal effect's newly enabled or bypassed state, press the **<Store>** button and perform the preset storing procedure. See "Presets" on page 20 for further information on storing user presets.

To edit Vocal effect settings:

1. Press and hold the effect button for the effect which you would like to edit (e.g., **<Harmony>**, **<Modulation>**, etc.). The effect button will begin flashing and the LCD display will now display the selected effect's parameters.

2. Start singing into the microphone or use the Sound Check feature (see "Sound Check" on page 14 for further information). Turn the corresponding **<Edit>** knobs to adjust the various parameters for the effect. Some effects have multiple effect "Types" to select from (for example, Modulation has chorus, flange, etc.). For these effects, turn the **<DATA>** encoder to change the effect Type.

3. When finished, press the flashing effect button to exit the effect's Edit mode.

4. To store the changes, press the **<Store>** button and perform the preset storing procedure. See "Presets" on page 20 for further information on storing user presets.

Vocal Effects Bypass

The Live FX contains a global Bypass function, which allows you to bypass all Vocal effects within the currently loaded preset. The Bypass function does not bypass the Gold Channel effects. This is a useful feature which can be used to bypass the Vocal effects when speaking to the audience between songs or when you wish to sing only through the Gold Channel effects.

To bypass/enable all Vocal effects:

1. Press and hold the **<Up>** footswitch. The LED above this footswitch will light and "EFFECTS BYPASSED" will appear in the LCD display.

2. Press any footswitch or effect button to exit Vocal Effect Bypass mode and re-enable the Vocal effects.

Anti-Feedback (dbx® AFS)

The Anti-Feedback feature actively monitors the room using the built-in microphone and kills feedback before it becomes a problem. In live situations where feedback is possible, enable dbx® AFS by simply pressing the **<Anti-Feedback>** button–the button will turn green, indicating AFS is active. The Anti-Feedback button has three color coded states to let you know it's working, they are:

- **Green LED**
  Indicates the AFS feature is enabled.

- **Yellow LED**
  Indicates AFS is actively notching feedback frequencies.

- **Red LED**
  Indicates AFS is attenuating overall gain to eliminate feedback.

Sound Check

If you've ever tried adjusting vocal effect parameters while singing then you know that it can be difficult to properly judge the parameter changes due to the fact that you can hear your own voice inside your head. The Sound Check feature resolves this issue by allowing you to record a vocal loop (pre-effects) that you can then playback through the Gold Channel and Vocal effects. This provides an easy way to audition and fine tune all effect parameters without having to sing into the microphone while making adjustments.

To use the Sound Check feature:

1. Press the **<Sound Check>** button. The display will read "RECORD PHRASE" and the **<Down>** footswitch LED will begin flashing.

2. Press the **<Down>** footswitch to begin recording. The display will read "RECORDING".

3. When finished, press the **<Down>** footswitch to stop recording and begin playback of the Sound Check loop.

4. Enable the effect you wish to edit by pressing the corresponding effect's button (e.g., **<Gold Channel>**, **<Pitch FX>**, etc.). The effect button will light when enabled. Now Press and hold the same effect button for 2 seconds to enter the effect's Edit mode.

5. Edit the effect parameters using the **<DATA>** encoder and **<Edit>** knobs until you reach the desired sound.

6. Repeat steps 4-5 to edit additional effects.

7. When done, press the **<Sound Check>** button to exit and disable the Sound Check feature.

8. Store any Vocal effect changes you wish to retain. See "Presets" on page 20 for further information on storing user presets.

NOTE: A loop recorded using Sound Check will be retained for as long as the Sound Check feature is enabled. If the feature is disabled or the device is power cycled, a new loop will need to be recorded before using the Sound Check feature again.

Live Adapt

The Live FX's Live Adapt feature uses the built-in microphone or Aux In jack to listen to the music and automatically adjust noise gate threshold (built-in microphone only), pitch effect key, harmony key, and delay and modulation tempo. These options can be enabled and disabled independently in the Live Adapt menu and then turned on and off globally with the Live Adapt button. Following is a description of each of the options available in the Live Adapt menu.

- **GATE**
  This option has two settings:

    Preset
    With this option selected, the gate threshold will not adapt and will be set according to the "GATE" parameter setting in the Gold Channel Edit menu.

    Adapt
    With this option selected, the audio analyzed by the built-in microphone is used in combination with the vocal microphone signal to modify the gate threshold from its baseline "GATE" parameter setting in the Gold Channel Edit menu. When adaptive gate is enabled, the Live FX detects when the dominant sound source is not close to the microphone, and more aggressively gates the signal to reduce the amount of background noise leaking through the vocal mic. As soon as the Live FX detects that someone is singing into the vocal microphone, the gate is moved back to its baseline level to prevent cutting out lower level vocal sounds.

    One common problem with vocal processors occurs when a singer is playing an acoustic guitar while using vocal effects, such as harmony or modulation. When the singer stops singing but continues playing, the sound of the guitar can leak through the vocal mic resulting in an unintended processed guitar sound. Setting the gate high enough to prevent this can unfortunately result in lower vocals being cut out. To help minimize this problem, try setting the gate to the highest setting that still passes your vocal at low levels, and then enable the adaptive gate. When you stop singing, the gate threshold will increase, but it will return to your nominal setting as soon as you resume singing.

    > **NOTE:** The adaptive gate sensing algorithm relies on comparing the vocal microphone signal with the built-in microphone inside the Live FX case. When a connection is plugged into the Aux In jack, the built-in microphone is disconnected. As a result, the adaptive gate is disabled when using the Aux In jack.

- **PITCH**
  This option has two settings:

    Preset
    With this option selected, the Pitch FX key will not adapt and will be set according to the "KEY" parameter setting in the Pitch FX Edit menu.

    Adapt
    With this option selected, the audio analyzed by the built-in microphone or Aux In jack is used to favor notes that are present in the background

music. The Pitch FX KEY setting will still provide the baseline information for the effect, but will be modified to better match the notes being detected by Live Adapt. If you don't know the key of the song, you can choose "Chromatic" for the Pitch FX KEY, and let the Live Adapt feature choose the most likely notes to output.

- **HARMONY**
  This option has three settings:

    ### Preset
    With this option selected, the Harmony key will not adapt and will be set according to the "KEY" parameter setting in the Harmony Edit menu.

    ### Full Mix
    With this option selected, the audio signal from the built-in microphone or Aux In jack is used to analyze the musical content of the background music in order to create harmonies that match the overall key of the song. This option differs from the Preset option in that the harmonies can change during the course of a song as the adaptation senses changes in the song structure. It is best suited for situations where the internal mic or Aux In signal consists of a mix of instruments–for example when the Live FX is used on stage with a band.

    ### CleanGtr
    With this option selected, the audio signal from the built-in microphone or Aux In jack is analyzed using our guitar chord recognition and harmony generation algorithms that react in real time to guitar chord changes. This option uses the classic musIQ harmony algorithm and is best suited for situations where a clean guitar signal is being sent to the Aux In jack. If you aren't using an Aux-In signal but are playing an acoustic guitar close to the Live FX, you may want to select this Harmony option.

- **TEMPO**
  This option has three settings:

    ### Preset
    With this option selected, the tempo will not adapt and will be set according to the "TEMPO" parameter setting in the Delay/Modulation Edit menus.

    ### Wide
    With this option selected, the audio analyzed by the built-in microphone or Aux In jack is used to modify the Delay/Modulation "TEMPO" parameter, within a wide range around the currently set Delay/Modulation TEMPO setting. With this option selected, the TEMPO will be allowed to vary between $2/3^{rds}$ and $4/3^{rds}$ the rate of the currently set TEMPO–for example, a TEMPO setting of 120 BPM would be allowed to vary between 80 BPM and 160 BPM.

    ### Narrow
    With this option selected, the audio analyzed by the built-in microphone or Aux In jack is used to modify the Delay/Modulation "TEMPO" parameter, within a narrow range around the currently set Delay/Modulation TEMPO setting. The TEMPO will be allowed to vary between approximately 85% and 115% of the currently set TEMPO–for example, a

TEMPO setting of 120 BPM would be allowed to vary between about 102 BPM and about 138 BPM.

To enable/disable each Live Adapt option:

1. Press and hold the **<Live Adapt>** button for 2 seconds. The button will begin flashing and the display will show the available Live Adapt options.
2. Use the corresponding **<Edit>** knobs to edit each option.
3. Press the **<Live Adapt>** button again to exit.

To globally enable/disable the Live Adapt feature:

1. Press the **<Live Adapt>** button. When the button is lit, the Live Adapt feature is enabled.

NOTE: When using the Aux In jack with Live Adapt, you should audition the level of the signal. Live Adapt will work best when this signal is strong, yet undistorted.

To do this:
- Go into the System Edit menu by pressing the **<System>** button.
- Press the **<DATA>** encoder two times to display page 3 of the System Edit menu and temporarily set the AUX parameter to MIX (instead of MUTE) using the **<Edit 3>** knob.
- You can now audition the feed to the Aux In jack. Ensure you are getting a nice strong signal relative to the vocal and that you aren't clipping the Aux Input. If the vocal is much louder than the guitar, adjust the sending gains accordingly.
- Once done, set the AUX parameter back to MUTE using the **<Edit 3>** knob.

Looper

The Live FX's built-in mono phrase looper allows you to record a vocal loop, record infinite overdubs on the loop, and undo/redo overdubs during live performance. The looper is placed last in the signal chain. This allows all enabled effects to be recorded with the loop and allows overdubs to be recording with different effects applied. The maximum allowable loop recording length is dependent upon whether the looper Undo function is enabled or disabled. See "Loop Undo" on page 30 for further information on the Loop Undo feature.

Looper Functions

To enable the Looper, press and hold the **<Down>** footswitch. Once enabled, the table at the bottom of the display will show you which looper functions can be accessed by pressing the corresponding footswitches, as shown in the image to the right.

