USER MANUAL

v. 1.0.0

INTRODUCTION

Thank you!

We'd first like to thank you for purchasing. Our goal when developing TH-U was to create a flagship application even more powerful than the previous version: TH3.

TH-U incorporates modules with the best emulations of real guitar rig elements achieved with top quality software DSP.

Cool Features

TH-U has the following main features:

- Comes in the following formats: VST, AudioUnit, RTAS, AAX and standalone for macOS, and VST, RTAS, AAX and standalone for Windows;

- Provides an interactive virtual guitar rig where you can add modules like pedals, amplifiers, cabinets and rack effect units and trim their controls;

- Adds control to amp head sound permitting access to amp tweaks;

- Also lets you use a special component, the rig-model player, which allows to play rig model files that Overloud will provide collected in libraries;

- Can be loaded as a plug-in effect in a DAW application like Logic Pro, Garage Band, Sonar, Live, Cubase, Pro Tools and the like;

- Supports MIDI communication with foot controllers or other MIDI devices to load presets and to adjust effect parameters;

- Includes a built-in licensing manager letting you to authorize and de-authorize TH-U on your computer(s) autonomously;

- Includes a huge collection of factory presets letting you to start immediately after the installation with great sounding setups covering a large range of musical genres;

- Works with the lightest DSP engine on the market to obtain the best tones with minimal CPU load and shortest latency;

- Supports retina display graphics natively with gorgeous high resolution interactive modules.

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ABOUT TH-U

With TH-U you can replicate your own real guitar rig by adding effects and modules and trimming their parameters like you do in reality. Or either you can reproduce a certain sound by using the reproductions of specific Amps, Cabinets and Effects.

Moreover you can play a rig model with the dedicated Rig Player component.

The User Interface

The user interface of TH-U is organized into three main sections: Presets, Sound Chain and Components.

The **Presets** section lists all the allowable presets. Presets are grouped in Banks. The number of banks is unlimited, while each bank contains 128 presets.

The **Sound Chain** is a view over the current guitar rig which actually looks like a chain of modules so that it's easy to follow how the sound is processed between the TH-U input and output.

The **Components** section lists all TH-U components. Adding components to TH-U is easy: just drag and drop them from the list to the insertion point over the sound chain.

Tools

Tuner

TH-U includes a useful Tuner with optional Auto Mute function (not to play through the outputs for example while you are tuning your guitar in a live performance).

Looper

Also, TH-U includes a complete multi track Loop Station with which you can record and overdub your loops.

GETTING STARTED

Let's spend a few minutes to get acquainted with TH-U. In order to make you feel confident in using TH-U, this chapter will guide you through the fundamental aspects of the application in as few steps as possible.

We know you'd rather play than read.

Create your User Account

The first thing to do, if you haven't done it yet, is to create your own Overloud User Account.

Browse the Internet to the Overloud web page www.overloud.com. Create your account by providing your personal information, paying attention not to mistype your email address which will be the way to communicate between us and the identifier that our servers will use to deposit your licenses.

Authorize TH-U

After the purchase of TH-U you will receive an email with the serial number which represents your license of TH-U.

The serial number has the following format:

TUBN–KH5K–00F5–RMWP

To authorize your license, just run TH-U then you will see a dialog box warning you that the application is not currently authorized. You can choose one of three options:

• run a short test demo of 10 minutes;
• start an evaluation period of two weeks;
• authorize your license.

Both demo options let you test TH-U full working, for a limited time, so that you can make an idea of the product before possibly deciding to purchase it.

You can authorize your license of TH-U by providing a couple of information and choosing where to store your authorization.

Click the **Authorize** button on the TH-U Authorization dialog box and you will be prompted to type in your account (the email address of your User Account) and the serial number.

Next, choose where to store the authorization information:

• this computer;
• USB removable device.

Choosing **this computer**, you will enable your computer to run TH-U. This is usually the easiest and fastest option to authorize TH-U and forget about authorization.

Our licensing management lets you remove your authorization by your own, for example if you are going to sell your computer.

Choosing **USB removable device** you will store the authorization on a USB device and you'll be able to move it by bringing the USB key with you.

This is particularly suitable when you are changing computer often, or either if you use to reformat your system from time to time.

De-Authorize TH-U

You can de-authorize TH-U in two ways: from inside TH-U itself or from your User Account online page.

To de-authorize from TH-U, click **SETTINGS** and **Manage your Authorizations…**

You will see the list of all your active authorizations, each with a **Remove** button next to it. Just click that button for the authorization to remove.

TH-U keeps a connection with our online servers to update the amount of authorizations in use.

Authorization Limits

You can authorize TH-U on up to 3 (three) separate computers plus 1 (one) USB stick.

You can de-authorize the same license of TH-U no more than 10 (ten) times in the last 365 days.
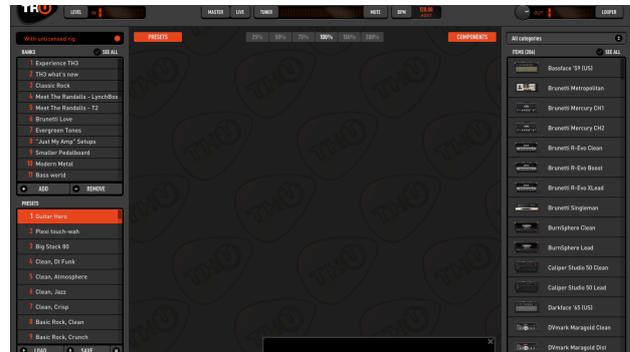
Run TH-U

Once the authorization is completed, TH-U will be ready to use.

Presets

On the left side of the interface you can see the Preset column. In the upper side of the column you see the **BANKS** list. Each bank contains 128 presets. Click a bank of the list to select it.

Right below you see the **PRESETS** list. Note: not all the 128 presets of the selected bank have to contain a preset. The empty ones are marked with: **<empty>**.

To load a preset, select it and click **LOAD**, or just double click it.

The Sound Chain View

The central area of the user interface is the **Sound Chain View,** which shows the current setup of TH-U.

The view is zoomable. You can choose a suitable zoom factor with the zoom buttons.

| 25% | 50% | 75% | **100%** | 150% | 200% |

The sound chain beginning (the input of the TH-U sound processing) is on the left end. Then the sound direction goes towards right until the right end of the chain where is the output.

Two types of sound chain are available: linear and parallel.
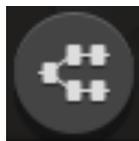
The **linear** one is a straight sequence of modules between the input and output of THU.

The **parallel** one is a little more complex: in a certain point with a **Splitter** it splits the sound into two parts, upper and lower, where you can place your modules, and then it mixes the two parts together again with a **Mixer**.

This configuration of the Sound Chain lets you to process the same sound in two different ways and to mix the two processed sounds together.

You can switch the type of sound chain by clicking the oval button on the bottom left corner of the Sound Chain View. The actual behaviour of the button changes depending on the current configuration of the sound chain. For example, you might be asked for a confirmation before possibly removing some components when you switch from parallel to linear chain.

About TH-U Components

Right after using TH-U for a minute, you will be tempted to touch switches, turn knobs and so on. Well, just do it!

The Sound Chain View is totally interactive and lets you improve the processed sound at any time.

