ReValver 4 User Guide

USER GUIDE NAVIGATION

ReValver 4 User Guide

Congratulations on downloading and installing ReValver 4, the most powerful, tweakable and realistic piece of Guitar Amp Modeling software available! This is an in depth User Guide to take you through all the features of the software. As some are completely unique to Peavey, we do recommend reading this guide in full so you can get the most out of the software, but we have also included a "Quick Start" guide so you can get installed and up and running as quickly as possible.

ReValver 4 is either a standalone piece of software for use on Apple OSX or Microsoft Windows platforms, or it is also a VST/AU/AAX plug in that can run within Digital Audio Workstations (DAWs). The software has been redesigned from the ground up, every module is fully tweakable including all components of a Tube Amp. New features such as ACT (Audio Cloning Technology) allows you to profile your instrument and turn it into a different instrument (or shape your presets into classic tones) and GIG MODE enables you to pre load patches allowing seamless MIDI switching in a live rig. The new RIR 2 speaker simulation module takes convolution modeling with impulse responses to the next level with unparalleled realism and response, whilst the redesigned GUI and user experience makes using the program a breeze as well as looking exceptional!

So here is how to get started but please do read on to discover all the great features within ReValver 4.

NOTE: Your Audio Device will need to be set up with ReValver - if you hear a high pitched squealing (especially if using a Mac), please jump to the **Audio Setup** part of this User Guide.

Peavey has provided ReValver 4 as a free download where you can then go and buy extra gear & bundles from the Amp Store. To get started we have provided two Amplifiers, a "lite" version of RIR 2, three pedals/effects and some ACT content. The program still needs to be registered in the Amp Store, where it will tie itself to a USB device for license purposes, allowing you to use the program with your downloaded content on different machines. The license will be downloaded to your computer but the USB device will define you as the user tied to the license. If the following steps are not followed, ReValver will be in demo mode (the Amp Store button will flash) with save disabled and an intermittent beep sounding.

Open the program in your OS (stand alone mode, read on to operate as a plug in) and have a USB device at hand (this may be anything from a memory stick or iLok 2 to a mobile phone). Click on the Amp Store button in the top right of the program as shown below:


From here you will see the welcome page where you can click Log on…
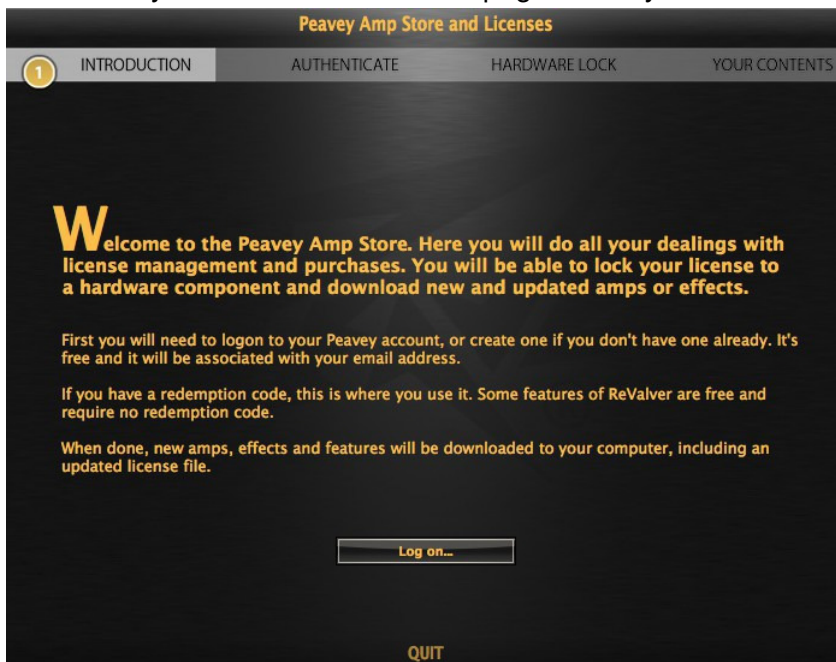
If you don't have an account for Peavey.com, you can set one up in the boxes on the right side of the following page, otherwise log on with your email address and password.
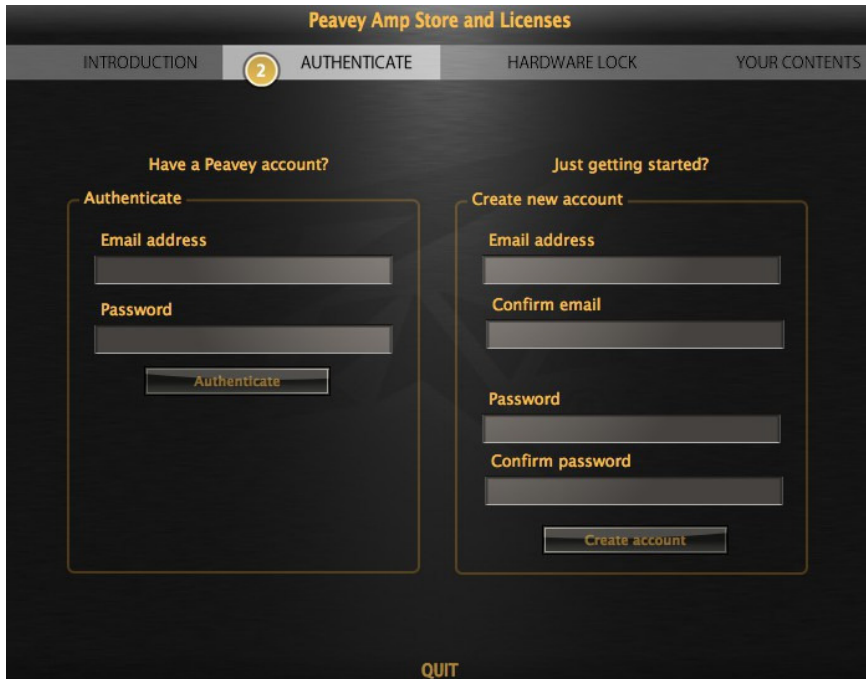
Now you will be asked to select a USB device. With the device NOT inserted, press 'Select USB Device' then plug the device in when prompted. ReValver will lock itself to this particular device:
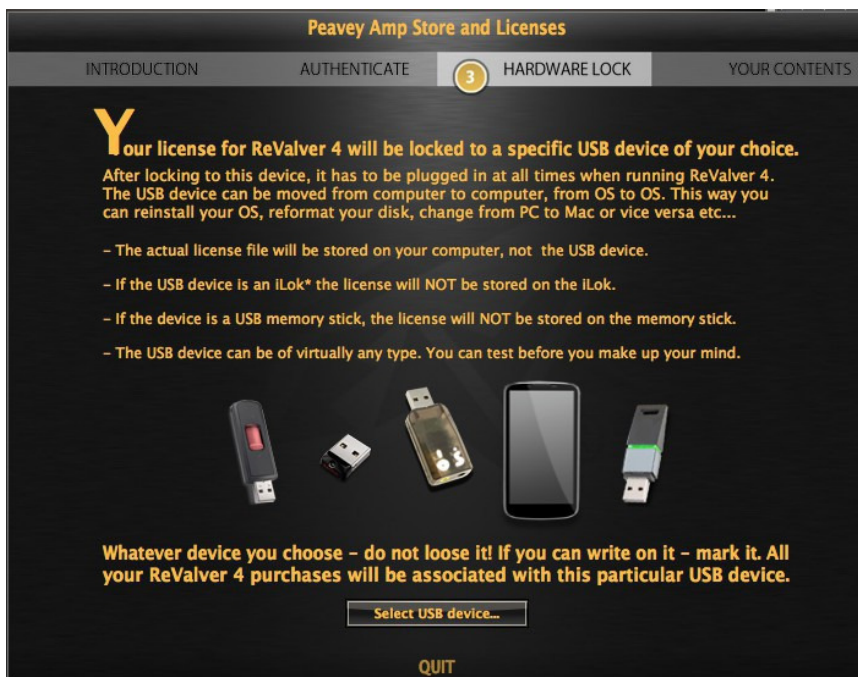
Once locked to the USB device, you can enter a Redemption Code if you have any additional content for ReValver 4 from a third party webstore. Any content purchased in the **ReValver Amp Store** is tied to your account meaning no code is needed. In this case, just follow the Download step below.

Whatever device you choose, do not lose it! All your ReValver 4 purchases will be associated with this particular USB device, even though no license is actually **STORED** ***on it.***

Press the Download button to download all new & updated components. This will install a license file and update any modules you have a license for. This is a necessary step even if you are using just the free modules.
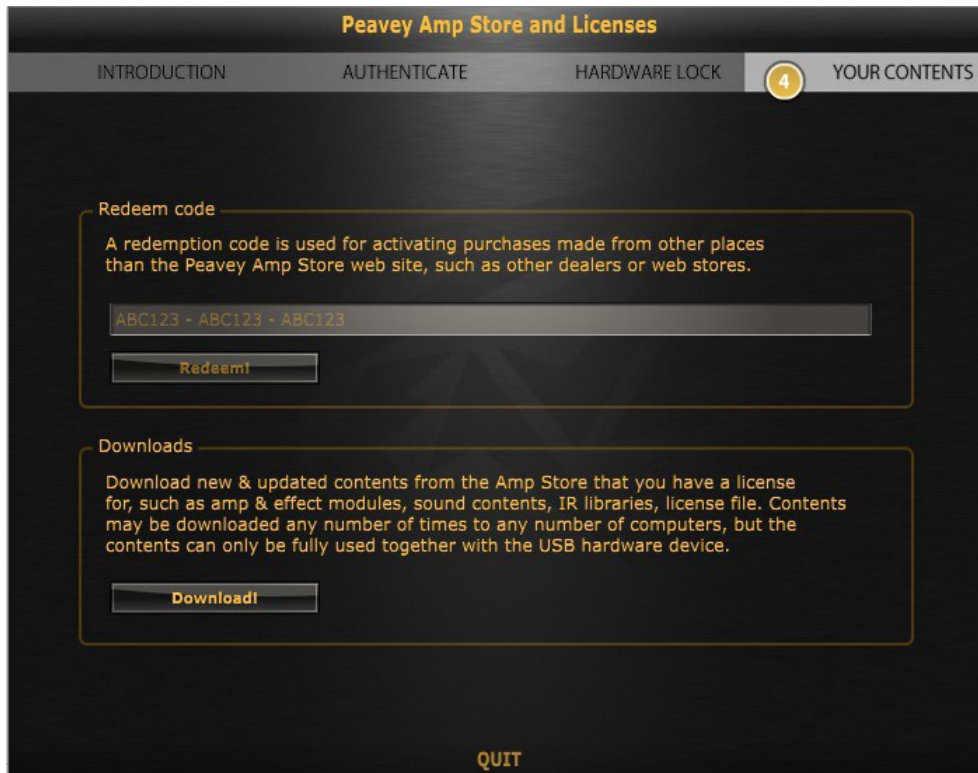
Pressing "Download" will not update the program itself, just any updates to the individual modules. When we release any updates to the ReValver 4 software these will need to be downloaded from peavey.com/products/revalver/

You may now press the Quit button to leave the Amp Store and restart ReValver for all the changes to take effect.

