



# USER MANUAL

v. 1.4



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# INTRODUCTION

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## Thank you!

Thank you for purchasing our flagship application – TH-U!

The goal of developing TH-U was to create a guitar amp simulation and modeling software application that was even more powerful than our previous software namely, TH3.

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

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## New Features

- Super Cabinet, an addition to the existing Cabinet components, our new IR based Cabinet component significantly extends the concept of the existing Cabinet IR component;
- Scenes allow to instantly recall different component configurations in the preset;
- Enhanced cabinet component with Fluid Convolution;
- Double IR Loader integrated into the cabinet component;

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## Cool Features

TH-U has the following main features:

- Comes in the following formats: VST2, VST3, AudioUnit, AAX and standalone for macOS, and VST2, VST3, AAX and standalone for Windows;
- Provides an interactive virtual guitar rig where you can add components like pedals, amplifiers, cabinets and rack effect units, adjusting their parameters to achieve the desired sound;
- Introduces you a special component, the Rig-Model player, allowing you to use dedicated and unique Rig Model libraries;
- Can be loaded as a plug-in effect in a DAW application like Logic Pro, Garage Band, Sonar, Live, Cubase, Pro Tools and any others;
- Supports MIDI communication with foot controllers or other MIDI devices permitting you to load presets and to adjust various effect parameters;
- Provides a built-in licensing manager letting you to authorize and de-authorize TH-U on your computer(s) seamlessly;
- Includes a huge collection of factory presets covering a large range of musical styles and 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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## **Disclaimer**

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## ABOUT TH-U

With TH-U you can replicate your own real guitar rig by adding effects and modules and adjusting their parameters as if you would be using real hardware. TH-U also allows you to reproduce a specific sound by using reproductions of corresponding Amps, Cabinets and Effects.

TH-U also allows you use specific rig models using the dedicated Rig Player component.

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### 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 of the available presets. Presets are grouped in Banks. The number of banks is unlimited, with each bank containing 128 presets.

The **Sound Chain** is a view over the current guitar rig which actually looks like a chain of modules making it easy to follow how the sound is being processed from the TH-U input to the TH-U output.

The **Components** section lists all the available TH-U components. Adding components to TH-U is easy: just simply drag and drop a component

from the Components list to an insertion point within the Sound Chain.

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### Tools

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#### Tuner

TH-U includes a Tuner with an optional Auto Mute function, very useful in a live performance environment, so that once enabled, it will mute the output.

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#### Looper

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

## GETTING STARTED

Let us spend a few minutes to get acquainted with TH-U. So that you will feel more confident in your use of TH-U. This chapter will guide you through the fundamental aspects of the TH-U application to let you begin to use TH-U right-away.

We know that you would rather play than read though a User Manual.

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### Create your User Account

The first thing to do, if you have not done so already, is to create your own Overloud User Account.

Browse the Internet to the Overloud web page [www.overloud.com](http://www.overloud.com). Create your account by providing your personal information, paying attention not to mistype your email address which will be the primary means of communicating, and the identifier that our servers will use to deposit your licenses.

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### Authorize TH-U

How TH-U is authorized is dependent on which version of TH-U you are currently using:

- TH-U
- TH-U Slate

We will consider each of these authorization procedures in turn..

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### Authorizing TH-U

After you have completed the purchase of TH-U, you will receive a follow-up email including the serial number which represents your license of TH-U.

The serial number uses the following format:

`TUBN-KH5K-00F5-RMWP`

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

- **launch a short 10 minute demo of TH-U**
- **begin an two week evaluation period**
- **authorize a license.**

Both demo options let you use TH-U full working, for a limited time, ensuring that you are given the opportunity of working with a full, un-crippled version of TH-U before you decide to purchase it.

You can authorize your license of TH-U by providing the following information as well as choosing where to store your authorization.

Click the **Authorize** button on the TH-U Authorization dialog box and you will be prompted to enter your account email address 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 option is the easiest, quickest and most seamless way to authorize TH-U.

Our licensing management servers let you remove your authorization on your own and any time, for example if you are going to sell your computer.

Choosing **USB removable device** option allows you to store the authorization information on a USB device.

This is particularly suitable if you use multiple computers, or if you use to rebuild or reformat your system from time to time.

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## De-Authorize TH-U

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

To de-authorize from within TH-U, click **LICENSES**.

You will see the list of all your active authorizations, each with an icon representing the location currently storing the information. Move the cursor over that icon and it will turn into a trash can. Just click that button to remove the



authorization.

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

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## Authorization Limits

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

You can de-authorize the same license of TH-U no more than ten times in a given calendar year, that is 365 days.

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## Authorize Slate edition of TH-U

The Slate edition of TH-U, like other Slate Digital products, uses the iLok licensing scheme. Therefore, there is no need to authorize Slate Edition of TH-U as long as that license information has been previously stored following Slate Digital's instructions.

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## Upgrade TH-U Slate to TH-U Full

Though the Slate edition includes a somewhat limited selection of TH-U components for you to work with, upgrading the Slate of TH-U to the Full version of TH-U is very easy.

To upgrade the Slate edition to the Full version you just need to get the license for the components that are not active in the Slate edition.

Once you have received the upgrade license, just follow these steps:

1. If you don't already have one, create an online Overloud account at: [www.overloud.com](http://www.overloud.com)
2. Launch TH-U Slate
3. Access the Authorization panel from TH-U Slate **LICENSE**;
4. Register the upgrade serial number (you will be prompted for the Overloud account info in the authorization panel only if you have just created a new account).

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## Install and Authorize a Rig Library

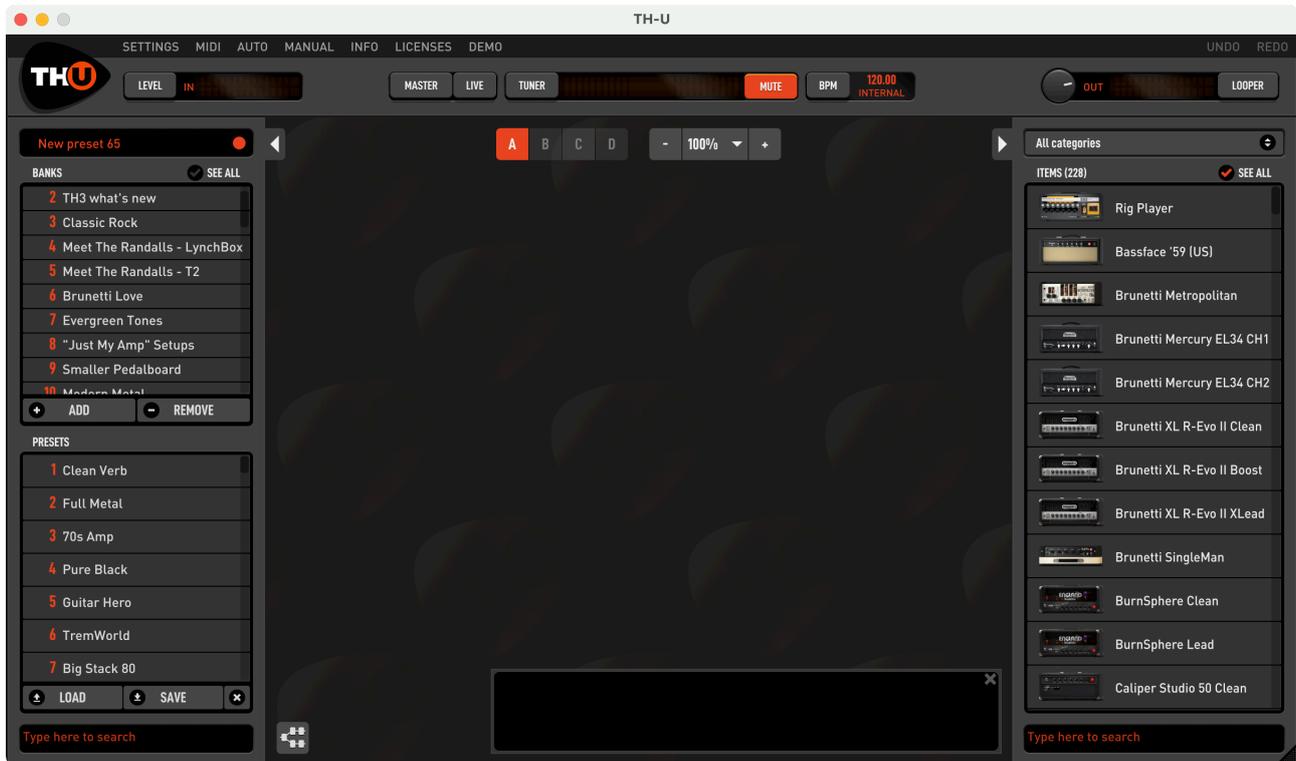
To install and authorize a Rig Library, start by dragging the Rig Library (.riglib file) right over the TH-U graphic interface then follow the guided procedure.