Knobs have some features:

- **drag** up/down to adjust;
- **shift-drag** to fine set;
- **cmd-click** to reset to default.
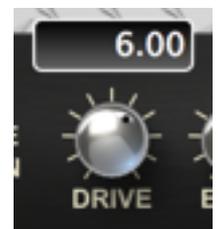
Knobs have their value shown while you move them.

Components

On the right side of the user interface there is the **Components** column.

The column contains a list of all modules available: amps, cabs, stomp pedals and rack effects.

You can add one of them to the current sound chain at any time: just drag the item from the list and drop it to the insertion point over the sound chain.

On the top of the list you can see a drop down list with the selected category of components.

When **All categories** is selected, components are visibile all together.

Otherwise you can select a category. This will make it easy to focus on a certain kind of effect and see all the possible allowable alternatives.

Non licensed components appear shaded, and if you drag one of them to the sound chain TH-U will prompt you about using an unlicensed component allowing to either evaluate it (Demo) or to authorize (you'll get an authorization code by purchasing it from our website).
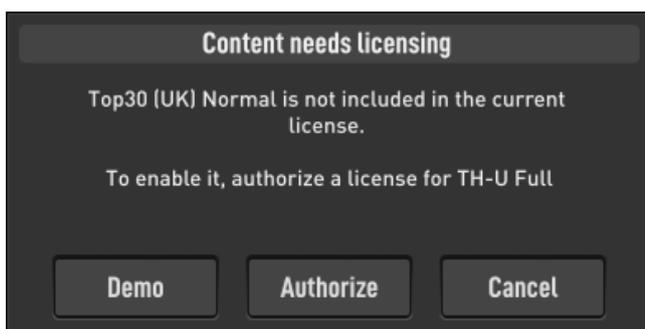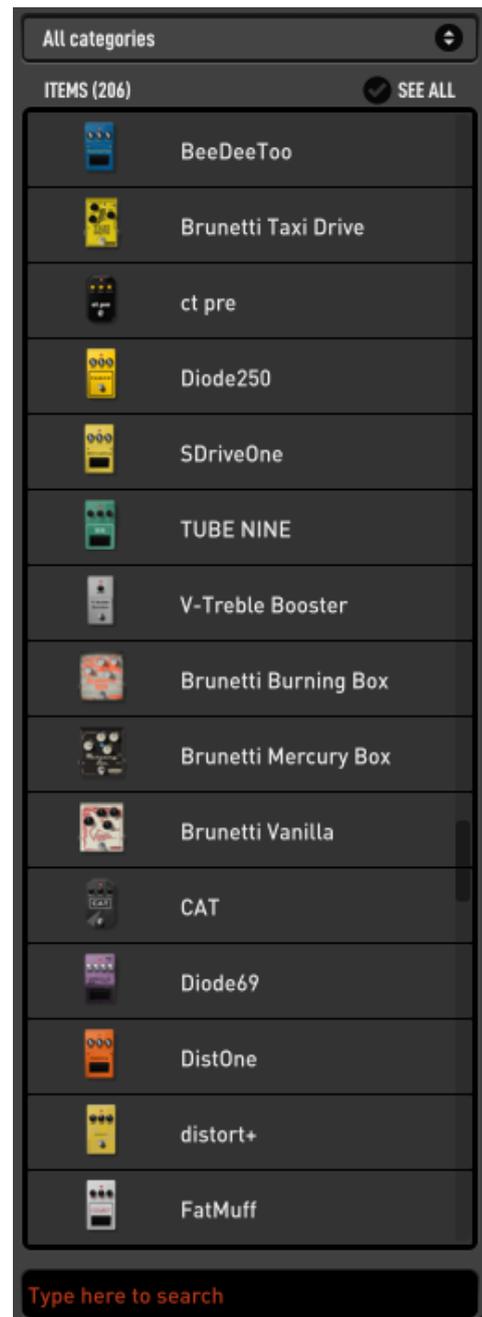
TH-U Top Panel

On the top side of the user interface there is a header band containing some useful tools. Starting from the left side, the first one is the **Input Level Adjustment**.

Input Level Adjustment

Click the **LEVEL** button to open the **Input Level Adjustment** dialog window.
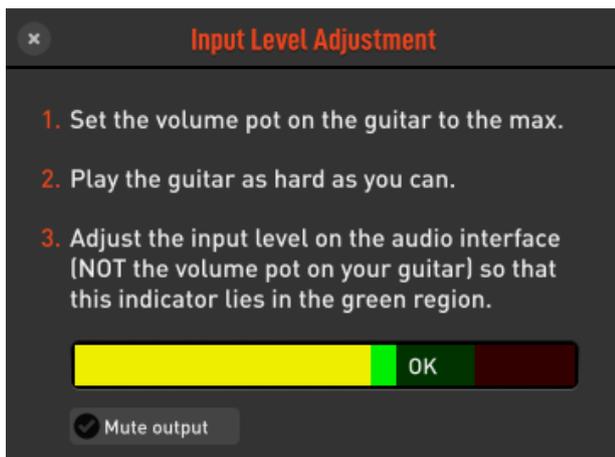
This dialog window supports you to correctly set the volume knob on your guitar and the input level of your audio interface.

First, set the volume on the guitar to the maximum.

Then play your guitar very hard to simulate the highest level you will ever reach while playing normally and while you do that...

Adjust the input level of your audio interface to keep the level shown in the three colored bar in the green region.

Master

When you click the **MASTER** button, the **Master Controls** panel appears. Master controls apply globally, independently from the TH-U preset settings. This allows you to adjust the overall sound of TH-U.
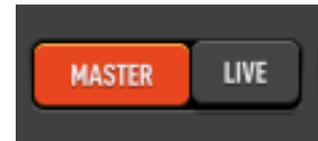
The **In Source** area is where you select the input channels for TH-U. You can take a stereo couple as input, or only one of the stereo channels: **LEFT** or **RIGHT**.

Sensitivity: changes input sensitivity as much as it would be on a real amp. **LOW** is best suited for single coils, **HIGH** for usually works better with humbuckers.

Noise Gate: Noise Gate threshold level. Works as a combined Expander/Gate for maximum efficiency. Adjust to reduce possible noise when present, for example if the pickups are particularly noisy, of if you are working at higher gain levels.

Low & High: master EQ. Adjust the overall low and high frequencies of TH-U. This

EQ is global and independent from the preset settings.

Reverb & Delay: Adjusts the overall amount of these effects. Adjust them to increase or decrease the effects globally, independently from the preset settings.

Live Mode

The **LIVE** button sets the Live Mode of TH-U.

The preset management keeps track of the modifications done to a preset (you see that a preset has been changed with the orange circle next to the preset name on the top of the preset column). And when you load a new preset with some changes pending, a prompt will appear asking you to confirm that you really want to continue discarding those unsaved changes.
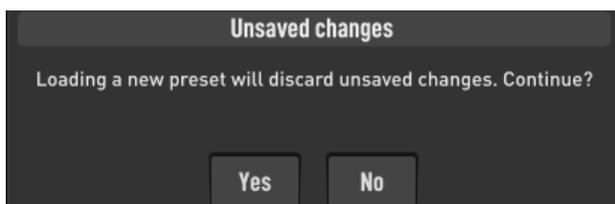
In a live performance this could be annoying, because you'd need to move the controls (via MIDI for example), and still be free to load a new preset without being stuck on that prompt.

