

Pearl®



mimic PRO

POWERED BY SLATE

ELECTRONIC DRUM MODULE

MIMP24B

USER MANUAL

VER 1.0.9



OVERVIEW

- Mimic Pro is a powerful, modern drum module designed for incredible sound and performance.
- It features the Steven Slate Drums 5 sample library - 24-bit multi-channel samples. Each instrument supports adjustment of Attack, Sustain, Release, Tune, Pan, Volume (including separate volume for close, overhead and room mics), Dynamics Response and Velocity Curve. Separate velocity and volume adjustment for each articulation inside instruments (cross stick, etc.), easily customizable articulations for each zone on connected pads.
- It features more than 120 instruments with several velocities and round-robin hits. 60 easily customizable drum kits. You can create new instruments with kick and snare layering and individual effects for each instrument (Eq/ Compressor). Use the USB flash drive to import custom samples and songs.
- There are 16 trigger inputs - compatible with Pearl Tru-Trac Pads and most other pads. All the cymbal and aux inputs have Choke function. It supports dual and triple zone cymbals as well as dual zone Hi-Hat.
- The 16 balanced line outputs and stereo headphones mixed independently - Two separate mixers for headphone and line outs allowing the drummer a personal mix that does not affect master out or direct outputs.
- 120GB Solid State Drive for instrument storage plus USB flash drive for removable storage.
- MIDI in and out for external triggering and midi recording.
- 7" IPS Touchscreen.
- Additional features include: Built-in metronome.
- Play backing tracks using USB flash drive or AUX input. Record and store performances to Flash drive.



FROM THE DESIGN TEAM

Pearl Mimic Pro is a revolutionary new breed of electronic drum sound module. For the first time in electronic drums the module has full resolution, multi microphone, and 24-bit samples. Adjustable routing to the 16 outputs allows for incredible flexibility. For quick and easy operation, Mimic Pro has an IPS LCD touchscreen and a push button Data Wheel (encoder). Mimic Pro has two mixers – headphones and master mix - for perfect monitoring and perfect sound at FOH. Mimic Pro has more than 120 instruments in the factory library and a 120GB SSD drive to expand your sound with new sample packs. Mimic Pro even allows you to import custom samples!

FROM THE SSD TEAM

The sounds inside Mimic Pro are the best drum samples ever created. They are called Steven Slate Drums or SSD. Mimic Pro's factory sound library has the newest SSD5 Deluxe 2 drum samples library and as a bonus it also has components from the SSD4 Deluxe 1 drum sample library. These are all full resolution multi mic 24-bit samples with velocity layers. They have alternative hits per each velocity layer which is also called round-robin. Another feature of Mimic Pro is articulations, the area on a drum where the drummer strikes it or characteristics of a certain playing technique. Mimic Pro's factory library has up to 28 velocity layers with up to 12 round robin hits per each velocity layer (that is an equivalent of 336 velocity layers in "linear" layout) These hits in combination with the amount of channels in the samples plus the amount of articulations, gives the user up to 3000 samples per instrument. With a powerful physical modeling engine Mimic Pro supports up to 4096 velocities, so even if an instrument has 28 velocities, it will still have 4096 levels of dynamics, or volume. This gives users thousands of sound nuances on each instrument, something never possible in electronic drums before Pearl's Mimic Pro.