Note that all modules within ReValver can be used in "Demo Mode" where the Amp Store sign will flash, save will be disabled and the demo mode "beep" will sound intermittently. To have full functionality of these modules outside of Demo Mode, visit the ReValver Amp Store to purchase the desired components, then follow the above steps again to download your license file.
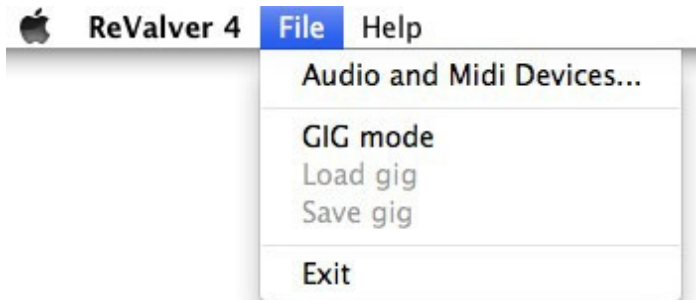
Audio & MIDI Device Setup

If you hear a high pitched feedback sound when starting ReValver 4, it is likely that your Internal Microphone is selected as your input - to remedy this, enter File < Audio and MIDI Devices.. and select an alternative input!

To get your Guitar signal into your computer and receive Audio out, we do recommend a professional Audio Interface. This allows your guitar to enter your computer at the correct impedance, so it will sound as it should and also help to minimize "latency" or delay between you playing a note and hearing it back. An interface such as the Peavey Xport pictured below will do the job perfectly. The interface will connect to the computer via USB and once you have downloaded any drivers needed, hook your guitar up to the input jack and then headphones or speakers from the outputs. Of course, any audio interface will suffice.

Once your guitar is hooked up via the interface the device needs to be selected in the Audio and Midi Devices panel within ReValver shown below.

From here you can select your device as the Input & Output along with it's sample rate and which Inputs & Outputs you would like to use. Devices with multiple outputs can give you a lot of flexibility for live use.

Audio & MIDI devices

Output:

Peavey Xport USB ▼

Input:

Peavey Xport USB ▼

Sample rate: **Buffer size:**

48000 Hz ▼   256 samples (5.3 ms) ▼

Output channels:

ⓧ MON L + R
○ LINE 1 + 2
○ LINE 3 + 4
○ LINE 5 + 6

Input channels:

ⓧ MIC/LINE/HZ 1 + 2
○ MIC/LINE 3 + 4
○ LINE 5 + 6
○ LINE 7 + 8

**Midi inputs:**

(No midi inputs available)

DONE

Setting the Buffer size is dependent on your individual system, what other programs you may have running in the background and your audio interface. The lower you set the buffer size, the less Latency you'll experience. A good starting point is to try 256 samples (5.3ms of Latency), which is barely noticeable to most people. If your system allows, try dropping it or raising it if you hear any strange artifacts such as crackles or pops. As delays go, 5ms roughly corresponds to standing less than 2 meters from a speaker.

To setup a MIDI interface, make sure the device is plugged in and the appropriate drivers are downloaded. You will then see it as an option in the MIDI inputs section of the Audio & MIDI Devices page as shown below. Select your interface by clicking on it and then your MIDI controllers will be ready to use with ReValver, opening up complete MIDI control of the program.
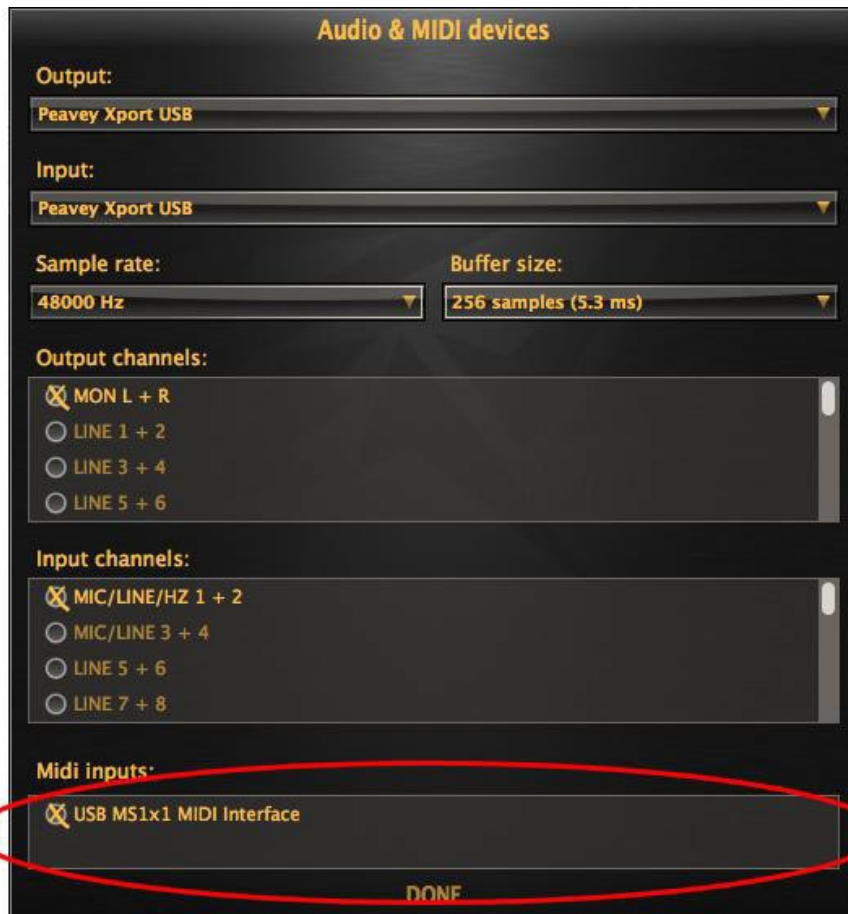
Now you are ready to get started! If you want to try some of the amazing tones of ReValver out straight away then allow us to direct you to the Presets menu at the top left of the Tool Bar:

From here you can enter the various different banks. New users should try the "FREE" bank first and anyone who's purchased the **Producer Pack** should try the "First Impressions" bank (any preset can be selected but the modules may be in demo mode). You'll see a screenshot and accompanying description of the preset to give you an idea of what to expect, so fire them up by pressing the blue tick and give them a try! Remember if saving your own presets to save when on the most appropriate screen (for the screenshot) and add a description in case you share with the ReValver community.

ReValver 4

The following sections will help you get the most out of the ReValver 4 software. The in depth nature of the program allows infinite tonal possibilities that would allow amp engineers to tweak away from their educated viewpoint whilst affording those not so knowledgeable the opportunity to play around and *learn* the internals of the amplifier. Of course, you may just choose to load up some presets or make your own with basic amps, cabs and effects. Either way, have fun and be sure to visit the forums @ Peavey.com and share your tips, tricks & presets with the ReValver community!

Loading ReValver Into A DAW

Using ReValver 4 stand alone is as simple as loading the program up, it requires no other software to run. Using it as a plug in within a Digital Audio Workstation (DAW) opens up whole new possibilities for recording. Firstly, it gives you the very convenient function of having incredible guitar sounds "in the box". But also, your guitar will always record in "dry" whilst you hear the tone you have set up in ReValver. This means, that after recording, you can continuously tweak the settings to suit the mix.

For example, rather than adding EQ to add extra top end cut, you may want to just move the microphone to a more central position of the speaker. Or instead of adding extra mids on a 6505 amp, how about changing the 6L6 power tubes to EL34's? The possibilities are endless. Our **Tips & Tricks** section features other suggestions.

Loading ReValver into a DAW will differ from program to program. Mac users will find that the plug in will be automatically located whilst Windows users may have to scan the system for new plug ins within the DAW. Consult the DAWs user guide for information.

Graphical User Interface (GUI)

To get started with ReValver 4 it would be beneficial to spend a little time getting used to the layout. So firstly, lets take a look at the GUI and the top bar.

From the left you have the presets menu with the quick save [icon] and [icon] clear preset buttons to the right and the preset name below (more info in the **Presets** section). Then you have the **Modules** button to bring up the Module picker. The input box has a button to take you to the **Input Modules** [icon]. There is also an auto adjust option for nomalizing the input DB along with a manual input level and digital meter. The output box has similar controls; more about the **Input & Output Modules** can be found in the relevant part of this guide. In the middle you have the signal chain for rigs A & B (more info in **Modules**).

The **Amp Store** button takes you to the login page and from there you can download new components and license files, whilst the gear icon ![icon] takes you to the **Options** page. There is a global mute ![icon], an "about" page and the question mark takes you to this very user guide. Please note, to purchase gear from the Amp Store then follow this link.

Finally, the CPU gauge tells you how much of the CPU you are using. It is of a histogram type and has the ability to show the CPU usage over a short period of time, displaying both average usage, and CPU spikes. While modern OS' are able to distribute the workload of several programs over the CPU cores, you may at times be inclined to shut down other programs on your system to keep the sound from being chopped up or getting hiccups.

> ## Presets

From the left you will see the the presets box and related controls. Clicking the presets folder opens the relevant banks where you can select a preset to use by pressing the blue "tick" ![icon] The yellow dustbin icon ![icon] will delete a preset whilst the yellow "disk" icon ![icon] will allow you to export individual presets. Also in this menu is a search option to look for keywords in the title *and* description of the preset, for example searching for "lead" brings up the specified lead guitar sounds. Pressing the following symbol ![icon] will clear the found presets and present you with the full menu again.