When the Live Mode is on, this prompt is skipped (pay attention not to keep the Live Mode on, for normal usage of TH-

U, because you'll risk to lose your modifications).

Also, when Live Mode is on, if you change preset, some parameter values will be preserved across the preset change (the list of the preserved parameter is the one of the **GLOBAL MIDI BINDINGS** grid in the **MIDI** settings).

So, if you move from one preset to another – where both of them have the Volume pedal – and you set the pedal position via MIDI (with a foot controller)
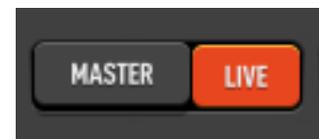
halfway, then at the loading of the new preset, the Volume pedal position will be kept the same across the preset change.

Tuner

In the central region of the Top Panel of TH-U there is the **TUNER**.

You can activate the Tuner anytime. It will process the clean sound coming from the TH-U input.

This is a Chromatic Tuner, able to automatically recognize the tuned note which is closer to the one you play. The Tuner shows you how much the note is detuned respect to the tuned one.

When you see some bars (or a dot, depending on a preference setting) on the right side of the central area, then you have to loosen the string on the guitar. If you see the bars on the left side, then you have to pull the string.

Adjust your string until you only see the note name on a green rectangle.

Activate the **MUTE** to temporarily mute the TH-U output while you tune your guitar.

Set the option **Auto mute when the tuner is on** to on, in the TH-U preferences, to connect the **MUTE** on/off setting to the Tuner power.

BPM

TH-U supports time based parameters that can be optionally synchronized to the BPM of the song.

TH-U can take the BPM from three different sources:

- **HOST**
- **INTERNAL**
- **PRESET**
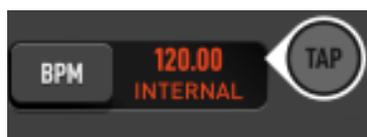
When **HOST** is selected, TH-U detects the BPM from the DAW application (Logic Pro, ProTools, Sonar, Live, Cubase, ...). It keeps a connection to the BPM even when it varies across the song.

When **INTERNAL** is selected, TH-U generates an internal beat, as if it would receive it from a DAW. The BPM can be set by double clicking the currently displayed value or rhythmically clicking (tapping) on the **TAP** circle.

When **PRESET** is selected, TH-U generates and internal beat. The BPM value gets saved with the current preset.

Input and Output Level Meters

The **IN** meter displays the Input level, of the input channels of TH-U.

You should try to keep the input level as high as possible without reaching the saturation. You can get assisted to set the correct IN level by clicking the **LEVEL** button as described above.

The **OUT** meter shows the level of the output channels of TH-U. The output level too, like the input, should not reach the saturation.

You can adjust the level of TH-U on the single effects by moving the **LEVEL** knob, where present.

Or either you can adjust the overall output level by turning the Output level knob close to the **OUT** meter.

Looper

TH-U includes a multitrack Loop Station with which you can record and overdub two tracks.

The interface of the Looper has two regions: the transport section and the tracks section.

Transport

PLAY & STOP button controls the looper player.

COUNT IN selects the intro quarter beats to be played before starting the first recording.

METRONOME option plays quarter beats basing on the current TH-U BPM shown on the Top Panel.

QUANTIZE option lets you stop the first recording in correspondence of a the closest BPM quarter beat, even if you stop it slightly before or after.

CLEAR ALL empties the current track recordings and sets the looper to its initial status.

Tracks

Next, there are two columns with track control, with the level fader on the left followed by **STOP, REC/PLAY/OVERDUB, DELETE**

and **UNDO** buttons on top of which there is the track real-time status indicator.

Usage

Starting with the looper in its initial status (see picture), you can set the **COUNT IN**, **METRONOME** and **QUANTIZE** options according to your needs.

Then click one of the tracks **REC** button to start the recording.

After the count-in beats, if any, the recording starts and you'll see the loop length values (in beats and seconds) growing on the top of the transport area. This is how you establish the loop length which will be set when you'll stop the recording (the loop length will be taken instantly and possibly adjusted to beat boundaries if **QUANTIZE** is **ON**). Next, you can play the loop and possibly overdub the same track or record on the other track.

UNDO lets you discard the last recording if it does not satisfies you.

**DELETE** lets you delete the current track audio content.
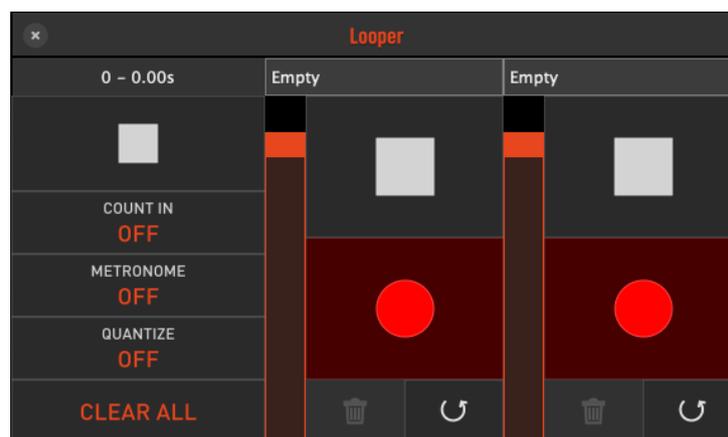
TH-U Top Bar

On the top of the graphic interface of TH-U, there is a bar with some command buttons for some accessory functions.

SETTINGS

Here is where you set your preferences about some options of TH-U.
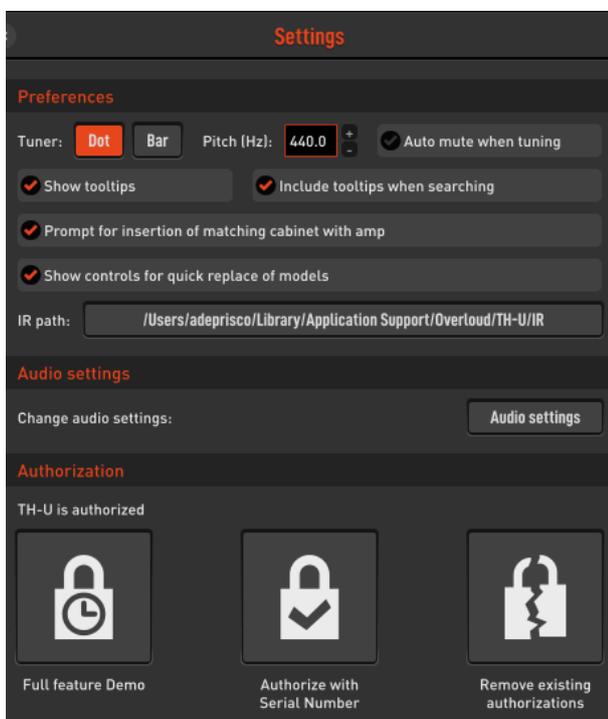
Preferences

Tuner display mode: **DOT** or **BAR**. Selects how the tuner shows the detected pitch on its scale.

Pitch: adjusts the reference pitch of the Tuner. It is the pitch of the A4 note.

Auto mute when tuner is on: sets if the **MUTE** function should automatically follow the power of the Tuner.

Show tooltips: if on, a short description appears when the mouse cursor stands over an element of the user interface.