To use the looper:

1. Press and hold the **<Down>** footswitch for 2 seconds. "LOOPER READY" will appear in the display and the **<Down>** footswitch LED will flash red, indicating the looper is ready to begin recording.

2. Press the **<Down>** footswitch to start recording. The **<Down>** footswitch LED will light solid red and recording will begin, indicated by a recording progress bar in the display.

3. When you are finished recording you can perform one of three functions, they are:

    A. **Stop Recording & Immediately Start Loop Playback**
    Press the **<Down>** footswitch to set the loop end point and immediately begin loop playback. Playback is indicated by a play progress bar in the display.

    B. **Stop Recording & Start Playback Manually**
    Press the **<Up>** footswitch to set the loop end point–playback will not be initiated. When you're ready to play the loop, press the **<Down>** footswitch.

    C. **Clear the Loop & Record it Again**
    If you feel the loop needs to be re-recorded, press the **<Up>** footswitch two times consecutively–holding it down for about 2 seconds on the second press (the first press will stop recording and the second press will clear the loop). Now repeat steps 2 and 3.

4. You can now record overdubs. To add an overdub, ensure the loop is playing. If it is not, press the **<Down>** footswitch to initiate loop playback. Now press the **<Down>** footswitch to start overdub recording. "OVERDUB" will appear in the display.

5. To stop overdub recording, press the **<Down>** footswitch again. The loop will continue playing, along with the newly recorded overdub. You now have the option to undo the overdub or add another overdub, as described below.

   A. **Undo/Redo Overdub**
   Press and hold the **<Down>** footswitch for 2 seconds to undo the overdub. If you perform the Undo function by accident, press and hold the **<Down>** footswitch again to perform the Redo function and retrieve the overdub.

   > **NOTE:** The Undo feature must be enabled in the System Edit menu to perform this action. See "Loop Undo" on page 30 for more information.

   B. **Add Another Overdub**
   Repeat steps 4 and 5 to add further overdubs.

   > **NOTE:** Each time an overdub is added, the last overdub is merged with the original loop and can no longer be undone using the Undo feature.

6. Press the **<Up>** footswitch to stop loop playback.

7. Press and hold the **<Up>** footswitch to clear the loop.

8. Press the **<A/B>** footswitch to exit Loop mode.

> **HINT:** When recording overdubs, it is possible to change presets then record loop overdubs with different effects applied. When in Loop mode, the **<Up>**/**<Down>** footswitches are used for looper control and therefore will not change the preset. You can change the preset while looping by any one of the following methods:
>
> • Turn the **<DATA>** Encoder,
>
> • Exit Loop mode by pressing the **<A/B>** footswitch–any loop in memory will remain there, and if the loop is currently playing, it will continue to play.
>
> • For even more convenient preset switching while looping, add an optional FS3X Footswitch for dedicated looper control. For more information see "FS3X Footswitch Control" on page 25.

Presets

The Live FX has 99 user presets and 99 factory presets. The type of preset loaded can be identified by the letter preceding the preset number in the LCD display. For example, "U01" would signify "User" preset 1 and "F04" would signify "Factory" preset 4. From the factory, the user and factory presets are identical. The difference is that factory presets cannot be overwritten and user presets are meant to be overwritten. You can load and edit either a user or factory preset as a starting point and then store it to a user preset location.

Any changes made to effect parameters must be stored to a user preset to be retained. Changing these parameters will cause the Store button to light, indicating that changes have been made to the preset and must be stored. If the preset is changed or the unit is powered down before the changes have been stored, the changes will be lost.

Presets can be selected using either the DATA encoder or the Up/Down footswitches. Using the DATA encoder allows for quick navigation through presets, while using the Up/Down footswitches navigate one preset at a time and provide hands-free control.

Navigating between the user and factory presets is straightforward. When user preset 99 is reached, advancing to the next preset up will select the first preset of the factory preset bank. And when factory preset 99 is reached, advancing up will select the first preset of the user preset bank. The same type of preset bank navigation occurs when navigating downward through presets.

To select a preset with the DATA encoder:

1. From Preset mode (this is the normal operating mode), rotate the **<DATA>** encoder clockwise to move up through presets.

2. Rotate the **<DATA>** encoder counter-clockwise to move down through presets.

> **NOTE:** Presets can load automatically or manually using the DATA encoder. See "Preset Load" on page 29 for more information on this feature.

To select a preset with the UP/DOWN footswitches:

1. Press the **<Up>** footswitch to select the next preset up.

2. Press the **<Down>** footswitch to select the next preset down.

> **NOTE:** Pressing and holding the **<Up>** or **<Down>** footswitches will perform secondary functions assigned to these footswitches, as indicated by the screening on the chassis.

To store a preset:

1. Press the **<Store>** button. The Store button will begin flashing and the first character of the preset's name will now have a cursor under it.

2. If you do not wish to rename the preset, go to step 5. If you do wish to rename the preset, turn the **<Edit 1>** knob to change the selected character. The preset name can contain up to 16 characters.

3. Turn the **<DATA>** encoder clockwise to select the next character for editing.

4. Repeat steps 2 and 3 for all remaining characters until you have entered the desired preset name.

5. Press the **<Store>** button again. The display will read "STORE TO:". If you do not want to change the preset location, go to step 6. If you do want to change the preset location, turn the **<DATA>** encoder to select the desired user preset location. This process will overwrite the preset currently residing in the selected location.

6. Press the **<Store>** button again to store the preset.

To copy a preset to another preset location:

1. Select the preset you would like to copy using the **<DATA>** encoder or **<Up>**/**<Down>** footswitches.

2. Press the **<Store>** button. The Store button will begin flashing and the first character of the preset's name will now have a cursor under it.

3. Press the **<Store>** button again. The display will read "STORE TO:". Turn the **<DATA>** encoder to select the user preset location to copy the preset to. This process will overwrite the preset currently residing in the selected location.

4. Press the **<Store>** button again to store the preset.

HINT: Press any button or footswitch other than **<Store>** at any time during the store procedure to cancel the operation.

Preset A/B Parts

Each preset has two parts, referred to as "A" and "B". Vocal effects can be independently enabled or disabled in each part. This feature can be helpful for applying dynamic effects within a song without having to navigate presets, such as enabling delays or distortion effects on certain words or vocal phrases. These parts are toggled using the A/B footswitch. The A/B footswitch can be configured for toggle, momentary, or auto operation. For information on configuring the A/B footswitch, see "A/B Footswitch Configuration" on page 28.

To store A/B parts:

1. Select the desired preset using the **<Up>** and **<Down>** footswitches or the **<DATA>** encoder.

2. Ensure part A is selected (indicated by the "A" LED above the A/B footswitch). If it is not, press the **<A/B>** footswitch to select it.

3. Enable the Vocal effects you wish to use for part A by pressing their corresponding buttons (e.g., **<Modulation>**, **<Dist/Filt>**, etc.).

4. Press the **<A/B>** footswitch to switch to part B (indicated by the "B" LED above the A/B footswitch). Enable the Vocal effects you wish to use for part B by pressing their corresponding buttons (e.g., **<Modulation>**, **<Dist/Filt>**, etc.).

5. Now that both parts have been configured, store the preset by pressing the **<Store>** button and following the store procedure. See "Presets" on page 20 for further information on storing presets.

Set Lists

The Live FX allows you to organize presets into groups called "Set Lists". A Set List contains a group of up to twenty presets placed in any order, so you can easily step through them one at a time during a performance. There are five available Set Lists: Favorites, Set List A, Set List B, Set List C, and Set List D. Pressing the **<Set List>** button repeatedly will cycle through these Set Lists.

To create or edit a Set List:

1. Press the **<Set List>** button repeatedly until the desired Set List has been selected.

2. Press and hold the **<Set List>** button to enter the selected Set List's Edit menu. The LCD display will display the Set List, with the first preset in the Set List selected.

3. Turn the **<Edit 3>** knob to select the preset you would like to reside in slot 1.

4. Turn the **<DATA>** encoder or press the **<Up>**/**<Down>** footswitches to select the different preset slots in the Set List. Repeat steps 3 and 4 until all desired presets have been assigned in the Set List.

5. To reorder presets in the Set List, turn the **<DATA>** encoder to select the preset you wish to move then turn the **<Edit 4>** knob to move the selected preset up or down.

6. When finished editing the Set List, press the flashing **<Set List>** button to exit. The Set List is now operational. Turn the **<DATA>** encoder or press the **<Up>** and **<Down>** footswitches to navigate the presets in the Set List.

7. To exit the selected Set List and return to Preset mode, press the **<Set List>** button repeatedly until you just pass "Set List D", and the leftmost character in the LCD display reads "U" (user preset) or "F" (factory preset).

NOTE: Changes to Set Lists are automatically stored in the Live FX. Presets can be edited and stored while using the Set List feature. However, it is important to note that any changes made to a preset that is used in more than one Set List will change the preset in all Set Lists.

To select a configured Set List for use:

1. Press the **<Set List>** button repeatedly until the desired Set List has been selected. Set Lists can be identified by the character preceding the preset number in the LCD display, these identifiers are: "*" = Favorites, "A" = Set List A, "B" = Set List B, "C" = Set List C, and "D" = Set List D.

2. Once the Set List has been selected, use the **<UP>**/**<Down>** footswitches or <**DATA**> encoder to navigate presets within the Set List.

3. To exit the selected Set List and return to Preset mode, press the **<Set List>** button repeatedly until you just pass "Set List D", and the character preceding the preset number in the LCD display reads "U" (user preset) or "F" (factory preset).

HINT: The Live FX provides an alternative way of quickly adding presets to the Favorites Set List.

1. From Preset mode, select the preset which you want to add to the Favorites Set List.

2. Hold down the **<Set List>** button until the Favorites Set List is displayed in the LCD display. You will notice that the selected preset was automatically added to the next available empty slot in the Favorites Set List.

3. To exit the Favorites Set List and return to Preset mode, press the **<Set List>** button repeatedly until you just pass "Set List D", and the character preceding the preset number in the LCD display reads "U" (user preset) or "F" (factory preset).