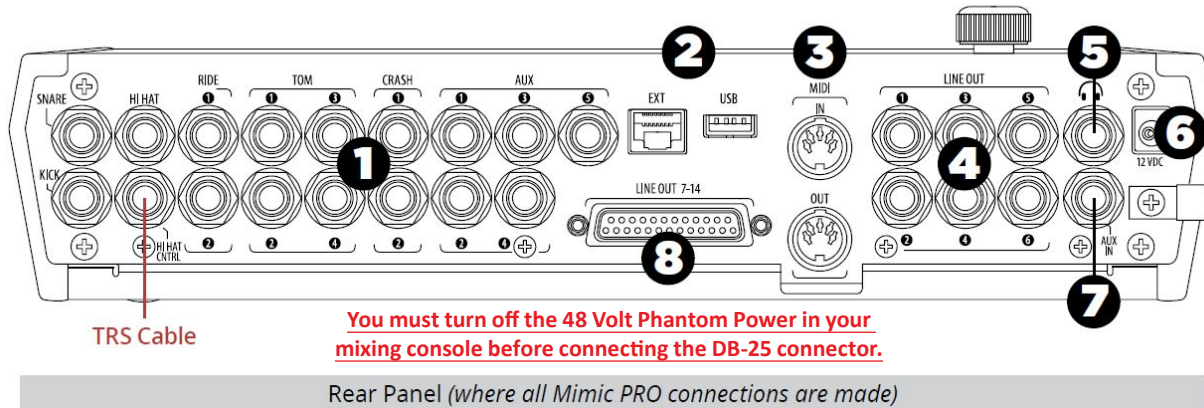
WARNINGS AND IMPORTANT NOTES

- Mimic Pro and all accessories need careful handling.
- Make sure that Data Wheel (encoder knob) is protected while Mimic Pro is being transported.
- Do not apply undue pressure on the Data Wheel (encoder knob).
- Do not apply phantom power to Mimic Pro line outputs.
- Make sure that the LCD screen is protected during transportation.
- Make sure nothing abrasive contacts Mimic Pro's LCD screen during transportation.
- Do not twist or stretch power supply cable. Handle with care.
- Do not connect Mimic Pro to an outlet that's being used with an air conditioner, refrigerator, welder, washing machine, microwave oven – anything that has a motor or inverter. This may cause noise, improper function, or even hardware damage.
- Try to avoid using the unit near strong electromagnetic emitting devices (big transformers, satellite transmitters, etc) as well as high power wireless hardware.
- Make sure to turn off the power before making any connections.
- Never switch off Mimic Pro immediately after an operation is finished, such as copying to or from a USB stick. Always wait at least 5-10 seconds.
- Use only a dry soft cloth to clean Mimic Pro. Never use any chemicals to clean Mimic Pro.
- You can use a protective film (like used on smartphones) to prolong the LCD screen life and protect it from possible damage.
- If there is a malfunction, all data on Mimic Pro's internal storage (solid state drive) may be lost, or damaged. Please backup your data.
- Do not expose Mimic Pro to high vibration levels.
- Do not bend and drop Mimic Pro.
- Do not expose Mimic Pro to high humidity.
- Do not use Mimic Pro in temperatures below 0° Celsius, 32° Fahrenheit.
- Do not keep Mimic Pro and its accessories under direct sunlight.
- Do not disassemble Mimic Pro and do not touch the contact points on connectors (especially USB).
- Keep Mimic Pro away from dust and liquids.

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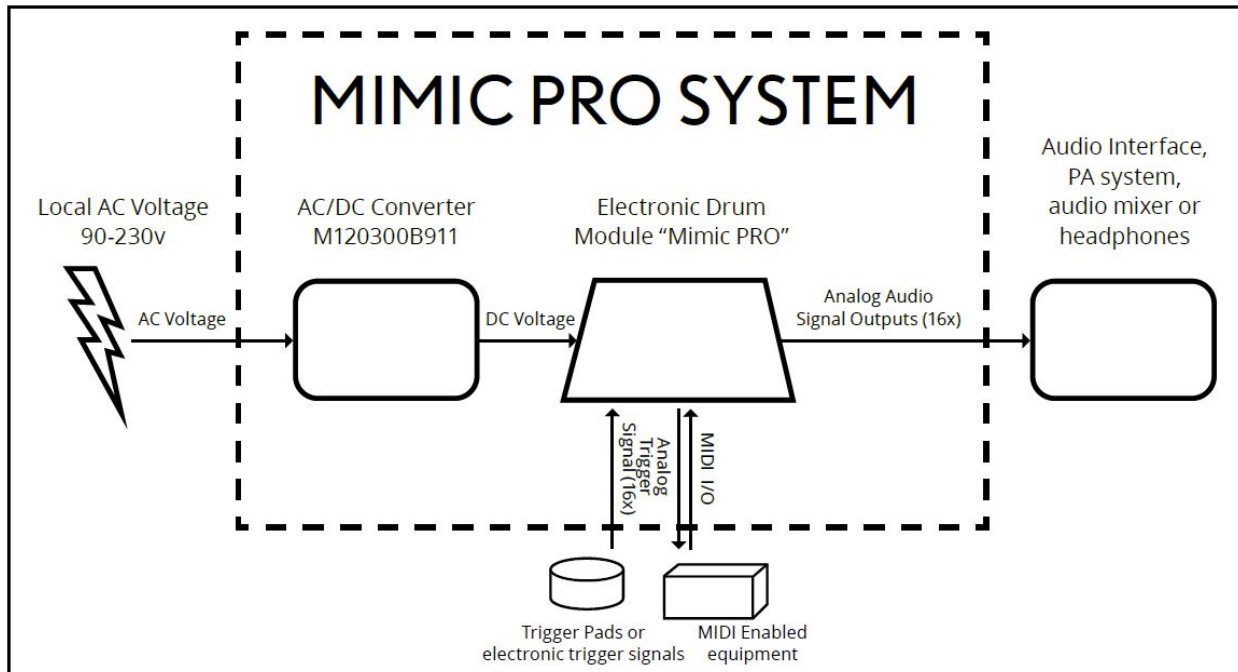
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CONNECTIONS



