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Product	Play Acoustic
Product (firmware) version	1.0
Document	Reference manual
Document version/date	2014-05-09

Important safety instructions

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

14. Refer all servicing to qualified service personnel. Servicing is required when the apparatus has been damaged in any way, such as power-supply cord or plug is damaged, liquid has been spilled or objects have fallen into the apparatus, the apparatus has been exposed to rain or moisture, does not operate normally, or has been dropped.

Caution

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

Service

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

Warning

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

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

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

EMC/EMI

Electromagnetic compatibility/
Electromagnetic interference

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

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

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

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

For customers in Canada

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

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

Explanation of graphic symbols



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



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

Before you begin

About this manual

This manual will help you understand and operate your Play Acoustic.

You can download the most current version of this reference manual from tc-helicon.com/products/play-acoustic/support/

To get the most from this reference manual, please read it from start to finish, or you may miss important information.

Getting support

If you still have questions after reading this reference manual, please read the FAQs, visit the user forums and get in touch with support at: support.tc-helicon.com/

VoiceSupport

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

VoiceSupport key features include:

- Professionally authored preset libraries
- Direct access to product manuals
- Update messaging – helping you stay up to date with the latest software
- Drag & drop preset management
- Customizable content about your products
- VoiceCouncil feeds for the latest advice for singers
- Firmware upgrading
- Account management
- Access to support

You can download VoiceSupport for Microsoft Windows and Mac OS X from tc-helicon.com/products/voicesupport/

Please register your Play Acoustic

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

Please note that registration of your product is **not** required to use VoiceSupport, download presets, update firmware or contact support.

Introduction

Welcome to the Play Acoustic manual!

First, thank you so much for purchasing Play Acoustic. We at TC-Helicon are confident that your vocal and acoustic guitar performances will be positively impacted with this great effects processor.

As you discovered in the Quick Start Guide (the short manual that came in the box), Play Acoustic is easy to use at the top level, but there is more under the hood of this compact device than you might think. We recommend you treat your Play Acoustic like any other new instrument and dedicate some time to learning how to use it.

Yes, that means RTFM!

Read the... *full* manual.

Diagram legend

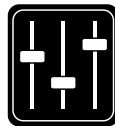
The following icons are used in the diagrams in this manual.



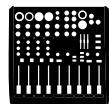
Microphone



Acoustic Guitar



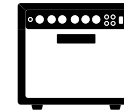
Monitor Mix



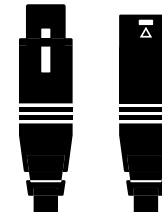
Mixing Board



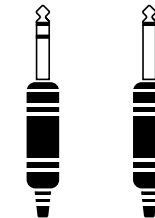
P.A.



Guitar or Keyboard amp



XLR cables



1/4" / 6.5 mm TRS (Tip / Ring / Sleeve) and TS (Tip / Sleeve) guitar cables



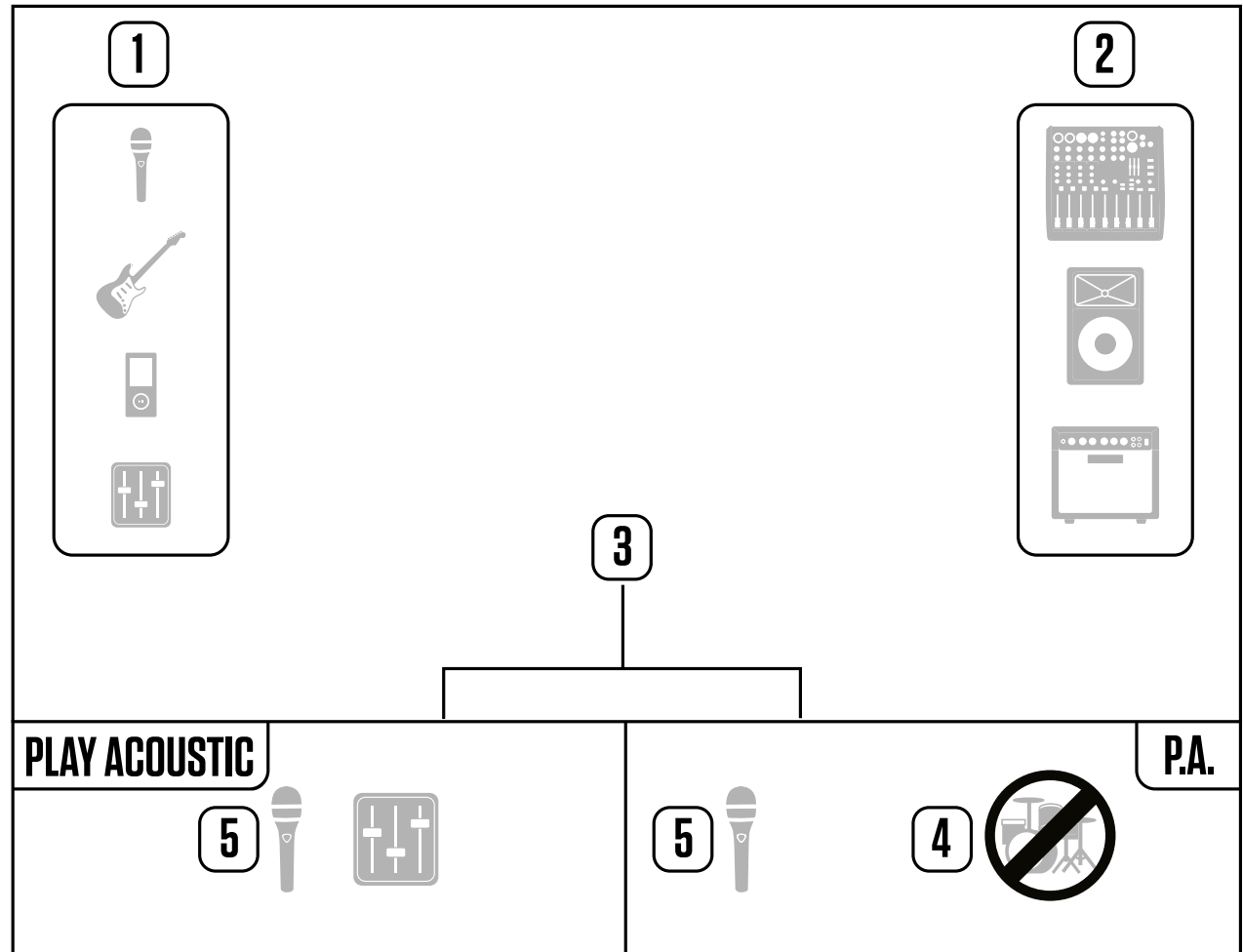
1/8" / 3.5 mm cable

Diagrams

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

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

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



Basics



Inputs and outputs

Power socket

Connect the included power supply. **Always use a TC-Helicon power supply (12V, 400 mA).** Using any other power supply may damage the unit and will void your warranty.

USB connector

Connect to your computer with the included cable. Use the VoiceSupport software to manage presets and update the product's internal software (firmware).

You can download VoiceSupport here: tc-helicon.com/products/voicesupport

Stereo audio input and output via USB is also supported at 16 bit resolution with 44.1 or 48 kHz sample rate.

Incoming USB audio signals are not passed to the USB output, allowing you to sing/play along with tracks from your DAW while recording back „just the vocals and guitar“.

Phones connector

Connect your headphones to the Phones connector.

GND switch

This is a ground lift switch. If you experience hum while using Play Acoustic, try pressing the GND switch to reduce or remove the hum.

GUITAR DI (R) and VOICE (L) output connectors

These are the main output connectors of your Play Acoustic. By default, mono vocals are sent via the Voice (L) connector, and a mono guitar signal is sent via the Guitar DI (R) jack. This configuration can be changed in the Setup/Output menu.

PEDAL connector

Use a TRS cable to connect a Switch-3 (optional) to the PEDAL connector. If you use the Switch-3, you have direct access to looping and other effect control. See the Switch-3 menu section for details on assigning controls to each Switch-3 button.

AUX connector

Use a 1/8" cable to connect any music source you want to use to your Play Acoustic (*especially that 8-Track from your 1974 Comet*). When an input is detected here and no guitar is plugged in, Play Acoustic will use the music signal to figure out key and scale information.

GUITAR IN connector

Connect your guitar to this input.

MIC connector

Well – this is where the magic happens!

Plug your dynamic, condenser, MP-75, or e835 fx microphone in here. Remember to set the microphone type and level correctly, as described in the Play Acoustic Quick Start Guide.

How the Input LED Level Meter Works

The LED on the top of your Play Acoustic is used for both vocal and guitar level metering.

When setting the level for your microphone or guitar, make sure that you sing or play separately. If you are setting your vocal level, don't play your guitar – and vice versa.

The meter will show a combined level for both guitar and vocals when you sing and play.

If you see the LED light red – indicating clipping –, it is helpful to play/sing individually to see which input may be getting too much level.

Keep in mind that the combined level of two inputs can clip, even when the individual inputs do not. If this happens for you, it's best to simply turn down each input slightly until the LED no longer lights red when you sing and play simultaneously.

Setting Microphone Gain

Once you have connected your microphone and selected the microphone type (Dynamic, Condenser, MP-75, e835 FX), use the Mic Gain knob on the side of your Play Acoustic to set the input level for your microphone.

As you increase the level, pay close attention to the LED on top of Play Acoustic. You want the input to light the LED green. It's OK if the LED sometimes lights yellow – but it should never turn red. If it does turn red, reduce the level. Red means that a) the input is overloading and b) you've got powerful lungs!



Setting the guitar level

The control for your guitar input is on Page 1 of the Setup menu. You can access the Setup menu by pressing the SETUP button and then

use the < or > buttons to move to Page 1. Press the “soft” button next to the “Guitar IN” box and use the Control knob to adjust your level.

Reading the LCD Display



The Play Acoustic display

The LCD display of your Play Acoustic displays the following information:

Preset Name

The name of the currently selected preset. In the screen shot above, it is “High Harmony”. The Presets concept is explained in [“What are presets?”](#).

Preset Number

The unique preset number – i.e., the number of the slot where the preset is stored. In the screen shot above, it is 1.

“FAV” indicator

The “FAV” indicator is shown in the upper right corner of the display if the current preset has been tagged as a Favorite.

“NP” indicator

The “NP” indicator is shown in the lower right corner of the display when chord information changes have been detected by Play Acoustic.

You may see the “NP” indicator switch on and off somewhat erratically as it processes incoming musical information. This is normal.

What is NaturalPlay?

NaturalPlay is the voodoo we do inside Play Acoustic to figure out which key your music is in. If you plug your guitar into the GUITAR IN connector, NaturalPlay will look there first for key/scale info. Next, it will look at the Aux input and listen to the RoomSense microphones.

Once Play Acoustic “hears” key/scale information from one of these inputs, it will set the key/scale on the fly. “NP” is only shown when a *change* in key/scale is detected – so don’t panic if you don’t see it all the time.

“LOOP” indicator

The “LOOP” indicator is shown in the lower right corner of the display when a loop is running, but you are currently not on the Loop mode screen.

“GTR BOOST” indicator

The “GTR BOOST” indicator is shown in the lower left corner of the display when guitar boost is active.

Genre indicator

If you have set the Genre selector to any other value than “All”, the currently selected genre is shown in the upper left corner of the display. In the screen shot above, it is “Harmony”.

Switches and operation



Up and Down footswitches

From here on, we will refer...

- to the footswitch with the down-pointing triangle as the DOWN footswitch and
- to the footswitch with the up-pointing triangle as the UP footswitch.