The best way to learn how to install and authorize a Rig Library is by following this tutorial:

[www.overloud.com/node/353](http://www.overloud.com/node/353)

## 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 in the list to select it.

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

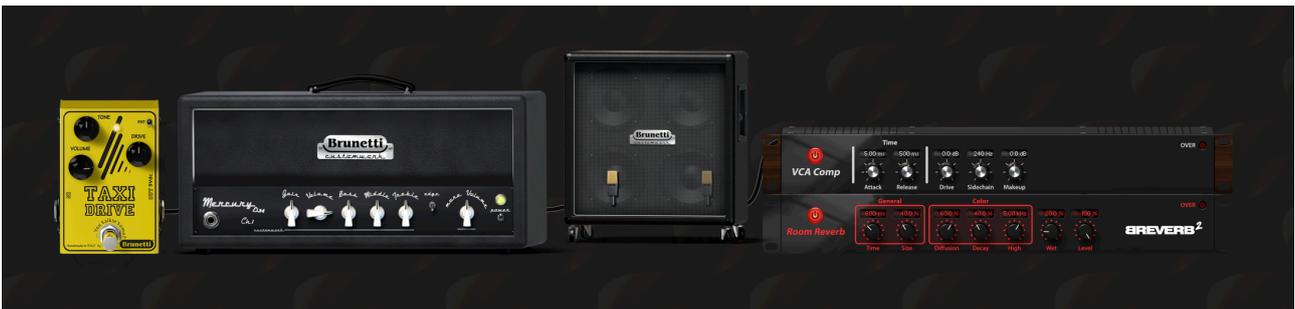
To load a preset, select it and click **LOAD**, or just double click the preset.

### The Sound Chain View

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

and lower, where you can place your modules, and the **Mixer** mixes the two parts together.

This configuration of the Sound Chain lets you to process the same sound in



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

two different ways and to mix the two processed sounds together.

The sound chain beginning (the input of the TH-U sound processing) is located on the left. The signal flow goes from left to right where the output is located.

You can switch the type of sound chain by clicking the button on the bottom left corner of the Sound Chain View. The actual behaviour of the button changes depending on the current configuration



Two types of sound chain are available: linear and parallel.

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.

The **linear** sound chain is a straight sequence of modules between the input and output of TH-U.

The **parallel** sound chain is a little more complex: at a certain point with a **Splitter** it splits the sound into two parts, upper

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## 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 the following features:

- **drag** up/down to adjust
- **shift-drag** to fine set
- **cmd-click/ctrl-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: consisting of amps, cabs, stomp pedals and rack effects.

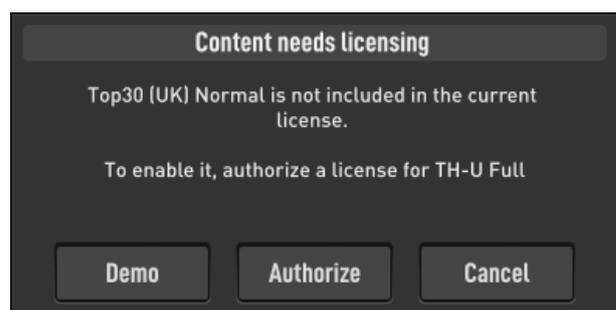
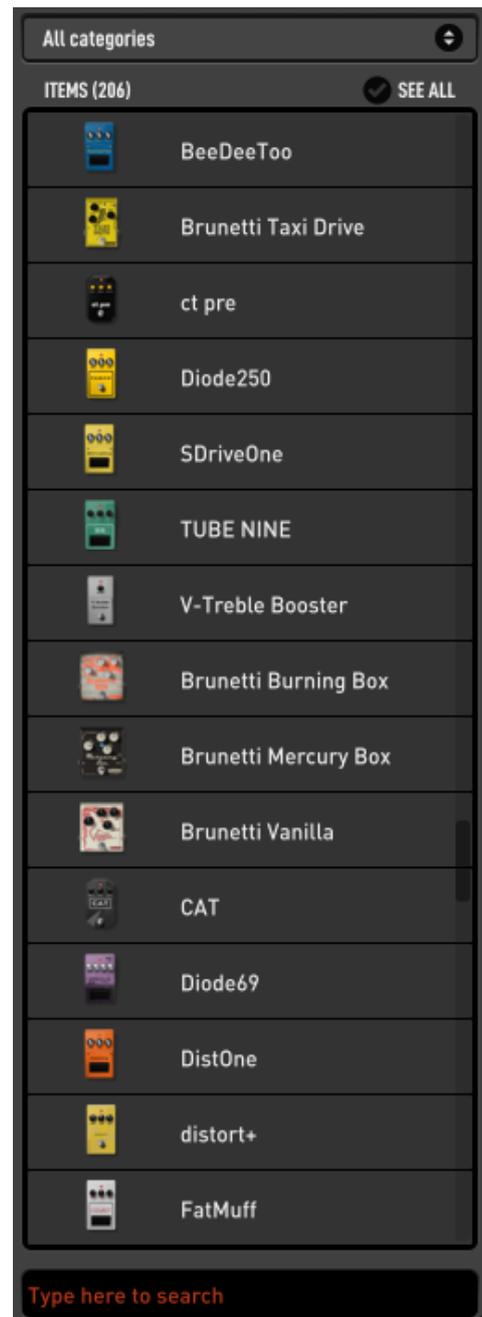
You can add one of them to the current sound chain at any time: simply drag the component from the list and drop it to an insertion point within the sound chain.

At the top of the **Components** list, you can see a drop down list allowing you to selected a specific category of components.

When **All categories** is selected, all components will be displayed in the list.

However, if a specific category is selected, it will be easier for you to focus on a specific kind of effect, seeing all the possible alternatives for that specific category.

Non-licensed components will appear shaded. If you drag one of them to the sound chain TH-U will notify you that the selected component is unlicensed, while allowing you to either evaluate that component (Demo) or to authorize it receiving an authorization code once that component has been purchased from the Overloud website.



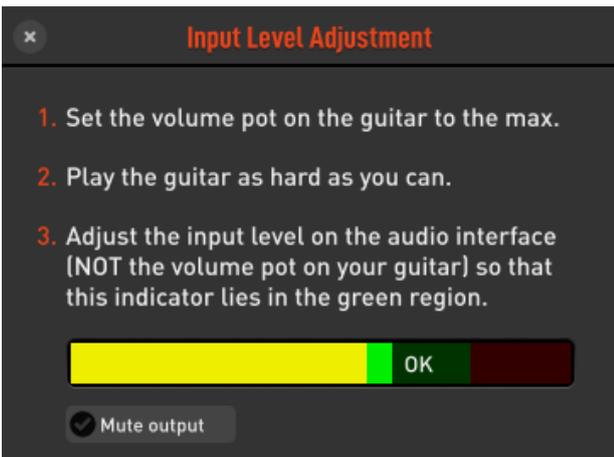
## TH-U Top Panel

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

### Input Level Adjustment



Click the **LEVEL** button to open the **Input Level Adjustment** dialog window.



This dialog window allows you to set the correct volume level for your guitar as well as the input level of your audio interface.

Here is the procedure:

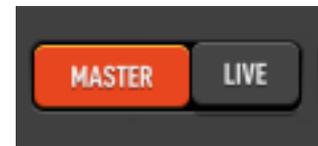
- To begin with, set the volume on the guitar to maximum
- Now, play your guitar hard enough to ensure that highest dynamic level will be used

- Next, adjust the input level of your audio interface to keep the level shown in the three colored bar, in the green region.

These adjustments will ensure that TH-U is receiving the highest dynamic level possible.

### Master

When you click the **MASTER** button, the **Master Controls** panel appears.



Master controls are applied globally and independently from the settings that have been configured within a particular preset. This configuration allows you to adjust the overall global sound of TH-U itself.



The **In Source** area is where you select the input channels for TH-U. You can take a stereo pair as input, or only one of the stereo channels: **LEFT** or **RIGHT**.

**Sensitivity:** changes input sensitivity in a similar manner as that of a real amp. **LOW** is best suited for single coils, **HIGH** is best suited for humbuckers.

**Noise Gate:** Noise Gate threshold level. This threshold level functions as a combined Expander/Gate for maximum

efficiency. Adjust the settings to reduce possible noise when present, for example if the pickups are particularly noisy, or if you are working at higher gain levels.

**Low & High:** an overall 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.

**Remastered Cab:** You can select between the original TH-U cabinet sound and a remastered version. This remastered version provides an increase in both presence and clarity. The three way selection allows you to disable this remastered version, to enable the remastered version, or have the remastered version selected from cabinet's properties panel.