Pic 01. Connections

1. TRIGGER INPUTS – Connect the triggers of your drum pads and cymbals to the appropriate inputs. Use only standard 1/4" TRS cables for multi zone or TS cables for single zone connectors and high quality, shielded cables to connect to Mimic Pro.
2. EXT & USB – Use a standard USB cable or thumb drive to connect to the module and add additional sounds. The EXT RJ45 connection is of future expansion.
3. MIDI IN/OUT – Use a standard five-pin MIDI cable to transfer MIDI data to and from an external MIDI source.
4. LINE OUT 1 – 6 – Six balanced TRS outputs.
5. HEADPHONE JACK – Connection for a pair of stereo headphones or in ears device.
6. POWER IN – Connect the DC power supply to this terminal. Secure the power cable to the cable clip to prevent accidental unplugging.
7. AUX IN – Use a standard TRS cable to connect Mimic Pro to an external analog signal source.
8. LINE OUT 7–14 –Use a DB25 cable to access channels 7–14.



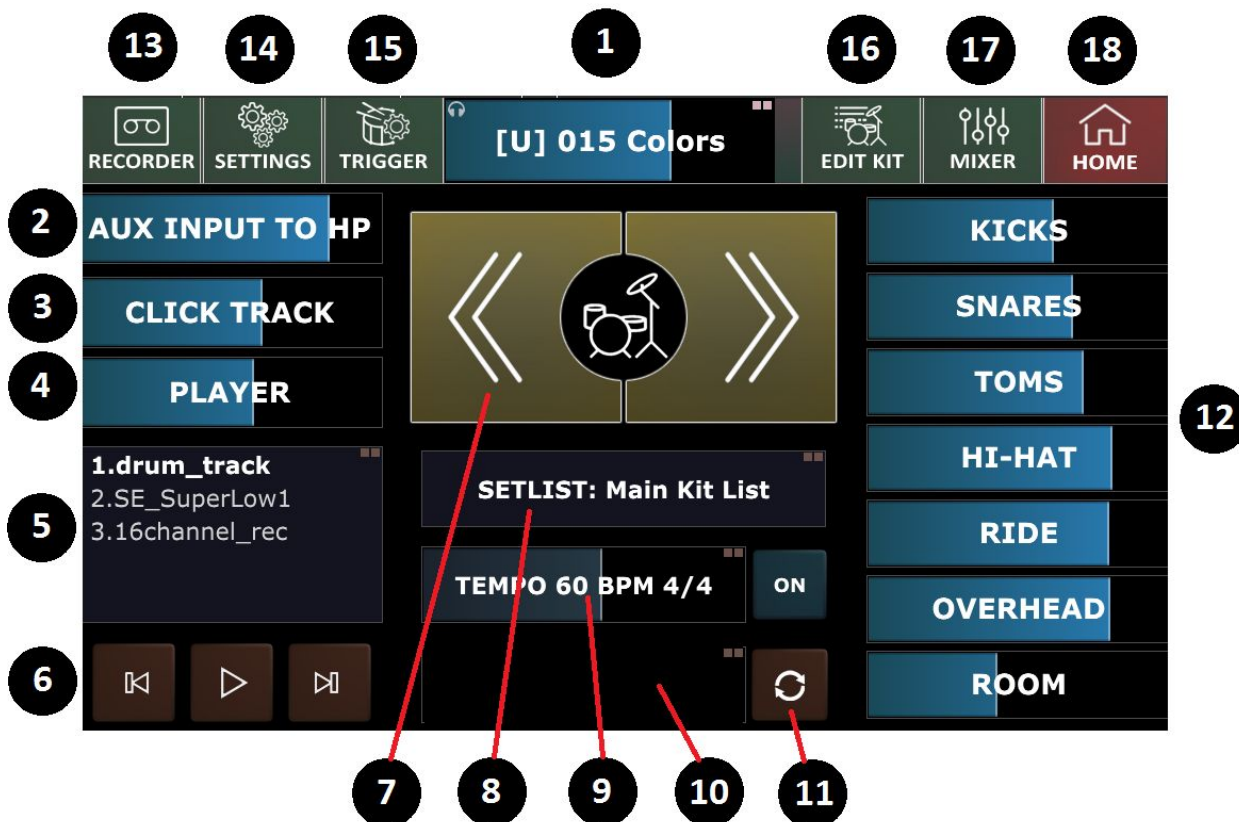
Pic 02. Schematics



Pic 03. Mimic Side View

1. POWER – Press to turn power ON and OFF.
2. BOOT – For use with software updates.
3. SD CARD SLOT – for mp3 / wav song files, presets and backups import and export.

HOME SCREEN



Pic 04. Home Screen

The volume control adjustments on the Home screen only affect the headphone levels. Windows that contain two squares in the upper right corner require a double tap to enter.

1. KIT DISPLAY SCREEN / HEADPHONES VOLUME SLIDER – This window displays the name of the kit that is currently loaded and a headphones volume slider..

You can:

- Adjust the volume level of the headphones output by dragging your finger to the desired setting.