The DOWN and UP footswitches allow you to navigate through presets.

- Press a footswitch once to switch to the previous or next preset slot.
- Press *and hold* a footswitch to quickly move through presets.

HIT / Hold for TALK footswitch

During normal operation, this footswitch acts as a HIT button. What does this mean?

When you activate HIT by tapping the footswitch, a new effect (or several effects) will be added to the current sound. This feature is perfect for spicing up a section of a song with a particular effect, e.g. Harmony.

TALK mode

When you press *and hold* the HIT / Hold for TALK footswitch, Play Acoustic enters TALK mode.

In TALK mode, all vocal effects are bypassed, and the microphone input is passed directly to the output.

TALK/Tuner mode

If you have a guitar plugged into the GUITAR IN, you will enter TALK/Tuner mode, activating the guitar tuner built into Play Acoustic. The guitar output is muted to allow tuning, but the dry voice is still passed to the output, allowing you to tune your instrument and still entertain the crowd with witty banter.

Activating Loop mode

To enter Loop mode, press and hold the DOWN and UP footswitches simultaneously.

For more information on the Looper, see [“The Looper”](#).



The Loop mode screen

In Loop mode, the DOWN footswitch controls the following functions:

- PLAY
- REC (Record)
- Overdub

Holding the DOWN footswitch will undo your most recently recorded Overdub.

In Loop mode, the UP footswitch controls the following functions:

- STOP
- ERA (HOLD to erase)

To exit Loop mode, tap the HIT footswitch.

You may exit Loop mode while a loop is still playing. That means you can choose a new vocal sound – and then re-enter Loop mode to add a new overdub to the loop.

Loop Undo/Redo

To undo a loop overdub, *press and hold* the DOWN footswitch.

To restore the overdub (Redo), press and hold the DOWN footswitch again. Restoring a loop overdub this way is only possible if you have not recorded another overdub after using Undo.

Looping with a Switch-3

If you connect a TC-Helicon [Switch-3](#) (optional) to the PEDAL connector of your Play Acoustic, you can use it to control all Loop features.

The benefit of using a Switch-3 is the addition of the dedicated Undo button.

When a Switch-3 is connected, Play Acoustic’s UP and DOWN footswitches are assigned to Set Key/Scale.

For more information, see [“Switch-3 page”](#).

Using DOWN and UP for setting key and scale

Activating Loop mode by pressing the DOWN and UP footswitches simultaneously is the default mode. There is also an alternative mode where pressing the DOWN and UP footswitches simultaneously will allow you to set key/scale. You can set this mode on System page 5 under “UP/DN Function”.

When you have activated this alternative mode, pressing the UP and DOWN footswitches simultaneously will allow you to set Key and Scale using these two footswitches.

If you don’t know which Key and Scale a particular song is in, try using the last chord of the song for the Key and Major 2 for the Scale. It’s often correct, especially in popular music.

For more information, see [“TC-Helicon scales reference chart”](#). You can also find this chart on the TC-Helicon website:

support.tc-helicon.com/entries/21051886-scale-chart-for-TC-helicon-products

To use your newly selected Key and Scale, simply press EXIT.

To save the current preset with your chosen Key and Scale, press STORE twice. Storing presets is covered in more detail later in this manual.

Tap tempo

To access Tap Tempo, press and hold the UP and HIT footswitches simultaneously.



Tempo tapping

Once you see the current tempo displayed on the LCD screen, tap the HIT button in time with your music.

When you are finished, stop tapping, and the screen will “time out” back to the preset screen.

Control knob and arrow buttons



BACK, STORE, arrow buttons and the control knob

Use the control knob to scroll through presets and to move through various settings in the Edit, System or other menus.

The arrow buttons act similarly, allowing you to move through presets, effect/setup pages, styles, Genres etc.

Quick Tip: You can press and hold the arrow buttons to “jump” to the first or last page in a menu. For example, in the Vocal FX menu, you can move from Harmony (page 1) to Transducer (page 7) directly by pressing and holding the > button.

BACK button

Press the BACK button to exit the current screen or mode.

STORE button

What are presets?

To use Play Acoustic effectively, you need to understand the concept of Presets.

Essentially, a Preset is a record of all the settings for a group of effects that you can recall quickly and easily.

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

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

Depending on how you like you to work with effects, you may find that you like to use a few general purpose Presets. Or you might be the kind of guy or girl who likes to spend a bit more time in advance of the performance to create Presets for all sorts of things.

Once you have fine-tuned all settings in the Vocal section, you should store them as a Preset, so you can later recall them.

Keep in mind that you never have to save *Guitar* effects settings. They are global and retain their values across all of your vocal presets.

Storing presets

When you have made a change to a preset, simply press the STORE button.

Pressing the STORE button once will bring up the name/location display, allowing you to rename and/or relocate the preset.

Pressing the STORE button again will save the preset, along with its new name or location.

Changing preset names

To change the name of a preset, press the STORE button once, then press the left blue soft button and use the control knob to modify the letters/numbers. Press the STORE button again to complete the process.

Storing a preset to another location

To save the current preset to a different preset slot (location), press the store button once, then press the right Blue soft Button and use the control knob to select the destination number for the preset. Press store again to complete the process.

If you change your mind and don't want to save the changes, simply press BACK.

Soft buttons



Soft buttons

There are six “soft” buttons on the Play Acoustic – three on each side of the LC display.

Each button is context-specific – meaning that when its function is available, you’ll see it lit up with a WHITE or BLUE LED.

When there is no function available, the button will not be lit.

- In white LED mode, the text on the button refers to its action.
- In blue LED mode, the button will select the segment of the LCD screen that is directly beside that button.

Not every menu uses all six buttons.

GENRE button/menu

Genres allow you to filter your presets by categories, such as musical styles and effect types.

Press the GENRE button to open the Genre menu.

In the Genre menu, use the control knob to navigate through the available options. Select a Genre.

Press the BACK button to return to the main window, where you will see only the presets contained within the Genre that you have selected.

Presets can be associated with multiple genres.

Favorite button

You can tag a preset as a “Favorite”. This allows you to e.g. mark all presets you want to use in a show and filter out all others. This means that you can use Favorites to create a set list or simply group all the presets you like, regardless of their Genre.

- To add the current preset to your Favorites, press the FAVORITE button. “FAV” will be shown in the top right corner of the display.
- To remove the current preset from your Favorites, press the FAVORITE button.
- To only browse your Favorite presets, press the GENRE button and select FAV as the Genre. Press the BACK button to return to the Home screen.

If there are no presets tagged as Favorites, the FAV option will not appear in the Genre menu.

Connection diagrams

The following connection diagrams show you some common ways to hook up Play Acoustic.

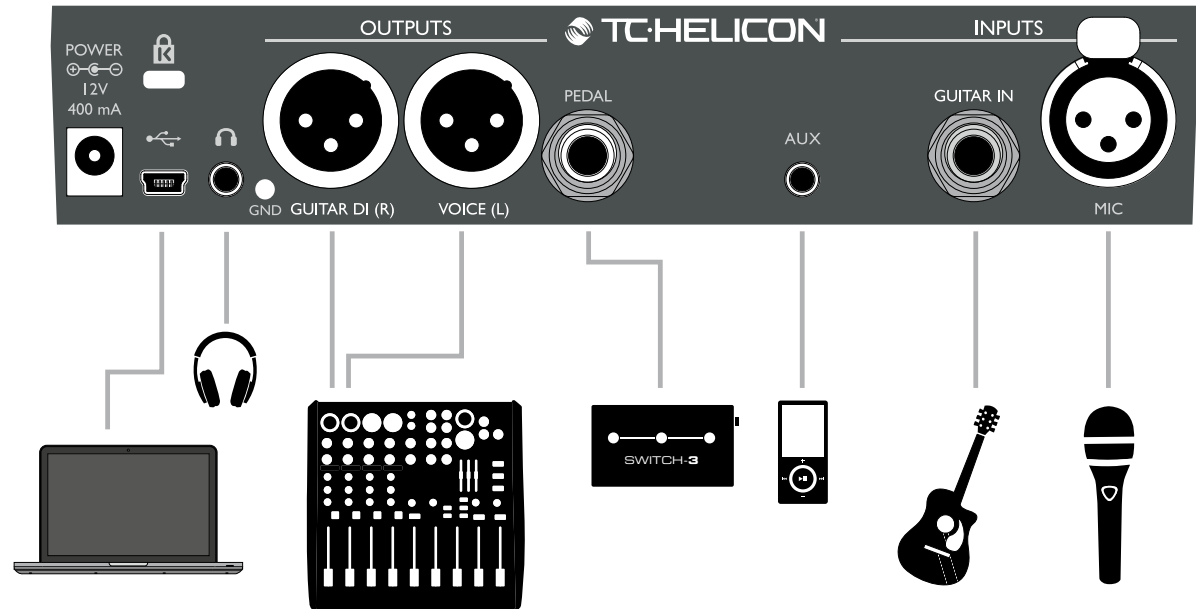
Mixer setup

For connection to your mixer or PA, check out this Craig's Corner video:

[youtube.com/watch?v=qq0AOfafIjs](https://www.youtube.com/watch?v=qq0AOfafIjs)

It's very important to follow gain-staging instructions in order to get the best signal to noise ratio (SNR) from your device and prevent distortion in the signal chain.

Back Panel inputs and outputs



Play Acoustic back panel

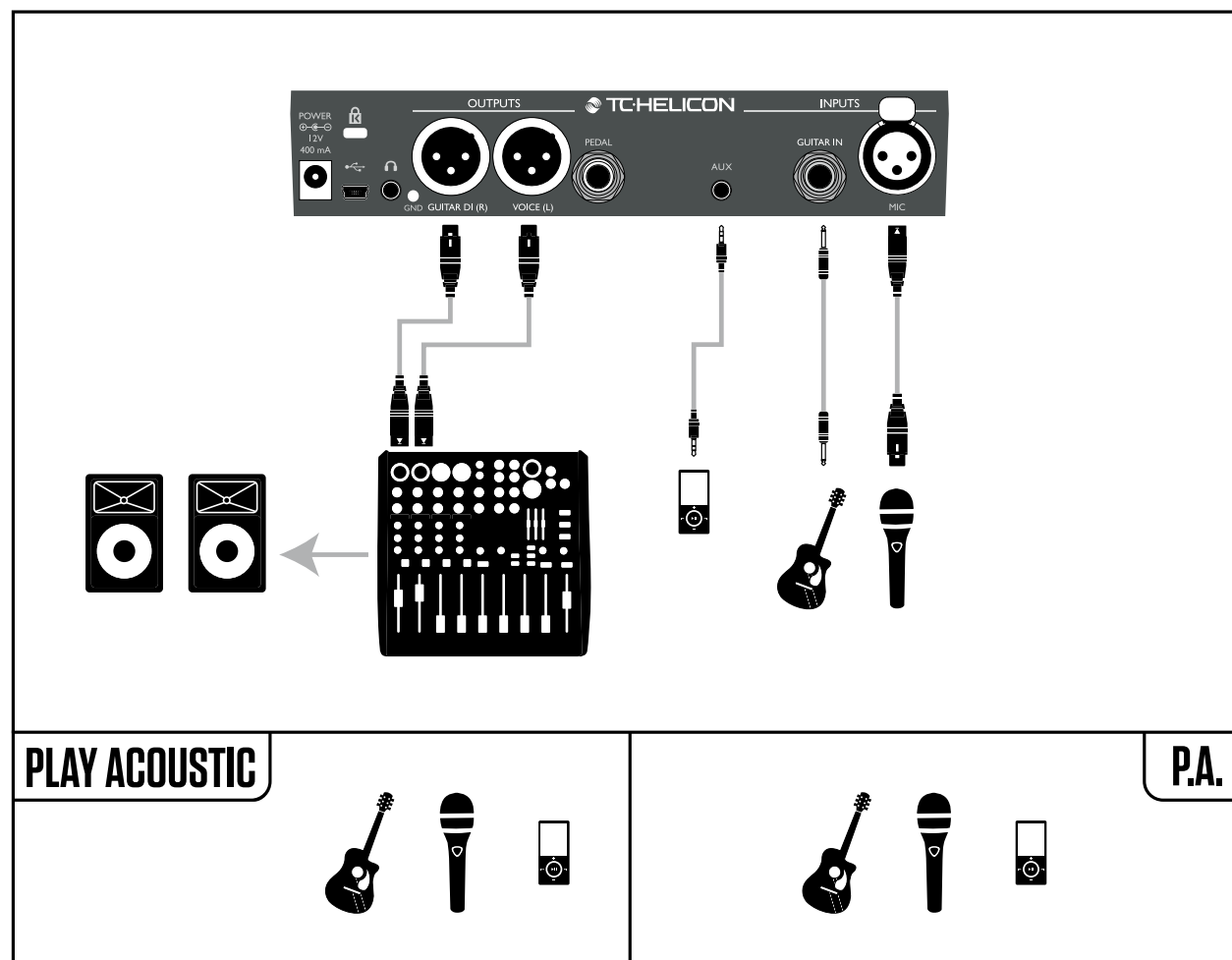
Stereo (or mono) vocals and guitar

This diagram shows connections for both Stereo and Mono PA applications.