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## Live Mode

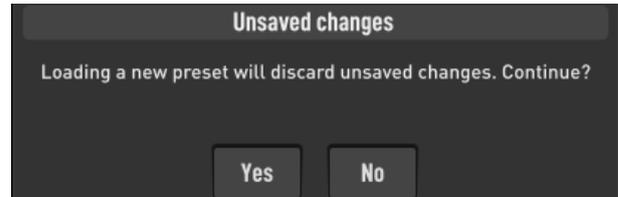
The **LIVE** button sets the Live Mode functionality of TH-U.

Preset management within TH-U keeps track of any

changes done to a preset. You will notice that a preset has been changed with the orange circle next to the preset name at the top of the preset column.



As a result, when a new preset is loaded 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 enabled, this prompt is simply by-passed.

Note: when not performing live, you may want to disable the Live Mode, so that you will not risk losing any pending modifications.

Note: when a new preset is loaded with Live Mode enabled, the values of parameters connected to **GLOBAL MIDI BINDINGS** are preserved from the previous preset, even though all modifications to it get discarded.

For example, moving from one preset to another — where both presets use the Volume pedal. You set the pedal position via MIDI halfway using a MIDI foot controller. At the loading of the new preset, the Volume pedal position will remain the same for each and every subsequent preset change.

## Tuner

In the central region of the Top Panel of TH-U 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, which is 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 detected 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 **MUTE** to temporarily mute the TH-U output while you tune your guitar.

You can also activate the option **Auto mute when the tuner is on**, in the TH-U preferences, so that the **MUTE** on/off setting will be enabled /disabled when the Tuner is enabled/disabled.

## BPM

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

TH-U can obtain the BPM value from three different sources:

- **HOST**
- **INTERNAL**
- **PRESET**

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

When **INTERNAL** is selected, TH-U generates an



internal beat, as if the beat were received 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 an internal beat. The BPM value gets saved with the current preset.

## Input and Output Level Meters

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

It is important to try to keep the input level as high as possible yet without the

clipping of the input signal, or saturation. You can determine the correct input 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 for various effects by moving the **LEVEL** knob, if and where available.

You can also adjust the overall output level by turning the Output level knob located immediately to the left of the **OUT** level meter.

## Looper

TH-U includes a multi-track 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

The **PLAY & STOP** button controls the looper player.

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

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

The **QUANTIZE** option lets you stop the first recording, with that recording being quantized to the closest BPM quarter beat, even if you stop it slightly before or after the previous recording.

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

**SAVE MIX** saves the looper audio content, the mix, in a wave file.

### Tracks

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 enabled, the recording starts and you'll see the loop length values, in beats and seconds, increasing and displayed on the



top of the transport area. This is how you determine the actual loop length which will be set when you stop the recording. The loop length will be taken instantly and possibly adjusted to beat boundaries if **QUANTIZE** is enabled.

Next, you can play the loop and either overdub the same track or record to other track.

**UNDO** lets you discard the last recording.

**DELETE** lets you delete the current track audio content.

**SAVE** lets you save the single track audio content to a file.

## TH-U Top Bar

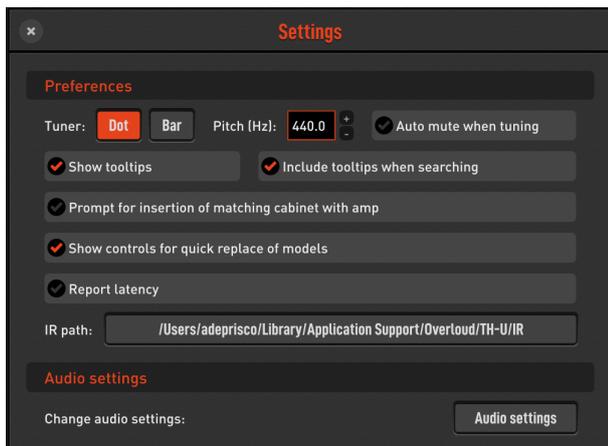
On the top of the graphic interface of TH-U, there is a bar with some command buttons for some accessory functions.

## 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

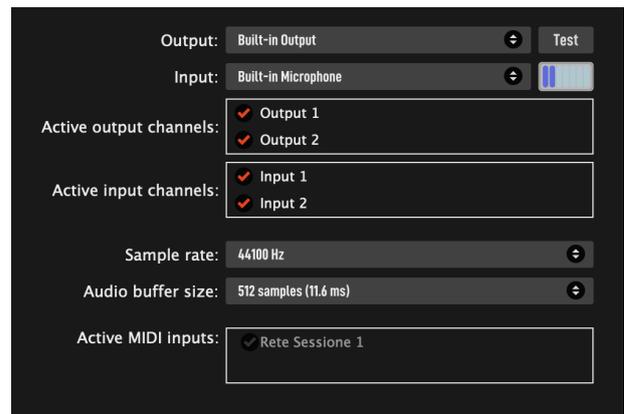
amp to the sound chain, TH-U will ask if you also want to insert the matching cabinet.

**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 configure the audio settings of TH-U. This section is only available 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 at different sample rates. The default sample rate is 44100 Hz.

**Audio buffer size:** audio buffer size is very much dependent on: 1) the configuration of your computer and 2) on the kind of audio device being used. Usually 256 samples is a good starting point but you might want to lower this setting to 128 samples or even to 64 samples if your audio hardware supports these settings. It is important to remember that too low of a setting can affect the overall performance of TH-U or the whole computer itself introducing clicking and crackling, commonly referred to as buffer dropouts.

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

#### **SELECT MONO INPUT FROM STEREO PAIR**

If you select Active Inputs 1 and 2 of a stereo audio interface — some devices do not allow to select a single channel from a stereo pair for mono sources like a guitar to be selected — TH-U can still be configured to use either the left or right channel of a stereo input. Access the Master panel clicking on **MASTER** and look at left side of the panel: **In Source**.

**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.

## MIDI

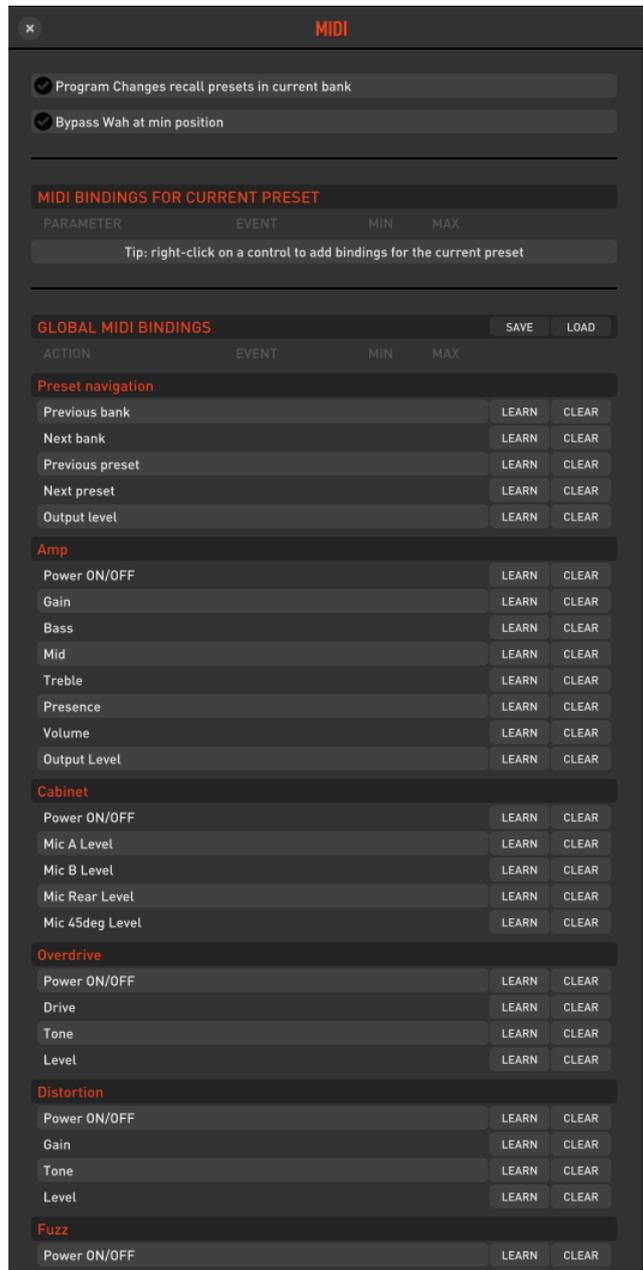
TH-U has a straightforward MIDI implementation allowing you to easily connect almost any kind of remote MIDI controller, be it a keyboard, a table-top controller or a foot-controller.

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 be 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. If the option is disabled and you still require a way to change presets, then you will 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 input channel (TH-U standalone):** allows you to select the input MIDI channel. Default setting is **All**.