- Double tap to open a drumkit selection dialog.

Note: you can turn data wheel to control the headphones volume and push the data wheel to open kit selection dialog.

2. AUX INPUT TO HP – Adjust the volume level of an external sound source (in headphones) by dragging your finger to the desired setting or double tap the Aux Input window to activate the Data Wheel. Press the Data Wheel to lock in your setting.
3. CLICK TRACK – Adjust the volume level of the click track (in headphones) by dragging your finger to the desired setting or double tap the Click Track window to activate the Data Wheel. Press the Data Wheel to lock in your setting.

Note: Click Track is not a metronome - it's an audio track (similar to your wav/mp3 song files) that is played in sync with your song. For more info please review song player section.

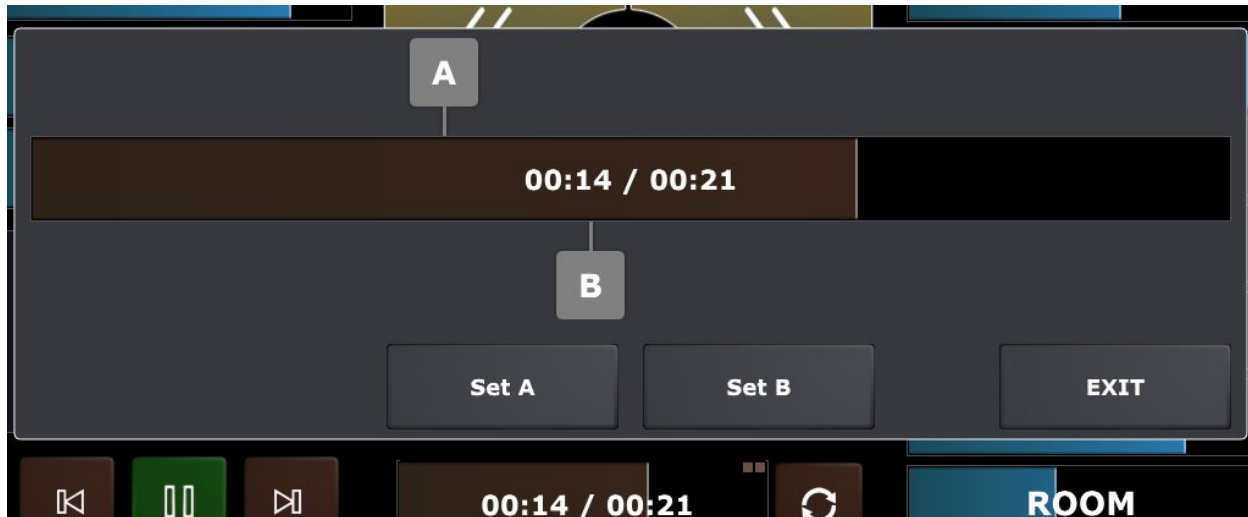
4. PLAYER – Adjust the volume level of your song playback (in headphones) by dragging your finger to the desired setting or double tap the Player window to activate the Data Wheel. Press the Data Wheel to lock in your setting.
5. PLAYLIST - Double tap to access the Playlist window.
6. PLAY/FAST FORWARD/REWIND – Navigate your playback with these touchscreen buttons.
7. KIT SCROLL BUTTONS – Navigate forward and backward through Mimic Pro's kits.
8. SETLIST / STATUS Window - Shows your current set list status:
 - "Main Kit List" if no custom set list is loaded and KIT SCROLL BUTTONS are selecting the kits from the main kit list.
 - "ITEM N FROM [SET LIST NAME]" if you have a custom set list loaded and active, with item N currently selected.