If your Play Acoustic is set to Stereo, you'll need to pan one channel left and the other channel right (or use a single Stereo channel) on your mixer. Vocal/Guitar level mix is achieved within Play Acoustic.

In Mono output mode, you have control over the vocal and guitar sounds independently at the PA mixer. In Mono mode, do not pan the channels left and right.

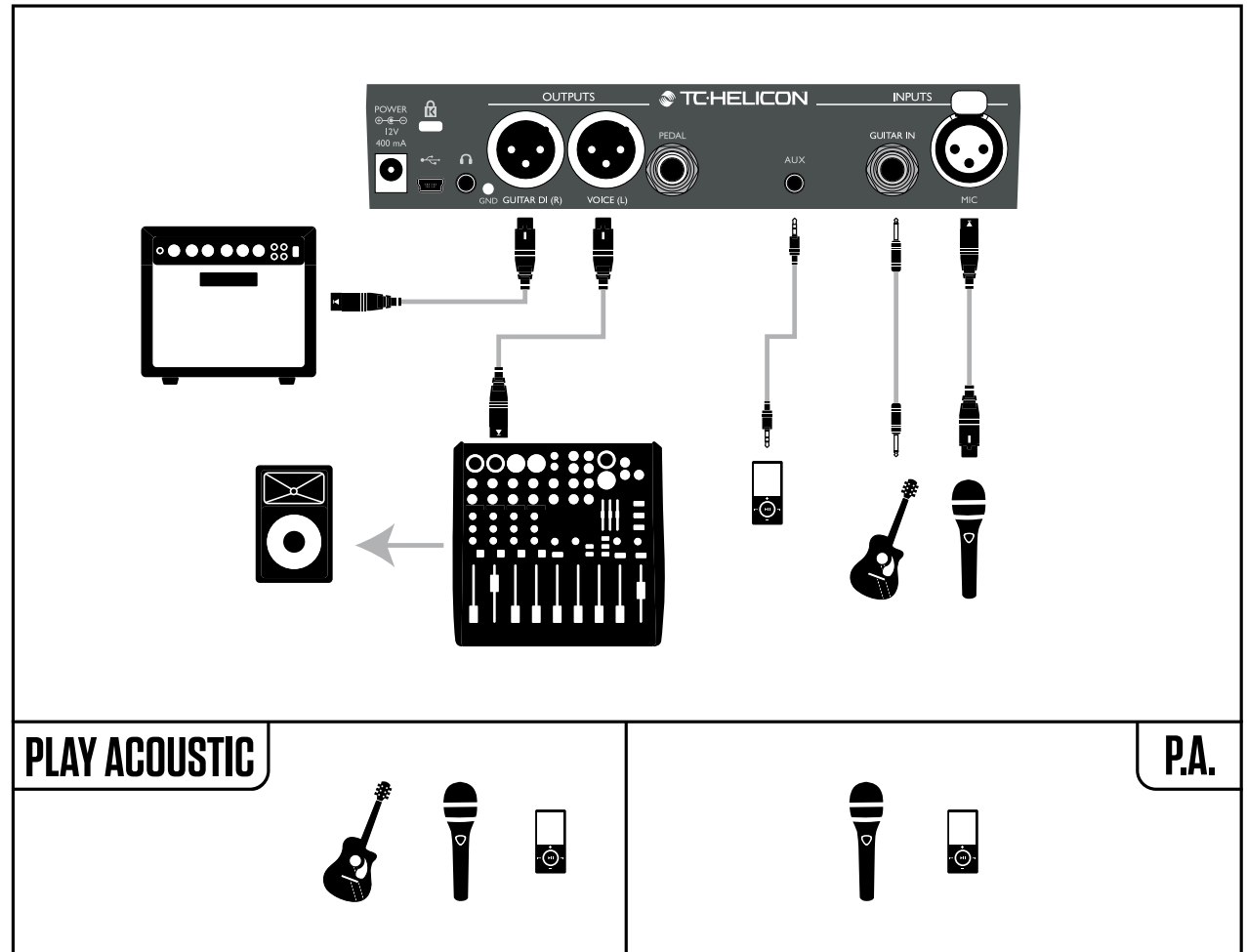
The Aux input may be removed from the XLR outputs in the setup menu if you wish. (Setup – Aux to Main Out)



Setup example:
Stereo (or mono) vocals and guitar

Mono vocals and acoustic guitar amp

This configuration works well when you want to pass your guitar signals to an acoustic amplifier and your vocal signals to a mixer or powered PA speaker.

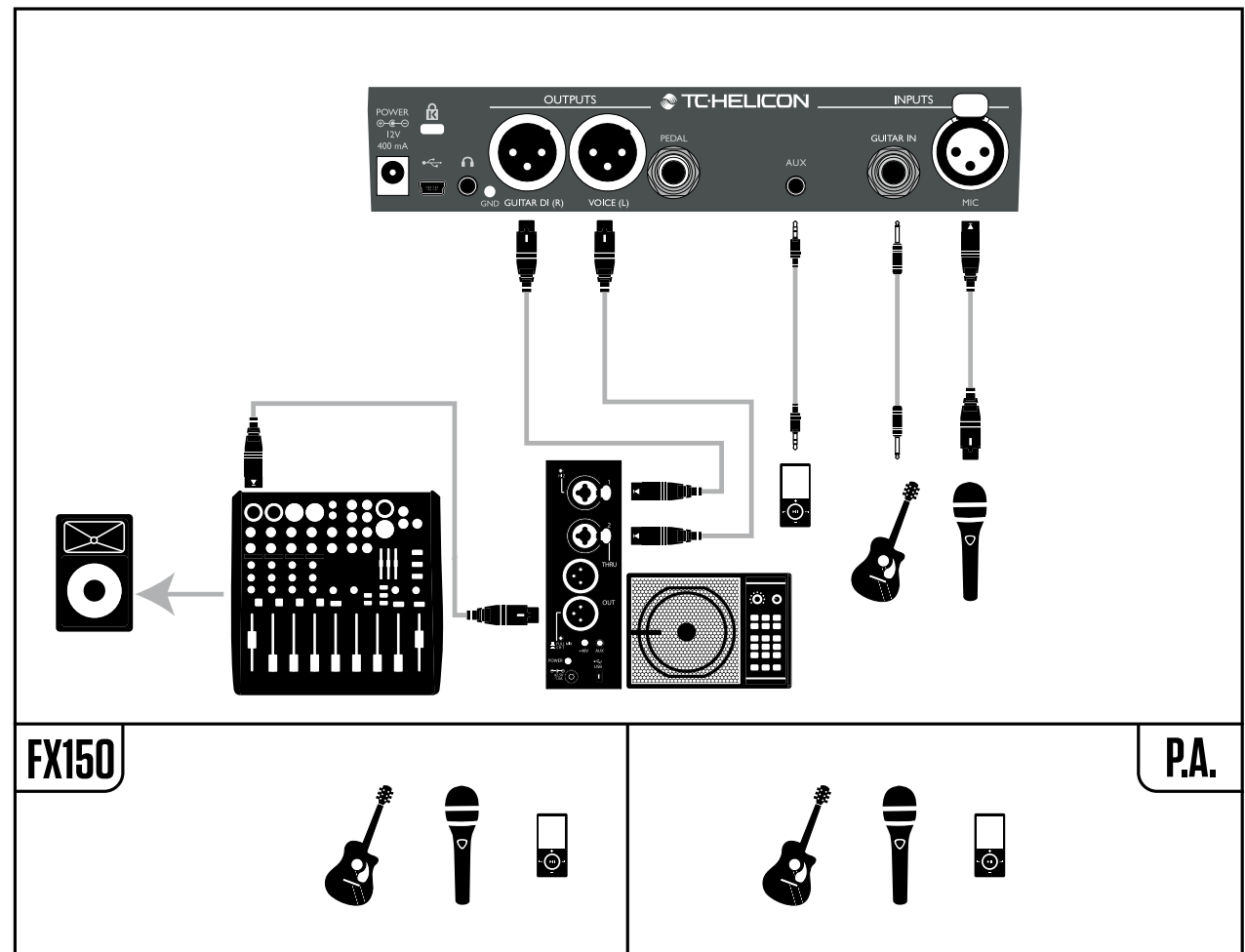


Setup example:
Mono vocals and acoustic guitar amp

Mono vocal and guitar with an FX150

This configuration gives you mic-stand-mount monitoring and control over you vocal and guitar channels, while sending a summed mono signal to a mixer or PA.