### 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 that parameter 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 each presets.

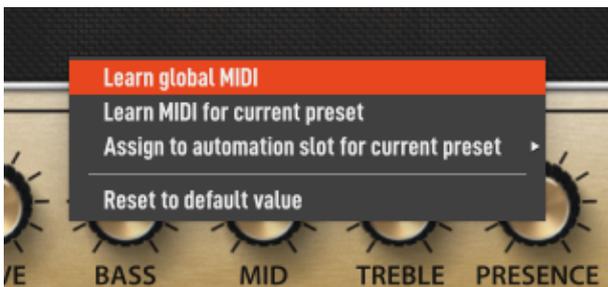
### GLOBAL MIDI BINDINGS

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 touching 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 will not be enabled when you choose a 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 override the global control. 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 on the 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 similar manner as that occurs 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 in the same manner, 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 previously selected.

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.

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## MANUAL

The **MANUAL** button displays the User Manual.

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## INFO

Shows a panel with some information about TH-U. There, you can obtain the TH-U version number. This version number will be required if and when you need to contact Overloud technical support.

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## UNDO/REDO

TH-U keeps track of your changes while you are working. With **UNDO** you can reverse an earlier action. While **REDO** restores any actions that were previously undone.

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

## How to work with TH-U

Now that the user interface focusing on the use of the Sound Chain View has been described, let us see how you can use TH-U.

TH-U virtualizes a real guitar rig including many of the various components that would be available for use in a real guitar rig environment:

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

Any combination of these components is permissible — even those combinations that might be either impossible or very difficult to realize in a real guitar rig environment. This makes TH-U not only an accurate guitar rig modeling application but also a very creative tool as well.

In the initial condition, TH-U starts with an empty setup. No effects, no amps and no cabs.

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

### Insert a component

The basic principle behind the use of TH-U begins with the Components list.

Selecting a component from that list, with that component being dragged & dropped over the Sound Chain View to insert that component into the Sound Chain View.

### Move a component

To move a component across the sound chain, click on an empty area of that component — that is, a region that contains no knobs, switches or other controls — and drag it to a new position within the Sound Chain view..

### 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.



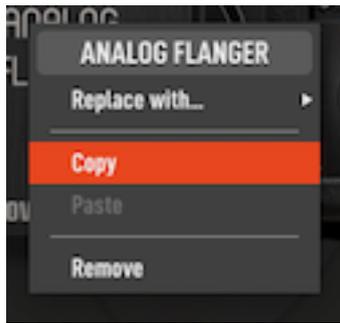
Or you can right click on an empty area of that component and select the command **Remove**.



### Copy/Paste a component

Component can be copied and pasted in another point of the sound chain.

Right click the component and select Copy from the contextual menu.



Then, right click another component and select **Paste Component Before** (or After, relating to the position of the clicked component on the sound chain).

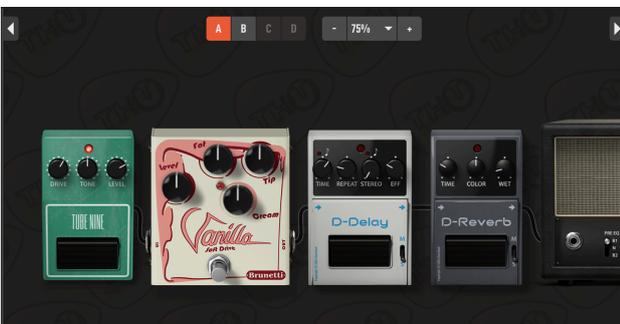
### COPY/PAST COMPONENT SETTINGS

After you have copied a component to the clipboard, if you right click new a component which is of the same model, you can choose **Paste Settings** which instead of adding a new component will copy the parameters settings to that component. This feature can be used within an existing preset, another preset, or when creating a new preset.

This feature would be particularly useful if you had a pre-configured delay setting that you would like to be used in a new or existing preset

### SCENES

Each TH-U preset can record 4 scenes, named A, B, C and D.

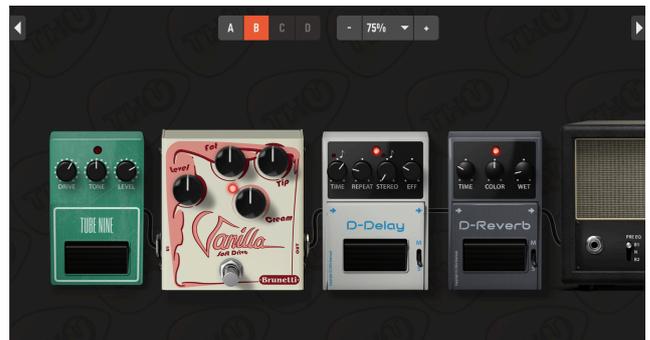


All the scenes have the same sound chain in the preset, but can store a

different on/off combination of the models.

For example, let say you want a mild overdrive with no effects on the verse, and a distortion with delay and reverb on the chorus.

You can add all these pedals in the sound chain and switch on the overdrive in the Scene A. In the Scene B you switch off the Overdrive and switch on the Distortion, the Delay and the Reverb, like this.



By clicking on the A or B button, you can immediately switch between the two configurations without changing the preset.

Scenes can be recalled with MIDI. See the chapter dedicated to MIDI to learn how to associate a MIDI command to a particular TH-U function.

## Create a new setup from scratch

Let us now create a brand new TH-U setup.

First, we will empty the current setup: scroll the preset list on the left side until you find an **<empty>** preset, then double click that preset.

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

## Inserting a Stomp Box

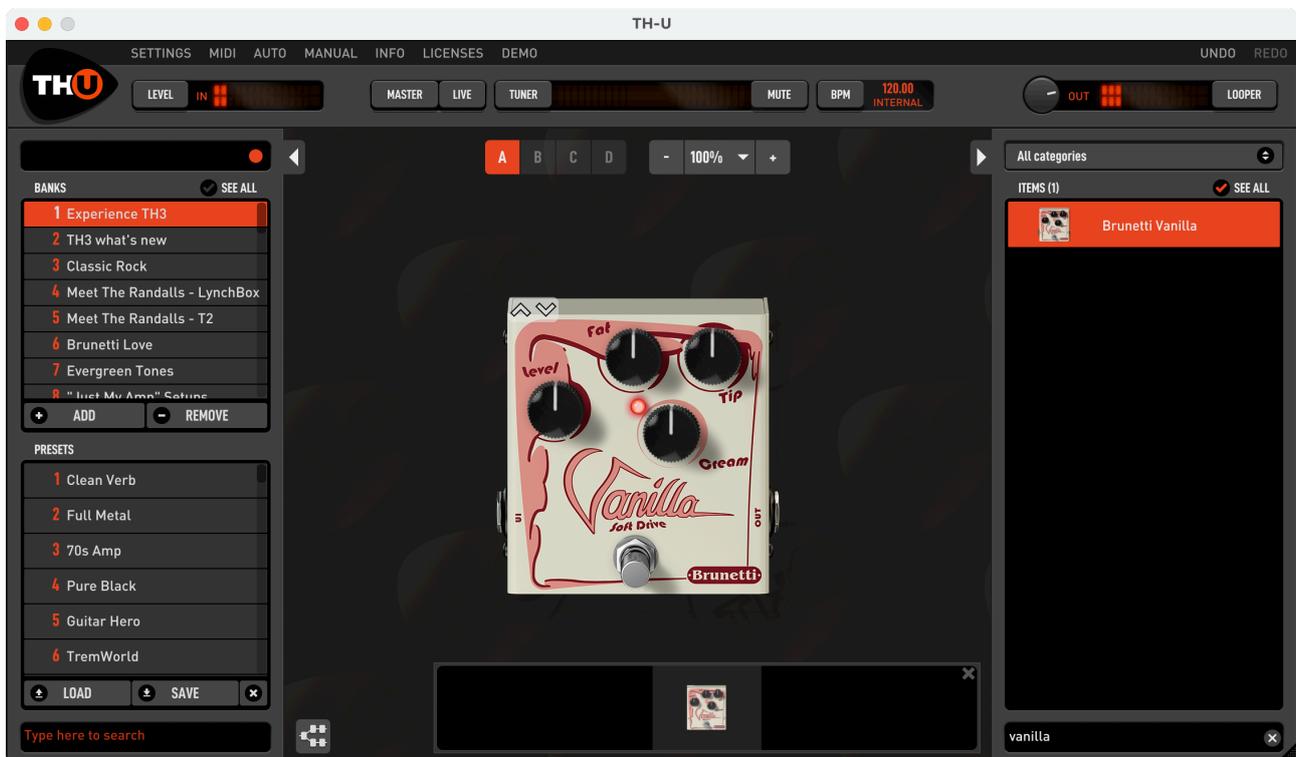
In a common guitar rig, stomp boxes are at the first stage, before the

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 us start by selecting a **Distortion** pedal, for example. Next, select the **Brunetti Vanilla** pedal, which is a good distortion effect pedal.