Also from here you can create a whole new bank for your own creations or where current presets can be dragged and dropped to create your own bank of favourites. Banks are always created at the bottom of the list, so scroll down to find the new bank that you can rename and then drag to a different area of the menu if desired. If you are importing a bank, either from sharing with other users or a Peavey.com download, then click import bank and find the ".sa" file you will have downloaded onto your system. If you wish to share your bank with the ReValver community then press the small yellow disk icon to the right of the bank name and save in your preferred location.

Entering a bank from clicking the drop down arrow is also the way to save a new preset. When you are happy with your creation, enter the presets folder, click on the bank you want to save in (or create a new one) then click "Save as new preset". Then you'll be able to name your preset and provide notes along with a screenshot (the screenshot will be of either the Stomps, Amps & Cabs or Effects view depending which was displayed when pressing save). Importing presets is much like importing a bank, just select which bank you want to import the individual preset to.
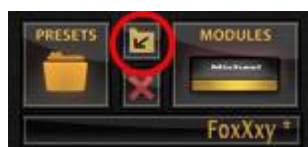
The arrow icon will save any changes you may have made to this preset without having to reopen the presets window, displaying a warning sign that this will overwrite the current preset and there is no way to undo. If in doubt, open up the presets menu and save as a new preset. The red X icon underneath will clear the current preset and give you a blank canvas to create a new one. Again, a warning sign will be displayed in case you have tweaked the preset and the changes would be lost. For reference, if the preset *has* been altered in any way, the box below will feature the preset name with an asterix (*) next to it, as shown above.

Modules

The type of Module you can load will depend where you are in the "rig" or signal chain. In the middle of the GUI you can select from rig A or B (which run in parallel) and Stomps, Amps & Cabs or Effects.

Lets imagine you are in a blank preset and want to create a rig from the beginning. First, you would want to select an amplifier and cabinet. So whilst on the Amps & Cabs screen, click either the Modules item circled below, or as an alternative, on a blank part of the "rack".
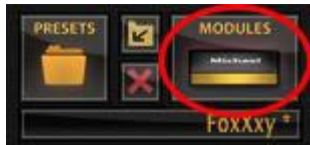
OR
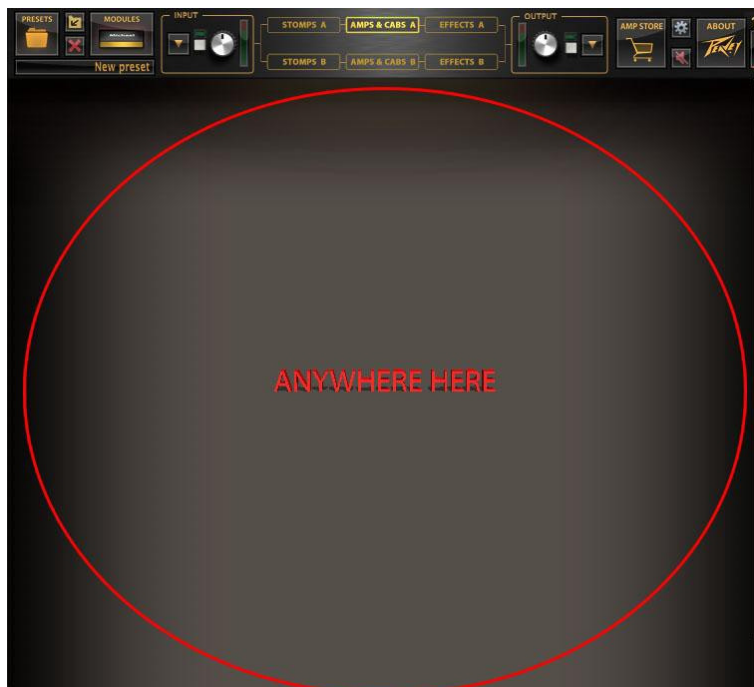
This will bring up the Module Picker where you can browse through the amplifiers, cabinet modules and any relevant tools such as the signal splitter and noise gate.

Simply select your chosen module and it will load into the the main screen of ReValver. If selecting an amplifier, RIR 2 will also load with the cabinet that matches the amp. If you're using

the basic version of ReValver 4 and don't own these particular modules/cabs then the program will

be in Demo mode where the Amp Store button will flash, save will be disabled, will be displayed on the modules you don't have a license for and a beep will sound intermittently. You can still "demo" the modules, but if you want to purchase them then you would need to take a trip to the online Amp Store (see the **Amp Store** section).

After loading up an amp and cab, you can then start to tweak the tones on the amplifier as you would in the real world. So channel switching, gain controls, EQs will all work as they would do on the actual amp. Right clicking (or alternative) anywhere on the amp that is not a control will bring up a context menu.

Context menu.

From here you can delete, move or replace the module. This allows you control over where each module appears in your rig.

Selecting "Tweak schematic" is where ReValver 4 really comes into it's own. This will bring up the internal circuit of module, with the amp modules of course being the most in depth. Please see the **Tweaking Guide** for more information on this.

In Module presets you can save and load presets for individual modules. This is particularly useful if you have created a favoured effect you'd like to use in multiple presets, likewise with amplifier settings.

Fold up GUI allows you to create more space in the main ReValver window, perfect for when running multiple amp rigs when you maybe don't need to see the cabinets but still want control over all amp settings in one window.

The options in the Quality mode menu allow you to set the preferred amount of oversampling for a specific module. Each module has a default that is reasonable for its type. Amps and most stomps are always oversampled x2 (oversampling helps remove unwanted digital fizz). Please note that oversampling will not take place in the case where audio sample rate is higher than 88kHz. Proper anti-aliasing filters are always used where needed. While previous versions of ReValver used a "global quality switch", ReValver 4 does not. Instead, all attempts are made to produce the highest possible quality at all times.

ReValver 4 uses a mixture of 32 / 64 bit ieee float processing within the modules. Higher quality calculations are always made where needed.

Bypassing a module allows you to have it turned off in situ.

Modules can be run in mono or stereo, but obvious modules such as amps & stomps can't make use of a stereo path.

Amps have an extra menu option called Cabinet Impedance Interaction which relate to how cabs and amps work together. Other than the commonly known impulse response (IR) of the cab, it has electrical features that can't be measured with a microphone. Those electrical properties strongly affect the inner workings of the power section of the amp. A cabinets electrical characteristics gives the amp a considerable amount of dynamics, the low end and the high end is affected separately. The menu choices allow you to define how the low & high end is processed. The default mode is the electrically correct approach, but by simple rearrangement of the processing, the effect can be more or less pronounced. Some settings can place the sound better in a mix.

The RIR 2 & RIR 2 lite modules make use of these measured electrical characteristics, while the original RIR can only make guesses since RIR allows 3rd party IR samples without such information. If more than one RIR 2 cab module is inserted in the preset, only one of them interacts with the amp. If more than one amp is in the preset, the cab interacts with both of them.

Loading a module into the Pedal Board in the "Stomps" section of the rig works in the same manner as the amps by either clicking the modules button or anywhere on the blank pedal board. From here you can select whichever of the available effects you desire, arrange them on the Pedal Board and you are only limited by your imagination (and CPU….) This is all also true for Effects modules in the effects rack.

RIR 2

RIR 2 is the new speaker cabinet modeling module within ReValver 4, bringing even more dynamics & feel to the program.

ReValver 4 is provided with RIR 2 Lite as standard, with the full RIR 2 module available in the Amp Store. RIR 2 Lite, pictured below, still features the same technology as described in this section, just with fewer parameters to control and a preset number of cabs. Please purchase the

RIR 2 module to load in extra cabinets and to experience the full controllability of our new speaker simulation.

The cabinets available for purchase in the Amp Store will only function under the regular RIR 2 module, not the Lite version.

RIR 2 Lite

The speaker cabinets modeled in RIR 2 have been created by sampling the actual Impulse Response of the real cabinets featured in different mic positions. This time consuming convolution method, when loaded into our algorithm, yields incredibly realistic results. Add to this that we have captured the electrical features of each cabinet and these in turn interact with the amplifier module giving unique tones and feel with each cabinet/amp combination.

RIR 2

Selecting an amplifier module will automatically load RIR 2 and a matching cabinet. Also loading a preset will have the cabinet, mic, position and various parameters adjusted to make that preset sound the way it does. These can of course be adjusted to your taste.

To change the cabinet click the drop down menu above the cabinet graphic and this will give you a list of cabs to choose from. Descriptions are issued in the Amp Store to give an idea of how they will sound but the best idea is to try them out.

A comprehensive list of microphones can then be selected, all exhibiting different tonal characters. Some microphones have options where different frequencies are cut or boosted and also variable polar patterns are selectable. If you're not familiar with different microphones and how they can affect the tone, experimentation is again the best educator!

Once a microphone is selected, the amount of gain applied to the mic can be altered with the "gain" dial and the proximity to the grille of the speaker resulting in different tonalities. Pressing the off axis button will select the impulse response where the mic was at a 45 degree angle to the selected mic position. Off axis tones usually result in a roll off of high frequencies and less of the proximity effect resulting in a perceivably more "mellow" tone, or course depending on all the other factors of microphone, cabinet and placement!

The next tonal change you can make is microphone placement. These can differ in even small movements of a mic against a cabinet (therefore the sacred "sweet spot" of a speaker!) The general rule is that the center of the speaker will have a bright and aggressive sound, tight in the top end with less lower resonant frequencies. Pointing the mic at the inner part of the cone tames the high frequencies and introduces more low end, with the sound getting darker still towards the outer extremes of the speaker cone. It's best to again experiment, remembering perfect mic placement can take time! Being able to change the speaker position after recording in a DAW is an ideal way to help fit a guitar sound into a mix without having to introduce an EQ which may impart an undesirable character to the tone you have created.

There are delay compensation and phase inversion controls on RIR 2. These are useful when blending different cabinets to correct any phase issues but can also be used to create wide stereo sounds using phase effects. The delay is up to 30ms, although as most corrections require less than 2ms, the control is of a higher sensitivity in the lower numbers.