FS3X Footswitch Control

The footswitch functions in the Live FX are reassigned when the Looper is enabled. This prevents changing presets and A/B status when controlling the Looper functions. An optional DigiTech FS3X Footswitch can be used for full-time looper control, freeing up the Live FX footswitches to be used for full-time preset navigation. This provides streamlined control and quick access to the looper functions.

FS3X Footswitch Looper Functions:

Mode Switch
Press this footswitch to enable recording, playblack, or overdub recording functions. Press and hold to perform overdub Undo/Redo functions.

Down Switch
Press this footswitch to stop playback or recording. Press and hold to clear the loop and exit Looper mode.

Up Switch
Not used.
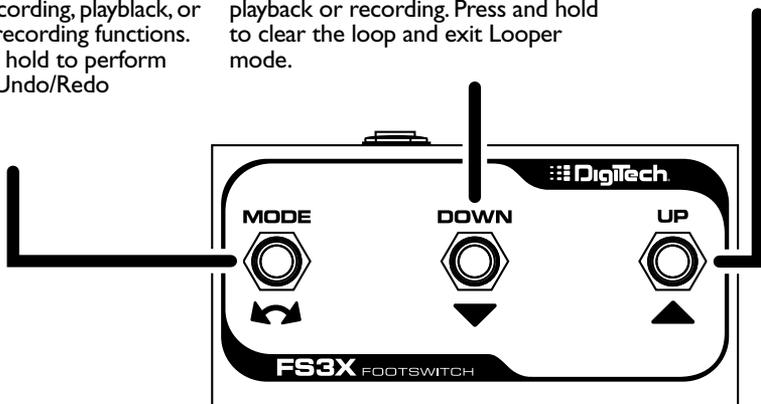
NOTE: When using an FS3X Footswitch with the Live FX, the EP (Expression Pedal) TYPE parameter in the System Edit menu must be configured for FS3X control (this is the default setting from the factory). See "EP (Expression Pedal) Type" on page 31 for more information.

Volume/Expression Pedal Control

The Live FX can accommodate a variety of expression pedals or a volume pedal plugged into the Footswitch input jack for continuous control of various Vocal effect parameters. The Live FX must be configured for volume/expression pedal operation before an external controller can be used. For information on configuring the Live FX for volume/expression pedal control and to see a full list of controllable Vocal effect parameters, see "EP (Expression Pedal) Type" on page 31 and "EP Parameter, Min, & Max" on page 33.

Volume Pedal:
To use a volume pedal for Live FX control, the pedal must meet the following requirements:

- Must be a passive guitar volume pedal.
- Must offer a 1/4" TS cable connection and be connected using a TS cable.
- Must use a 250 kOhms or higher pot.

Expression Pedal:
To use an expression pedal for Live FX control, the pedal must meet the following requirements:

- Must be a resistance-based expression pedal.
- Must offer a 1/4" TRS cable connection and be connected using a TRS cable.
- Must offer a minimum resistance of 10 kOhms.

NOTE: When powering on the Live FX with a volume or expression pedal connected, it is advised to rock the pedal through its full range of motion after power-up to ensure the state of the pedal position corresponds to the actual effect setting in the Live FX.

System Setup

The System Edit menu is used to configure the Live FX for your application and is accessed by pressing the **<System>** button. Pressing the **<DATA>** encoder navigates the various pages within the System Edit menu and turning the corresponding **<EDIT>** knobs will edit the on-screen system parameters. This section of the manual describes the available options in this menu and how to access and edit them. Most of these parameters are global and do not require that you store them to a preset. However, there are a couple of exceptions.

Out Pad

This system parameter adjusts the amount of output attenuation. By default, the Out Pad is turned off and this will be the correct setting for most applications. When enabled, the Out Pad can attenuate the output signal by up to 15dB, in 1dB increments. Use the Out Pad when connecting headphones to the Live FX or whenever the outputs need to be attenuated to prevent input clipping of any device the Live FX is connected to. Changing this parameter will affect the 1/4" and XLR outputs.

To edit the OUT PAD setting:

1. Press the **<System>** button.

2. Turn the **<Edit 1>** knob to select the desired setting.

3. Press the flashing **<System>** button to exit the System Edit menu.

A/B Footswitch Configuration

Each preset has two parts, referred to as "A" and "B". Vocal effects can be independently enabled or disabled in each part. This feature can be helpful for applying dynamic effects within a song without having to navigate presets, such as enabling delays or distortion effects on certain words or vocal phrases. These parts are toggled using the A/B footswitch. The A/B menu item allows you to configure how the A/B footswitch will operate. The selectable options are:

- **Toggle**
  With this option selected, A/B parts will toggle with each press of the A/B footswitch.

- **Momentary**
  With this option selected, part B will be selected for as long as the A/B footswitch is held down.

- **Auto**
  With this option selected, the A/B footswitch can switch between "Toggle" and "Momentary" operation on-the-fly. Quickly pressing the A/B footswitch will toggle between A and B parts. If the A/B footswitch is pressed and held, the switch will act as a momentary switch, switching back to the previous state once released.

To change the A/B footswitch configuration setting:

1. Press the **<System>** button.
2. Turn the **<Edit 2>** knob to select the desired setting.
3. Press the flashing **<System>** button to exit the System Edit menu.

48 V Phantom Power

This system parameter enables 48V phantom power on the Live FX Mic In jack and should be enabled when connecting a condenser microphone. Phantom power should be off when connecting a dynamic microphone, ribbon microphone, or a condenser microphone which is powered using another power source (such as an internal battery or external power supply). Failing to turn off phantom power for certain microphones (such as ribbon mics or dynamic mics connected using an unbalanced cable) can damage the microphone. If you are unsure whether or not your microphone requires phantom power, consult the microphone's documentation or manufacturer.

To edit the 48 V setting:

1. Press the **<System>** button.
2. Turn the **<Edit 3>** knob to enable or disable phantom power.
3. Press the flashing **<System>** button to exit the System Edit menu.

Stereo

When the STEREO parameter is turned on, the Live FX's outputs will be configured for stereo operation (this is the default setting). When the Stereo parameter is turned off, the Live FX is configured for mono operation. When configured for mono operation, all outputs will carry the same mono-summed signal. The XLR outputs and 1/4" stereo output will all be affected when changing this setting.

To edit the STEREO setting:

1. Press the **<System>** button.
2. Turn the **<Edit 4>** knob to turn Stereo on or off.
3. Press the flashing **<System>** button to exit the System Edit menu.

Preset Load

When selecting presets with the DATA encoder, this system parameter determines whether Live FX presets are loaded using a one step or two step process. The selectable options are:

- **Auto**
  With this option selected, presets will automatically load as they are selected with the **<DATA>** encoder.
- **Manual**
  With this option selected, presets will require you to select the preset using the **<DATA>** encoder then press the **<DATA>** encoder to manually load the preset. This option is useful for eliminating accidental preset changes with the DATA encoder. If you stop on a preset when using the Manual option and don't press the **<DATA>** encoder, the preset will revert back to the currently active preset after approximately four seconds.

NOTE: The Preset Load parameter does not affect preset changes using the Up and Down footswitches.

To edit the PRESET LOAD setting:

1. Press the **<System>** button.
2. Press the **<DATA>** encoder once to navigate to page 2 within the System Edit menu.
3. Turn the **<Edit 1>** knob to select the desired setting.
4. Press the flashing **<System>** button to exit the System Edit menu.

Loop Undo

This system parameter is used to turn the Loop Undo function on and off. When turned on, overdubs recorded using the Live FX's built-in phrase looper can be undone on-the-fly by simply pressing and holding the **<Down>** footswitch for 2 seconds.

To edit the LOOP UNDO setting:

1. Press the **<System>** button.
2. Press the **<DATA>** encoder once to navigate to page 2 within the System Edit menu.
3. Turn the **<Edit 3>** knob to select the desired setting.
4. Press the flashing **<System>** button to exit the System Edit menu.

NOTE: The Loop Undo option will determine the maximum allowable loop recording length. The below table shows how this setting will affect the available loop recording time.

	Maximum Loop Recording Time
Undo Enabled	35 Seconds
Undo Disabled	70 Seconds

EP (Expression Pedal) Type

The Live FX Footswitch jack accommodates either the DigiTech FS3X Footswitch for controlling the built-in phrase looper or an expression/volume controller for controlling various Vocal effect parameters. The EP TYPE parameter is a global system parameter and does not require you to store any change made to it. The selectable options are:

- **FS3X**
  Select this option when connecting an optional DigiTech FS3X Footswitch for full-time phrase looper control.

- **Volume**
  Select this option to use a volume controller to control Vocal effect parameters.

- **EV5**
  Select this option to use a Roland® EV-5 volume controller to control Vocal effect parameters.

- **FC7**
  Select this option to use a Yamaha® FC-7 expression controller to control Vocal effect parameters.

- **EX1**
  Select this option to use a Line6® EX-1 expression controller to control Vocal effect parameters.

To edit the EP TYPE setting:

1. Press the **<System>** button.
2. Press the **<DATA>** encoder two times to navigate to page 3 within the System Edit menu.
3. Turn the **<Edit 1>** knob to select the desired setting.
4. Press the flashing **<System>** button to exit the System Edit menu.

NOTE: The Live FX can use either a standard passive guitar volume pedal (using a 1/4" TS cable connection) or a resistance-based expression pedal (using a 1/4" TRS cable connection). If using a standard guitar volume pedal, it should use a 250 kOhms or higher pot. If using an expression pedal, it must offer a TRS connection and offer a minimum resistance of 10 kOhms.

Aux In Configuration

The AUX system parameter determines whether or not the audio signal from the Aux In jack will be sent to the outputs. The selectable options are:

- **Mute**
  Selecting this option will mute the Aux In so that you will not hear it in the output signal.

- **Mix**
  Selecting this option will mix the Aux In signal with the processed vocal signal at the Live FX's output stage.