Note: double tap to build/load/save a setlist of kits in performance sequence with assigned tempo settings for each kit.

9. TEMPO / METRONOME VOLUME – Adjust the metronome time signature and BPM. Double tap to access the Tempo window.

Drag your finger to adjust metronome volume.

10. SONG PLAYER STATUS - Shows your current song playback position / length.
 - Drag your finger to adjust song position.
 - Double tap to set LOOP START / END positions for loop playback mode.



Pic 05. Player Timeline Settings

Brown bar shows your current song position. You can rewind your song position dragging this bar left/right with your finger.

A / B flags show your start and end loop points. You can set your loop point dragging these flags with your finger.

Alternatively, you can use Set A / Set B buttons to set your A/B positions - start the song playback and press Set A / Set B at the moments where you want your A/B loop points to be placed

11. LOOP PLAYBACK ENABLE - enable player loop mode.
12. VOLUME FADERS – Independently adjust the volume for the Kicks, Snares, Toms, Hihat, Ride, Overhead, Room in the headphones mix.

TOP NAVIGATION BUTTONS:

Note: you can adjust the navigation buttons order in SETTINGS/USER INTERFACE/"TOP BAR SETUP" dialog.

13. RECORDER – Access the Mimic Pro's RECORDER.
14. SETTINGS – Access your Mimic Pro's SETTINGS.
15. TRIGGER – Access the Trigger settings menu.
16. EDIT KIT – Build your custom kit
17. MIXER – Access your Mimic Pro's MIXER
18. HOME – Press the Home icon in any screen to return to the HOME SCREEN.



SETTING UP

CAREFULLY UNPACK THE MODULE. If mounting the module on the Pearl PEMM Module Mount, follow the steps below. If using without a module mount, move to “Plug in your pads”.

1. Carefully turn the module upside down.
2. Be sure to protect the screen and Data Wheel/encoder from damage.
3. Install the mount **ONLY** with the included 10-32 screws.
4. Screws that are too long will damage the unit.

PLUG IN YOUR PADS.

1. Using the diagram in the “Connections” section, plug appropriate pads into each 1/4” jack.
2. Dress cables neatly and away from AC sources to avoid crosstalk.
3. Do not use unshielded cables.
4. Additional information on editing and tweaking your pads is included in the Trigger section.
5. The default settings are for Pearl Tru-Trac pads.

CONNECT YOUR HEADPHONES.

1. Plug in headphones to the 1/4” headphone jack on the back of the unit. The volume is controlled digitally via the encoder & touchscreen.
2. Be sure to lower the volume before you start playing, and slowly raise to a comfortable level later.
3. The headphone output has it’s own mixer,

where each instrument can be adjusted independently.

CONNECT TO OTHER AUDIO EQUIPMENT.

1. Line Out 1-2 carry the Master Mix (balanced line outputs).

Mimic Pro has a dedicated MASTER MIX mixer that controls the instrument volumes independently for your Master Mix.

If you need a mono signal on master outs, you can use Mixer/Monitor&Settings/Mixer Settings/ “Force Master Out To Mono” function.



2. Line Out 3-14 are assignable inside Mimic Pro (balanced line outputs). Typical use would be a direct-out for individual instruments to feed a mixer or audio interface. You can assign individual instruments to line outs 3-14 in SETTINGS/ROUTING dialog.
3. **It is recommended to use DB25 to Jack cables, not DB25 to XLR cable. Mimic Pro outputs are line level outputs, thus these should not be connected to your mixer or sound card microphone inputs.**
4. The AUX IN (stereo line input) can be used to input pre-recorded music, a monitor mix, or other reference source.
5. If you only use master outputs (for example - if you only use Mimic Pro through PA) - you can use Mixer/Monitor&Settings/Mixer Settings/ "Send HP Mix To Master Out" to make clone your HP output to Mimic Pro master out. This way you can control your PA from home screen.