Finally, you can tweak the low and high frequencies using the filters and also introduce room ambience, specifying the size of the space and the amount to dial in. This can act in the extreme as a room reverb, or generally just enhance the overall tone and add a little space.
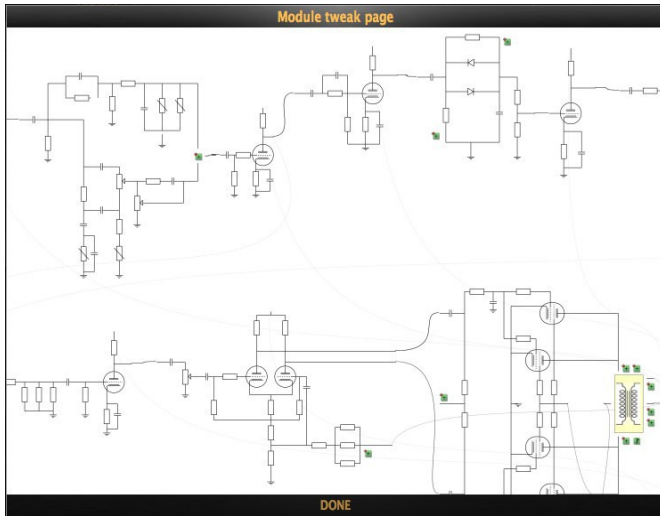
This section of the user guide is not meant to teach you how to best make changes to the sound, but rather make you familiar with the User Interface (UI).

ReValver 4 has a remarkable set of parameters that can be adjusted. Since all of them can be tweaked in reality, most of them have been hidden in the Tweak UI to avoid confusion. This can be found by selecting "Tweak schematic" in the context menu of the module you wish to tweak. The layout of the UI is that of a schematic. Some circuits are of an electrical type and others are purely digital. The signal flow through these circuits is indicated with lines, in the general direction of left to right.

The electronic circuits are using a complex modeling engine that allow for high accuracy in filter and nonlinear simulations. It's using a recognised set of of techniques to evaluate large electronic networks. It is not possible to remove or insert circuits or components within ReValver 4, but you can edit the values of all parameters. *(Some circuits in some modules may have editing disabled. The reason may be that the owner of the schematic or the 3rd party developer has requested it to be so).*

You may drag the schematic to fit appropriate sections to the screen, and if you have a scroll wheel you can zoom in and out.

The most common electronic parameters that can be edited are resistors, capacitors, inductors, opamps, preamp tubes and power amp tubes. Each component provides its own UI to adjust the parameters of interest.

To cover all these here would take a long time (indeed, see the **Tips & Tricks** section for some hints), but changing a power amp tube is as easy as clicking on the tube diagram in the circuit and swapping the tube. Take note that the tubes are in pairs so if there are four power tubes, you'll have to change both pairs.
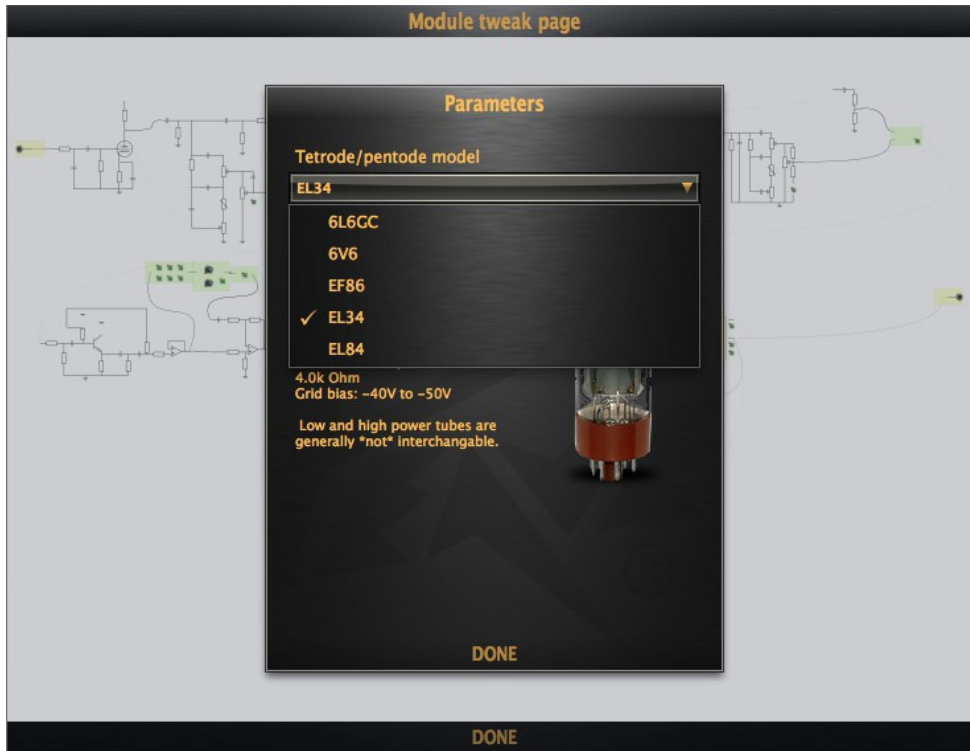
Changing other components, such as a tone pot, bring up different options.
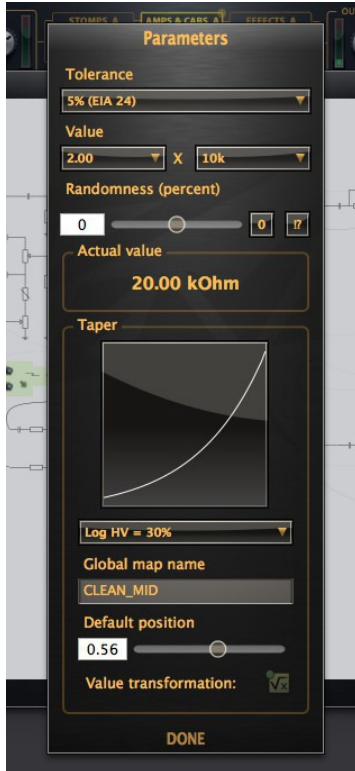
The value of a resistor or capacitor in ReValver is composed using two drop downs, for example 2.0 x 10kOhm = 20kOhm, just as components are specified in reality. The values to choose from depends on the "tolerance" they are said to have. It's virtually impossible to manufacture a resistor or capacitor with the exact value wanted. A resistor with 5% tolerance will in reality have been manufactured to an actual value +-5% of that which is specified. The actual difference is specified in ReValver as the "Randomness". You may either put it to zero, or press the "!?" button to randomize it. By randomizing as many components as possible within the set limit, the interaction between the components will become more natural. You can create endless variations in sound using the same circuitry - just as in real life.

If the resistor is variable, such as a rotary pot, the value varies with position. The "Taper" defines *how* the resistor varies with position. Changing the taper usually changes the apparent volume of an amp unless the pot is in absolute min or max position.

Global map names and value transformations are used to tie the component to a UI element. It is usually not recommended tochange that.

Digital circuits usually have parameters inside "green boxes" that open up a specialized UI.

Of course, the amplifier modules prove to be the most in depth when entering the tweak UI, but all modules of ReValver are tweakable.

Input & Output Modules

Clicking the symbol in the Input or Output section of the toolbar will bring up the all new Input & Output Modules. Here you will find the **ACT™** modules, the incredible effects of which will be discussed in the next section.

In the Input mixer shown above, you will encounter three other modules along with the ACT section. The first of which is a level adjust section which can apply auto normalization of the input. The auto function will normalize the input levels to -0.3dB. In the event that you have set the Pickup RMS, an additional adjustment will be made as an attempt to mimic the levels of your guitar pickup. Since you with all certainty have set the input levels of your sound card to allow some dynamic headroom, ReValver needs to know what the actual RMS of your pickup currently is so as to get the volume up to authentic levels. You can save & load your favourite RMS level. The Mono button will merge L+R, which can be useful if the signal comes in only on one of the stereo channels.

Next is a simple Noise Gate module. This is fully open with the Threshold control set at 0. Turning the Threshold up will engage the noise gate which will stop your guitar signal getting through when the guitar is not being played. This is especially useful if you have a noisy, high gain rig. The more you turn the Threshold up, the more signal will be required to open the gate meaning extreme settings will be very "choppy" in tonality, sometimes desirable.

The Tuner module is a chromatic tuner that will pick up the note you are playing, displaying what it is and when the needle is in the middle, it is in tune. You can also use the Note Map and define

certain tunings in the drop down menu. The "A" Frequency calibrates the tuning by selecting the exact tuning of the "A" note. 440Hz is standard and is indeed the default, but different tunings have been used for many years with different results - try a 432Hz tuning for sometimes more mellow sounding results. The "Sound" switch allows you to mute or use "clean" to bypass the amp modeling to allow an audible, unprocessed clean sound while tuning.

The first module in the Output mixer is a blending tool. This allows the mixing of rigs A & B using the slider to blend 100% to A with it up, 100% to B with it down and anywhere in between. This is a great tool for creating unique tones by blending rigs. You can also pan either rig left or right resulting in some rich stereo tones. Depending on what cabinets and mics/mic placements you are using, you could end up with an out of phase sound. If both rigs are placed centrally then this could create a hollow sound, maybe lacking mids or bottom end. The phase switch flips the phase 180º for correctional purposes and the delay compensation dial allows more fine tuning of any phase issues, although experimenting with these controls and especially stereo images can create some unique and wide sounding tones. The delay is up to 30ms, although as most corrections require less than 2ms, the control is of a higher sensitivity in the lower numbers.

A parametric EQ is a great tool for final preset shaping. Remember to enable the EQ by pressing the ON switch, then use the first control (a high pass filter) to slowly remove troublesome low end frequencies that could be interfering with any other instruments in a mix. The lowest control does the same for the high frequencies to help remove any unwanted "fizz". Below and above these filters are two "shelving" eqs which will cut or boost (using the yellow dial) the frequencies selected by the blue knob. The three middle frequencies use a "bell" eq which will focus on a cut or boost of the selected frequencies whilst also slightly affecting the surrounding frequencies to create a smooth effect.

The compressor is of an optical feedback type that responds well to transients. It has an adjustable attack time, compression ratio, makeup gain and a side chain high pass filter.

The Output mixer also features a VU meter to adjust the final output levels. It's important not to let these clip as digital distortion can be quite harsh sounding. The output is equipped with an auto normalization feature.