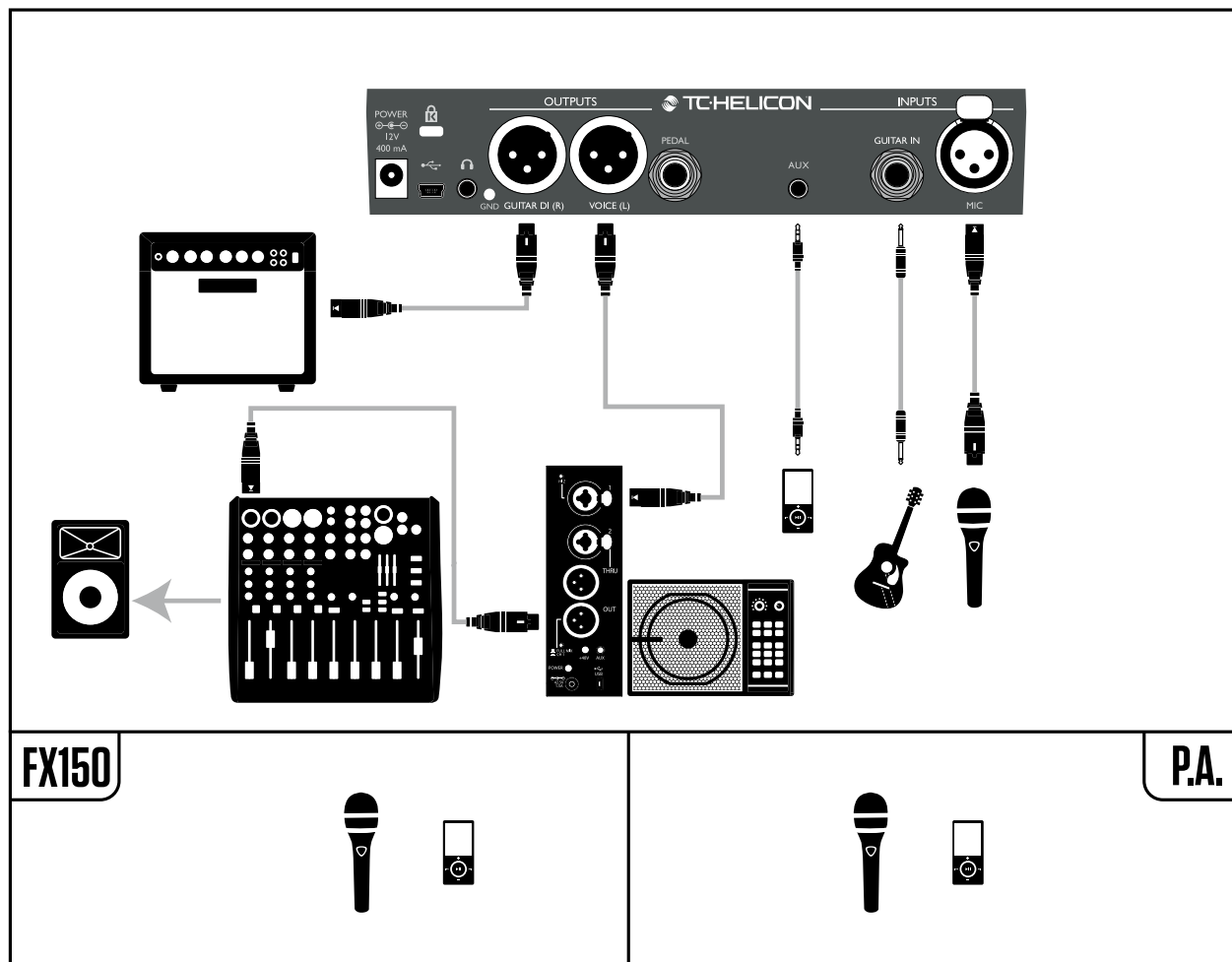
For additional control, you can opt to plug a music player into the Aux channel on the FX150, instead of Play Acoustic, giving you control of Vocals, Guitar and Aux independently. Signals will still be summed to mono at the output of the FX150.



Setup example:
Mono vocal and guitar with an FX150

Mono vocals via FX150 and an acoustic guitar amp

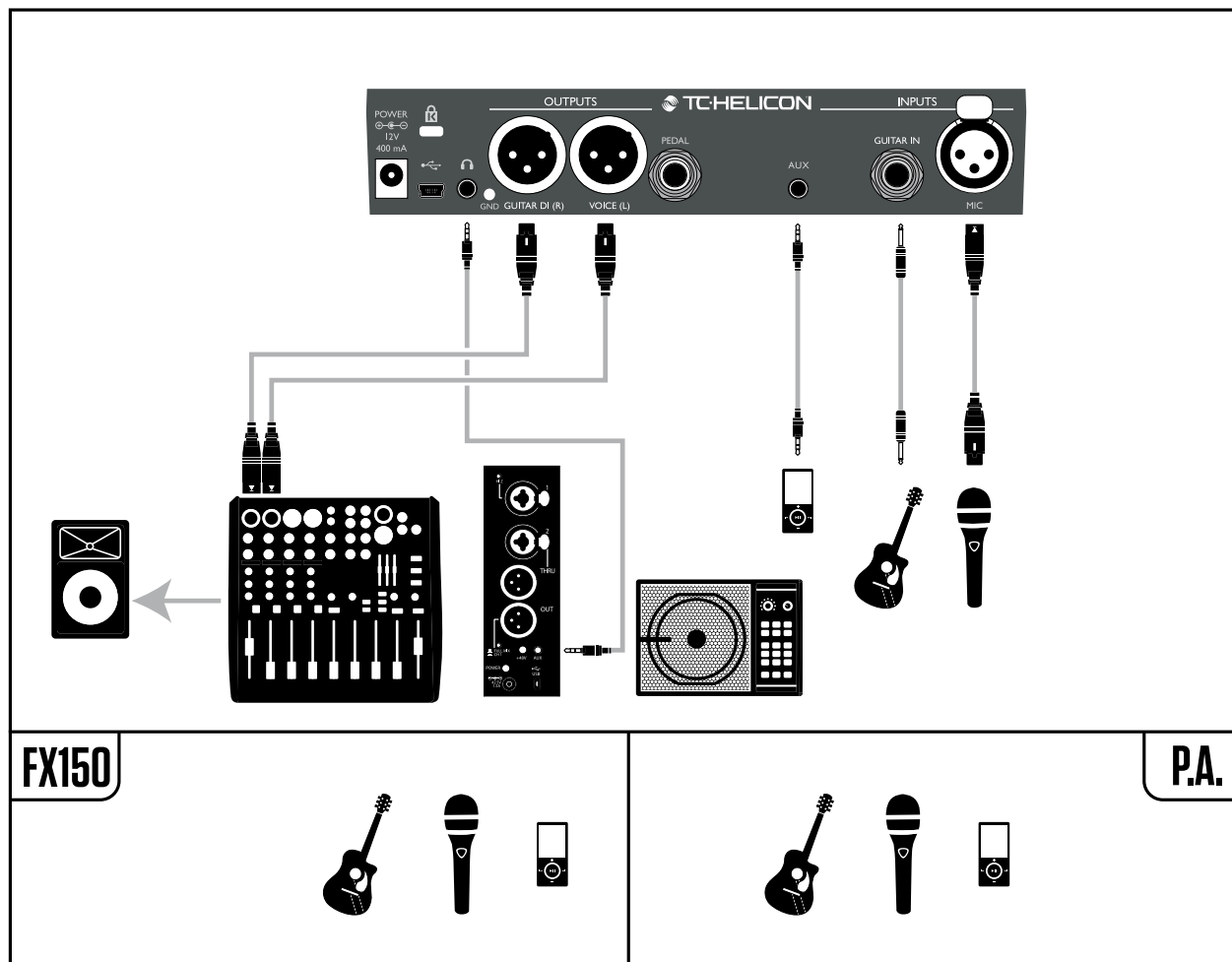
Here, you can send the vocal signals to an FX150 and guitar signals to an amplifier.



Setup example:
Mono vocals via FX150 and an acoustic guitar amp

Guitar and vocals via FX150 and stereo out to a PA

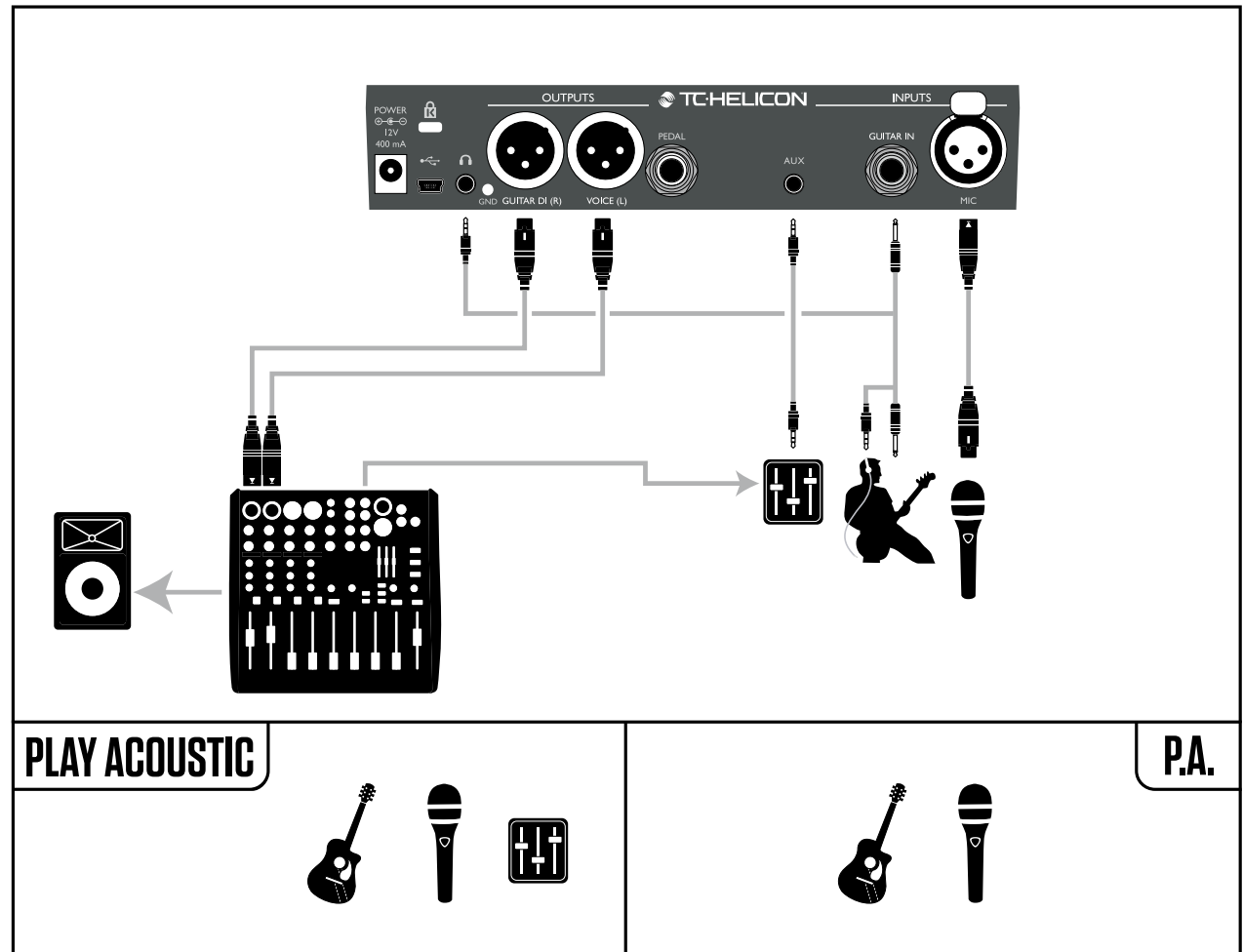
In this setup, you can use the Headphone Out from Play Acoustic to send Guitar, Vocal and Aux signals to your FX150 and send a stereo mix to the PA via the Play Acoustic XLR outputs.



Setup example:
Guitar and vocals via FX150 and stereo out to a PA

Stereo PA and guitar/headphone cable (not included)

If you have got our Guitar/Headphone Cable, you can use an external monitor send to the Aux in on Play Acoustic to create a headphone/IEM mix.



Setup example:
Stereo PA and guitar/headphone cable (not included)

Setup button/section

Press the SETUP button to open the setup menu, which is comprised of nine pages that controls the general functions of the device.

Input page

Mic Type parameter

Use the Mic Type parameter to select the type of microphone you will be using. There are five settings:

Dynamic Mic setting

Use the Dynamic Mic setting for dynamic microphones (like an SM-58 or OM5).

Condenser Mic setting

Use the Condenser Mic setting for condenser microphones (like a Beta 87a).

MP-75 or e835fx mic setting

Use the MP-75 or e835fx setting with the MP-75 or e835fx microphones, which have an on board switch to control various functions of your Play Acoustic, such as HIT or LOOP functions.

The Mic Control feature defaults to HIT when Mic Type is set to “MP-75 or e835fx”.