To edit the AUX setting:

1. Press the **<System>** button.

2. Press the **<DATA>** encoder two times to navigate to page 3 within the System Edit menu.

3. Turn the **<Edit 3>** knob to select the desired setting.

4. Press the flashing **<System>** button to exit the System Edit menu.

> **NOTE:** Whenever the Aux In jack is connected to an audio source, it will be used for Live Adapt features instead of the internal microphone.

EP Parameter, Min, & Max

These system parameters select which vocal effect parameter you would like to control using an optional volume or expression pedal and set the min and max settings for the pedal's toe up and toe down positions. These parameters are not global parameters and do require you to store them to a preset in order to be retained.

- **EP Param**
  This option selects which vocal effect parameter will be controlled via a connected volume or expression pedal. A list of available parameters can be found in the table at the end of this section.

- **Min**
  This parameter sets the minimum allowable value for the volume or expression pedal's toe up position.

- **Max**
  This parameter sets the maximum allowable value for the volume or expression pedal's toe down position.

To edit the EP PARAM, MIN, and MAX settings:

1. Press the **<System>** button.
2. Press the **<DATA>** encoder three times to navigate to page 4 within the System Edit menu.
3. Turn the corresponding **<Edit>** knobs to select the desired settings.
4. Press the flashing **<System>** button to exit the System Edit menu.
5. To store the changes, press the **<Store>** button and perform the preset storing procedure. See "Presets" on page 20 for further information on storing user presets.

> **NOTE:** For maximum flexibility when performing, the EP Parameter controls in the System Edit menu are stored as part of the current preset. This allows you to control different effect parameters or change the min/max limits depending on the preset. Remember to store any changes made to the EP parameters to the corresponding preset using the **<Store>** button.

Vocal Effect Parameters Available for Expression Pedal Control

EP Param	Minimum Selectable Value	Maximum Selectable Value
Pitch FX Level	0	99
Pitch Gender	-50	50
Pitch Shift	-12	12
DistFilt Amount	0	99
DistFilt Filter	0	99
DistFilt Distortion	0	99
Harmony Amount	0	99

Vocal Effect Parameters Available for Expression Pedal Control

EP Param	Minimum Selectable Value	Maximum Selectable Value
Harmony Humanize	0	99
Harmony Gender	0	99
Double Amount	0	99
Double Detune	-50	50
Double Humanize	0	99
Double Correct	0	99
Mod Amount	0	99
Mod Shape	0	99
Mod Speed	Slow	8x
Delay Amount	0	99
Delay Repeats	0	99
Delay Speed	1x	Slap 3
Tempo (BPM)	60	300
Reverb Amount	0	99
Reverb Tone	-50	50
Reverb PreDelay	0	99
Reverb Tail	0	99

Factory Reset

This system parameter restores all system settings and user presets to their factory default state.

> **WARNING!** Performing the Factory Reset procedure will delete stored presets. It is recommended that you backup presets using the Vocalist Live Librarian preset management software before performing this procedure.

To initiate the Factory Reset procedure:

1. Press the **<System>** button.

2. Press the **<DATA>** encoder four times to navigate to page 5 within the System Edit menu.

3. Turn the **<Edit 1>** knob to initiate the Factory Reset procedure.

4. You will receive a confirmation prompt. Turn the corresponding **<Edit>** knob to make your selection; "Yes" to proceed with Factory Reset, "No" to cancel the procedure. If confirmed, the Factory Reset procedure will be performed then the LCD display will return to displaying the currently loaded preset.

The Effects & Parameters

The Live FX signal path is a serial chain of 8 effect modules, which correspond to the 8 buttons along the top of the Live FX's user interface.

The "Gold Channel" effect module is the first module in the signal chain and comprises a grouping of 8 channel strip style effects (Warmth, Compressor, Noise Gate, Low Cut, EQ, De-Esser, Ambience, and Pitch Correction). These Gold Channel effects provide the sonic foundation for your vocal sound and are used globally for all presets.

The remaining 7 effect modules (Pitch FX, Distortion/Filter, Harmony, Doubler, Modulation, Delay, and Reverb) are all programmable within each preset and are referred to as the "Vocal" effects. This section of the manual describes each of these effects, their associated parameters, and tips for dialing in these parameters. If you are unsure how to navigate menus and edit the effect parameters, see "Operating The Live FX" on page 11.

Press & Hold To Edit

Gold Channel

To enter the Gold Channel Edit menu, press and hold the **<Gold Channel>** button for 2 seconds.

Available parameter:

- **TYPE**
  This parameter can be seen in the LCD display after entering the Gold Channel Edit menu and is controlled using the **<DATA>** encoder. These "TYPES" are preconfigured Gold Channel presets which can initially get you closer to the sound you're after. The following table provides a description of each option.

Gold Channel Type Option	Description
Bypass	All Gold Channel effects are bypassed.
Standard	Standard settings that should sound good for most voices.
Std No Gate	Standard with no gate.
Std More Comp	Standard with more compression.
Std No Corr	Standard with no pitch correction.
Less Boom	Standard with low band EQ attenuation.
Power Vocal	Standard, EQ modified to give a boost around 1.5 kHz.
Clarity	Standard with more gain on high band.
Smile	Standard with classic smile EQ curve (i.e., low and high frequencies boosted).
Breathy	Helps to enhance a breathy singer by enhancing the frequencies near 8 kHz.
Presence	Gives a boost near 5 kHz to increase presence of vocal.
Metal	Boost at 500 Hz and high band gain.

Warmth

Warmth adds varying amounts of tube saturation to your vocals. Use Warmth when your vocals require some additional grit, warmth, and character.

Available parameter:

- **WARMTH (0-99)**
  This parameter adjusts the amount of tube saturation applied, with 0 being the minimum (no effect) and 99 being the maximum.

To dial in the Warmth effect:

1. Sing into the microphone (or use the Sound Check feature, see "Sound Check" on page 14) and raise the WARMTH parameter until the desired effect level is achieved. Just a little of this effect goes a long way.

> **NOTE:** The Warmth effect becomes more noticeable as your vocal level increases. To properly set the desired Warmth amount, make sure your microphone gain is set correctly and that your auditioning vocal passage contains sections that are loud enough to enable you to hear the effect at its most prominent.

Compressor

The dbx® Compressor helps tame loud vocal passages while raising lower ones, so your vocal's dynamic range will "sit" better in the mix. Use it to even out your vocals for that up-front, professional vocal sound.

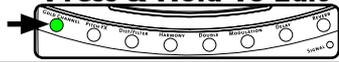### *Available parameter:*

- **COMP (0-99)**
  This parameter adjusts how much compression will be applied, with 0 being the minimum (no effect) and 99 being the maximum.

To dial in the Compressor:

1. Sing into the microphone (or use the Sound Check feature, see "Sound Check" on page 14) and raise the COMP parameter until the desired effect level is achieved. It may help to adjust this parameter while the band is playing to determine how much of the effect is required.

> **NOTE:** The compressor automatically adjusts make-up gain. This eliminates the need for a make-up gain control and makes the compressor easier to set.

Pitch Correction

Pitch Correction is used to correct notes which are sung slightly out of pitch. For example, if you're singing a C, and it's a little flat (but not quite B), pitch correction alters the note so that a more precise C is heard through the sound system.
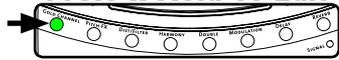
Available parameter:

- **CORRECT (0-99)**
  This parameter adjusts how much pitch correction will occur, with 0 being the minimum (no effect) and 99 being the maximum.

To dial in Pitch Correction:

1. Sing into the microphone (or use the Sound Check feature, see "Sound Check" on page 14) and raise the CORRECT parameter until the effect becomes just a little too noticeable.

2. Now back it off slightly until a more natural sound is achieved.

Ambience

Ambience adds a subtle "sense of space" to your vocal sound, without pushing it back in the mix or standing out as an effect like reverb typically can. Think of the Ambience effect as the initial "early reflections" of a small space.

Available parameter:

- **AMBNCE (0-99)**
  This parameter adjusts how much of the Ambience effect will be added to your vocals, with 0 being the minimum (no effect) and 99 being the maximum.

To dial in the Ambience effect:

1. Sing into the microphone (or use the Sound Check feature, see "Sound Check" on page 14) and raise this parameter until the desired amount of ambience is achieved. For best results, set the AMBNCE parameter so that you just begin to hear the effect.

NOTE: Ambience and Reverb interact with one another so that when the Reverb level is louder, Ambience is effectively not heard. When Reverb level is very low or the Reverb effect is off, the Ambience effect becomes more prominent.

EQ

The 3-band EQ shapes the tone of your vocals. It provides low, midrange, and high band filters with sweepable midrange frequency control.

Available parameters:

- **LOW (-12 dB-+12 dB)**
  This parameter adjusts the gain of the low frequency shelving filter and can be used to fix a "muddy" vocal sound (using EQ cut) or make thin sounding vocals sound more full (using EQ boost). This is a low shelf filter with a fixed corner frequency at 400Hz.

- **MID (-12 dB-+12 dB)**
  This parameter adjusts the gain of the midrange frequency peaking filter and is used for altering the midrange frequencies of your vocal sound. The center frequency of this filter is sweepable using the MIDFREQ parameter.

- **MIDFREQ (300 Hz-2 kHz)**
  This parameter works hand-in-hand with the MID parameter. It is used to select the desired center frequency of the mid EQ filter, which determines the range of frequencies altered when adjusting the MID parameter.

- **HIGH (-12 dB-+12 dB)**
  This parameter adjusts the gain of the high frequency shelving filter and is used for making your voice sound duller (EQ cut) or brighter (EQ boost). This is a high shelf filter with a fixed corner frequency at 3kHz.

To dial in the EQ:

1. Sing into the microphone (or use the Sound Check feature, see "Sound Check" on page 14) and determine which frequency range needs to be adjusted. Is the vocal dull sounding? Then raise the HIGH parameter. Is it muddy sounding? Then lower the LOW parameter. Does the vocal sound indistinct? Try raising the MID parameter. Does the vocal sound honky or harsh? Try lowering the MID parameter and use the MIDFREQ parameter to zero in on the offending range of frequencies.