Now drag the component from the list and drop it into the middle of the Sound Chain View.

If you have a guitar connected, you can then test that initial configuration.

Try adjusting the various parameters, turn the power switch on and off and so on...



amplifier. So we will start describing how to add a stomp box component.

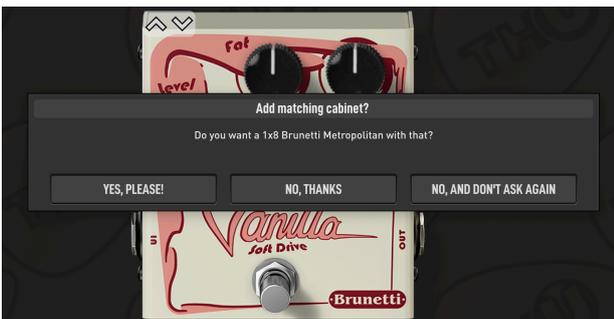
Also click the different zoom buttons to experiment how the view gets rescaled. This looks pretty useless with a single

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

### 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 and drop that component just to the right side of the Brunetti Vanilla pedal.



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

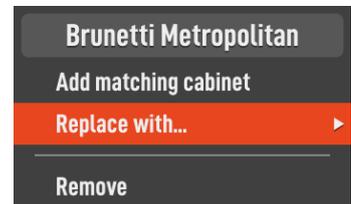
add the matching cabinet by right clicking the amp in an empty area and choosing **Add matching cabinet**.

For now, choose **No**. We will learn how to insert a cabinet afterwards.

Now that there is an amplifier, let us see how to use that component. You should have no difficulty in using the knobs, we already have seen how to operate with them. And the same goes for the switches.

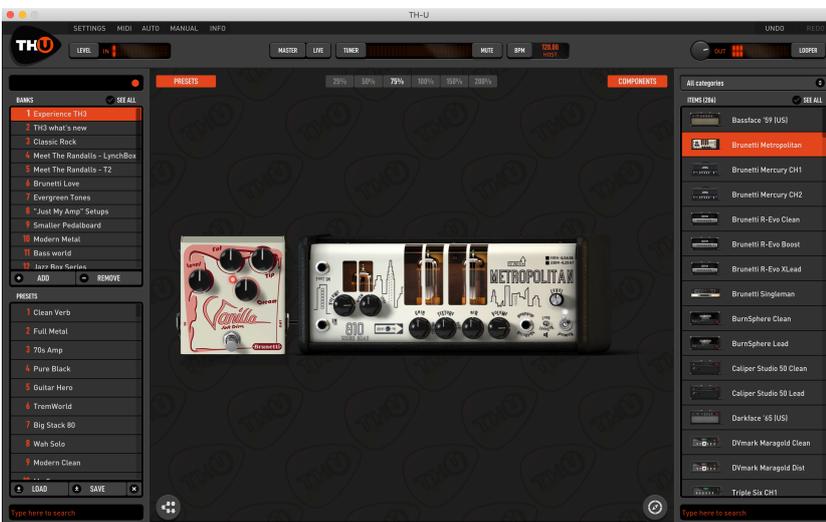
The **LEVEL** knob sets the output level of the amplifier without any influence to the harmonic content, so feel free to adjust the **LEVEL** if needed, because that parameter will not have effect on the quality of the amp sound.

As for any other component, you can right click that component on an empty area (no knobs nor switches)



to see the contextual menu.

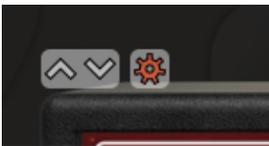
The command **Replace with...** lets you replace the component with another one of the same category. Indeed, selecting it you will see a secondary popup menu with the complete list of amp models from which you can select a replacement.



A faster way to change a component is using the arrows that you see on the top-left corner when the mouse cursor hovers over 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, and if the amp component allows it, you can access the **AMP TWEAKS** panel.



Click the gear wheel which appears when the mouse cursor hovers over the amp graphics and the panel will pop up.

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 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 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-

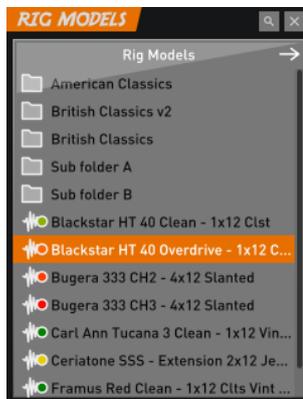
is Rig Model. Therefore, the Rig Player is a player of Rig Models.

The Rig Player points to a root directory on the file system where RIG (.rig) files



amplifier, amp head, cabinet, microphones and ambient.

The TH-U terminology to classify the type of sampling used in developing a particular guitar rig



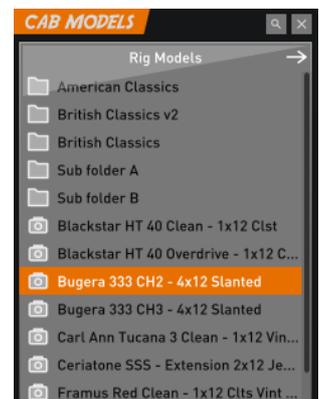
are stored and which can be browsed and loaded.

You can open and scroll the list of RIG files by clicking the Rig Player display.

Double click a RIG file from the list to load it.

In addition you can use the arrow buttons 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.

The Rig Player includes two sections: **AMP** and



#### 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 modeling in house using top quality tools and procedures, to allow users to play with the best possible guitar tones.

**CABINET**, which can be enabled or disabled independently. Disabling the cabinet is a good way to replace it with another one by adding a different cabinet next to the Rig Player.

#### RIG GAIN LEVEL

Rig model icons have a small colored circle. The color of the circle visually indicates the level of the gain ranging from GREEN for **CLEAN** sounds, to YELLOW for **CRUNCH** to RED for **LEAD**.

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**.

The cabinet section of the Rig Player includes a separate display normally showing the word **<matched>** meaning that the playing cabinet model is the one of the amp section rig model.

However, if you click the cabinet

#### LOCK CAB MODEL

Every time you select a new rig model for the cabinet, you break the matching between amp and cabinet models. To restore the matching, just load a new rig model for the amp.

But if you want to keep the cabinet model unchanged while you scroll through the amp models, you can activate the cab lock (PADLOCK button) and it won't change anymore.

display, a new rig models list pops up allowing you to select an alternate model just for the cabinet. This way to cross amp and cabinet models dramatically widens the range of

available sound from the same collection of rig files.

**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 entering the serial number when prompted.

#### GETTING MORE RIGS...

Getting more rig models is easy: just click the **GET MORE RIGS...** button, and a window of the system default Internet browser will appear, pointing to a web page allowing you to select new rig libraries to add.

Both rig file list windows (rig models and cabinets), include a **SEARCH** feature.

Click the magnifier icon on the top of the rig list window, and you will see an empty space to enter your search criteria.

The search is performed starting from the Rig Models root directory and traversing all subfolders recursively.

Search results are shown in real time while typing the search pattern.



### RECENT ITEMS HIGHLIGHTED

Each time you install new contents, you may want to easily find them among the existing elements.

Recently installed items will appear in yellow color for two days after the installation, making it particularly easy to distinguish them from older ones.

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

**Definition:** adjusts the amount of low frequencies cut before the input signal enters the distortion stage. Lower settings produce vintage tones as early amps used to process the whole input harmonic content. Higher settings produce modern tones by filtering out some low frequency content and boosting the remaining harmonics.

**Power Sagging:** basing on the electric effect of tube saturation, which lowers the tube power supply energy at louder signal levels, it produces a reduction of dynamics in a compressor-like kind of effect. This parameter adjusts the threshold level this phenomenon starts at. Setting it halfway, the nominal tube behaviour is reproduced. At higher values, however, you can go beyond the

### SETTING EXACT KNOB VALUES

Double clicking a Rig Player knob, an edit field will appear letting you to type a numeric value for the knob parameter.

tube electric response by still preserving a natural distortion.

**Compressor:** adjusts the clean signals dynamic range by eventually compressing it as you need. You can find a balance of this parameter value with your guitar volume control to range from crunch sounds to clean ones that still keep the same energy.

**Clarity:** sharpens the processed sound by adding presence and focus to the clean portion of the signal, and lightening the distortion pressure in the mid frequencies to improve sound clarity.

**Tube Shape:** sets the personality of the amp by choosing how subtle is the crossing from clean to distorted sounds, relating to the playing style.

Lower values are for softer kinds of preamp-like distortions, while higher values produce hard distortions more typical of power tubes.