ACT – Audio Cloning Technology™

In both the Input & Output mixers you will find the ACT Module. They work differently in both sections so lets first take a look at how this works on the input.
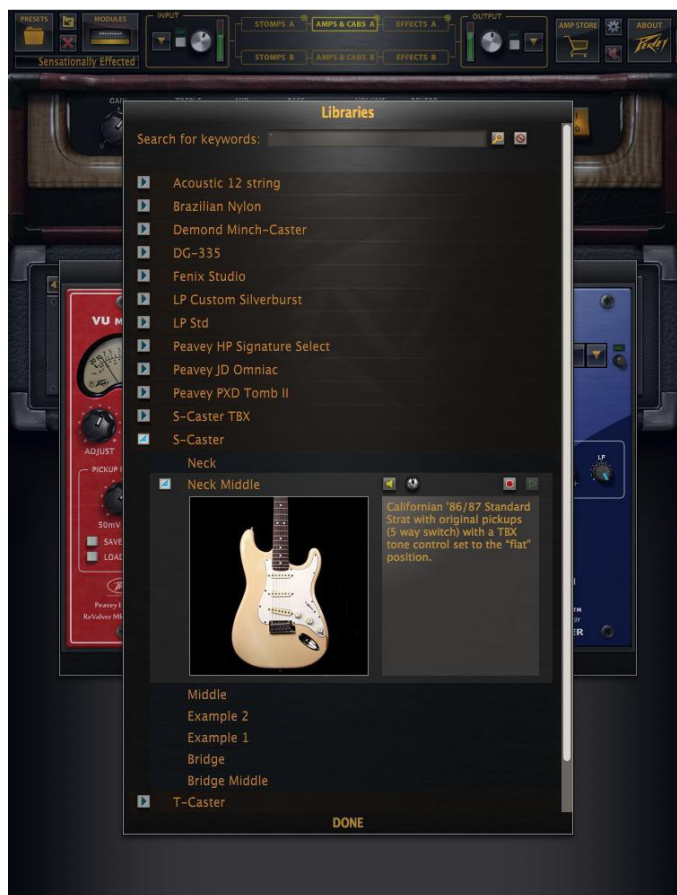
On the input, ACT will profile your guitar, then using another preset profile, transform the sound of your instrument into the one that you have selected within the module. It's very simple to do; drop down the menu of the target sound profile and here you will find profile presets of Acoustic instruments to various different Electric Guitars with different pickups and pickup positions. Dropping down the various menus you will find photos, descriptions and examples for you to audition. Pressing the speaker button [icon] will audition that particular profile, normally playing the unprocessed sound of the instrument being profiled. Most ACT libraries feature "Example" sections where you can hear the actual instrument being played through an amplifier to give you an idea of it's individual sound. All ACT libraries are available for purchase in the **Amp Store**, but they can also be tried in demo mode, just ceasing to work when you leave the

ACT menu.

To profile your guitar and apply one of the presets, press the red record button ⏺ and play strumming all strings and barring your finger up the neck to let the ACT module hear as many notes as possible. This will create the best profile of your instrument and allow the ACT to work in an optimum manner. The whole process takes around 10 seconds.

When finished, the preset will be applied and you have now turned your guitar into a different instrument! Remember to play your guitar like the instrument you have chosen - although there is nothing to stop you putting a nylon strung classical guitar through a 6505 and playing fast metal, it may not sound exactly as you expect!!

If you are still in the same preset and have already profiled your guitar, selecting a different instrument from the ACT libraries is a simple case of pressing the green play button ▶ and the new preset will be applied without having to reprofile your guitar.

On the Output mixer, the ACT module works differently. This is like a final "EQ Shaping" of the preset. The ACT libraries provided include various different guitar tones that have been profiled. To get the best results create a preset in Revalver that is similar to the ACT profile (again, listen by auditioning). You can then profile your guitar, or create the profile by playing back a pre recorded track from within your DAW. Another tip for output ACT is **here**.

The output ACT module can be a lot of fun and take your guitar tone to places you didn't expect, try experimenting and watch the hours disappear!

ACT Combo is a sophisticated ReValver 4 add-on module, available through the ReValver Amp Store, capable of analyzing the gain/distortion and frequency content of a guitar amplifier recording and then replicating the analyzed sound as an amplifier/ cab combo simulation.

The ACT Combo is typically used in two scenarios:

- You own or have access to a specific amplifier and would like to replicate its sound in ReValver.
- You would like to replicate the sound of a recording of an amplifier from an album or other recording

No matter what the scenario, ACT Combo can replicate the recording of the amplifier and allow it to become part of your ReValver toolkit.

Basic Layout

Like most amplifiers, the signal in ACT Combo flows from left to right, like. Let's have a look at the controls and features of ACT Combo: Amp Channels

ACT Combo has 3 channels based on distortion level: Clean, Crunch and Heavy, each with its unique character. Before analyzing any content, it is up to the user to set the channel. The level of distortion in the target sound should be the leading factor in this choice.

Pre Amp/ Tonestack/ Power Amp
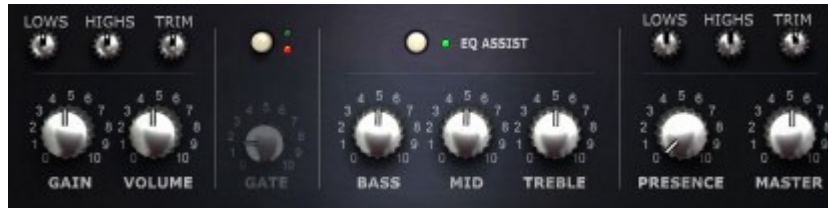
This section of ACT Combo is divided in 3 parts:

The Pre Amp

ACT Combo has 3 different pre amps, one for each channel. If the Clean or Crunch channel are selected, the volume knob will be disabled. The gate is only available when using the Heavy channel.

When working with the Crunch or High Gain channel, ACT Combo will adjust the gain & master controls by itself, according with the audio clip being analyzed. The clean channel does not perform an analysis of the distortion so the gain must be set manually.

The Lows, Highs & Trim controls impact the sound before it enters the preamp circuit. They are there as an additional option to shape the DI signal being fed into ACT Combo. The use of these controls do not impact the analysis of the clip.

The Tonestack

Each channel comes with its own tone stack. In addition to the internal tone stack, the "EQ Assist" will add a final EQ after the amp, roughly having the same bands as the tone stack itself. By having an additional EQ *after* the amp, distortion characteristics and dynamics will be less affected, acting more as post processing. When the EQ Assist option is disabled, the Bass, Mid and Treble controls work just like a regular tonestack. If you are loading an audio clip that you actually know how the tonestack was set, or analyzing an amplifier of your own, it is advised that you set the tonestack controls to match that of the sound being fed into ACT Combo. If you don't have that information, it is advised to leave the tonestack controls at their default setting.

The Power Amp

The power amp circuit of ACT Combo adds a final touch of saturation to the sound and can impact the dynamics in a different way for each of the 3 channels. The Presence control is available only with the Heavy channel.

The Lows, Highs & Trim controls impact the sound after the power amp and therefore do not affect the dynamics, but are entirely for post processing, and they are tweaked to reduce harsh high end noise and rumbling low end.

The Analyze Section

This section of ACT Combo is where you input the audio clips that ACT Combo will analyze and replicate. It offers 2 types of analysis, one for live amp recordings and one for pre recorded audio clips. Let's have a look at both processes:

- **Live Amp**

Even though ACT Combo can calculate guitar distortion levels and tone from an arbitrary recording of a guitar amp, having ACT Combo itself provide the audio to play through the amp will allow the analysis to produce a more predictable result.

Here's a brief description of this process of analyzing an amplifier:

The first step is: dialing a great tone in your amp and micing it properly. It goes without saying that if the original tone does not sound good, the simulation in ACT Combo cannot and will not sound good. As the saying goes: junk in, junk out.

Now, download the signal that must be fed into the amp by clicking on the highlighted icon:
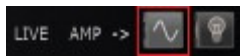
Then, the following message will appear:

As mentioned before, you will have to run the test tone file out of your DAW, into your amplifier and record the output back into the DAW. Please consult the documentation for your DAW of choice for details in routing the audio in and out of the program.

Once you have recorded the amplifier in your DAW, render the recording you made into an uncompressed file format (WAV, AIFF, etc)

At this point you should mimic the settings of your amp on ACT Combo. Make sure that the EQ Assist option is disabled when doing it, so you have more flexibility if you need to tweak later.

Load the rendered file of your amp recording back into ACT Combo. To do so, click on the highlighted icon:

After selecting and loading the file the following dialog will appear:

Please consider this message in order to achieve optimal results. If you haven't set up ACT Combo to match your amp settings, do it before you proceed with the analysis. Also, normalize your input volume in ReValver's top rack and set the quality to upsample.
ACT Combo will then perform an analysis of the loaded clip
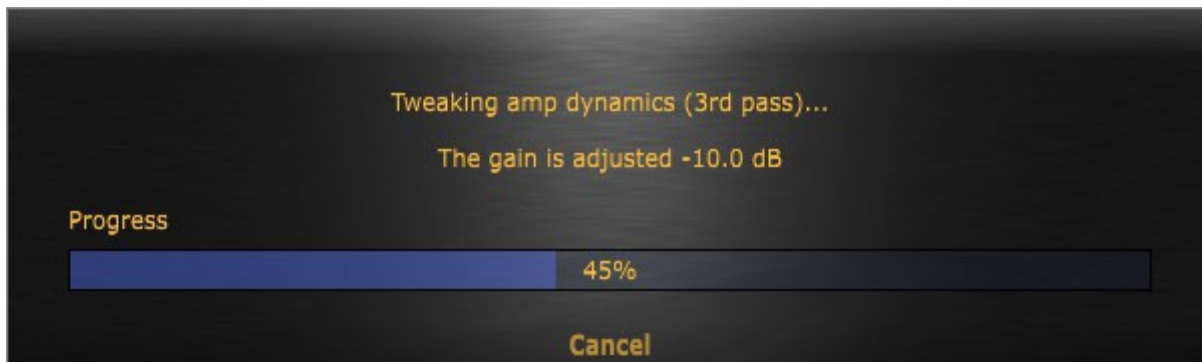
After the analysis you should have a preset that resembles your amp with reasonable accuracy, both in tone and dynamics.

- Recordings

Important: ACT Combo supports wav, aiff, ogg, opus files. It does not support the mp3 format.

Working with pre-recorded material in ACT Combo is, in theory, a much easier and faster process than that of working with a live amp. However, since ACT Combo will usually have less information to analyze, both in terms of the scope of the recorded material and the quality of the clips, the result may be less predictable.