2. When adjusting the MID parameter, it helps to first apply an audible amount of boost then sweep the MIDFREQ parameter until you hear the frequency range which requires adjustment. Once the frequency range has been determined, adjust the MID parameter until the desired frequency response is achieved.
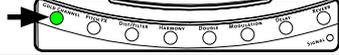
De-Esser

The De-Esser tames excessively harsh consonant sounds, referred to as "sibilance". A de-esser is a frequency selective compressor which is triggered only by the offending sibilant frequencies (between about 5-10 kHz). If you're experiencing sibilance issues and your vocals sound too dull when lowering the sibilant frequencies with EQ, try using the De-Esser instead.

Available parameter:

- **DE-ESS (0-99)**
  This parameter adjusts the amount of de-essing which will occur, with 0 being the minimum (no effect) and 99 being the maximum.

To dial in the De-Esser:

1. Sing into the microphone (or use the Sound Check feature, see "Sound Check" on page 14) and raise the DE-ESS parameter until the sibilant sounds become less prominent (make some "ssssss" sounds in the mic to better hear the affect of the de-esser processing).

2. Fine tune by ear, ensuring you do not over de-ess, identified by the introduction of a lisp or an overly dull sounding vocal.
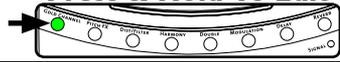
Noise Gate

The Noise Gate removes non-vocal signals from passing through the Live FX when you are not singing. This can help clean up the mix and help prevent feedback.

Available parameter:

- **GATE (0-99)**
 This parameter allows you to set the Noise Gate's threshold, with 0 being the highest threshold and 99 being the lowest threshold. In other words, a lower setting will allow the Noise Gate to open for lower level signals and a higher setting will require a louder signal to open the Noise Gate. When the adaptive "GATE" option is enabled in the Live Adapt menu, the Adapt icon **A** will appear next to this parameter and the parameter will adapt as the surrounding conditions change.

To dial in the Noise Gate:

1. Sing into the microphone (or use the Sound Check feature, see "Sound Check" on page 14) and raise the GATE parameter until the Noise Gate begins cutting off the beginning and/or end of your vocal phrases.

2. Now back it off slightly until the beginning and end of your vocal phrases return and the Noise Gate opens and closes correctly.

3. You can take noise gate control a step further by enabling the adaptive "GATE" feature in the Live Adapt menu. This will allow the gate threshold to adapt to the surrounding conditions and further prevent leakage into the vocal mic. For information on using Live Adapt, see "Live Adapt" on page 15.
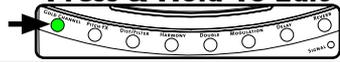
Low Cut Filter

The Low Cut Filter prohibits excessively low frequencies (below the usual range of a vocal signal) from passing through the vocal microphone. These excessively low frequencies generally don't add anything to the vocal's sound and, when removed, can help with preventing the low end of the mix from becoming "muddy". The cutoff frequency of the Low Cut Filter is fixed at 75Hz.

Available parameter:

- **LO CUT (On/Off)**
  This parameter turns the Low Cut Filter on and off.

To dial in the Low Cut Filter:

1. In some applications it may be difficult to hear this filter, but in most cases it will be beneficial to go ahead and enable it. If you do want to audition the effect, sing into the microphone (or use the Sound Check feature, see "Sound Check" on page 14) and turn the Low Cut Filter on.

2. Determine if your voice sounds audibly thinner. You can toggle the Low Cut Filter on and off to further audition the filter. Unless the Low Cut Filter has an adverse side effect on your vocal sound, leave it enabled.
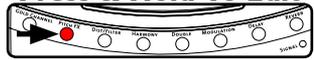
Pitch FX

The Pitch FX module provides pitch shifting type effects, including Note Hammer, the popular over-the-top synthetic pitch correction effect heard in modern Pop and Hip-Hop recordings. The Pitch effect consists of three different components: TYPE, GENDER, and SHIFT. Each of these components work independently of each other. Changes to the Pitch FX module need to be stored to a preset for later recall.

Available parameters:

- **TYPE**
  This parameter allows you to select which type of pitch effect you would like to use. The following table provides a description of each option.

Pitch Type Option	Description
Note Hammer	Over-the-top synthetic pitch correction effect.
Robo Hammer	Note Hammer with a robot effect.
Reso Hammer	Note Hammer with a resonator effect.
Resobo Hammer	Note Hammer with a resonator and robot effect.
Space Hammer	Note Hammer with a resonator effect and pitch sync modulation.
Alien Hammer	Note Hammer with some pitch sync modulation and some formant shift.
Pixel Hammer	Note Hammer with a pixel effect.
Growl Hammer	Note Hammer with growl (i.e., you get some growl when you start to sing louder).
Mod Hammer 20	Note Hammer with pitch sync modulation = 2 pitch periods.
Mod Hammer 25	Note Hammer with pitch sync modulation = 2.5 pitch periods.
Mod Hammer 30	Note Hammer with pitch sync modulation = 3 pitch periods.
Mod Hammer 35	Note Hammer with pitch sync modulation = 3.5 pitch periods.
Mod Hammer 40	Note Hammer with pitch sync modulation = 4 pitch periods.
Mod Hammer 50	Note Hammer with pitch sync modulation = 5 pitch periods.
Mod Hammer 60	Note Hammer with pitch sync modulation = 6 pitch periods.
Mod Hammer 70	Note Hammer with pitch sync modulation = 7 pitch periods.
Mod Hammer 80	Note Hammer with pitch sync modulation = 8 pitch periods.
Robo	Robot type effect with no pitch correction.

Pitch Type Option	Description
Reso	Resonator effect with no pitch correction.
Resobo	Robot and resonator with no pitch correction.
Space	Resonator and pitch sync modulation.
Alien	Pitch sync modulation and formant shift.
Pixel	Pixel effect.
Growl	Emulates growl at loud onsets.
Mod 20	Pitch sync modulation = 2 pitch periods.
Mod 25	Pitch sync modulation = 2.5 pitch periods.
Mod 30	Pitch sync modulation = 3 pitch periods.
Mod 35	Pitch sync modulation = 3.5 pitch periods.
Mod 40	Pitch sync modulation = 4 pitch periods.
Mod 50	Pitch sync modulation = 5 pitch periods.
Mod 60	Pitch sync modulation = 6 pitch periods.
Mod 70	Pitch sync modulation = 7 pitch periods.
Mod 80	Pitch sync modulation = 8 pitch periods.

- **FX LVL (0-99)**
  This parameter adjusts how much of the selected pitch effect TYPE will be added to your vocals, with 0 being the minimum (no effect) and 99 being the maximum. Note that the SHIFT and GENDER parameters will not be affected by this control.

- **KEY (Chromatic, Harmony)**
  Determines whether the selected pitch effect "TYPE" follows chromatic scaling (irrespective of key or scale being sung) or if it uses diatonic shifting and follows the KEY set in the Harmony effect module. You can set this parameter manually or enable the adaptive "PITCH" feature in the Live Adapt menu. When adaptive PITCH is enabled, the Adapt icon **A** will appear next to this parameter and the parameter will adapt as the detected music key changes. For information on using Live Adapt, see "Live Adapt" on page 15. The following table provides a description of each available KEY option.

| Pitch Key Option	Description
Chromatic	Uses the chromatic scale.
Harmony	The algorithm will use the "KEY" selected for the Harmony effect in the Harmony Edit menu (the selected Harmony Key will be displayed in the LCD display when this option is selected).

- **GENDER (-50-+50)**
  This parameter is used to make the pitch shifted signal sound more male or female, with -50 representing male and 50 representing female. Note that this parameter is not affected by the FX LVL parameter.

- **SHIFT (-12-+12)**
  This parameter determines the amount of transposition applied to the input signal, with negative numbers representing downward pitch transposition and positive numbers representing upward pitch transposition. Note that this parameter is not affected by the FX LVL parameter.

To dial in Pitch FX:

1. Sing into the microphone (or use the Sound Check feature, see "Sound Check" on page 14) and raise the FX LVL parameter so you can hear the effect.
2. Select the desired pitch effect TYPE using the **<DATA>** encoder.
3. Select the desired KEY option. If you want the KEY to follow chromatic scaling, select the "Chromatic" option. If you want the KEY to be set the same as the Harmony KEY, set the Pitch FX KEY to the "Harmony" setting. If you want the Pitch FX KEY to adapt as the music changes, enable the adaptive "PITCH" feature in the Live Adapt menu. For information on using Live Adapt, see "Live Adapt" on page 15.
4. Adjust the GENDER parameter to see if it gets you closer to the sound you are after. If it doesn't, leave it at 0.
5. Adjust the SHIFT parameter if you wish to transpose the signal up or down.
6. Fine tune the FX LVL parameter until the desired effect level is achieved. Note that the GENDER and SHIFT portions of the effect will not be affected by the FX LVL parameter.
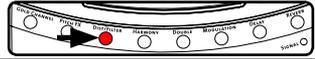
Distortion/Filter

The Distortion/Filter module adds distortion to your vocals, creates lo-fi effects, or creates special effects, such as emulating a megaphone. Changes to the Distortion/Filter module need to be stored to a preset for later recall.

Available parameters:

- **TYPE**
  This parameter allows you to select which type of distortion/filter effect you would like to use. The following table provides a description of each option.

Distortion/Filter Type Option	Description
Megaphone 1	Classic megaphone.
Megaphone 2	Small megaphone.
Megaphone 3	Large megaphone.
Radio 1	AM Radio.
Radio 2	Old transistor radio.
Radio 3	Radio in next room.
Phone 1	Cell phone.
Phone 2	8-bit satellite phone.
Ripped Amp 1	Ripped speaker in amp.
Ripped Amp 2	Modified ripped speaker in amp.
Bit Crusher 1	Linear 8-bit quantization.
Bit Crusher 2	Linear 6-bit quantization.
Distortion 1	Feedback resistant distortion.
Half Wave Rect	Half wave rectification.
Full Wave Rect	Full wave rectification.