**Tube Bias:** adjusts the asymmetry of the distortion shape. Lower setting represent the shape of the reference amplifier. Increasing its value allows to have a more asymmetric distortion shape which produces more even harmonics.

**Direct Mix:** adjusts the amount of input clean sound to be mixed to the processed one. Adding some direct sound, you can improve the resulting dynamic and enforce the attacks, as well as add some of the clean harmonic content to the output signal.

**Level:** can be used to adjust the final output level or to balance different rig models audio levels with each other by keeping all other settings untouched.

### Inserting a Cabinet

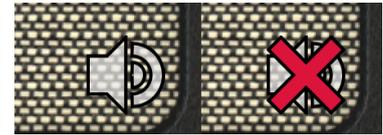
Look at the Component panel and from the dropdown list select **Cabinet** to only see cabinets.

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

technology and high and low pass filters.

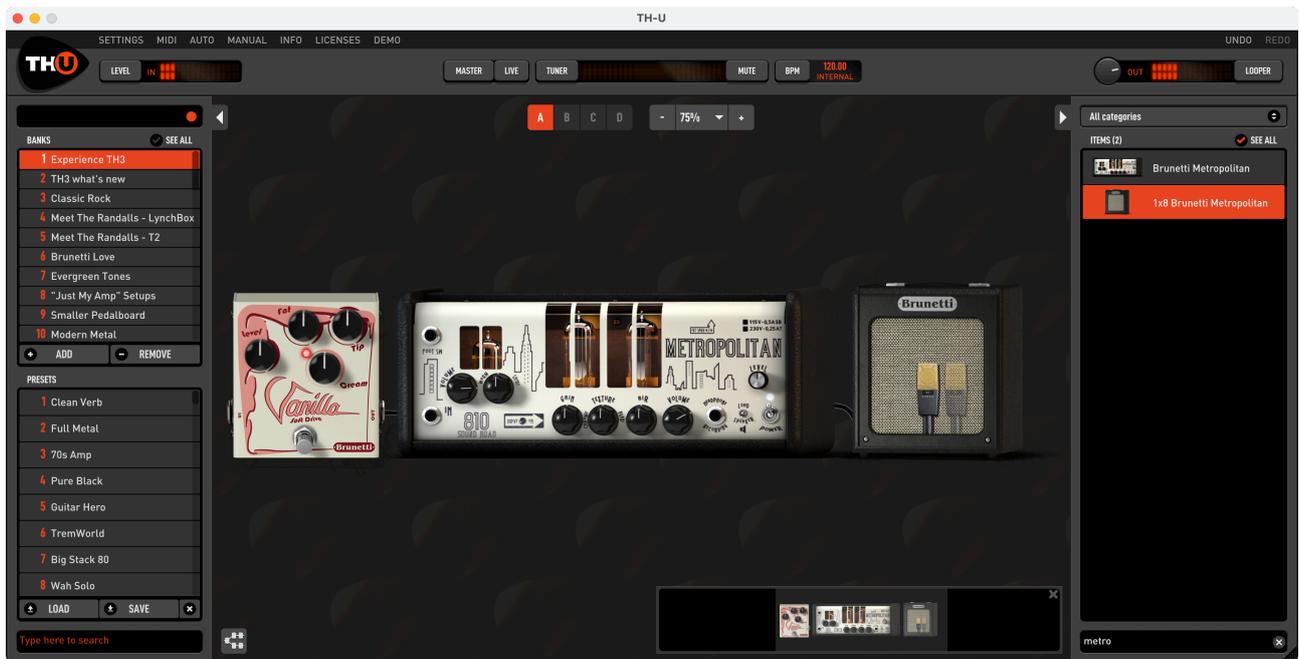
Like every other component, the cabinet can be turned off (bypassed).

When the mouse cursor hovers the cabinet, you will see a



small speaker icon on the bottom-right corner of the cabinet.

Click that icon to turn the cabinet on or



Though cabinet components appear simple, graphically, they are the most complex of the TH-U components.

Cabinets support the following elements: 2 frontal 3D positioned microphones, a rear microphone, a 45° inclined microphone, phase inversion, ambience emulation, ReSPiRe

off.

TH-U cabinets are of five types: 1 speaker, 2 speaker, 4 speaker, IR Cabinets and the Super Cabinet. The latter two will be described later.

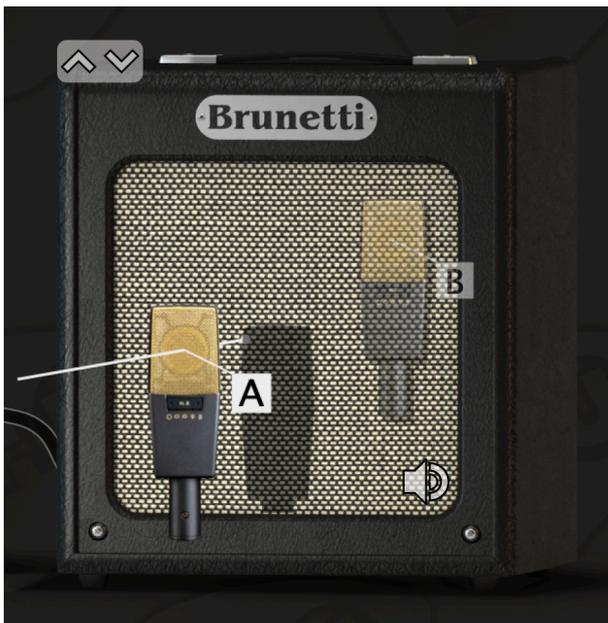
The way you set microphones in front of the different kind of cabinet is pretty much the same. TH-U modeling of the harmonic content takes in account:

position, distance and of course the model of microphones.

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

Choose an appropriate 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 give a more detailed view of the overall distance.

Let us now take a look at the cabinet Properties panel.

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



**A & B** are the sections which control the two main microphones. If you click on **IR**, instead of using a microphone you can load an IR. When **MIC** is selected, you can choose a microphone from a list of 18.

The **Invert** button inverts the phase of the corresponding microphone. Use it to achieve creative sounds: 3D positioning will never lead to phase artefacts since all Mic processing occurs in phase.

The **ON** button enables or disables A/B Mic/IR output.

**Level, Pan** and **Angle** allow for setting any or all of the available parameters.

**HPF & LPF** are high-pass and low-pass filters with respective characteristic

frequencies of 65 Hz and 12 kHz. You can use these preset filters when the cabinet sound exhibits too many low or high frequency harmonics.

**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 sound muddy.

**Remastered** selects between original and remastered cabinet which has increased presence and clarity. This selection only works if the **Remastered Cab** setting of the Master Controls is set to **AS IN CABINET**. Otherwise, the Master setting has precedence.

**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.

**Rear, 45°** are two additional microphones that you can blend with the main two. 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.

**Master** a global output level control for the Cabinet Properties.

## Bass Cabinets

All bass cabinets in TH-U have red speakers.

The 45° inclined microphone, for bass cabinets, corresponds to the tweeter microphone level. 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 as with the other cabs.



## 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 the tone being provided 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.

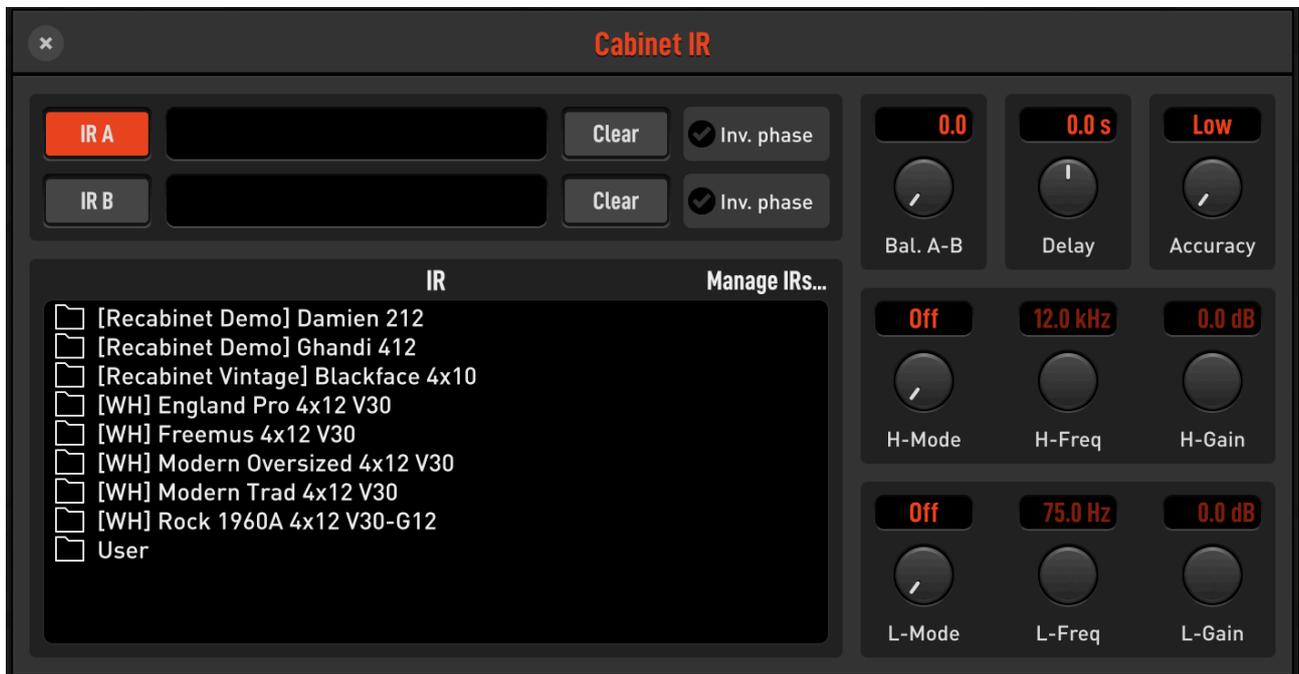
You can let TH-U reveal the IRs root directory by clicking **Manage IRs...** on the list header. You can copy your own IR files there to let them be available for loading to Cabinet IR.