Here's a description of the process of working with audio clips in ACT Combo:

Select an audio clip that contains *only* the guitar amplifier sound you want to replicate, without any other instruments. At the end of this section you will find an addendum with valuable information on how to choose a good audio sample for this process.

After auditioning the clip you chose, select the channel that matches best the distortion level present in that recording. If you know how the amplifier recorded in that clip was set, replicate it as closely as possible in ACT Combo.

Load the audio clip you want to analyze in ACT Combo. To do so, click on the icon highlighted in the following image:
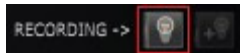
ACT Combo will then perform the analysis of the information contained in that audio clip

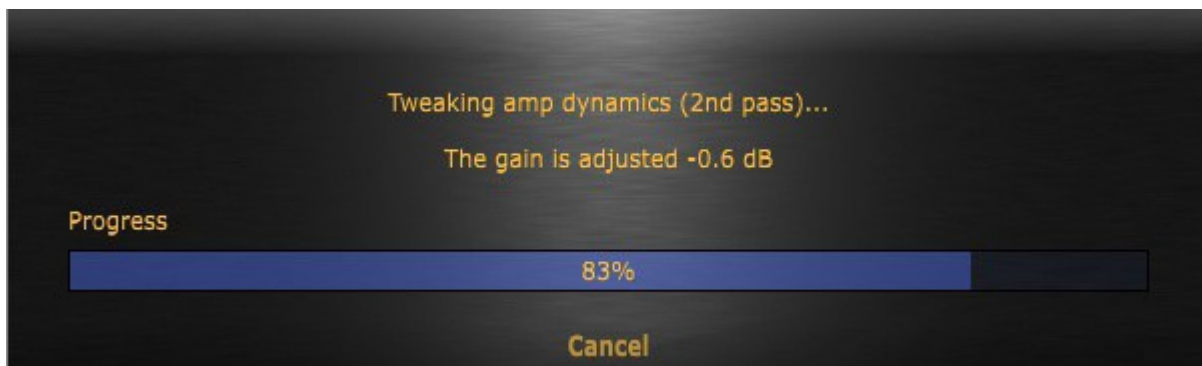After analysis, you may want to tweak the final result, altering the gain or change distortion characteristics by changing the tone stack. If you have done so, you may want to try the **Refine Impulse Response** function.
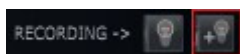
Changing any control will change the characteristics and dynamics of the sound. By using the "Refine" function you will again match the frequency response of the amp.

When loading an audio clip, the gain is adjusted, and a frequency profile is created. When using Refine, only the frequency profile will be recreated.

Profiling with your own guitar as reference.
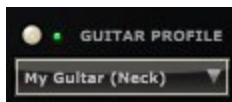
Optionally, you can elect to make the finished analysis particularly suited for your *own* guitar and pickup combination, rather than for a generic guitar. This requires that your own guitar is profiled *first*, and that is done in the INPUT ACT window. After recording a few notes on your guitar, a profile is saved which can then be selected in the ACT Combo dropdown.

You must select a guitar profile before analyzing a prerecorded sound clip or live amp. Changing guitar profile afterwards will do nothing.

Module Presets

ACT Combo can export and import module presets so users can share or archive the presets they've made. The display above the Save and Load buttons will show the name of the audio file loaded in the **Analyze** section until the user saves a module preset. It will then show the name of the saved preset.

Here are some tips for getting the best from ACT Combo when working with recordings
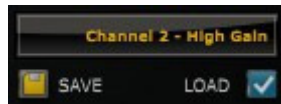
As the audio clip will determine how ACT Combo will sound, it is important that the source material is of good quality. Since good is a subjective concept, here are some guidelines on how to choose audio clips that will probably give you good results.

Important: ACT Combo does not load files saved in the mp3 format

Format: Compressed formats such as mp3 are known as "lossy" compression formats, as they cut off frequencies from the original file to reduce file size, resulting in loss of information. The same is true for clips taken from Youtube. When downloading the audio, save it in wave instead of, for example, mp3 and avoid the re-compression of the audio clip. Due to the nature of ACT, it is of little consequence if the source file is compressed or uncompressed, but some highly compressed files may lack entire regions of sound and that in turn may result in poor results.
That said, the fact that you are using a compressed audio file does not mean that you can't get a good result with it;

Sample Rate/ Bit Depth: The sample rate should be 44.1kHz or higher, but it may not be beneficial at all to use very high sample rates. Noise in the file (such as having a low bit depth file) will *not* result in a noisy result.

Dynamic Range: You may choose a clip that was compressed/ brick-walled and although that shouldn't affect the dynamics analysis of ACT Combo, it may fool ACT Combo into adjusting the gain knobs overly high. Avoid clipped audio samples. This will be the most common cause for results having too much gain.

Editing: No editing is necessary, but make sure no other instruments other than the source guitar are present in the file. Silent passages will automatically be removed during analysis.

Frequencies: The ideal sample would have a good representation of the frequency range of the amplifier in the audio clip. If you load an audio sample that has a very prominent low end, with arpeggios in the lower strings, you may get a result with a huge amount of low frequencies. Loading an audio clip that contains a solo in the higher frets generally will result in a thin sounding profile.

Many factors influence how the frequencies are perceived from the player being used to the monitoring system, to the position of the speakers, soundcard, headphones, playing style, etc. The analyzer in ACT Combo will read the frequency response in the audio clip regardless of all those elements, and that may result in a profile with frequencies that were hidden in the audio clip being more prominent and thus audible after the analysis. Some source clips may sound terrific, with lots of punch and bottom, but the resulting ACT Combo preset may not be as expected. The same applies for audio clips with too much high end, which can result in an ear- piercing noisy preset. It's also good to keep in mind that the guitar that was used in the recording of the audio clip in question can deeply impact the sound and if you are not using the same guitar, you are bound to get a different result.

Using the LOWS and HIGHS for both input and output is recommended!

Room Sound: Look for a clip that has as little room sound as possible, as it will affect the final results, generally in a bad way. Avoid audio clips taken from the microphone in camcorders. This is very common in YouTube clips.

Guidelines for ACT Combo's channels

Clean Channel: The clean channel analysis does not perform an automatic gain adjustment. The Master knob can be used to add a little bit of saturation to the sound, slightly compressing it and fattening it up.

Crunch Channel: If the analyzed sample had a good amount of gain, ACT Combo can set both the Gain and Master knob to maximum in order to try to achieve the distortion levels. In that case, it is useful to know that the Master knob in the Crunch channel pushed to the maximum will increase the distortion levels, since it adds saturation, but by doing so it reduces the dynamic range (compresses the sound) resulting in a less dynamic tone. A good compromise level would be a level between 4 and 6. Note that even though some amps have a channel named crunch, they may have a great amount of gain and if this is the case, you will probably get closer results by using the Heavy channel in ACT Combo. Experiment.

Heavy Channel: After analysis, the Gain levels may sometimes be too high. Dialing down the Gain knob will result in less distortion, cleaning up the sound. Dialing down the Volume knob will increase dynamics, but the sound may lose some body. The Master knob adds saturation, compressing the sound. While high levels may sound better, it will drastically alter the tone and the dynamics. A good level for the Master knob usually lies between 3 and 5.

Rock sounds usually balance the different gain stages, whereas metal sounds have high Gain / low Master.

If any fizzyness or rumble needs to be tamed, use the LOWS and HIGHS knobs above the Presence and Master controls. The HIGHS on the input can be used as an effective noise reduction filter, whereas the HIGHS on the output will affect both noise and tone. If the distortion appear rumbly, muddy or uncontrollable, try reducing the LOWS on the input. If you lack low end, try increasing the LOWS on the output.

Since using the Crunch or the High Gain channels ACT Combo performs an analysis on the audio for the distortion levels and dynamics, it is enough to set the gain knobs only roughly. ACT Combo will adjust the gain knobs for you. You may need to re-adjust the gain after the analysis.

Process for achieving the best results with ACT Combo:

1 – Choose an audio sample that follows the requirement given earlier in this document. The better the sample, the better the chances of getting a good result.

2 – Normalize the input level in ReValver's top rack. Based on the sample, choose the channel of the ACT Combo that closely matches the distortion level of the sample being profiled. There are 3 different channels available in this module: Clean, Crunch and Heavy.

3 – Without making any changes, load the clip into ACT Combo. After the analysis, the gain levels might be too high. If so, adjust it accordingly. Normalize the output level in the ReValver top rack so it doesn't distort. Does the result sound like the source clip? If the answer is no, then follow up to number 4;

4 – Reset it and start again. Try approximating the sound by adjusting the gain and the tonestack controls in ACT Combo. Load the source clip into ACT Combo. The resulting gain might be exaggerated and if so, adjust it accordingly. Normalize the output level, so it doesn't distort. You can further dial in the sound by turning the EQ Assist option on and adjust the tone to match the that of the source sample.

Please consider that if you are profiling a sample that was recorded using a guitar with single coil pickups set to the bridge pickup but you are playing a guitar with humbuckers set to the neck pickup, it will make the matching much harder. The input Lows and Highs knobs in the preamp section of ACT Combo can be used to add or remove high and low frequencies to your guitar sound, so they affect the sound before it enters ACT Combo's amp circuit. They are very subtle and can be used to further match the distortion character if it doesn't match the source file. If your result is too noisy, try reducing the highs. If the distortion is too muddy or rumbling, try reducing the lows. If there is simply too much distortion, try reducing the input trim.