USB setting

Digital audio can be passed to Play Acoustic via the USB port allowing you to send vocals from a DAW to the unit for processing.

When sending “dry” vocals from your DAW, pan the vocal signal hard LEFT in the DAW mixer.

If you have a guitar track recorded and want it to guide harmony, pan it hard RIGHT in the DAW mixer.

Room Sense parameter

Controls the way the two onboard RoomSense microphones work. There are three settings:

Ambient setting

With the Ambient setting, RoomSense uses the onboard microphones and passes that signal via the headphone output.

Control for RoomSense level can be found in the mix section (default OFF).

To avoid feedback, the RoomSense output is only passed to the headphone output and not the XLR output(s).

You can also mix some of the ambient signal into an in-ear monitor mix to give you room sounds with your direct microphone feeds.

Ambient/Auto setting

With the Ambient/Auto setting, RoomSense uses the onboard microphones and passes that signal via the headphone output. The onboard RoomSense microphones will also “listen” to musical information from the surrounding environment (a single chord based instrument or even your whole band will work!) to determine the key/scale for Harmony and HardTune effects.

If you have a guitar plugged in, the Guitar acts as the primary source for chord detection. If you stop playing guitar, RoomSense will try to determine key/scale from “what it hears” in the room.

Voice setting

With the Voice setting, the RoomSense microphones are used as the primary vocal input.

This setting is only available via headphones.

Guitar parameter

Use the Guitar parameter to adjust the guitar input gain.

Different guitars have different output levels, based on their pickups and electronics. Use this setting to ensure that your guitar input isn't too low or too high.

Set your guitar input so the input LED lights Green/Yellow most of the time, but not RED. Refer to the "How the Input LED Level Meter Works" section for more info about the LED meter.

Mic Control parameter

Use the Mic Control parameter to set the action you want to associate with the Mic Button. There are four settings:

HIT setting

With the HIT setting, pressing the button on you Mic Control-enabled microphone will engage the HIT function in any preset that has a HIT function assigned.

HIT + TALK setting

With the HIT + TALK setting, pressing the button on you Mic Control-enabled microphone will engage the HIT function.

Pressing and holding the button on you Mic Control-enabled microphone will engage TALK mode, bypassing all effects. To exit TALK mode, press the microphone button again.

PRESET UP setting

With the PRESET UP setting, pressing the button on you Mic Control-enabled microphone will cycle through the device's presets, moving forward.

Loop setting

With the Loop setting, pressing the button on you Mic Control-enabled microphone will activate or deactivate the Record/Play/Overdub feature of the Looper.

Tone Style parameter

Use the Tone Style parameter to apply varying amounts of adaptive EQ, Compression and Gate to the signal.

There are nine settings to choose from:

OFF setting

No tone style is applied.

NORMAL setting

Some "bottom", "mid" and "air" EQ, light compression and minor gating is applied to the signal. "Minor gating" means: When the input level gets low enough, the input gain is reduced to improve open-mic feedback resistance.

LESS BRIGHT setting

The LESS BRIGHT setting is similar to normal, but with less emphasis on the high frequency EQ band.

NORM+WARMTH setting

The NORM+WARMTH setting is similar to normal, with a small "mid bump" to add some warmth to the voice.

MORE COMP setting

The MORE COMP setting utilizes the normal EQ and Gating settings, but it has more aggressive compression settings. This is a good setting to try if you have a large dynamic range when singing and want to keep your levels under control.

NORM NO GATE setting

Removes the Gate function from the NORMAL setting.

LESS BRIGHT NG setting

The LESS BRIGHT NG is the same as the LESS BRIGHT setting, but with the Gate function removed (NG = "No Gate").

WARMTH NG setting

The WARMTH NG setting is the same as NORM+WARMTH, but with the Gate function removed.

MORE COMP NG setting

The MORE COMP NG is the same as MORE COMP, but with the Gate function removed.

Pitch Cor Amt parameter

Use the Pitch Cor(rection) Am(oun)t parameter to control the amount of auto-chromatic pitch correction Play Acoustic applies to all incoming signals from the microphone.

For a natural sound, we find that 50 % or less is a good starting point. If you are having a hard time hitting notes accurately, or want an auto-tuned sound on all of your vocals, experiment with amounts closer to 100 %, or use the HardTune effect block.

Pitch Cor Amt settings are temporarily overridden when the HardTune block is active.

Pitch correction and (perceived) phasing

If you are new to auto-chromatic pitch correction, you may find that the sound you hear with Correction engaged sounds “doubled”. This is due to you hearing both the corrected signal from Play Acoustic and your own voice (via bone conduction in your noggin). The two sounds have small variances, which can be interpreted as “doubling”. This is perfectly normal, but will take a bit of getting used to. The audience will *not* hear the “doubling” that you hear.

For more information about pitch correction phasing, check out this Craig’s Corner video:

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

Output page

Output parameter

Use the Output parameter to set how signals are sent over the XLR outputs of Play Acoustic.

Vocal/Guitar (DI) setting

With the Vocal/Guitar (DI) setting, vocal (and Aux) signals are sent over one XLR connector, and guitar signals over the other.

Stereo setting

With the Stereo setting, a stereo mix of Vocal, Guitar and Aux signals is sent over *both* XLR outputs.

Mono setting

With the Mono setting, all Vocal, Guitar and Aux signals are combined to mono and are mirrored at each of the XLR outputs. This means that you will hear the same signal from each output. However, you should not send both to the same mixer.

The benefit of this mode is twofold:

- You can send an exact copy of your signal to two different places – e.g. to a Front-of-House mixer and to a monitor mixer.
- Using the unit with the Mono setting will double the base looping time available to 30 seconds (and even 60 seconds with Undo set to off).

Vocal Cancel function

The Vocal Cancel function attempts to remove the vocals from a piece of music.

There are two settings:

Off setting

With the Off setting, no processing is performed on the Aux input signal.

On setting

With the On setting, Play Acoustic will attempt to remove lead vocals from a piece of music.

This process can create “Karaoke”-style music for you to sing along to, including key information for harmony generation.

The processing capability can vary quite a bit from song to song, depending on the way the song was originally mixed.

Lead Mute parameter

Use the Lead Mute parameter to mute the lead vocal and only output the processed signals.

There are two settings:

Off setting

Lead Vocals are routed to the main mix.

On setting

Lead vocals are removed from the main mix.

Headphone Lim parameter

There is a built-in headphone limiter to provide protection from large volume increases, spikes, dropped microphones, screaming fans etc. Use the Headphone Lim parameter to set the maximum level of the headphone signal.

0 dB is the default, but you can set it lower if you want more protection.

Ear damage can occur quickly at high volumes, so be cautious when using headphones or in-ear monitors!

LCD Contrast parameter

Use the LCD Contrast parameter to set the contrast of the LCD screen. Depending on the ambient light in the room, different settings may have more or less effect.

UP/DN Function

Use the UP/DN Function parameter to define what should happen when you press the DOWN and UP footswitches simultaneously.

Please note that when you connect a TC-Helicon [Switch-3](#) to the PEDAL connector of your Play Acoustic, the default behavior of the UP/DN function changes from “Loop” to “Set Key.”

Looping setting

Pressing the DOWN and UP footswitches simultaneously will enter and exit Loop mode, allowing you to play and record loops.

Set Key setting

Pressing the DOWN and UP footswitches simultaneously will enter Set Key/Scale mode, allowing you to manually set the key and scale for a song.

Lead Dly parameter

Use the Lead Dly parameter to delay the incoming vocal signal very slightly to compensate for the small amount of latency introduced when effects are processed by the device.

This delay ensures that the processed/generated voices – like harmonies – will be perfectly in sync with the lead vocal.

There are three settings:

Off setting

No delay compensation is used.

Voice Sync setting

The lead vocal is delayed an amount equal to the maximum latency of the system with *all effects* turned on.

Auto setting

The lead vocal will be delayed by an amount equal to the latency of the *currently enabled effect blocks*. Using more effect blocks will increase the latency compensation amount.

Tune Reference parameter

Use the Tune Reference parameter to define the reference frequency for the tuner. The default is 440 Hz (A), which can be changed in 0.5 Hz increments.

Aux In Type parameter

The Aux In Type function will perform magical calculations to help make harmonies more accurate. There are two settings:

Live setting

Use the Live setting when you are playing live or processing a recorded vocal track from your DAW using the aux in to provide guide tracks.

Tracks setting

Use the Tracks when you are singing along with prerecorded music, e.g. from an MP3 player.

Aux to Main Out parameter

Use the Aux to Main Out parameter to define whether the Aux signal should be sent to the XLR outputs. Set this parameter to Off if you would like to hear the Aux input only in your headphones. This is useful for in-ear monitoring applications. You can send a full monitor mix to the Aux input, and you will only hear it over your headphones or in-ear monitors.

Global Key parameter

Use the Global Key parameter to define if key and scale information for harmony generation and/or pitch correction should be global or preset-specific.

There are two settings:

Off setting

Key can be set per individual preset, via direct key setting (C, D, F# etc), Guitar IN via Natural-Play, RoomSense or Aux.

On setting

When a key is chosen within a preset, that key will remain even when you switch to another preset.

Global Tempo parameter

Use the Global Tempo parameter to define if tempo-based effects should follow a global tempo or a preset-specific setting.

Off setting

Tap tempo set within a preset changes from preset to preset.

On setting

When you have set a tempo using tempo tapping within a preset, that tempo will remain even when you switch to another preset.

Guitar Gate parameter

Use the Guitar Gate parameter to set the gate threshold for the GUITAR input.

Guitars have varying amounts of “noise” inherent in their signal. Sometimes it is desirable to set a gate to “cut off ” or “mute” the guitar when the incoming signal is very low.

We have set the threshold pretty low by default, but you may want to raise it to suit your style. Having a higher gate threshold can be effective when playing quick chords with rests in between.

Mic Boost parameter

If you are a quiet singer, you can use the Mic Boost parameter to increase the microphone gain.

Some artists sing more quietly than others, requiring the Mic Gain knob to be turned up quite far. To offset this, we have added a Mic Boost feature which allows +6 (low) or +12 (high) dB of extra gain if you need it. The default value is +6 (low) dB.

RoomSense LoCut parameter

Use the RoomSense LoCut parameter to “roll off” undesirable frequencies from your mix.

In some circumstances, the low frequencies “in the room” – such as bass or kick drum – can cause the RoomSense microphones to become muddy sounding. The built-in high-pass filter allows you to reduce this kind of “rumble”.

Loop page

Input parameter

Use the Input parameter to set the input source for loop recording. There are five settings:

Lead + Guitar setting

With the Lead + Guitar setting, all voices and guitar are recorded to the loop.

Guitar setting

With the Guitar setting, sound coming in via the GUITAR IN is recorded to the loop.

Lead setting

With the Lead setting, input from the Mic IN is recorded to the loop.

Aux setting

With the Aux setting, only the signal from the Aux input is recorded to the loop.

All setting

With the All setting, everything you hear will also be recorded as part of the loop.

Undo parameter

Use the Undo parameter to switch the Loop undo function on or off. There are two settings:

On setting

Undo is active and may be used to undo the last change made to your loop. It is common to use undo when you have added a loop section that you are not happy with and want to try it again.

You can also press Undo a second time to *redo* your last Undo action. This will bring a loop overdub back that you have removed using Undo.

In this mode, the total available loop time is 15 seconds.

Off setting

Disables undo, freeing some memory for additional looping.

In this mode, available loop time is doubled to 30 seconds.

Loop Feedback parameter

Use the Loop Feedback parameter to control the amount of loop record feedback.