- **AMOUNT (0-99)**
  This parameter adjusts the Dist/Filter effect's mix level, with 0 being the minimum (no effect applied) and 99 being the maximum amount of effect applied.

- **ROUTING**
  This parameter selects which part of the signal will be affected by the Distortion/Filter effect and provides the following three options:

  Lead
  When this option is selected, the Distortion/Filter effect is applied to the lead voice only. You will hear distortion/filtering on the lead voice and the delay voices which are driven from the lead. The Distortion/Filter effect will not be applied to harmony or doubled voices.

Delay
When this option is selected, the Distortion/Filter effect is applied to the delayed vocal only (the Delay effect must be enabled to hear this option).

All
When this option is selected, the Distortion/Filter effect will be applied to the lead vocal, delay, harmony, and doubled voices.

- **FILTER (0-99)**
  This parameter adjusts the characteristics of the band-pass filter. The change in filter frequencies from 0 to 99 will depend on the currently selected distortion TYPE.

- **DISTORT (0-99)**
  This parameter adjusts the amount of distortion introduced into the signal path, with 0 being the minimum (no effect) and 99 being the maximum.

To dial in the Distortion/Filter effect:

1. Sing into the microphone (or use the Sound Check feature, see "Sound Check" on page 14).
2. Ensure the AMOUNT parameter is set high enough to hear the effect.
3. Adjust the ROUTING parameter to select which part of the signal will be processed by the Distortion/Filter effect.
4. Toggle through the Distortion/Filter TYPEs, using the **<DATA>** encoder, until you find the desired TYPE.
5. Adjust the DISTORT parameter for the desired amount of distortion.
6. If you wish to change the characteristics of the distorted sound, try adjusting the FILTER parameter to emphasize different frequencies.
7. Fine tune the AMOUNT parameter until the desired effect balance is achieved.
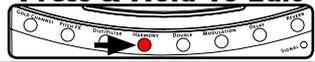
Harmony

The Harmony module is used to create the effect of having backup singers singing harmonies. The Live FX adds up to two harmony voices to your lead vocal. Changes to the Harmony module need to be stored to a preset for later recall.

Available parameters:

- **TYPE**
  This parameter allows you to set the desired harmony voicing type. The following table provides a description of each option.

Harmony Type Option	Description
8D, 5D, 3D, 3U, 5U, 8U, 8D8D, 8D5D, 8D3D, 8D3U, 8D5U, 8D8U, 5D8D, 5D5D, 5D3D, 5D3U, 5D5U, 5D8U, 3D8D, 3D5D 3D3D, 3D3U, 3D5U, 3D8U, 3U8D, 3U5D, 3U3D, 3U3U, 3U5U, 3U8U, 5U8D, 5U5D, 5U3D, 5U3U, 5U5U, 5U8U, 8U8D, 8U5D, 8U3D, 8U3U, 8U5U, 8U8U.	Each option indicates the number of voices, the interval, and whether the harmony is above (U) or below (D) the source note. For example, 8D represents a single harmony voice one octave below the source. The 5U3D option represents two harmony voices: one a 5th interval above the source, the other a 3rd interval below the source.

- **AMOUNT (0-99)**
  This parameter adjusts the Harmony effect's mix level, with 0 being the minimum (no effect applied) and 99 being the maximum amount of effect applied.

- **KEY**
  This parameter allows you to set the key for the generated harmonies. You can set this parameter manually or enable the adaptive "HARMONY" feature in the Live Adapt menu. When adaptive HARMONY is enabled, the Adapt icon **A** will appear next to this parameter and the parameter will adapt as the detected music key changes. For information on using Live Adapt, see "Live Adapt" on page 15. The following table provides a description of each available KEY option.

Harmony Key Option	Description
Adapt	This option is displayed when the Live Adapt "Harmony" option is enabled in the Live Adapt menu.
C maj, C min, C# maj, C# min, D maj, D min, D# maj, D# min, E maj, E min, F maj, F min, F# maj, F# min, G maj, G min, G# maj, G# min, A maj, A min, A# maj, A# min, B maj, B min	All remaining options use the key/scale indicated by their name for harmony voice generation.

NOTE: The Harmony KEY parameter can not be edited when adaptive HARMONY is enabled in the Live Adapt menu (see "Live Adapt" on page 15). However, when Pitch FX is configured to receive its KEY setting from the Harmony KEY setting, you will still have access to changing the KEY parameter for the sake of Pitch FX, but doing so will not affect the Harmony KEY as it is set for adaptive operation.

- **HUMANIZE (0-99)**
  This parameter adjusts the timing of the harmony voices to make them sound more realistic and more distinct from the source signal, with 0 being the minimum (harmonies are perfectly timed with the lead voice) and 99 being the maximum (harmonies are very loosely timed with the lead voice).

- **GENDER (0-99)**
  This parameter is used to amplify the natural gender that is applied to the harmony voices. As GENDER is turned from 0 to 99, voices shifted up will sound more female, and voices shifted down will sound more male.

To dial in the Harmony effect:

1. Sing into the microphone (or use the Sound Check feature, see "Sound Check" on page 14) and ensure the AMOUNT parameter is set high enough to hear the effect.

2. Select the KEY option which matches the key of the song. If you want the Harmony KEY to adapt as the music changes, enable the adaptive "HARMONY" feature in the Live Adapt menu. For information on using Live Adapt, see "Live Adapt" on page 15.

3. Using the **<DATA>** encoder, select the desired harmony voicing TYPE.

4. Adjust the HUMANIZE parameter until the desired amount of distinction and realism is achieved.

5. Adjust the GENDER parameter to determine the amount of gender effect to apply to the harmony voices.

6. Now that the parameters are dialed in, fine tune the AMOUNT parameter until the desired effect level is achieved.
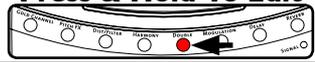
Double

Doubling is used to thicken your vocal sound and create the effect of additional singers singing in unison. Changes to the Double module need to be stored to a preset for later recall.

Available parameters:

- **TYPE**
  This parameter selects which type of doubler effect you would like to use. The following table provides a description of each option.

Double Type Option	Description
1 Voice Time	Time and phase decoupling with 1 voice.
2 Voice Time	Time and phase decoupling with 2 voices.
1 Voice Pitch	Pitch and phase decoupling with 1 voice.
2 Voice Pitch	Pitch and phase decoupling with 2 voices.
1 V Pitch-Time	Pitch, time, and phase decoupling with 1 voice.
2 V Pitch-Time	Pitch, time, and phase decoupling with 2 voices.
Detune	Fixed detune decoupling using 2 voices (up and down).
Old School	Fixed detune and fixed delay decoupling using 2 voices (up and down).
Better Half	Time and phase decoupling with 1 voice along with some pitch correction.

- **AMOUNT (0-99)**
  This parameter adjusts the Double effect's mix level, with 0 being the minimum (no effect applied) and 99 being the maximum amount of effect applied.

- **DETUNE (-50-+50)**
  This parameter allows you to detune or uptune the doubled voice(s), with -50 being the maximum amount of flat detuning and 50 being the maximum amount of sharp detuning.

- **HUMANIZE (0-99)**
  This parameter adjusts the timing of the doubled voices to make them sound more realistic and more distinct from the source signal, with 0 being the minimum (doubled voices are perfectly timed with the lead voice) and 99 being the maximum (doubled voices are very loosely timed with the lead voice).

- **CORR (0-99)**
  This parameter adjusts how much pitch correction will be applied to the doubled voice(s), with 0 being the minimum (no effect) and 99 being the maximum.

To dial in the Double effect:

1. Sing into the microphone (or use the Sound Check feature, see "Sound Check" on page 14) and ensure the AMOUNT parameter is set high enough to hear the effect.

2. Using the **<DATA>** encoder, select the desired doubling voice TYPE.

3. If you would like to detune or uptune the doubled voice(s), adjust the DETUNE parameter for the desired effect.

4. Adjust the HUMANIZE parameter until the desired amount of distinction and realism is achieved.

5. If you want to apply pitch correction to the doubled voice(s), adjust the CORR parameter until the desired effect is achieved.

6. Fine tune the AMOUNT parameter until the desired effect balance is achieved.
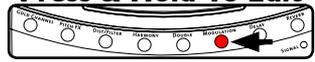
Modulation

Modulation effects are great for adding motion and depth to your vocal sound and include effects like flanging (jet airplane phasing effect), chorusing (thickens vocals) and vibrato. Changes to the Modulation module need to be stored to a preset for later recall.

Available parameters:

- **TYPE**
  This parameter selects which type of modulation effect you would like to use. The following table provides a description of each option.

Modulation Type Option	Description
Flange	Flange with a single tap and moderate feedback.
Feedbck Flange	Flange with a single tap and high feedback.
Vibrato	Standard vibrato (i.e., pitch modulation).
Chorus	Chorus with 1 tap.
Wide Chorus	Chorus with 1 tap but more delay range.
Chorus 4	Chorus with 4 taps.
Stereo Chorus	Chorus with 2 taps panned left and right.
Auto Pan	Pans signal between left and right.
Stereo Stutter	Hard panning of signal between left and right.
Witch Stutter	Stutter effect modelled after a song by a popular artist.
Rotary	Models a Leslie rotary speaker.
Wide Rotary	Models a Leslie rotary speaker with more extreme settings.
Warble	An extreme variation of vibrato.

- **AMOUNT (0-99)**
  This parameter adjusts the Modulation effect's mix level, with 0 being the minimum (no effect applied) and 99 being the maximum amount of effect applied.

- **SHAPE (0-99)**
  This parameter controls the depth of the effect, with 0 being the most shallow and 99 being the deepest setting.