Prompts for insertion of matching cabinet with amp: when on, each time you add the first amp to the sound chain, TH-U will ask if you also want to insert the matching cabinet.

Show controls for quick replace of models: if enabled, when the cursor hovers a component, two arrows will appear, allowing you to quickly replace the component with another model of the same category.

Audio Settings

This is where you adjust the audio settings of TH-U. This section only appears when you run TH-U as a standalone application.
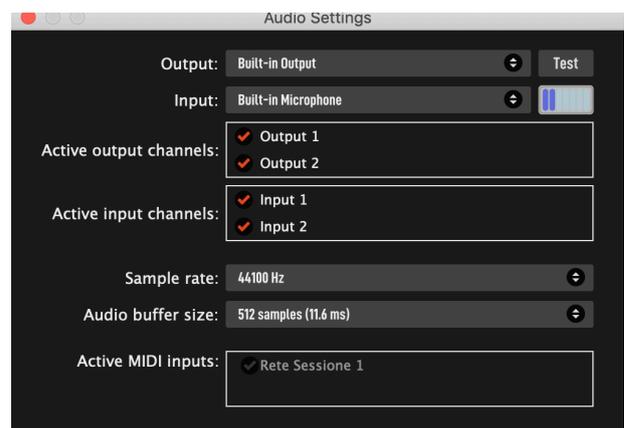
Output: select the output audio interface.

Input: select the input audio interface.

Active output channels: select the output channels.

Active input channels: select the input channels.

Sample rate: select the sample rate of the audio interface. Many audio interfaces can work ad different sample rates. The default rate is 44100 Hz.

Audio buffer size: Audio buffer size is very much dependent on your computer overall performance and on the kind of audio device connected. Usually 256 samples is a good starting point; you might want to lower this to 128 samples or even to 64 samples if your audio hardware supports them. Pay attention that a too much low setting can affect

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SELECT MONO INPUT FROM STEREO COUPLE

If you select Active Inputs 1 and 2 of a stereo audio interface (some devices don't allow to select a single channel from a stereo couple for mono sources like a guitar), you can still set TH-U in order to only consider the left or right channel of the stereo input. Access the Master panel clicking on **MASTER** and look at left side of the panel: **In Source**.

TH-U or the whole computer performance bringing to clicking and crackling, better known as buffer dropouts.

Active MIDI inputs: select the physical or virtual MIDI inputs you mean to use to remotely control TH-U.

TH-U, by design, listens to MIDI input flow on all channels of the selected ports, simplifying your work.

Authorization

The authorization of your license of TH-U is mandatory in order to let it run.

The authorization procedure is described in the first part of this document, see Authorize TH-U.

MIDI

TH-U has a straightforward MIDI implementation allowing to easily connect almost any kind of remote MIDI controller, be it a keyboard, a table-top controller or a foot-controller.

All MIDI activity is managed in the MIDI preferences panel, accessed by clicking **MIDI** on the TH-U top bar.

Program Changes recall presets in current bank: sets the way that Program Change events are to interpreted. If the option is enabled then each PC (Program Change) event is taken as an immediate recall of the corresponding preset of the current bank. Othe rwise, if the option is disabled and you'll still need a way to change presets then you'll bind MIDI events to the Previous/Next preset loading operations as described below.

Bypass Wah at min position: when on, turns off the Wah automatically when the Wah expression pedal reaches the minimum position (all the way up).
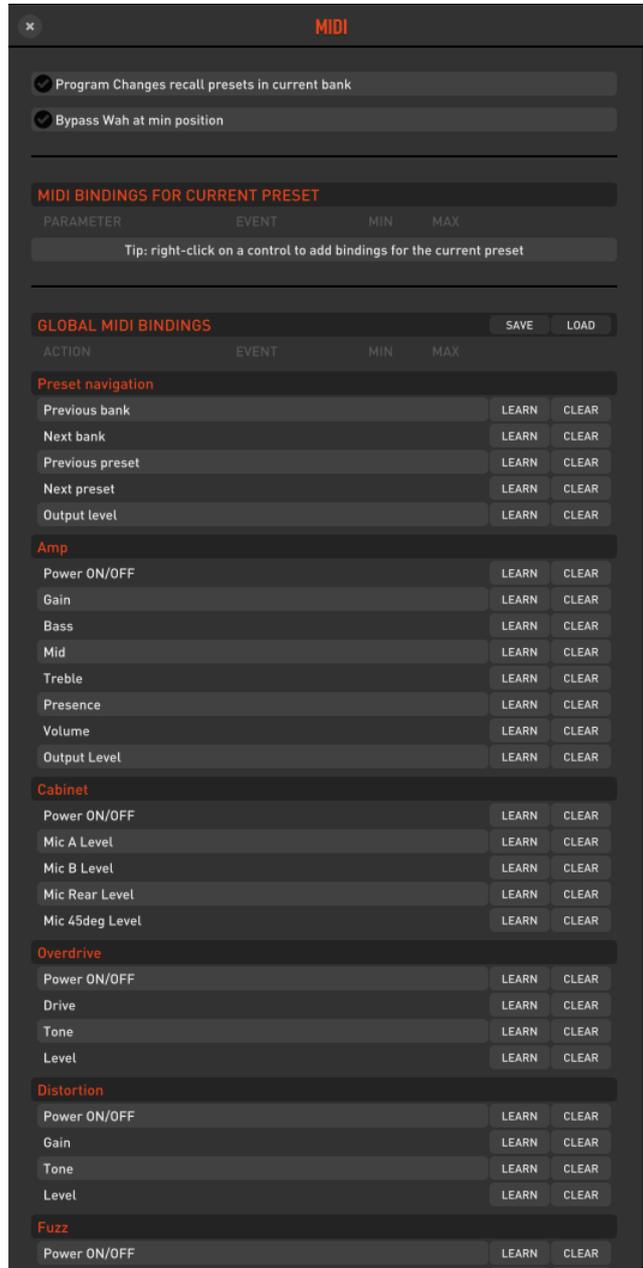
MIDI BINDINGS FOR CURRENT PRESET

This is a dynamic list of MIDI bindings. You can bind a parameter of a TH-U component by just right clicking it on the Sound Chain View, and then selecting **LEARN MIDI FOR CURRENT PRESET**. The bindings are local to a preset, so you will be allowed to have different binding configurations for separate presets.

GLOBAL MIDI BINDINGS

Global MIDI bindings are those that will be preserved across preset changes. Each item of the **GLOBAL MIDI BINDINGS** list represents a connection between a MIDI Trigger Point (for example: a stomp switch on a

foot controller), and a parameter of TH-U.

You can set a new binding by clicking **LEARN** on the row of the wanted **ACTION** and then touch the MIDI trigger on the external MIDI device.

An existing binding can be removed by clicking **CLEAR** on the wanted **ACTION** row.

You also can set a new binding by right clicking a control on the sound chain (for example, a power switch).