When recording a loop with multiple passes (or parts), the signal from the first loop pass is added to the next, and so on.

If all of these passes were put together at full (100 %) volume, the loop you are working on would get louder and louder and LOUDER, so you would end up with a distorted output signal. The purpose of the Loop Feedback parameter is to prevent this volume increase from happening.

When you record a new pass to the existing loop, it is recorded at 100 % volume, but the existing loop is blended with it at the Loop feedback setting.

The calculation works like this:

Input + (Loop x Loop Feedback) = Loop output

I.e. input + (Loop x 90%) = output

(Run away! Scary math!)

Most users find the default setting of 98% works well, but you may find a different setting that works best for you.

Switch-3 page

Control parameter

Switch-3 is an optional, high-quality remote control which you can use with your TC-Helicon device. Use the Control parameter to set the functionality of connected Switch-3. There are two settings:

Loop setting

With the Loop setting, the three footswitches on a Switch-3 will control loop functions:

- Button 1 activates Record / Play / Overdub.
- Button 2 stops recording/playback and can be used to erase the loop (by holding).
- Button 3 is used for Undo.

Custom setting

With the Custom setting, you can assign functions to the three footswitches on a Switch-3 from a list.

Simply press the soft button next to “switch1, switch2, or switch3” and use the Control Knob to define the function the respective footswitch should control.

When you have selected the Custom setting, two menu items work slightly differently from the others: Harm Moment and Delay Moment.

With “Harm Moment” and “Delay Moment”, the respective effect (harmony voices or delay) is active only as long as you press down the footswitch. Some users prefer the precision offered by this mode.

System Info page

The System Info page contains information about...

- the installed firmware version,
- serial number and
- manufacture date for your device.

If you need to contact support, please have this information handy.

Support can be reached at
support.tc-helicon.com

Vocal FX button/section

Press the VOCAL FX button to open the Vocal Effects menu, which is comprised of seven pages. Each page contains the parameters controlling the respective vocal effect block.

There is one parameter common to all effects pages:

Control parameter

Use the Control parameter to turn an effect block on and off. There are three settings:

Off setting

The effect block is inactive, no signal processing occurs.

On setting

The effect block is active and will process the signal according to the selected style.

HIT setting

The effect block is assigned to the Play Acoustic HIT button (or the button on a microphone supporting Mic Control) and will become active when the HIT button is lit.

See the Setup section for instructions on how to activate Mic Control.

Harmony page

Use the Harmony block to create harmonies that accompany your lead vocal, using up to two additional voices.

There are three parameters on the Harmony page:

Level parameter

Use the Level parameter to control the overall level of the harmonies.

Press the upper right soft button to select this parameter and use the control knob to adjust the level.

0 dB is the maximum volume for the effect.

Key parameter

Key is the most important setting for creating harmonies. Get it right, and things sound amazing. Get it wrong and they will sound, well, bad.

There are two Key mode settings:

Auto setting

With the Auto setting, key is set automatically based on input from...

- the Guitar input connector
- the Aux connector
- the RoomSense microphones in this particular order.

The priority of inputs is as listed. For example, if you have a guitar plugged into the GUITAR IN and tracks playing via the Aux in, the system will read key/scale information from the guitar. If the guitar stops playing and the Aux signal continues, the system will then look to the Aux input for chord information.

Key setting

With the Key setting, you can choose any of the 12 keys (C through a) in Western music.

Style parameter

The Style parameter determines the number of harmony voices and the way those voices relate to your lead vocal.

There are 28 styles to choose from:

- High
- Higher
- Low
- Lower
- Octave Up
- Octave Down
- High & Low
- High & Higher
- High & Lower
- Higher & Lower
- Higher & Low
- Lower & Low
- Oct Down & Up
- Oct Down & Higher
- Oct Down & High
- Oct Down & Low
- Oct Down & Lower
- Oct Up & Higher
- Oct Up & High
- Oct Up & Low
- Oct Up & Lower
- +7 Semitones
- -5 Semitones
- +7 & -5 Semitones
- +12 & +7 Semitones
- +12 & -5 Semitones
- -12 & +7 Semitones
- -12 & -5 semitones

Harmony – Advanced page

To enter the Advanced Harmony page, press and hold any of the lit Blue Led soft buttons. To exit the Advanced page, press the BACK button.

Scale parameter

If the Key is set manually (not auto), the advanced menu will allow you set the scale associated with the Key.

There are six settings to choose from:

- Major 1
- Major 2
- Major 3
- Minor 1
- Minor 2
- Minor 3

For more information, see [“TC-Helicon scales reference chart”](#). You can also find this chart on the TC-Helicon website: support.tc-helicon.com/entries/21051886-scale-chart-for-TC-helicon-products

Humanize parameter

Use the Humanize parameter to “humanize” the Harmony voices by imparting some timing and pitch variances to the voice.

At its core, this is actually the process of making the harmony voices *less* accurate – but imperfection is something that can make voices sound more “real”.

- The 0 setting turns humanization off.
- 100 is the maximum setting.

Portamento parameter

Use the Portamento parameter to control the amount of “slide” between notes as you sing. The more Portamento you use, the more the Harmony voices will slide, instead of jump, from note to note.

- The 0 setting turns Portamento off.
- 100 is the maximum setting.

Using high amounts of both Humanize and Portamento can make your harmony voices sound as if they’ve... well... been drinking... *a lot*. Small amounts are usually preferable.

Double page

The Double effect block creates the impression that one or more vocalists are singing in unison, with small differences in the timing and timbre of each voice. Some refer to doubling as “thickening” or “double tracking”. The latter references a recording studio method of singing the same vocal part on two separate tracks and playing them back simultaneously.

There are two parameters on the Double page:

Level parameter

Use the Level parameter to control the overall level of the doubling effect. Press the right-middle soft button to select this parameter and use the control knob to adjust the level. 0 dB is the maximum volume for the effect.

Style parameter

Use the Style parameter to set the number of voices and the timing of the double.

There are ten styles to choose from:

- 1 Voice Tight*
- 1 Voice Loose*
- 2 Voices Tight*
- 2 Voices Loose*
- Shout
- 1 Voice Oct Up
- 1 Voice Oct Down
- 2 Voices Oct Up
- 2 Voices Oct Down
- Oct Up & Oct Down

* “Tight” and “Loose” refers to how closely the double is timed with the lead vocal. Loose timing can feel “larger” or more effected.

Delay page

The Delay effect block repeats the input signal based on the style and the current tempo.

There are two parameters on the Delay page:

Feedback parameter

Use the Feedback parameter to control the amount of the delayed signal that is fed back into the effect. Higher levels of feedback will make the delay continue for a longer period of time.

Style parameter

Select the Style menu by pressing the lower left soft button. It will be the only one lit on the left side of the display.

There are 18 styles to choose from:

- Quarter
- Eighth
- Triplet
- Dotted 1/8th
- Dotted ¼
- ¼ Triplet
- Sixteenth
- Ping Pong 1
- Ping Pong 2
- Ping Pong 3
- Multitap 1
- Multitap 2
- Multitap 3
- Multitap 4
- Multitap 5
- Multitap 6
- Classic Slap
- Set Time

Delay – Advanced page

To enter the Advanced Delay page, press and hold any of the lit blue LED soft buttons. To exit the Advanced page, press the BACK button.

Filter Style parameter

Use the Filter Style parameter to add filters to the delay signal that will simulate different types of delay hardware or sound.

There are 13 styles to choose from:

- Digital
- Tape
- Analog
- Radio
- Megaphone
- Cell Phone
- Lo Fi
- Hi Cut 1
- Hi Cut 2
- Hi Cut 3
- Low Cut 1
- Low Cut 2
- Low Cut 3

Some of the delay filter styles are consistent, meaning that the sound is affected (like megaphone) and all subsequent delay “taps” sound the same. Some delay filter are *cumulative* – e.g. “analog” where processing is applied throughout the feedback loop, which changes the sound of the delay over time.

Experiment with the styles to find what works for your particular sound.

Tempo parameter

Use the Tempo parameter to manually set the delay tempo.

Settings are saved per preset. They are overridden (but not *overwritten*) if Global tempo is on.

If your selected Delay style is Slap or Time, the Tempo parameter will say “Time” instead and be represented by a millisecond value.

Reverb page

The Reverb effect block creates “room” around your voice. Essentially, a reverb puts your dry vocal into a simulated space, small or large, to give a sense of depth and distance.

There are three parameters on the Reverb page:

Level parameter

Use the Level parameter to control the overall level of the reverb. Press the right-middle soft button to select this parameter and use the control knob to adjust the level.

0 dB is the maximum volume for the effect.

Decay parameter

Use the Decay parameter to define how long it takes for the reverb to fade away. Longer Decay times generally sound like large spaces, while shorter times sound like small spaces.

Each Reverb style has its own decay time, but you can change it.

Style parameter

Use the Style parameter to determine the size of the simulated space and also the type of material being used to create the simulation.

There are 28 styles to choose from:

- Smooth Plate
- Reflection Plate
- Thin Plate
- Bright Plate
- Real Plate
- Real Plate Long
- Jazz Plate
- Quick Plate
- Soft Hall
- Amsterdam Hall
- Broadway Hall
- Snappy Room
- Library
- Dark Room
- Music Club
- Studio Room
- Warehouse
- Bouncy Room
- Cozy Corner
- Bright Chamber
- Wooden Chamber
- St. Joseph Church
- Dome Chapel
- Hockey Arena
- Museum
- Indoor Arena
- Warehouse
- Thin Spring
- Full Spring

HardTune page

Ah – HardTune...

Some call it the Cher effect and others refer to it as Auto-Tune™. Whatever you name it: If you are looking for that radio-pop tuned sound, this is your effect.

The HardTune effect block can also be used for scale-based, natural pitch correction – so don’t discount the effect if you are looking for correction that does *not* sound “robotic”!

There are three parameters on the HardTune page:

Shift parameter

Use the Shift parameter to shift the note you are singing up or down by one or more semi-tones. You can shift your voice up or down by up to 12 semi-tones (i.e., one octave in each direction).

Gender parameter

Use the Gender parameter to manipulate the timbre of your voice to sound more male or more female in nature. Extreme settings for this parameter will sound very unnatural – but that may be just the effect you are looking for!

Style parameter

Use the Style parameter to determine the accuracy, speed and “aggressiveness” of the tuning effect.

There are seven styles to choose from:

- Pop
- Country Gliss
- Robot
- Correct Natural
- Correct Chromatic (not scale based)
- Drone
- Gender Bender

Transducer page

The Transducer effect block modifies the sound by adding various filters and overdrive components.

There are three parameters on the Transducer page:

Drive parameter

Use the Drive parameter to control the amount of overdrive applied to the signal. More drive will distort the signal and create megaphone-style effects.

Filter parameter

Use the Filter parameter to apply an EQ filter that will make the Transducer sound “thinner” or more “muddy”, depending on the preset. Thinner filter settings sound more like a radio or walkie-talkie.

Style parameter

Use the Style parameter to define the Transducer effect style.

There are eight styles to choose from:

- Megaphone
- Radio
- On The Phone
- Overdrive
- Buzz Cut
- Stack
- Tweed
- Combo

Transducer – Advanced page

To enter the Advanced Transducer page, press and hold any of the lit blue LED soft buttons.

Routing parameter

Use the Routing parameter to define which signal components should be affected by the Transducer effect.

Output setting

With the Output setting, the effect is applied to the lead voice and any voices derived from it, like Harmony or Doubling.

FX setting

With the FX setting, the effect is only applied to voices within an effect. For example, if you are using a delay, no effect will be applied to the initial “tap” of the delay, but subsequent “taps” will have the Transducer effect applied.