- **SPEED**
  This parameter adjusts the rate at which the Modulation effect cycles. The following table provides a description of each option.

| Modulation Speed Option	Description
Slow	Sets the mod speed to 108 BPM (ignores the currently set tempo setting).
Med	Sets the mod speed to 240 BPM (ignores the currently set tempo setting).
Fast	Sets the mod speed to 360 BPM (ignores the currently set tempo setting).
1/8 x, 1/7 x, 1/6 x, 1/5 x, 1/4 x, 1/3 x, 1/2 x, 1 x, 2 x, 3 x, 4 x, 5 x, 6 x, 7 x, 8 x	Each of these options sets the mod speed to the multiple denoted in the option name (e.g., 1/8x = 1/8th the speed of the currently set tempo, 8x = 8 times the speed of the currently set tempo, etc.).

- **TEMPO (60-300)**
  This parameter sets the tempo for the Modulation effect. This parameter is directly tied to the Delay TEMPO parameter; editing one parameter will affect the other. If you enable the adaptive "TEMPO" feature in the Live Adapt menu, this parameter will adapt within a range around the currently set TEMPO setting. When adaptive TEMPO is enabled, the Adapt icon **A** will appear next to this parameter and the LCD display will show the adapted tempo as it changes. For information on using Live Adapt, see "Live Adapt" on page 15.

To dial in the Modulation effect:

1. Sing into the microphone (or use the Sound Check feature, see "Sound Check" on page 14).

2. Ensure the AMOUNT parameter is set high enough to hear the effect.

3. Select the desired Modulation TYPE using the **<DATA>** encoder.

4. Adjust the SHAPE parameter for the desired amount of effect depth.

5. Adjust the TEMPO parameter until the desired tempo is achieved.

6. Adjust the SPEED parameter until the desired effect is achieved.

7. Fine tune the AMOUNT parameter until the desired effect balance is achieved.

If you want the TEMPO parameter to adapt as the music tempo changes, enable the adaptive "TEMPO" feature in the Live Adapt menu. For information on using Live Adapt, see "Live Adapt" on page 15.
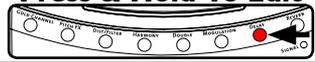
Delay

Delay is an essential effect in vocal processing that creates an echo of your voice during performance. Changes to the Delay module need to be stored to a preset for later recall.

Available parameters:

- **TYPE**
  This parameter selects which type of delay effect you would like to use. The following table provides a description of each option.

Delay Type Option	Description
Digital	Straight up digital delay at currently set tempo.
Dig Ducked 50	Digital delay at currently set tempo with 50% feedback ducking so the louder you sing, the less gets into the delay line.
Dig Ducked 75	Digital delay at currently set tempo with 75% feedback ducking so the louder you sing, the less gets into the delay line.
Dig Ducked 100	Digital delay at currently set tempo with 100% feedback ducking so the louder you sing, the less gets into the delay line.
Digital Pong	Digital delays at currently set tempo ponged left to right.
Dig Multitap 1	Digital delays with a multi-tap eighth and quarter pattern.
Dig Multitap 2	Digital delays with a multi-tap triplet pong pattern.
Dig Multitap 3	Digital delays with a multi-tap dotted eighth + quarter note pattern.
Analog	Delay at currently set tempo (i.e., an analog-like filtered version of the input is delayed).
Ana Ducked 50	Analog delay at currently set tempo with 50% feedback ducking so the louder you sing, the less gets into the delay line.
Ana Ducked 75	Analog delay at currently set tempo with 75% feedback ducking so the louder you sing, the less gets into the delay line.
Ana Ducked 100	Analog delay at currently set tempo with 100% feedback ducking so the louder you sing, the less gets into the delay line.
Analog Pong	Analog delays at currently set tempo ponged left to right.
Ana Multitap 1	Analog delays with a multi-tap eighth and quarter pattern.
Ana Multitap 2	Analog delays with a multi-tap triplet pong pattern.
Ana Multitap 3	Analog delays with a multi-tap dotted eighth + quarter note pattern.
Tape	Delay at the tempo, but each time around the delay line is filtered with a peaking filter so the repeats get more and more peaked.
Tape Ducked 50	Tape delay at currently set tempo with 50% feedback ducking so the louder you sing, the less gets into the delay line.
Tape Ducked 75	Tape delay at currently set tempo with 75% feedback ducking so the louder you sing, the less gets into the delay line.
Tape Ducked 100	Tape delay at currently set tempo with 100% feedback ducking so the louder you sing, the less gets into the delay line.
Tape Pong	Tape delays at currently set tempo ponged left to right.

Delay Type Option	Description
Tape Multitap 1	Tape delays with a multi-tap eighth and quarter pattern.
Tape Multitap 2	Tape delays with a multi-tap triplet pong pattern.
Tape Multitap 3	Tape delays with a multi-tap dotted eighth + quarter note pattern.
Bandpass	Delay at the currently set tempo, but each time around the delay line is filtered with a bandpass filter so the repeats get more and more lo-fi.
Band Ducked 50	Bandpassed delay at currently set tempo with 50% feedback ducking so the louder you sing, the less gets into the delay line.
Band Ducked 75	Bandpassed delay at currently set tempo with 75% feedback ducking so the louder you sing, the less gets into the delay line.
Band Ducked 100	Bandpassed delay at currently set tempo with 100% feedback ducking so the louder you sing, the less gets into the delay line.
Band Pong	Bandpassed delays at currently set tempo ponged left to right.
Band Multitap 1	Bandpassed delays with a multi-tap eighth and quarter pattern.
Band Multitap 2	Bandpassed delays with a multi-tap triplet pong pattern.
Band Multitap 3	Bandpassed delays with a multi-tap dotted eighth + quarter note pattern.

- **AMOUNT (0-99)**
  This parameter adjusts the Delay effect's mix level, with 0 being the minimum (no effect applied) and 99 being the maximum amount of effect applied.

- **REPEATS (0-99)**
  This parameter adjusts how much of the delayed signal will be fed back into the delay algorithm and determines how long the delays will continue to repeat, with 0 being the minimum amount of delay repeats and 99 being the maximum amount of delay repeats.

- **SPEED**
  This parameter adjusts the rate at which the delays repeat. The following table provides a description of each option.

Delay Speed Type Option	Description
1 x	1 x the currently set tempo (quarter note).
2 x	2 x the currently set tempo (eighth note).
3 x	3 x the currently set tempo (triplet note).
4/3 x	4/3 x the currently set tempo (dotted eighth note).
1/2 x	1/2 x the currently set tempo (half note).
Slap 1	Slapback delay (80 ms–TEMPO parameter is ignored with this option selected).
Slap 2	Slapback delay (100 ms–TEMPO parameter is ignored with this option selected).
Slap 3	Slapback delay (120 ms–TEMPO parameter is ignored with this option selected).

- **TEMPO (60-300)**

  This parameter allows you to set the tempo for the Delay effect. This parameter is directly tied to the Modulation TEMPO parameter; editing one parameter will affect the other. If you enable the adaptive "TEMPO" feature in the Live Adapt menu, this parameter will adapt within a range around the currently set TEMPO setting. When adaptive TEMPO is enabled, the Adapt icon **A** will appear next to this parameter and the LCD display will show the adapted tempo as it changes. For information on using Live Adapt, see "Live Adapt" on page 15.

To dial in the Delay effect:

1. Sing into the microphone (or use the Sound Check feature, see "Sound Check" on page 14).

2. Ensure the AMOUNT parameter is set high enough to hear the effect.

3. Select the desired Delay TYPE using the **<DATA>** encoder.

4. Adjust the TEMPO parameter to match the tempo of the song (this step is not necessary when using slap delays).

5. Adjust the SPEED parameter until you achieve the "feel" you are after.

6. Adjust the REPEATS parameter until the desired length of delay repeats is achieved.

7. Fine tune the AMOUNT parameter until the desired effect balance is achieved.

8. If you want the TEMPO parameter to adapt as the music tempo changes, enable the adaptive "TEMPO" feature in the Live Adapt menu. For information on using Live Adapt, see "Live Adapt" on page 15.
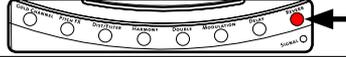
Reverb

Lexicon® reverb is the industry standard for both studio and live reverb effects. Reverb simulates singing in both small and large spaces, making your vocal breathe with more dimension. Changes to the Reverb module need to be stored to a preset for later recall.

Available parameters:

- **TYPE**
  This parameter allows you to select the desired reverb type. The following table provides a description of each option.

Reverb Type Option	Description
Dark Plate	Plate reverbs have high density early reflections and a medium to long decay. They work well for adding length and size to your vocals. They "fuse" well with the processed source and are more "two-dimensional" than the other reverb types, so they can generally be brought up a little louder in the mix without making your vocals sound distant. The Dark Plate reverb type provides a plate reverb in which the higher frequencies have been attenuated to create a darker sounding plate reverb.
Bright Plate	The Bright Plate reverb type has the same attributes as the Dark Plate reverb type, but without all the high frequency attenuation, providing a brighter sounding plate reverb.
Room	Room reverbs mimic a small space with high early reflection density and a fast decaying reverb tail. They work well for adding reverb to vocals in faster tempo music.
Open Room	Similar to the Room reverb type, but provides a slightly larger (more "open" or less "constrained") sounding space.
Studio	Mimics a warm sounding studio recording room with slower early reflection density build-up than the Room reverb type and a medium reverb tail decay. This option provides a slightly larger sounding room than the Room reverb type.
Bright Studio	The Bright Studio reverb type has the same attributes as the Studio reverb type, but with a brighter tone.
Hall	A lush, organic reverb with low initial density and long reverb tails. Works well for vocals in sparsely arranged sections of a song and with slower tempos.
Dark Hall	The Dark Hall reverb type has the same attributes as the Hall reverb type, but with high frequency attenuation, providing a darker sounding reverb.
Stadium	The Stadium reverb type has low initial density and a very long reverb tail.
Large Stadium	The Large Stadium reverb type has similar attributes to the Stadium reverb type, but provides a longer time period before the onset of reverb and longer reverb tail decay.