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.

**Using the IRs**

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



TH-U accepts WAV files as sources, with any resolution (best is 24 bit or 32 bit floating point) and sample rate. The Cabinet IR module is mono, meaning

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 phase artefacts when playing together.

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

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

**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).

**H-Mode** adjusts the mode of the high freq filter. Settings are: Off, H-Cut, H-Shelf.

**H-Freq** adjusts the frequency of high freq filter.

**H-Gain** adjusts the gain of high freq filter.

**L-Mode** adjusts the mode of the low freq filter. Settings are: Off, L-Cut, L-Shelf.

**L-Freq** adjusts the frequency of low freq filter.

**L-Gain** adjusts the gain of low freq filter.

## The Super Cabinet

A revolutionary new addition to the Cabinet component category: the **Super Cabinet**.

Our new Cabinet component greatly extends the concept of the existing Cabinet IR component - allowing access to various libraries of popular and sought after cabinet IRs captured by specialized sound engineers.

With the Super Cabinet component, you can perform the blending of up to four separate IRs - simultaneously or the processing of three separate IRs - with each IR focused on a specific frequency range.

And once the desired cabinet sound has been achieved, the resultant processed sound can then be exported to a wav file. This exported wav file can be used with your preferred software application - TH-U, IR loaders and so



on, or the exported wav file could be used with an IR-based hardware digital amplifier.

## Inserting the Super Cabinet

Inserting the Cabinet component is identical to inserting any other TH-U component: simply select the Super Cabinet component from the components list and insert it into the Sound Chain view.

Double click the Super Cabinet component to see the settings panel.



The Super Cabinet properties panel has two modes: standard and **XOVER**.

In standard mode there are 4 slots where 4 IRs can be loaded. The slots are displayed in the top left corner of the panel. The current slot is displayed with lighter grey background. The current slot extends to the right where you will locate the controls to select the IR for that selected slot.

The first time you access the Super Cabinet you will find that it already works with an IR loaded on slot 1.

We will now discover how you can adjust the selected IR using the various IR slot controls.

The first control is the slot **POWER** button which may be useful in determining the overall effect that each of the IRs has on the resultant output sound.

Next is the **PHASE** control that inverts the phase of the IR.

Then the **SOLO** control, which temporarily mutes all non-soloed IR slots, permitting the listening of only the soloed IR slots. As with the **POWER** button, **SOLO** may be useful in determining the overall affect that the soloed IR will have on the resultant output sound. **SOLO** may be used with a single IR slot or, indeed, multiple IR slots.

The **REMOVE** control is used to clear the slot.

To the right of the slot zone there are two more controls: **VOLUME** and **PAN**, which let you to adjust the volume and pan position of the previously selected IR slot.

Now that we discussed the IR slot controls, we will consider the various controls on the right side, where you will discover the more interesting and powerful controls of the settings panel.

The right panel is where an IR is selected which will then be processed with the slot the panel it is associated with.

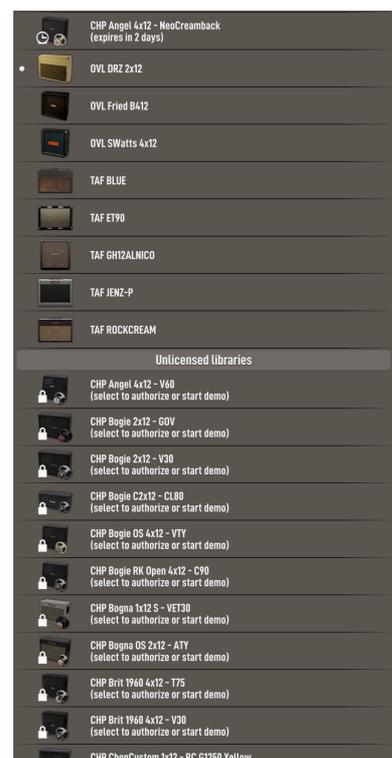
The first selection on the top is the **LIBRARY**. The default installation of TH-U comes with three, free **OVL** Factory Libraries.

Clicking the drop down list you will see something like the following:

**THE IR NAME**

During the entire capturing process, various microphones preamps, microphones, microphone positions, microphone orientations and microphone distances may be used. Each of these capturing processes generates a separate and distinct IR. Therefore, each of the Super Cabinet add-on libraries may contain hundreds, if not thousands of separate and distinct IRs.

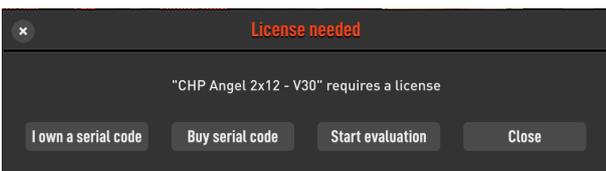
When a change is made to a particular parameter located in the IR Library Properties pane, this change will invoke a real-time update of the IR associated with that parameter. The IR slot pane displays the name of the currently loaded IR in white letters.



From this list you are able to view the list of libraries currently installed. Libraries other than the three Factory libraries will require authorization. For un-authorized libraries, a two day evaluation demo period is provided.

The first library is a library that is being evaluated. Next in the list are eight authorized libraries. Authorized libraries are displayed first, followed by a listing of currently installed libraries that require authorization.

Activating a demo for an un-authorized library is easy: simply select one and the following panel will be displayed.



To begin a 2-day evaluation period, click **Start evaluation**.

To purchase, click **Buy serial code**.

To authorize a previously purchased library, click **I own a serial code**.

Each library has a picture that you can see on the panel. The picture contains a producer specific image and the cabinet picture. In addition, you can see the selected microphone shape.



This said about the library selection, let's go on with the specific library options.

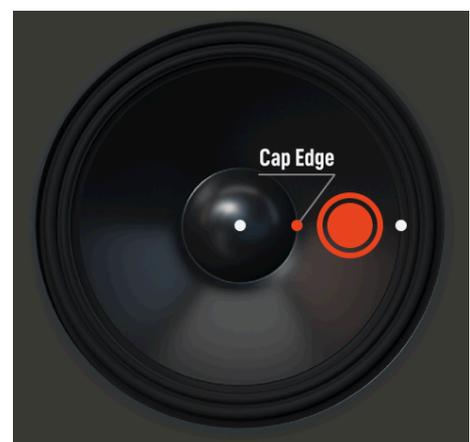
Each library was captured using one or more mic **PREAMP**, **POWER AMP** or **SPEAKER**. The drop down list displays the current selection as well as any available options to choose from.

Next is the **MICROPHONE**. You can easily change the mic model that will be used in the current slot. Make and models of microphones will vary depending on the specific library that is being used.

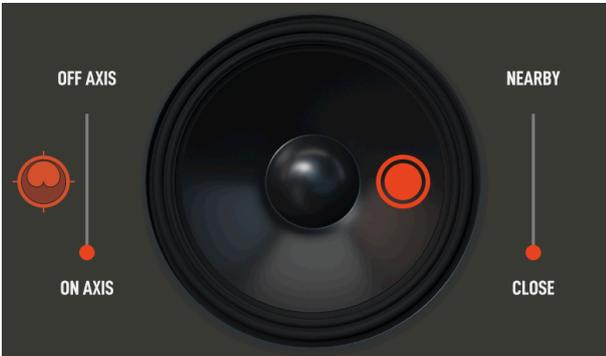
Then, **POSITION**. The positioning of the microphone may be changed using one of two methods: 1) by selecting one of the available microphone positions from the drop-down list, or 2) by selecting one of the currently available positions as displayed on the speaker image.