Gate Threshold parameter

Transducer effects are very prone to feedback via a PA or monitor. The Transducer block has an independent gate that can be set to help alleviate feedback.

Raising the threshold will cause the effect to “kick in” at a higher input volume, which can help avoid feedback while you are not singing.

For more information about feedback and tips on how to reduce or eliminate it, check out this Craig’s Corner video:

www.youtube.com/watch?v=VIN1RJ4gcAo

Gain parameter

Use the Gain parameter to control the overall level of the transducer effect.

μMod page

μMod stands for “micro modulation”. The *μMod* effect block is used for creating effects that modulate the signal, such as flanger, phaser, panning or chorus.

There are two parameters on the *μMod* page:

Level parameter

Use the Level parameter to controls the overall level of the *μMod* effect. Press the right-middle soft button to select this parameter and use the control knob to adjust the level. 0 dB is the maximum volume for the effect.

Speed parameter

Use the Speed parameter to adjust the speed at which “oscillation” or modulation occurs within the effect.

Style parameter

Use the Style parameter to select the style of the μ Mod effect.

There are 24 styles to choose from:

- Micromod Clone
- Micromod Wider
- Thicken
- Light Chorus
- Medium Chorus
- Wide Chorus
- Mono Chorus
- Fast Rotor
- Panner
- Flanger
- Flange Feedback
- Flange Negative
- Mono Flange
- Soft Flange
- Tube
- Up Tube
- Down Tube
- Down & Up Tube
- Rise and Fall
- Auto Wah
- Underwater
- Cylon Mono
- Cylon Stereo
- Alien Voiceover

Guitar FX button/section

Press the GUITAR FX button to open the Guitar Effects menu, which is comprised of five pages. Each page contains the parameters controlling the respective vocal effect block.

Guitar effects are handled in the same way as vocal effects – see [“Vocal FX button/section”](#).

Guitar sounds in Play Acoustic are *global* – meaning you only need to adjust them once. As you change presets, your guitar sound will remain the same.

Each guitar effect has a Control parameter, similar to those in the Vocal FX section. However, for guitar effects, the Control parameter only has On and Off settings. There is no Guitar HIT setting/functionality.

Reverb page

Reverb creates “room” around a signal. Essentially, it puts your dry guitar into a simulated space, small or large, to give a sense of depth and distance.

There are three parameters on the Reverb:

Level parameter

Use the Level parameter to control the overall level of the reverb. Press the right-middle soft button to select this parameter and use the control knob to adjust the level.

0 dB is the maximum volume for the effect.

Decay parameter

Use the Decay parameter to define how long it takes for the reverb to fade away. Longer Decay times generally sound like large spaces, while shorter times sound like small spaces.

Each Reverb style has its own decay time, but you can change it.

Style parameter

Use the Style parameter to determine the size of the simulated space and also the type of material being used to create the simulation.

There are 36 styles to choose from:

– Hall of Fame – Hall

- Hall of Fame – Plate
- Hall of Fame – Room
- Hall of Fame – Church
- Hall of Fame – Spring
- Hall of Fame – Ambience
- Hall of Fame – Lofi
- Hall of Fame – Tile
- Smooth Plate
- Reflection Plate
- Thin Plate
- Bright Plate
- Real Plate
- Real Plate Long
- Jazz Plate
- Quick Plate
- Soft Hall
- Amsterdam Hall
- Broadway Hall
- Snappy Room
- Library
- Dark Room
- Music Club
- Studio Room
- Bouncy Room
- Cozy Corner
- Bright Chamber
- Wooden Chamber
- St. Joseph Church
- Dome Chapel
- Hockey Arena
- Museum
- Indoor Arena
- Warehouse
- Thin Spring
- Full Spring

µMod (Micro Mod) page

Just like the vocal effect of the same name, the µMod effect block in the Guitar section applies minute pitch and timing variations to add depth or thickness to the sound.

There are three parameters on the µMod page:

Style parameter

Use the Style parameter to select the style of the µMod effect.

There are six styles to choose from:

- Corona Chorus (TC-Electronic) – Chorus 12:00
- Corona Chorus (TC-Electronic) – Fast
- Corona Chorus (TC-Electronic) – Slow
- Silky Detune
- Medium Detune
- Mono Chorus

Level parameter

Use the Level parameter to controls the overall level of the µMod effect.

Speed parameter

Use the Speed parameter to adjust the speed at which “oscillation” or modulation occurs within the effect. Slower speeds often result in more noticeable effects.

Compressor page

Use the Compressor effect block to control the dynamic range of your guitar signal, enhancing attack, sustain or both.

There are three parameters on the Compressor page:

Style parameter

Use the Style parameter to select the type of compression to use. These styles allow you to choose between various common guitar compressor setups, such fast or slow attack times and more or less aggressive compression ratios.

Amount parameter

Use the Amount parameter to adjust the amount of compression added to the signal. This parameter is similar in nature to the “Level” control in other effects, but controls different parameters “under the hood”.

Makeup Gain parameter

After changing the “Amount” setting, you may need to “make up” reduced gain to maintain your output signal level. Makeup gain allows you keep your signal levels consistent from the input of the compressor to the output.

Typically, you set this control by ear when you don’t have input and output meters (like some fancy compressors do).

BodyRez page

Exclusive to Play Acoustic, BodyRez combines equalization, compression and ambience to give your guitar mounted pickup a more natural “mic’d in a room” sound.

Style parameter

Use the Style parameter to select from various BodyRez presets.

Amount parameter

Use the Amount parameter to control how much BodyRez processing should be applied to your guitar signal.

Amount settings lower than 10 will limit the range of any EQ, Compression or Ambience settings you can adjust when in BodyRez Advanced mode. See [“BodyRez – Advanced page”](#) for instructions on how to reveal the Advanced page.

Low Gain parameter

Use the Low Gain parameter to control the “bass” range of frequencies within the BodyRez style.

Hi Gain parameter

Use the Hi Gain parameter to control the “treble” range of frequencies within the BodyRez style.

BodyRez – Advanced page

The Advanced BodyRez page is hidden by default. To access it, enter the Setup menu and navigate to page 4. Change the “BodyRez Editing” parameter from “Basic” to “Advanced”. After you have made that change, new parameters will be available in the Guitar FX section:

BodyRez – Shelf EQ section

The Shelf EQ section of the BodyRez effect block provides a High-shelf and a Low-shelf EQ with adjustable Frequency and Gain parameters.

BodyRez – Para EQ section

The Para EQ section of the BodyRez effect block provides a single-band parametric EQ with controls for Frequency, Bandwidth and Gain.

BodyRez – Compressor section

The Compressor section of the BodyRez effect block allows on/off control of the Attack, Release, Threshold and Makeup Gain parameters for the Compressor effect.

BodyRez Ambience

The Ambience section of the BodyRez effect block utilizes timing variances to emulate body resonance from your acoustic guitar. Depth and Amount parameters are available.

Anti-Feedback page

In live environments, the open body style of acoustic guitars is especially prone to feedback from nearby sound sources such as stage monitors or PA speakers. To assist you with feedback management, there are some controls to address the most common feedback culprits.

Phase Invert parameter

Use the Phase Invert parameter to invert the phase of the guitar signal by 180°.

This can help prevent feedback when playing your acoustic guitar close to a stage monitor or other speaker. When you experience feedback, this should be the first setting to try.

Low Cut Filter parameter

Acoustic guitars can be prone to resonance, especially in the low frequency range. If you are having trouble with “rumbling” or low frequency feedback, use the Low Cut Filter parameter to roll off low end frequency from your guitar signal.

Notch Filter section

This very narrow band equalizer can help “hone in” on feedback-causing frequencies and reduce their gain.

There are two parameters on the Notch Filter page:

Freq parameter

Use the Freq parameter to set the frequency of the notch filter. For this parameter, we show both the frequency in Hz and the relative note (A# for example). The frequency parameter can be adjusted in 25 Cent increments from note to note.

Often, you can determine the note that’s feeding back by simply playing a chord and “feeling” which string vibrates unusually under your finger. After you have selected that particular string/note using the Freq parameter, you can use the Gain parameter to reduce feedback for that note.

Gain parameter

Use the Gain parameter to set the gain for the note/frequency range you have selected with the Freq parameter. Use negative values (e.g. -8) to reduce troublesome frequencies.

If you are unsure which frequency is causing the feedback, it can be useful to use positive values (8 for example) to *boost* the feedback you are hearing. This allows you to highlight problematic

frequency ranges more easily. Then, you can reduce the Gain setting for this frequency range using a negative value.

Simple steps for feedback reduction

- Set the Phase Invert parameter to “On”. If this doesn’t eliminate the feedback, try the following steps.
- Change the Gain parameter to a high *positive* setting such as 8 or more.
- Use the Freq parameter to “sweep” through frequencies until the feedback gets “a lot worse” as you move past it with the Freq control.
- Once you have found the troublesome frequency, change the Gain parameter to a negative setting until the feedback disappears.
- Lastly, if you still get feedback, turn your guitar level down in the Mix section described next.

Mix button/section

Press the MIX button to enter the Mix menu, where various levels within your Play Acoustic can be adjusted.

There are eight parameters in this menu:

Harmony parameter

Use the Harmony parameter to control the overall level of all voice-generating effect blocks like Harmony and Double.

Guitar Level parameter

Use the Guitar Level parameter to adjust the output level of the guitar signal. This control is also dependent on the Guitar input level, set in the Setup menu. Make sure to set your input level according to the instructions and use the Guitar Level parameter to set your “overall guitar output volume”.

Out Level parameter

Use the Out Level parameter to control the overall output level of your Play Acoustic.

Reverb parameter

Use the Reverb parameter to change the level of any Reverb effects across all presets.

This control is useful if you find yourself in a performance environment that has a lot, or very little, natural Reverb and you'd like to “tune” your sound to that room without having to manually adjust all presets.

Headphone Level parameter

Use the Headphone Level parameter to adjust the volume of the headphone output.

USB In Level parameter

Use the USB In Level parameter to adjust the level of the incoming USB audio signal (such as backing tracks).

This control has no effect if Input is set to USB and you are post-processing the received signal via a DAW. The track controls within the DAW itself will determine the output level (and therefore the Play Acoustic USB input level).

USB Out Level parameter

Use the USB Out Level parameter to control the level of the audio signal sent over USB.

If the device you are connected to is clipping at its input, try turning this parameter down.

Aux Level parameter

Use the Aux Level parameter to adjust the level of the signal received at the Aux input.

If you prefer to only hear the Aux input over your headphones, go to the Setup/Output menu and change “Aux to Main Out” to OFF.

If you would like the Aux input to “listen” for chord information but not be heard at via the Main Out or Headphone outputs, set the Aux Level parameter to OFF.

The Looper

What is looping?

At its core, looping is the simple process of taking a small audio recording and playing it over and over seamlessly. When coupled with creativity and musical ability, the results can be astonishing.

Basic looping concepts

Most loopers – including the one in Play Acoustic – are built around a few basic controls: Record, Play and Overdub. You should be familiar with Record and Play. Overdubbing is the process of recording another “take” to a recording without deleting the first take.

Using the Play Acoustic looper

Activating Loop mode

To enter Loop mode, press and hold the DOWN and UP footswitches simultaneously.



The Loop mode screen

In Loop mode, the *DOWN* footswitch controls the following functions:

- PLAY
- REC (Record)
- Overdub
- Undo (removes the most recently recorded Overdub, if there is one)

In Loop mode, the *UP* footswitch controls the following functions:

- STOP
- ERA (HOLD to erase)

Exiting Loop mode

To exit Loop mode, tap the HIT footswitch. You may exit Loop mode while a loop is still playing. That means you can choose a new vocal sound – and then re-enter Loop mode to add a new overdub to the loop.