It is also worth considering using the ACT Input Module to help the guitar you are playing better sonically match the instrument being recorded. ACT Input Module presets are available in the ReValver Amp Store to simulate the sound (both instrument and electronics) of countless acoustic, bass and electric instruments.
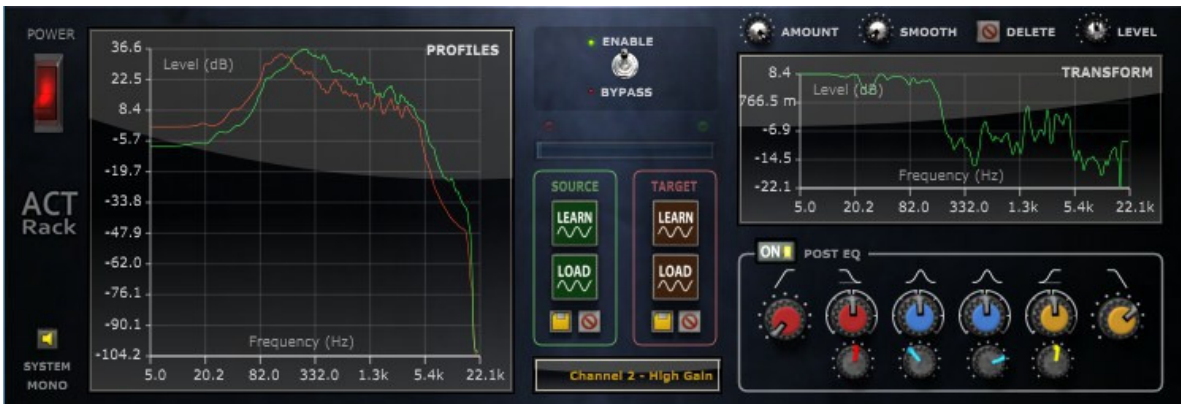
ACT Rack is a smart EQ cloning/matching module, suitable for both instruments and mixes, with extra tone-shape tools to help dial in the sound you are looking for. The ACT Rack module can analyze the frequency response (EQ curve) of a "target" audio file or DAW track and apply the frequency response to your "source" track.

ACT Rack can process mono and stereo audio, but the analysis steps are done in merged mono. As with most other filtering apparatus, the final EQ is applied to both channels in equal amount.
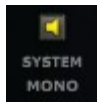
*The **SYSTEM MONO** switch from the Input Mixer UI (on top of the ReValver GUI) is duplicated in ACT Rack. System Mono merges incoming stereo to duplicated mono.*

Source and Target

The EQ created by ACT Rack is the difference in frequency response between a **Source** sound and a **Target** sound. That EQ can be applied to the source, to have it sonically match the target sound.

Both the **Source** and **Target** sounds can be analysed by either streaming audio using a track in your DAW or loading an audio file (*.wav, *.ogg, *.aiff, *.opus, or pre-analyzed profile.)

Creating a Source or Target profile

The process of analyzing the Source and Target profile is identical. In some cases it may be more intuitive to create the source profile first.

An analysis profile is created either by using the **LEARN** or the **LOAD** functions. While the **LOAD** function is very fast and able to compute the frequency response of an external audio clip right after loading, the **LEARN** function requires a stream of audio, that will be analyzed as the stream plays.

To analyze an audio signal using the **LEARN** function, click on the button for either the source or target profile slot highlighted in the following image:
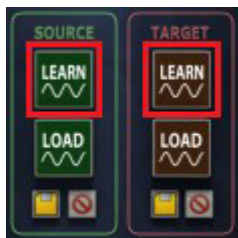
If you are working in a DAW environment, play the track that you are analyzing until the progress bar in the ACT Rack module indicates completion.

As the ACT Rack requires audio running above a set threshold level, the LEARN process will remained paused if the audio is not loud enough. If this is the case, ensure you are playing the correct track and raise the level as needed.
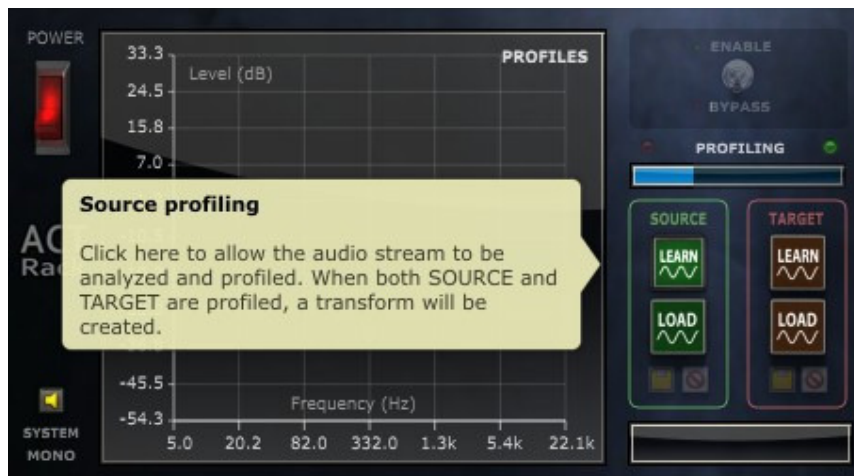
When done, the source profile will be displayed in the frequency response graph as **green**, and the target will be displayed as **red**.

To analyze the frequency response of an external audio clip, click on the **LOAD** button, highlighted in the picture below:

Locate the audio file you wish to analyze and load it. ACT Rack will automatically create an analysis profile from the loaded audio clip and display its frequency range on the **PROFILES** display.

You can save this profile by clicking on the Save button. ACT Rack will save a file that contains the frequency response of this particular profile, that can be loaded at a later time using the **LOAD** button.

The profile can be cleared by clicking on the button.

When an EQ has been created based on the source and target profiles, it will be disabled by default. To enable and apply the EQ profile you will need to enable it manually.
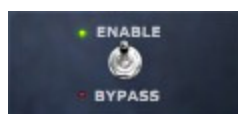
After enabling the EQ, the EQ profile will be applied to the audio passing through the ACT Rack module. The **TRANSFORM** display will present a curve that represents the difference between the **SOURCE** and the **TARGET**, in other words, the EQ that was applied to the original sound.

AMOUNT - It's a blend control, so you can mix the original sound with the transformed one. The default value is 100%.

SMOOTH - Sharp peaks in the transform can be attenuated with smoothing. This function can often enhance the transformation applied to the audio.

Hint: Sharply defined EQs carry a certain amount of phase distortion, which is reduced in the smoothing process. Smoothing tends to work better for complex audio such as mixes, whereas sharper EQ tends to work better for single instruments. In the end, you should trust your ears to determine whether or not to use smoothing.

The Amount & Smooth knobs will be unavailable, and the transform graph will be empty, when reloading an ACT Rack preset. The transform itself however, will be fully operational. To tweak the transform in any way after reloading the ACT Rack preset you need to load the source and target slots again.

A delete button is available to remove the transform. A level knob allows for output adjustments.

ACT Rack provides an extra set of tools to shape the final transformation, without the need of having load an external parametric EQ:
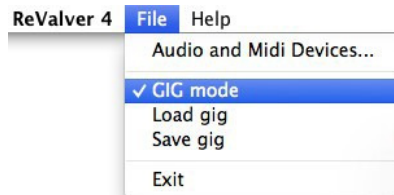
POST EQ, with high and low pass filters, two shelves and two bands.

Only available in Stand Alone operation.

GIG mode gives you the ability to pre load up to 8 presets and then switch between them seamlessly, allowing ReValver to become a powerhouse live rig.

To enable GIG mode, select it from the File menu.

This will then bring up the GIG mode bar above the usual GUI. From here, click on the empty slots and load in your desired presets.

If you click between these slots, you will see that the preset you select loads instantly with no delay. Each slot corresponds to MIDI Program changes 1-8 so using a MIDI command you could change entire presets, along with being able to still employ Control Changes for switching within that preset. See the **MIDI Control** section for more info on this.

There is also a set of filters in the top right especially for GIG mode. Use these as a master EQ to tweak the entire set of presets to maybe suit a specific room or scenario.

As well as been able to use 8 fully functional guitar rigs, you can also Save and Load "gigs". This means you can have any number of gigs pre programmed and ready to load up when needed.

One of the great features of ReValver 4 is the ability to expand the gear available via the Amp Store. Even if just using the basic free download of ReValver 4 you have full access to all modules to "Demo", with save being disabled and a beep sounding intermittently. If you want full functionality of any of these modules, you can go and purchase from the Amp Store @ https://revalver.peavey.com

Once purchased, the license for that module will be added to your account and from there you just have to log in to the Amp Store within ReValver and download the license to your machine. There are of course multi buy bundles along with many individual modules, cabinets and ACT libraries available to purchase.

The Amp Store will be a constantly updating source of new modules to keep all the gear hungry players out there happy! After purchasing any item in the Amp Store, this item will be available for download any number times, to any number of computers - but to *use* the item(s) you must still have your personal USB device attached or the item will be used in demo mode.

MIDI Control

MIDI control can be done in two ways. 1) From a dedicated MIDI controller sending Program, Note and Control Change (CC) messages. 2) Using Plug In automation within your DAW.

Using a MIDI Controller

Virtually all parameters in ReValver 4 modules can be controlled by MIDI. Using Control Changes, this allows you to switch stomp boxes on and off, switch channels on amplifiers, control expressive effects such as a Wah and even use expression pedals to control something such as Diffusion on
the World Wide Verb delay for extreme delay control.
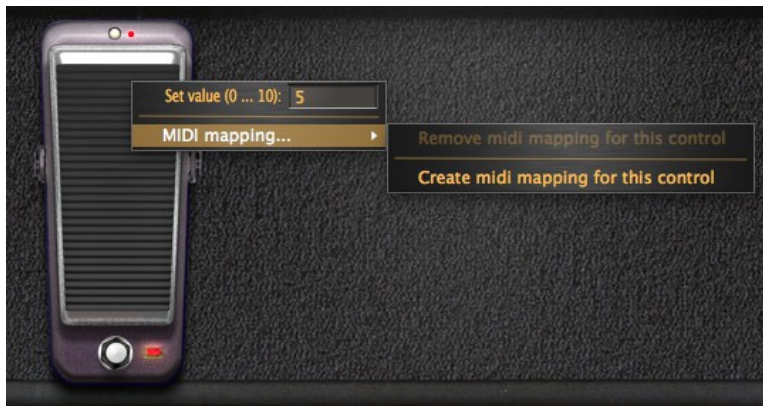
To assign a CC to ReValver it's as easy as right clicking (or alternative) on the control you wish to assign, MIDI mapping and then "Create midi mapping for this control" as above.

You'll then be presented with this screen:

Using a MIDI foot controller with the example above, you could move an expression pedal and this pedal would now control the Wah (see more in **Tips & Tricks** for Wah control).

Using just MIDI CC messages is a very powerful way to get a LOT out of just one preset. If using GIG mode as well then there is even more that can be achieved.