To move the microphone to a new position, just click the desired position.

Available positions are **CAP**, **CAP EDGE**; **CONE**, **CONE EDGE**.

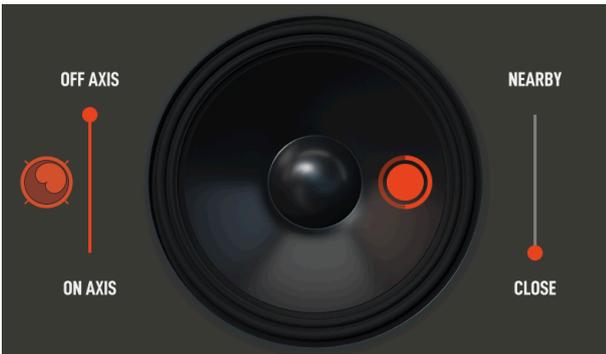


Most of the libraries permit changes to the mic orientation between **ON AXIS** and **OFF AXIS**.



**ON AXIS:** the microphone is positioned directly in front of the speaker cabinet.

**OFF AXIS** the microphone is rotated 45 degrees with respect to the front of the speaker cabinet.



To the left of the orientation selector, is displayed the microphone acoustic pattern shape. The pattern currently displayed is **CARDIOID**.

Following are the three microphone acoustic patterns:

-  **CARDIOID**
-  **OMNI**
-  **FIGURE 8**

To the right of the speaker image is the **DISTANCE** selector.

Varying from library to library, the actual effect of the **DISTANCE** selector is entirely dependent on precisely how, the IR library developer, positioned the microphone during the capturing process.

The available options are: **CLOSE**, **NEARBY** and **FAR**.

Located in the bottom right-hand corner of the IR Library properties pane are 4 additional controls:



**HPF:** a High Pass Filter, used to attenuate the low frequency harmonics.

**LPF:** a Low Pass Filter, used to attenuate the high frequency harmonics.

**DELAY:** used to introduce a delay for this IR, which is useful when you are correcting phase issues.

**STEREO:** used to introduce a delay between the left and the right channels, resulting in a widening of the overall stereo image.

**LIBRARY / USER IR selector**

In addition to the use of specific library IRs, the Super Cabinet component also

allows the use of 3rd party IRs as well, such as those from OwnHammer, Redwirez, Celestion, and others.

As you will discover, it is also possible to use both library and 3rd party IRs simultaneously, thus increasing both the flexibility and the usability of the Super Cabinet component.

Aside from the controls for selecting the IR from a library, all other IR controls are also available with 3rd party IRs.

Selecting the **USER** button, the upper portion of the IR library panel changes to a file browser where you can navigate through the available folders and load a **WAV** file of your own.

The actual location of IR folder is identical to the folder location of the existing Cabinet IR component, making access to such IRs very convenient.

Clicking **Manage IRs...** a system file browser window will open, pointing the current IR folder.

As with the existing Cabinet IR component, 3rd party IRs can be easily organized from within the current file system, organizing the 3rd party IRs to better meet your particular needs and requirements.



**Graphic display**

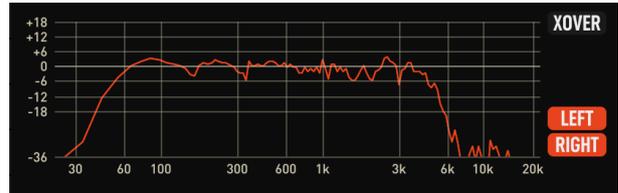
The Super Cabinet component operates in two modes. **STANDARD** mode, by blending up to four IRs together, as in a mix, or **XOVER** mode, where three separate IRs will be processed with each IR focused on a specific frequency range.

Once you have learned how to work with **XOVER** mode, you will wonder how you could have ever worked without it!

Regardless of the mode used, the resulting IR is always represented on the graphic display.

As you will discover, this frequency graph will be useful in adjusting the **VOLUME** and **PAN** parameters in order to keep the various frequency curves all within specific dB/Freq ranges. You can

select which curve to see (even both) with the **LEFT** and **RIGHT** buttons. And moving your cursor over the buttons the corresponding curve will be redrawn in white.



The graphic display is useful to adjust levels and pan to keep curves inside dB/Freq ranges.

Below the frequency graph is a two band parametric EQ, with which you can further adjust the resulting IR harmonic content.

The EQ contains the following controls: **POWER**, **GAIN1/2**, **FREQ1/2** and **Q1/2**.



Located below LEVEL control is the **EXPORT** button.

One of the coolest features of the Super Cabinet component is that once the desired cabinet sound has been achieved, the resultant IR can be exported to a wav file.

This exported wav file can then be used with your preferred software application or the exported wav file could be used with an IR-based hardware digital amplifier.

Note: if you are evaluating a library which is currently in use, the **EXPORT** function will be unavailable.

### **XOVER mode**

The Super Cabinet includes a unique feature: the **XOVER** mode.

To activate the **XOVER** mode, simply click the **XOVER** button close to the graphic display.

In **XOVER** mode three separate IRs will be processed, with each IR focused on a specific frequency range.

In **XOVER** mode, the **LO**, **MID** and **HI** IRs are distributed over the frequency range.

Within the frequency graph, there are two vertical white lines which can be used to alter the frequency cross over points. Simply drag these lines to the desired frequency to alter the selected cross over points.

In contrast to **STANDARD** mode, the sole purpose of **XOVER** mode is to achieve the desired output by the combining of the outputs of each of the three IRs with each IR focusing on a specific frequency band with the end result being the creation of a new IR from the combination of the three IRs.

For example, in **XOVER** mode, you can have one IR focused on **LO** frequencies, another IR focused on **MID** frequencies, and yet another IR focused on **HI** frequencies, combining the output of these three IRs into one coherent IR.

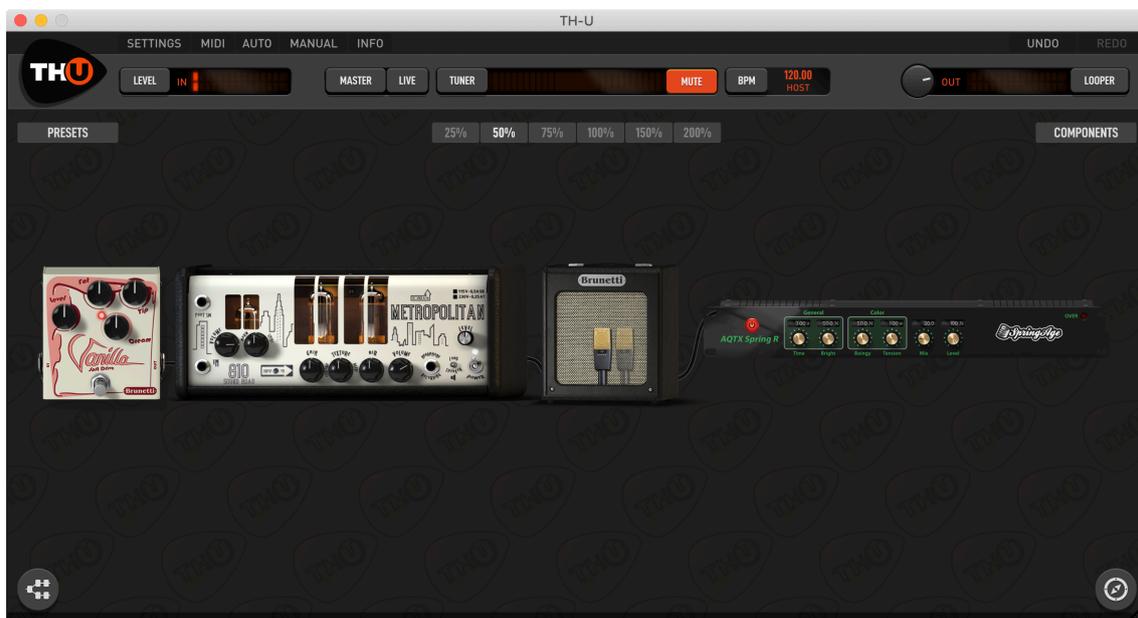
You can also increase the spread of the stereo image by turning the **STEREO** control to the right, but on the low and mid frequency IRs only. This will preserve high frequency definition and brightness by still letting you widen the **STEREO** image, "out front", and where this **STEREO** image will be perceived more.

## 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.

can 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 this case, you

## 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 was it not 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:** this option 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)

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.



**PAN:** sets the panpot or panorama position of the input channel at the output. For stereo signal it acts as a

## 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](http://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/faq](http://www.overloud.com/faq). There you'll find answers to the most common questions.

If the FAQ pages did not help, you can get free technical support online at [www.overloud.com/contacts/support](http://www.overloud.com/contacts/support).