Recording your first loop

- Press the footswitch assigned to REC/PLAY/ODUB to start a recording.
- Press the footswitch again to finish recording and immediately begin playback.
- Alternatively, you can press the footswitch assigned to STOP/ERA(se) to finish recording and *not* switch to playback.
- Press the REC/PLAY/ODUB footswitch again to record an overdub (another part) onto the initial recording. You can overdub as many times as you want to.

What gets recorded as part of your loop?

Use the Loop Input parameter in the SETUP Menu to define which parts of your performance are captured by the looper. For example, you can set the looper to only record guitar, not vocals, or vice versa, or both.

Here is a good example of why you might want to capture just the guitar while singing and playing your instrument.

You have an 8 bar chord progression that you sing a verse over. After the second 8 bar “verse” section, you want to play a guitar solo. Wouldn’t it be cool if the rhythm guitar part kept playing as you perform the solo? With a looper, you can do just that!

1. Set the looper to record “Guitar”.
2. Play the verse as you normally would.
3. When you get to the second round of the chord progression, keep singing and playing, but press REC on the Looper.

4. At the end of the chord progression, press REC again. Play Acoustic will immediately begin to play back the guitar chord progression you just recorded.
5. Begin playing your guitar solo over the recorded chord progression.
6. When the solo section ends, simply stop the loop by pressing the Stop/Erase footswitch and play/sing again.

This is a very basic example of how a loop can be seamlessly incorporated into your performance. A subtle loop coming “out of nowhere” can be a great experience for your audience.

Stopping loop playback

Press the Stop/Erase footswitch to stop loop playback.

Erasing the loop

Press and hold the Stop/Erase footswitch to erase the loop completely.

Loop Undo/Redo

To undo a loop overdub, press and hold the DOWN footswitch.

To restore the overdub (Redo), press and hold the DOWN footswitch again. Restoring a loop overdub this way is only possible if you have not recorded another overdub after using Undo.

You can use Undo when you have made a mistake – just remove the overdub that went wrong

and do it again. You can also use Undo and Redo creatively for a part/track that you would like to come and go: Record a basic chord progression for a song, add a catchy melody as an overdub, undo that overdub so you can sing the verse and use Redo to bring the melody back for the chorus.

Looping tips

When it comes to looping, practice is the key!

You might notice that your loops have a small gap between the end of the phrase and when the loop restarts. This happens when you mistime pressing the PLAY/REC/ODUB button(s). Pay careful attention to coordinating your button press with the down beat, so that the loop beginning and end align seamlessly.

Experiment with exiting Loop mode and picking a different vocal sound for the next ODUB layer. You can get some great results by simply varying the sounds that are part of the loop.

When adding an ODUB layer, you can record multiple passes (ODUB parts) without starting and stopping the Looper. This allows you to add numerous parts, which can all be removed with a single undo action (they can also be brought back by repeating the undo action).

Using a Switch-3 for looping

Connecting a Switch-3 (optional) to your Play Acoustic will give you permanent access to looping without having to use the DOWN and UP footswitches. It frees up those footswitches, so you can assign them to key/scale selection. This will also allow you to change presets without having to go in and out of Loop mode.

The Switch-3 buttons are mapped as follows:

- Rec/Play/Odub
- Stop/Erase (Hold for Erase)
- Undo

The benefit of having the Undo feature assigned to a separate footswitch is the ability to perfectly time your undo instead of waiting a moment for a “hold” to be registered.

Play Acoustic footswitch assignments when using a Switch-3

When a Switch-3 is plugged in and Switch-3 mode is set to Looping, key/scale selection is automatically assigned to the DOWN and UP footswitches of your Play Acoustic.

When the Switch-3 is unplugged, the DOWN and UP footswitches revert to whatever the UP/DN setting was prior to connecting the Switch-3.

For more info on Switch-3, check out:
tc-helicon.com/products/switch-3/

Troubleshooting

Sometimes, things just aren't working the way you expect them to. Here are a few things to keep an eye on.

General troubleshooting

“I’m singing, but I can’t hear anything!”

- Make sure you have turned up the input gain, so that the input LED is lighting green.
- Have you plugged in your headphones or connected to a PA?
- Is the PA turned on, connected to its speakers and receiving signal?
If not, check your PA manual to make sure everything is set up correctly.
- Are you using a condenser mic?
- Did you make sure to change the microphone type to condenser in the setup menu?

“I have turned on the harmony effects, but they don’t sound right.”

- Did you select a key/scale?
- Is it the right key for the song?
- If you are using RoomSense to listen for Key information, make sure it's close to whichever instrument is playing the most clearly defined chords (Rhythm Guitar, Piano etc.).
- If you are using an MP3 player to sing along with tracks, set the AUX IN TYPE parameter in the Setup Menu to TRACKS. Some tracks will work better for NaturalPlay than others, based on the mix and instrumentation of the recording.

- If you are using Guitar to control harmony, make sure you have got the Key set to AUTO on the harmony effect page.

“None of the effects seem to be making any changes to the sound!”

- Is the unit in Talk/Tuner mode?
- If the HIT LED is flashing, tap it once to return to normal operation.

“How do I restore all of the factory presets?”

- When powering up the unit, press and hold the two “arrow” buttons next to the Control Knob. **Any changes you have made to presets will be erased!**
- Back up your custom presets via VoiceSupport.

“How do I perform a full factory reset?”

- When powering up the unit, press and hold “Back” and “store”.
- Any changes you have made to presets or set-up information will be erased.
- Back up your custom presets and setup data via VoiceSupport.

“VoiceSupport is a bit confusing – where can I learn more about it?”

- Go to tc-helicon.com/products/voicesupport/support/

Contacting Support

TC-Helicon Support can be reached at: support.tc-helicon.com

There is a large FAQ Knowledge base and forum for you to use. Please make sure to search for your particular issue there before submitting a support ticket. It's likely that someone has already addressed the question and posted an answer.

TC-Helicon Play Acoustic FAQ:

support.tc-helicon.com/categories/20137337-FAQs

TC-Helicon Play Acoustic forum:

support.tc-helicon.com/forums/21577876-Play-Series

Appendix

TC-Helicon scales reference chart

Harmony notes in the Key of C

Scale	Sung Note	C	Db	D	Eb	E	F	Gb	G	Ab	A	Bb	B
	Chosen voicing/interval												
Maj 1	3rd (High/Lower)	E	<i>nc</i>	F	<i>nc</i>	G	A	<i>nc</i>	B	<i>nc</i>	C	D	D
Maj 1	5th (Higher/Low)	G	<i>nc</i>	A	<i>nc</i>	B	C	<i>nc</i>	D	<i>nc</i>	E	F	F
Maj 2	3rd (High/Lower)	E	<i>nc</i>	F	<i>nc</i>	G	A	<i>nc</i>	C	<i>nc</i>	C	D	D
Maj 2	5th (Higher/Low)	G	<i>nc</i>	A	<i>nc</i>	C	C	<i>nc</i>	E	<i>nc</i>	E	F	F
Maj 3	3rd (High/Lower)	E	<i>nc</i>	F	<i>nc</i>	G	A	<i>nc</i>	Bb	<i>nc</i>	C	D	D
Maj 3	5th (Higher/Low)	G	<i>nc</i>	A	<i>nc</i>	Bb	C	<i>nc</i>	D	<i>nc</i>	E	F	F
Min 1	3rd (High/Lower)	Eb	<i>nc</i>	F	G	<i>nc</i>	Ab	<i>nc</i>	Bb	C	<i>nc</i>	D	<i>nc</i>
Min 1	5th (Higher/Low)	G	<i>nc</i>	Bb	Bb	<i>nc</i>	C	<i>nc</i>	D	Eb	<i>nc</i>	F	<i>nc</i>
Min 2	3rd (High/Lower)	Eb	<i>nc</i>	F	G	<i>nc</i>	A	<i>nc</i>	Bb	C	<i>nc</i>	D	<i>nc</i>
Min 2	5th (Higher/Low)	G	<i>nc</i>	A	Bb	<i>nc</i>	C	<i>nc</i>	D	Eb	<i>nc</i>	F	<i>nc</i>
Min 3	3rd (High/Lower)	Eb	<i>nc</i>	F	G	<i>nc</i>	Ab	<i>nc</i>	B	C	<i>nc</i>	D	<i>nc</i>
Min 3	5th (Higher/Low)	G	<i>nc</i>	A	Bb	<i>nc</i>	C	<i>nc</i>	D	Eb	<i>nc</i>	F	<i>nc</i>

Highlighted cells show differences between scales.

“nc” = no change

Technical specifications

Features	
Vocal Effects	<ul style="list-style-type: none"> µMod Delay Reverb Harmony Double Transducer Tone HardTune & Correction
Guitar Effects	<ul style="list-style-type: none"> Reverb (including TC-Electronic Hall of Fame) µMod (including TC-Electronic Corona Chorus) BodyRez EQ Compression Ambience Anti-feedback (manual control)
VLOOP™	
Control	<ul style="list-style-type: none"> Preset Up/Down and HIT footswitches Graphic LCD display Bump-protected Mic Level knob Dual-color backlit buttons Dedicated Effect Block On/Off buttons
Design	
Size and weight	
Height	1.8 inches (45 mm)
Width	7.9 inches (200 mm)
Depth	6.1 inches (156 mm)
Weight	2.1 lb. (0.95 kg)
Construction	<ul style="list-style-type: none"> Dual die-cast clamshell design Acrylic lens Punch-cut metal connection panel Rubberized footings Backlit graphic LCD display

Connections	
Analog Inputs	
Connectors, balanced	Mic.: XLR Aux: 1/8" stereo mini jack
Connectors, unbalanced	Guitar: 1/4"
Impedance	Balanced/Unbalanced: Mic.: 2.14/1.07 kOhm
Mic Input Level @ 0 dBFS	-42 dBu to +13 dBu
EIN @ Max Mic Gain Rg = 150 Ohm	-127 dBu
Mic SNR	> 104 dB
Phantom Power	+48 V (on/off via Setup menu)
Aux Input Level @ 0 dBu	+2 dBu
A to D Conversion	24 bit, 128 x oversampling bitstream, 110 dB SNR A-weighted
Analog Outputs	
D to A Conversion	24 bit, 128 x oversampling bitstream, 115 dB SNR A-weighted
Connectors, balanced	XLR
Output Impedance Balanced/ Unbalanced	300/150 Ohm
XLR Output 0 dBFS	+2 dBu
Dynamic Range	> 109 dB, 20 Hz to 20 kHz
Frequency Response	+0.30/-0 dB, 20 Hz to 20 kHz
Headphone Out	1/8" Mini stereo jack
Control	
USB	USB-B (Firmware Updates, Preset Management, audio I/O)
Pedal	1/4" TRS phone jack
Details	
Power	
External Power Supply Mains Voltage Input	100 to 240 VAC, 50 to 60 Hz (auto-select) 12 V DC 0.4 A max output
Power Consumption	< 14 W
Safety	
EMC – Complies with	EN 55103-1 and EN 55103-2, FCC part 15, Class B, CISPR 22, Class B
Safety – certified to	IEC 65, EN 60065, UL6500 and CSA IEC 65, EN 60065, UL6500 and CSA
Operating Requirements	
Operating Temperature	32° F to 122° F (0° C to 50° C)
Storage Temperature	-22° F to 167° F (-30° C to 70° C)
Humidity	Max. 90 % non-condensing