You will see a popup menu with two commands related to MIDI bindings: **Learn Global MIDI** and **Learn MIDI for current preset**.
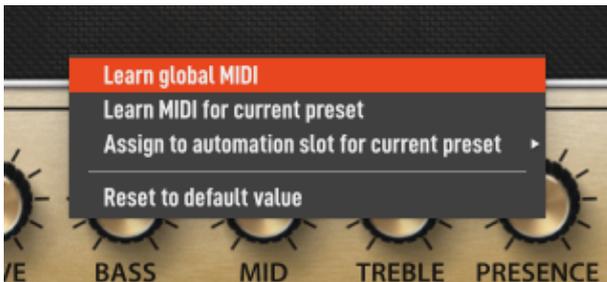
The global option will set a new global MIDI binding in the **GLOBAL MIDI BINDINGS** list. This command won't be enabled when you choose e control which is not included in the **GLOBAL MIDI BINDINGS** list.

GLOBAL VS PRESET MIDI BINDINGS

If you create a global binding and a preset binding together pointing the same control, the preset one will prevail the global. You can take the global bindings as a standard behaviour and possible preset bindings as exceptions management.

The preset related command will add a new item top the list **MIDI BINDINGS FOR CURRENT PRESET**.

AUTO (Automation)

TH-U exposes a set of automated parameters that are automatically associated to controls in the current sound chain, in a way that resembles what also happens for MIDI global bindings.

For example, the automation named **Amp Gain** will automatically be bound to the **Gain** control of the first amplifier that appears in your current setup (if present). When the DAW changes the value of that automated parameter, the adjustment will be reflected by the **Gain** control on that first amplifier, and vice versa.

All the main parameters of every category of effects are covered this way, and all their associations are automatically and instantly updated when the sound chain changes, for example when a new preset is loaded.

In addition, TH-U also includes 15 automation slots that can be explicitly and manually bound to any control in your chain, similarly to what happens for MIDI preset bindings.

To assign a control to one such slot, simply right-click on the desired control (for example a knob): a menu will appear, where you will be allowed

to choose which automation slot to bind with that control you clicked.

These slots are listed as **Slot ##** among the other automated parameters (**##** being a number between 1 and 15) and their associations are saved per preset. You can review them for the current preset by clicking the **AUTO** button at the top of the TH-U window.

MANUAL

The **MANUAL** button shows this User Manual.

INFO

Shows a panel with some information about TH-U. There, you can find the TH-U version number (please provide it to the technical support if need to contact us for assistance).

UNDO/REDO

TH-U keeps track of your changes while you are working. You can walk your changes history backwards with the **UNDO** command and forward with the **REDO** command.

The **UNDO/REDO** history is reset each time you load a preset.

How to work with TH-U

Now that the user interface around the Sound Chain View has been described, let's get into the topic to see how you work with TH-U.

TH-U virtualizes a real guitar rig with all components:

- Stomp boxes
- Expression pedals
- Amplifiers
- Cabinets & Microphones
- Rack effects

Any combination of these component is allowed, even those that you won't be able to obtain in reality. This makes TH-U a creative tool other than a very accurate guitar rig modeling application.

In the initial condition, TH-U starts with an empty setup. No effects at all.

We already have seen how to select a bank and load a preset. So let's see now hot to create a new setup from scratch.

Insert a component

The basic principle of TH-U is that the list of components is that on the right side and that you always can scroll the list, point a component and drag & drop it over the sound chain to insert it in a certain point of the chain.

Move a component

To move a component across the sound chain, click it on an empty area (a region with no knobs, switches or other controls) and drag it to a new position.

Remove a component

There are two ways to remove a component.

You can drag it over the trash can icon which appears on the bottom right corner of the Sound Chain View when you drag the component.

Or either you can right click the component on an empty area and select the command **Remove**.

Create a new setup from scratch

Let's now create a brand new TH-U setup.

First, we'll empty the current setup: scroll the preset list on the left side until you find an **<empty>** one, the double click it.

The empty preset will be loaded so you will have a clear sound chain to start with.

Inserting a Stomp Box

In a common guitar rig, stomp boxes

Look at the Component panel. The drop down list selects the category of the effect that are listed below. The **All** selection includes all type of components. Let's select **Distortion** for example. And then, let's point to **Brunetti Vanilla** which is a good distortion effect pedal.

Now drag the item of the list and drop it to the middle of the Sound Chain View.

If you have the guitar connected you already can play and test it (even if this is quite an uncommon setup).

Try moving the controls, turn the power switch on and off...

are at the first stage, before the amplifier. So we'll start describing how to add a stomp box component.

Also click the different zoom buttons to experiment how the view gets rescaled. This looks pretty useless with a single

pedal, but you'll find it very convenient when the guitar rig will be more crowded.

Inserting an Amplifier

Look at the Component panel and from the dropdown list select **Amp** to only see the amplifiers.

Now point the **Brunetti Metropolitan** and drag 'n drop it close to the right side of the Vanilla.
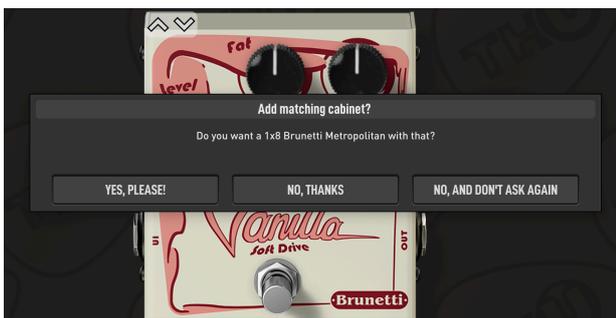
TH-U will ask you to also add the matching cabinet. This is a very convenient feature most of the times, even if you always will be allowed to

add the matching cabinet by right clicking the amp in an empty area and choosing **Add matching cabinet**.

Let's choose **No** for now to also see how to insert a cabinet afterwards.

Now that there is an amplifier, let's see how to use it. You should have no problems to use knobs, we already have seen how to operate with them. And the same with switches.

The **LEVEL** knob sets the output level of the amplifier without any influence to the harmonic content, so feel free to adjust it if needed because it won't participate to the quality of the amp sound.

As for any other component, you can right click it on an empty area (no knobs nor switches) to see the contextual popup menu.
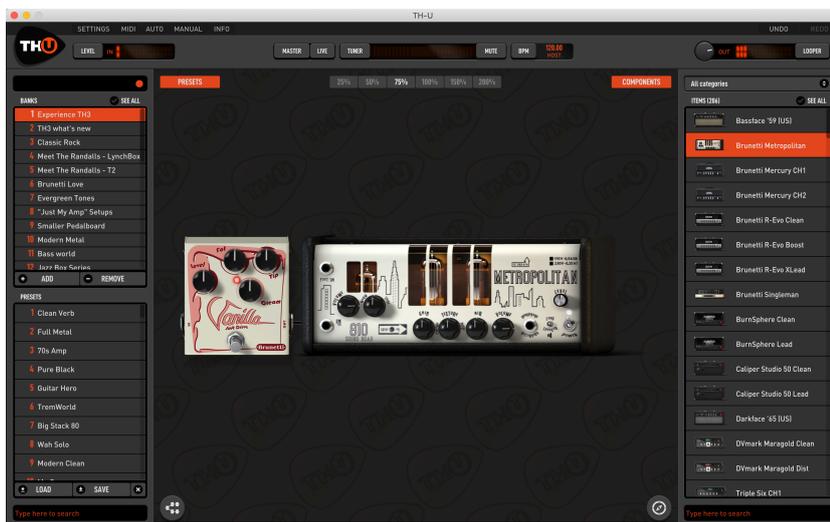
The command **Replace with...** lets you replace the component with another one of the same category. Indeed, selecting it you will see a secondary popup menu with the complete list of amp models from which you can select a replacement.