- **AMOUNT (0-99)**
  This parameter adjusts the Reverb effect's mix level, with 0 being the minimum (no effect applied) and 99 being the maximum amount of effect applied.

- **TONE (-50-+50)**
  This parameter adjusts the tone of the Reverb effect, with -50 providing the darkest tone and 50 providing the brightest tone.

- **PREDELAY (0-99)**
  This parameter adjusts the predelay of the Reverb effect, with 0 being the minimum (0ms) and 99 being the maximum (50-200ms depending on the selected reverb TYPE). The PREDELAY parameter postpones the onset of reverb, preventing the reverb from "walking on the toes" of the direct vocal sound.

- **TAIL (0-99)**
  This parameter adjusts the decay time of the Reverb effect, with 0 being the minimum (shorter decay) and 99 being the maximum (longer decay).

To dial in the Reverb effect:

1. Sing into the microphone (or use the Sound Check feature, see "Sound Check" on page 14).
2. Ensure the AMOUNT parameter is set high enough to hear the effect.
3. Select the desired Reverb TYPE using the **<DATA>** encoder.
4. Adjust the TONE parameter until the desired tone is achieved.
5. Adjust the TAIL parameter so that the reverb tail fully decays and "gets out of the way" of the next sung word or phrase.
6. Adjust the PREDELAY parameter until the desired "feel", or amount of distinction between the direct vocal sound and Reverb effect, is achieved (if you're not sure, a setting of 15-20 should provide good results).
7. Fine tune the AMOUNT parameter until the desired effect balance is achieved.

Preset Librarian Software

You can backup Live FX presets and set lists using the free Vocalist Live Librarian preset management software application for PC and Mac. The Vocalist Librarian software can be downloaded from digitech.com. This software will connect to the Live FX through the mini USB connector and allows you to archive and retrieve presets and set lists to and from your computer.

System Requirements

Windows:

- XP Home/Professional (32-bit) with SP3,
- Vista / 7 / 8 (32/64 bit)
- 2GHz processor
- 1GB of memory
- Available USB port
- Internet access for updates

Mac:

- 10.6.8 or later
- Intel 2GHz processor
- 1GB of memory
- Available USB port
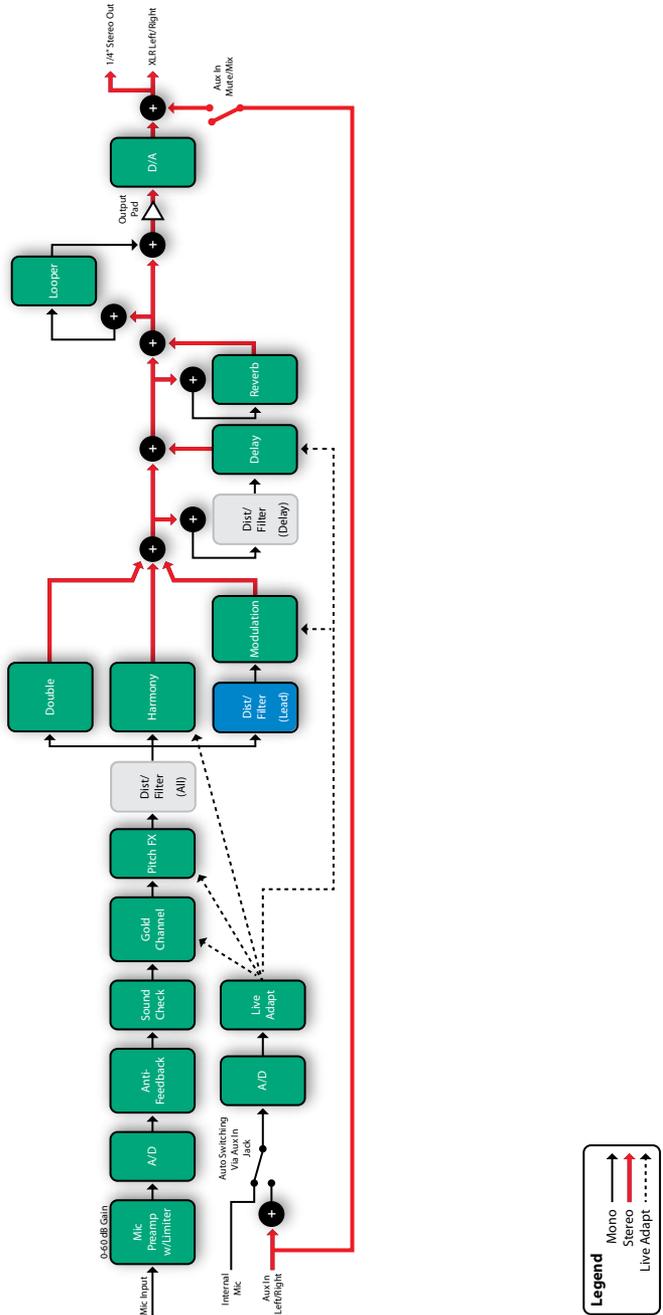- Internet access for updates

Firmware Updates

Firmware updates are performed using the Vocalist Live Librarian software, which can be dowloaded from digitech.com. Firmware updates can be performed using a Mac or Windows computer with a compatible USB 2.0 connection.

Preset List

1. PAYPHONE	**34.** WIDE BORG	**67.** CHEAP SHADES
2. BAD ROMANCE	**35.** BAMA HOLDON	**68.** CRAZY IN LOVE
3. SEXY BACK	**36.** STRANGLUV	**69.** 1 MORE DRAFT
4. SOUL OF MAN	**37.** DIST DELAY	**70.** BIG PLATE
5. I C RITE THRU 2U	**38.** FLANGEVERB	**71.** PEPPER
6. SUPER BLK HOLE	**39.** CALIF LOVE	**72.** VASOLINE
7. DOUBLING	**40.** FIREFLIES	**73.** WE R YOUNG
8. WALRUS	**41.** HEY HO	**74.** FUZZY SHIFT
9. AMERICAN DOPE	**42.** ALL SHE WANTS	**75.** FAST LANE
10. DISTORTION	**43.** GOODLIFE	**76.** MONEY
11. BILLY JEAN	**44.** WHISKEY LULBY	**77.** SOME NIGHTS
12. NO QUARTER	**45.** PERFECT WAY	**78.** ORINOCO
13. HEARTBRK HOTEL	**46.** HONK TONK WOMN	**79.** PONG CHORUS
14. BLK HOLE SUN	**47.** HELLA GOOD	**80.** STINKFIST
15. I WERE BOY	**48.** SUTTER	**81.** DIANE JUNG
16. DELAY+REVERB	**49.** RUN LIKE HECK	**82.** SOUTHERN +
17. LETS DANCE	**50.** SKY IS FALL	**83.** E-PRO
18. MYSTERY WAYS	**51.** ICEBLINK	**84.** BLACK HORSE
19. OCEAN SIZE	**52.** RING OF FIRE	**85.** REHAB
20. JESSE McUP	**53.** TAKE ME ON	**86.** OCTAVE UP
21. RELAX	**54.** C MAJ 3RD/5TH	**87.** LIGHTS OUT
22. COME 2 GETHER	**55.** WHISTLE	**88.** GO CRAZY
23. DELAY	**56.** KRYPTONITE	**89.** DOWN IN IT
24. JOSIE	**57.** BLACK DOG	**90.** OBLIVION
25. PARTY ROCK	**58.** MR ROBOT	**91.** DAYLIGHT
26. FEEL GOOD INC	**59.** DONT U 4GET ME	**92.** 2001
27. SATISFACTION	**60.** MOVES JAGGER	**93.** MOTEL CALIF
28. DROID DELAY	**61.** BODY LANGUAGE	**94.** OTTO TUNE C
29. DA BA DEE	**62.** BOOTY WORK	**95.** BBOYS FREAK
30. BITES DUST	**63.** AIR TONIGHT	**96.** MEGAPHONE
31. NEVER GIVE U UP	**64.** I GOTTA FEELING	**97.** TOM SAWYER
32. WALKING MOON	**65.** 1 MORE NITE	**98.** SOMEBODY I USED
33. FREE FALLIN	**66.** ROSANNA	**99.** PLUSH

Technical Information

Block Diagram

Legend

Mono
Stereo
Live Adapt

Note: The Distortion/Filter effect can be configured in one of three places in the signal path: *Lead*, *Delay*, or *All*.

Specifications

Mic Input

Microphone Input:	Female XLR Pin 2 Hot
Input Impedance:	3kΩ balanced
Phantom Power:	+45 Volts
Maximum gain:	+60 dB
E.I.N. (at max gain):	-125 dBu @ 60 dB gain typical (150Ω source)
	-128 dBu @ 60 dB gain typical A-weighted (150Ω source)
Maximum Input Level:	+18 dBu at minimum gain

Aux Input

Aux Input:	1/8" mini stereo jack
Maximum Input Level:	+20 dBu

Left/Right Outputs

Line Outputs:	XLR electronically balanced
Maximum Output Level:	+5 dBu @ 0dBFS
Impedance:	1kΩ

Headphone/Line Output

Headphone/Line Output:	1/4" stereo jack, 50Ω output impedance

Performance

Dynamic Range:	109 dB typical, 22 Hz – 22 kHz, A-weighted
Frequency Response:	+0/-2.5 dB, 20 Hz – 20 kHz
THD+N:	<0.009%, 22 Hz – 22 kHz (mic input to main output) 0 dBu input level <0.006%, 1 kHz, +5 dBu input level
Sample Rate:	44.1 kHz

Power

Power Requirements:	9 VDC, 800mA, 7.2 W, center pin GND, outer sleeve positive
Power Adapter:	PS0920DC

Other

USB:	USB 2.0 full-speed compliant
Dimensions:	7.9" (W) x 9.2" (L) x 2.5" (H)
Product Weight:	2.7 lbs.

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Vocalist® LIVE FX

DigiTech®
by HARMAN

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Sandy, Utah 84070

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SUPPORT:digitech.com/en-US/support

Vocalist Live FX Owner's Manual 5036718-A