GIG mode automatically has Program Changes 1-8 assigned to seamlessly switch between the 8 presets you can load. By consulting your MIDI controllers manual you can usually setup Program and Control changes to be sent by different pedals, allowing you to switch between presets and control the effects within. See **Tips & Tricks** for an example of how to do this with one particular MIDI controller. *All MIDI controllers differ so please consult their documentation for information.*

<u>**Plug in automation**</u>

Plug-in automation is a way to control the ReValver UI element from within the DAW. To do so, a GUI element must be mapped to a "name", that is exported to the DAW. ReValver provides a set of predefined suggestions such as "Amp Gain", "Mid", "Master" etc... but any UI element can be mapped to any name.

In previous versions of ReValver, select UI elements were pre-mapped against names that made "sense", but in the event you had two amps, was not possible for either ReValver or the DAW to say <u>which</u> Amp Gain, <u>which</u> Mid Tone control etc... In ReValver 4, such mapping must be done by the user.

To map an automation name to a UI element, click with the mouse to bring up the context menu; then either select a map name or remove it.

The DAW is aware of the map names even before you have made an association with a UI control, but before you map anything, no connection will be made.

Please refer to the DAW user guide on how to record and make use of automation information.

Significant effort has been made to ensure ReValver 4 can be run on the greatest number of systems. Since you do not have to do a purchase to evaluate ReValver you are recommended to try it out first.

Windows

Runtime environment: Windows XP or later. VST 2.4/AAX host, or sound card (preferably ASIO)

CPU: 32/64 bit with SSE2

RAM: 2GB

Disk Storage: 500MB

A free USB port and a USB device which to lock license or a USB device already in use (existing dongle, audio interface, hard drive etc.)

Windows Tablets are supported if they fulfill the requirements above. Tablets with ARM processors are not supported. A keyboard may be useful for some tasks.

Mac OSX

Runtime environment: Mac OSX 10.7 (Intel CPU). VST 2.4/AU/AAX host, or sound card (CoreAudio)

CPU: 32/64 bit with SSE2

RAM: 2GB

Disk Storage: 500MB

A free USB port and a USB device which to lock license or a USB device already in use (existing dongle, audio interface, hard drive etc.)

All platforms

ReValver 4 does not support RTAS and will for Pro Tools compatibility require a 32/64 bit AAX enabled version, version 10.3.5 or later. Please note that VST3 is currently not supported. You may evaluate compatibility before purchase.

The built-in AU / VST host of ReValver will require the 3rd party plug-in being built for the same platform. The 32 bit version of ReValver will require 32 bit plug-ins and the 64 bit version will require 64 bit plug-ins. You may evaluate compatibility before purchasing the module.

Tips & Tricks

Using the Signal Splitter:

1 – Use the signal splitter in the pedal board view to blend two different effects, distortion, or even as a wet/dry control. Let's say you want to create a unique modulation effect, blending a chorus pedal and a flanger. Load the signal splitter and put the chorus pedal into the blue part and the flanger into the red part then experiment with the blend control. You can also use it the same way to blend different distortion pedals and get different flavors of distortion. To use it as a wet/dry control, load the pedal you wish to use into the blue part of the signal splitter and leave the red part without any pedals and then use the blend control to mix the effected signal with the dry one.

2 – In the amp view, one can use the signal splitter to accomplish unusual setups, like to connect an amp with 2 different speaker simulation modules (RIR, RIR 2 or RIR 2 Lite) or even load two different amps and their respective cabinet simulators, with the option of blending the two different signals for greater tonal pallet or simply panning each different signal to a side of the stereo field to get a stereo sound.

3 – In the effects view, you can use the signal splitter to blend 2 different effects such as a flanger and a chorus or even blend two different reverbs for a richer ambience.

Using ACT:

1 – If you have an old set of strings in your guitar, the input ACT libraries can help get a little brightness back!

2 – It's likely that you will get better results in ACT if you use the same pickup as the one used in the library that you are choosing. Example: Use the neck pickup of your guitar with a neck library in ACT.

3 - The ACT output module can be used to salvage some poorly recorded guitars. Just load ReValver 4 as an insert plugin in your DAW on the same track that you want to "fix". Select a profile in the ACT module and profile the sound from your guitar track in the DAW by playing it back. Then, after the preset is applied, you can browse through the various samples we have provided as your recorded track plays back to find a more suitable tone.

Signal processing tips:

1 – If you are using any ambience (reverb or delay) in your sound and use the compressor in the Output mixer, be conservative with how much of the effect you put in your sound, since the compressor is likely to make it much more present.

2 – If you want more control, use a shorter attack on the compressor, since it will tame the transients. If you want more punch, use a longer attack time and it will let more transients pass before compression kicks in. If you want more sustain, use a longer release time. To have a better notion of what the attack and release of your compressor are doing to the sound, exaggerate the ratio and threshold controls until it is really affecting the sound in a way you can perceive it clearly. After adjusting the attack and release to your taste, dial back the ratio (3:1 or 4:1 are commonly used) and then the threshold.

3 – When using an EQ, give preference to cutting out the frequencies you don't want rather than boosting the ones you want. After cutting, don't forget to compensate the gain of the EQ before you compare with the unequalized sound since the loss in volume may trick you to think that the unequalized one sounds better.

4 – High Pass and Low Pass filters do wonders for guitar sounds. Usually, one can roll off the frequencies below 80Hz and above 12KHz. Sometimes, a Low Pass can go much lower and still allow the guitar tone to cut through (8KHz is possible).

5 - All modules have a setting allowing for oversampling or undersampling. While this setting has been set to a default appropriate to the nature of the module, it can be changed to save CPU.

Tweaking the circuitry:

1 - The schematic in the Tweak UI can be tweaked in the same way a circuit could in real life. The same tweaks that can be applied to a hardware amp can be used in ReValver. You may find tips on the Internet that would apply to ReValver as well.

2 - Although you cannot set the idle bias current in ReValver (but rather the voltage) you *can* display the idle current in the power amp section by hovering over the green "?" icon at the bottom right of the transformer. A suggested range of idle currents for each type of tube can be found in the tube tweak UI.

3 - A quick way to change the gain of a preamp tube stage is to alter the "plate resistor" above the tube. Higher resistance means higher gain and vice versa.

4 - Try different tubes in the power amp section. Switching EL34 and 6L6 tubes can create quite obvious but pleasing tonal differences.

More Tips:

1 – Despite being more favoured by blues players, for a metal sound, the Greener module before the amp can help you get a tighter and more pronounced sound. Experiment!

2 – In some amps, you can add a lot of weight to the guitar sound by driving the power amp. Sometimes it is labeled drive, sometimes simply volume (generally when there's a Master Volume button too). Clipping the power tubes gives a different feel and tone to clipping the pre amp tubes.

3 – For lead guitar sounds, sometimes it is better to use a small cab than a bigger one. With the way the cabinets interact with the amplifiers in RIR 2, it really is worth trying out.

4 – If you are multi-tracking, use different amps, with different cabs for each track. It will make it easier for you to place each guitar in the mix later whilst creating richer textures.

5 – Always audition your guitar sounds in context, even if you have to use jam tracks or backing tracks to do it. A great guitar sound on it's own can be easily buried in a mix and a guitar that sounds harsh on it's own can sound just perfect mixed into a track.

6 – When normalizing your input, make sure to play all strings. If you normalize it by playing, let's say a riff using only the higher strings it will clip when you play a power chord, since the lower strings carry more energy.

7 – Adding some ambience to guitar sounds can help with realism, while too much can muddy things up.

MIDI Tips using a Roland® FC-300

1 - Set the pedal to **Program** mode to simply switch presets in GIG mode. Pedals 1-8 will correspond to the relevant preset slots.

2 - Switch the controller to **Control** mode to send Control Change messages as described in the **MIDI** section of this manual. Easily assign CC's to switch stomp boxes on/off, switch channels on amps and assign expression pedals to control the BudWah,
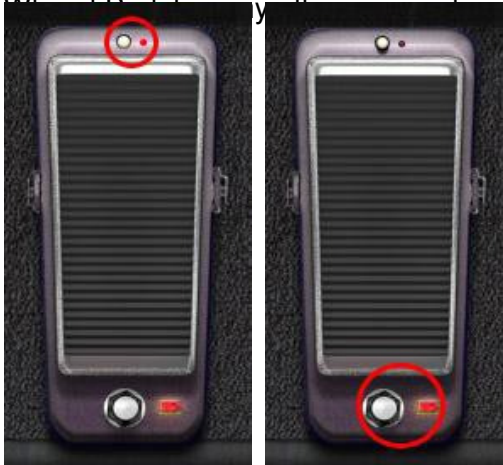
3 - The BudWah features a toe switch button at the top of pedal.

If the expression pedal has been assigned and this switch is engaged, the pedal will automatically switch on and off when the expression pedal is 98% of the way forward, like a Morley® Bad Horsie for example.

To have the Wah operate more like a traditional Wah, disengage the toe switch (ringed in the top image) and with the expression pedal already assigned and pushed all the way forward, use the *physical* toe switch of the FC-300 to assign that function to the circled On/Off switch at the bottom of the wah.

Now when "toe switching" the FC-300's expression pedal, it will switch the Wah on and off.

- To allow Program Changes to switch presets in GIG mode and *also* Control Changes for switching effects within these presets then please use PATCH mode.

Press the first pedal on the FC-300. Press the **PARAMETER ➤** button then press the **WRITE**
button twice. From where it says **001** scroll across to the first ------ section and press **VALUE ·**
to display **PC**. As a default it should be CH#01 and PC#001. This is correct for this instance, but for controller pedal **2** make it PC#002 so switch 2 will switch to the second preset in GIG mode.

You can continue to assign all the bottom row of pedals to switch Program changes 1-5 and then use the bank up pedal to control the last three program changes (6-8) available in GIG mode.

If we go back to the first preset, we can now press the **PARAMETER** ➤button to scroll to assign a CC# for the CTL 1 button. Different CC's can be assigned to this pedal for use in different presets and also whether the switch is Latching or Momentary can be determined.

Both expression pedals can also be assigned including use of the toe switches as described in point 3 above.

4 - Using a Control Change method you can switch more than one pedal at a time. Try having one pedal off and one pedal on, then assign the same CC to them. You'll then have them switch at the same time. For example, one button could switch Chorus OFF whilst also switching a Compressor ON.

Check the Peavey Forums for more Tips & Tricks and to add your own!

Features and specifications subject to change without notice.