A faster way to change model is using the arrows that you see on the top-left corner when the mouse cursor hovers the amp graphic shape.

Tweaking an Amp head

When you have found the amp head with the right general tone, but you still need an additional degree of customization, if the amp component allows it, you can access the **AMP TWEAKS** panel.
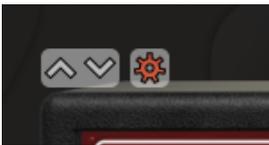
Click the gear wheel which appears when the mouse cursor hovers the amp graphics and the panel will pop up.

amp, while the highlighted tube marks the current selection for each section.

The **AMP TWEAKS** panel also has a **VARIAC** knob to control the tube power supply voltage, mainly to lower the voltage and induce an early saturation of the tube. When the **VARIAC** is set at full clockwise position, the amplifier has its conventional harmonics content, while lowering the **VARIAC** voltage, the amp tube goes saturates more easily making the amp character more

The **AMP TWEAKS** panel has a collection of tubes that you can select to change the pre-amp and the power amp ones.

A white check sign marks the predefined tube for both sections of the

aggressive starting at lower gain values.

Inserting a Rig Player

The Rig Player is a special TH-U component which reproduces the sound of a complete guitar rig: pre-amplifier, amp head, cabinet, microphones and ambient.

The Rig Player includes two sections: **AMP** and **CABINET**, which can be enabled independently. Disabling the cabinet is a good way to replace it with another one by adding another cabinet next to the Rig Player.

TH-U terminology to name one of these kind of sampling of a guitar rig, is Rig Model. Therefore, the Rig Player is a player of Rig Models.

The Rig Player points to a root directory on the file system where RIG (.rig) files are stored and can be browsed and loaded.

You can open and scroll the list of RIG files by clicking the **MODELS** button or even clicking the Rig Player display.

Double click a RIG file to load it.

In addition you can use the arrow buttons on the right side of the display to instantly load the previous or next rig model, without having to deal with the list. It could be useful while searching for a new tone in a more creative context.

And the opposite can be done as well, by adding a different **AMP** component on the left of the Rig Player and turning off the Rig Player **AMP**.

RIG MODELS

Rig Model files are obtained with Overloud proprietary technology R2M (Rig to Model) with which it's possible to faithfully reproduce a complete rig.

Overloud does these rig modelling in house using top quality tools and procedures, to allow users to play with the best guitar tones possible.

RIGLIB libraries (.riglib files) are collection of rig models including one or more banks of presets using them. After the purchase of a rig library, you just need to drag and drop the .riglib file, once you downloaded it, over the TH-U user interface and authorize it by

typing the serial number when prompted.

Knobs are organized into two rows. The upper row ones control the timbre of the model. The lower row ones are the typical controls of an amp head.

Inserting a Cabinet

Look at the Component panel and from the dropdown list select **Cabinet** to only see cabinets.

Now point the **1x8 Brunetti Metropolitan** and drag'n drop it close to the right side of the Metropolitan amplifier.

Like every other component, the cabinet can be turner off (bypassed). When the mouse cursor hovers the cabinet, you will see a small speaker icon on the bottom-right corner of the cabinet.
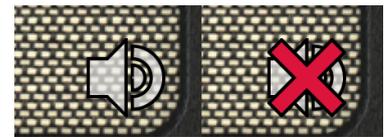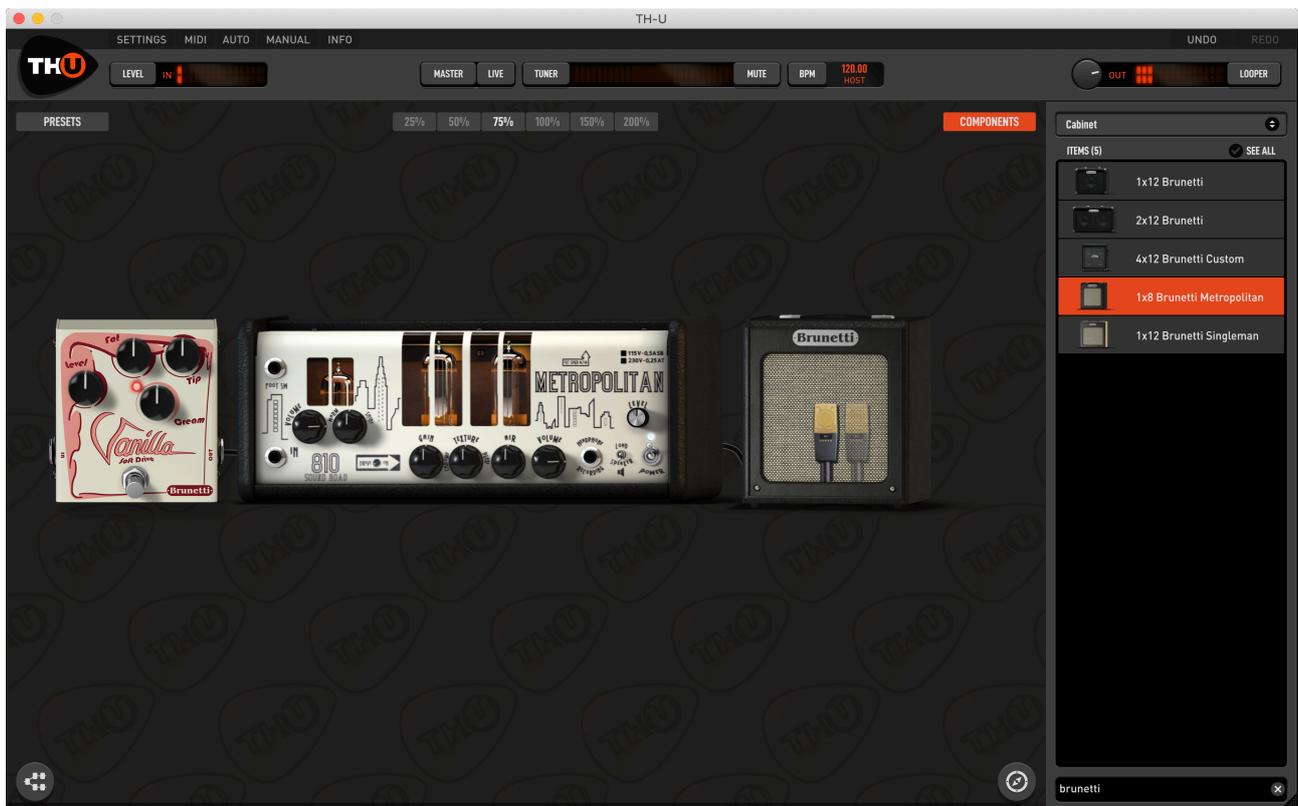
Cabinet components look simple, graphically, but are through the most complex models of TH-U.

Cabinets support: 2 frontal 3D positioned microphones, a rear microphone, a 45° inclined microphone, phase inversion, ambience emulation, ReSPiRe technology and high and low pass filters.

Click that icon to turn the cabinet on or off.

TH-U cabinets are of four types: 1 speaker, 2 speaker, 4 speaker and IR Cabinets which will be described later.

The way you set microphones in front of the different kind of cabinet is pretty much the same. TH-U modeling of the harmonic content takes in account:

position, distance and of course the model of microphones.

Right after adding the Brunetti Metropolitan cabinet you will see that it has two microphones in front of it.

Choose a good zoom ratio so that you have a good view of the whole cabinet.

Now, play your guitar and drag the microphones around to hear how the harmonic content varies accordingly. The X-Y positioning is done by left
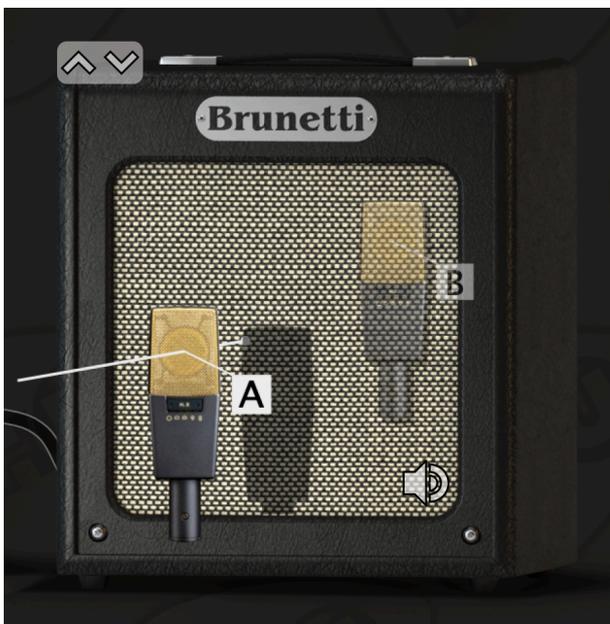
dragging the microphone. You also can adjust the distance of the microphone from the cabinet. Right drag the microphone (drag it with the mouse right button).

When you right drag the microphone, a white line shows you the Z axis and the microphone shadow projected over the cabinet helps you to make a clearer idea about the distance.
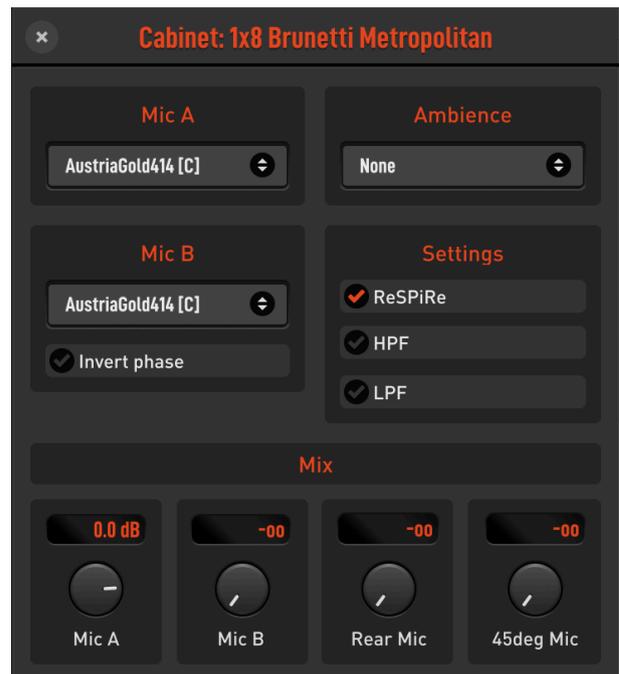
Let's now take a look to the cabinet Properties panel.

You can access the cabinet properties panel double clicking it, or right clicking and selecting **Properties...** .

Mic A & Mic B are where you choose the model of your microphones.

Invert phase inverts the phase of Mic B. Use it to achieve creative sounds: 3D positioning won't never lead to phase artefacts since all Mic processing do happen in phase.

Ambience selects the kind of ambience supported. Ambience plays a role when you have microphones at a certain distance from the cabinet. In these conditions, indeed, microphones capture a bigger part of the ambience sound.

Settings lets you set some additional features.

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ReSPiRe stands for Real Sound Pressure Response, and is an Overloud custom technology that reproduces the same kind of sound pressure feeling you get when playing in front of a real cabinet. You might want to set this off when your mix tends to be muddy.

HPF & LPF are high-pass and low-pass filters with respective characteristic frequencies of 65 Hz (HPF) and 12 kHz (LPF). You can use these preset filters when the cabinet sound exceeds in low or high frequency harmonics.

Mic A, Mic B, Rear Mic, 45° Mic knobs adjust the level of the four microphones. Rear microphone is good to capture some lower frequencies from the cabinet. While the 45° inclined one is usually used for hard rock and metal genres for its characteristic aggressive kind of response.

Bass Cabinets

Bass cabinets have red speakers. The 45° inclined microphone, for bass cabinets, corresponds to the tweeter microphone level.

All bass cabinets in TH-U have red speakers.

The real difference, as said, is the DSP model which of course is a bass cabinet.

But the way you operate with it is totally the same.

Cabinet IR

A special cabinet, however, is the Cabinet IR, which is a sort of "open cabinet" able to play up to two impulse responses at same time.

The cabinet has a different graphic appearance and don't have microphones in front of it because its tone exclusively comes from the provided IR files.

Basic actions like turning the cabinet on/off, are pretty much the same as for other cabinets. Differences are in the properties.

Double click the Cabinet IR to access its properties panel. You will find it very different if compared to the standard cabinet panel.

Import IRs

IRs are loaded from the file system. TH-U points to a root directory which contains them all. You can browse the folder hierarchy from the properties panel itself and load the selected IR double clicking it.

You can let TH-U reveal the IRs root directory by clicking the white right arrow on the list header. You can copy your own IR files there to let them be available for loading to Cabinet IR.

TH-U accepts WAV files as sources, with any resolution (best is 24 bit or 32

that it will accept only mono IR (each cabinet speaker is mono by definition).

You may find TIR (.tir) files as well. TIR files are an older format supported for backward compatibility.

Use the IRs

Click the button **IR A** to select the first IR. Next, browse the IR list below and double click the IR file to load.

Then you can do the same for **IR B**.

Clear empties the corresponding IR slot.

The option **Invert phase** is present to optionally invert each IR. This is useful when the IRs come from different sources and could incur into some phase artefacts when playing together.
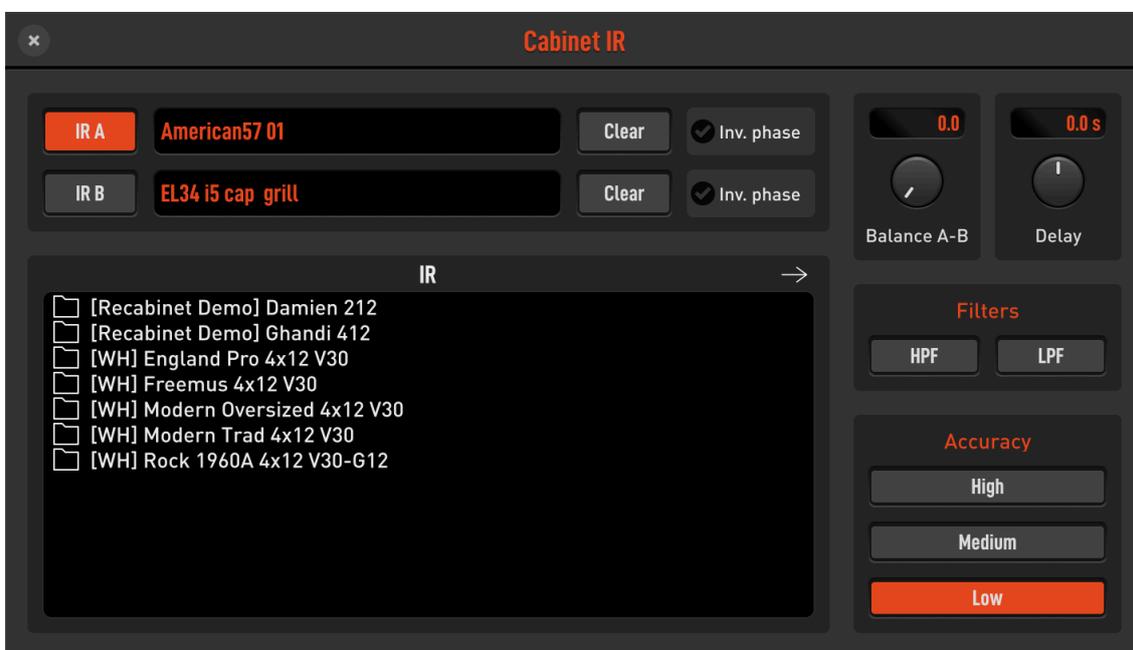
bit
floating point) and sample rate. The Cabinet IR module is mono, meaning

Balance A-B adjusts the mix between A and B IRs.

Delay A-B sets a delay between the two IRs, emulating different distances of the virtual microphones from the speakers, thus introducing lots of comb- filtering.

Filters apply a steep high-pass and/or low-pass filter to the cabinet sound to get rid of annoying frequencies.

Accuracy sets the overall accuracy of the IR in the lowest frequencies (sub 80 Hz). Usually Low (L) is good for CPU overhead, unless you need a very faithful and deep bass response, then choose either Mid (M) or High (H).

Inserting a Rack Effect

Look at the Component panel and from the dropdown list select **Reverb** to only see the reverb effects.

Now point the **AQTX Spring Rev** rack effect and drag'n drop it close to the right side of the Brunetti Metropolitan cabinet.

adjust the **Level** knob until the **OVER** light turns off.
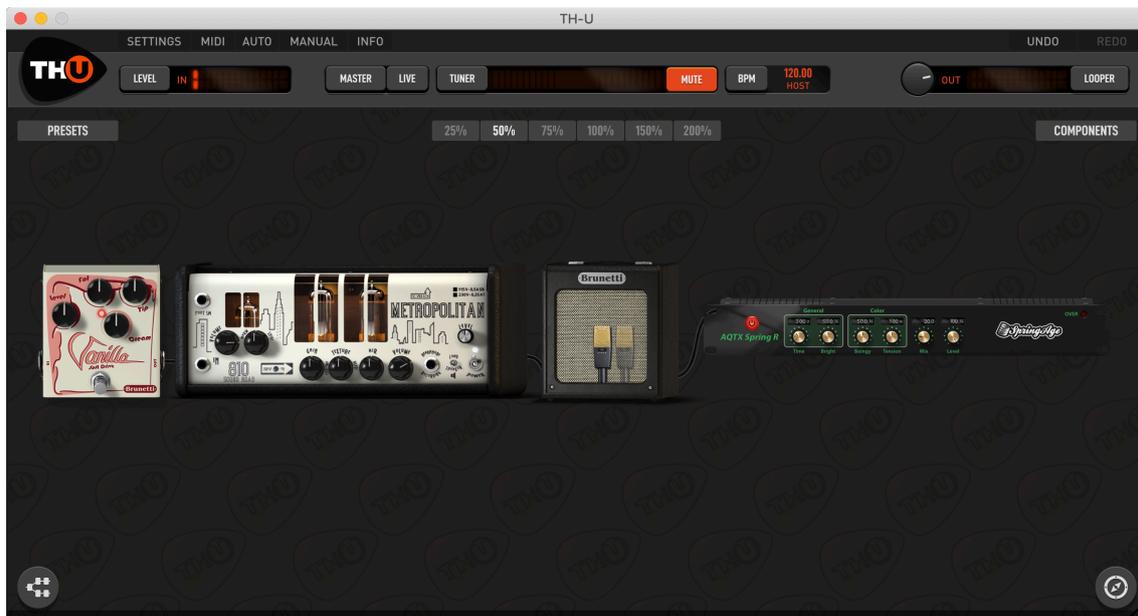
Rack effects usually come after the cabinet. The specific one we just added is a spring reverb.

In a common setup you may need to use more than one rack effect. TH-U will settle them together in stacks of three. This will keep the sound chain short and still allow you to see and operate on all the components of the rig.

Almost all rack effects have the **OVER** indicator that shows when the effect output level is too high. In case, you can

Parallel Sound Chain

When you select the parallel sound chain as an alternative to the linear one, two additional modules are present: the Splitter and the Mixer.

Splitter

The splitter is placed at the beginning of the parallel processing section.

Its function would have been almost self-explanatory wasn't it for some extra features we added.

X-OVER MODE: there are three crossover modes.

OFF: all controls but Balance are deactivated. The Splitter acts as an off-the-shelf splitter.

NORMAL: the crossover works as a common high-pass/low-pass network. You can process lower and higher frequencies separately in the two parallel paths.
X-OVER FREQ. and **SWAP** are active in this mode.

BANDPASS: the crossover works as a band-pass/band-reject filter network. You can process mid frequencies and high/low ones separately in the two parallel paths.
All parameters are active.

Splitter Controls

Swap button: this button swaps the destination paths of the filter networks when **X-OVER MODE** is not in the **Off** position.

X-OVER FREQ.: sets the frequency around which the filters operate.

FREQ SPREAD: in **BANDPASS** mode it controls the width of the band-reject filter allowing for a partial layering of the signals for added flexibility.

BALANCE: it simply sets the amount of signal directed to the upper (1) and lower (2) path.

Mixer

The TH-U Mixer is placed at the end of the parallel processing section and allows you to trim each path's signal to your needs.

PHASE: controls the phase of the input channel.

DELAY: controls the amount of delay of the input channel. Optimal control to correct phase delay problems

as a creative tool to dial in complex comb-filtering like effect.

WIDTH: sets the stereo width of the input channel. 0 equals to Mono, 100 to stereo and -100 to inverse stereo (swap of L and R inputs)

PAN: sets the panpot or panorama position of the input channel at the output. For stereo signal it acts as a balance control: at minimum it will only pickup the left channel signal, at maximum only the right channel will be preset at the mixer output.

LEVEL: the reference level of the channel.

BALANCE: this control allows you to dial-in a real-time balance between the two mixer channels.

MONO/STEREO: sets the output mode of the mixer. Mono merges all inputs to mono.

TH-U Component List

The complete list of component of TH-U is constantly changing as we keep adding models from time to time.

For this reason, instead of listing all models here, and have the list being already outdated right after the release of the manual, we provide you the link to the TH-U online page where you can find the complete component list always up to date.

www.overloud.com/thu

Technical Support

If you need technical support please first take a look at our **FAQ pages** online at **www.overloud.com**. There you'll find answers to the most common questions.

If the FAQ pages didn't help, you can get free technical support online at **www.overloud.com** clicking on **SUPPORT**.