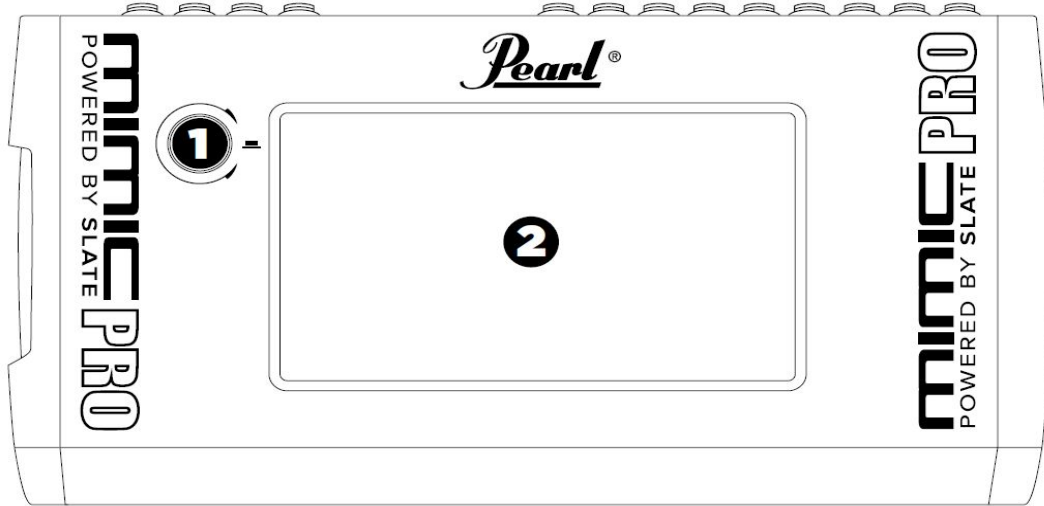
WARNING: Be sure to NOT apply phantom power to the Mimic Pro line outs, this can damage your module.

CONNECTING THE POWER SUPPLY.

1. Select an AC outlet that is safe from foot traffic, dry, and has at least 3 amps of current to spare. This specifically pertains to live stage performance environments where voltages could vary.
2. Ensure that this outlet is closely related electrically to any other equipment that Mimic Pro will be connected to.
3. Connect the AC cable to the power supply and then your local mains AC.
4. Connect the DC cable to the Mimic Pro.
5. Turn the power switch located on the left side to the "I" (ON) position.

You are ready to begin!

OPERATION



Pic 06. Mimic Front Panel

1. DATA WHEEL.
2. 7" LCD TOUCH SCREEN.

TOUCH SCREEN

Mimic Pro is operated primarily through a touch screen interface. Most operations are done by tapping the screen, double tapping and dragging.

Tap on the screen to press buttons, open menus and choose positions in menus. Tap and drag to adjust faders and other continuous controls.

There are also areas on Mimic Pro's user interface that accept a double tap, they are usually have double square pictogram in the right top corner. For instance, on the Home Screen, double tap on the Headphones Fader and it will open the Load Kit menu.



Pic 07. Mimic Top Bar

Note: You don't have to tap in the exact point on the fader. You can tap at any place inside fader frame and make adjustments. This is especially useful if your fader becomes hidden outside of the screen's visible area.



DATA WHEEL

Pic 08. Mimic Front View and Data Wheel

Mimic Pro also has a Data Wheel (encoder) which can be rotated as well as pressed to input values during some operations.

By default, rotating the Data Wheel adjusts the headphone volume fader. If controls in Edit Mode are selected, or if menus are not opened, then rotating the Data Wheel will adjust the selected fader.

When on the Home Screen, pressing the Data Wheel will open the Load Kit menu. By rotating the Data Wheel, you can scroll through the presets selections and press the Data Wheel to load the chosen kit preset.

If you double tap on a fader, a red blinking frame around the fader will appear, (see Pic 09). This means that the fader is in Edit Mode and can be adjusted using the Data Wheel. To exit Edit Mode, push the Data Wheel, or tap on any free space on the screen.



Pic 09. Fader Edit Mode

When you open any menu, you can navigate in that menu by rotating the Data Wheel and then select the menu item by pressing the Data Wheel.

Note: Double tapping any window with two squares in the right top corner of the box (see Pic 10) will open the corresponding menu.



Pic 10. Doubleclick Box

Note: Double tap on any fader to activate the Data Wheel Edit Mode.

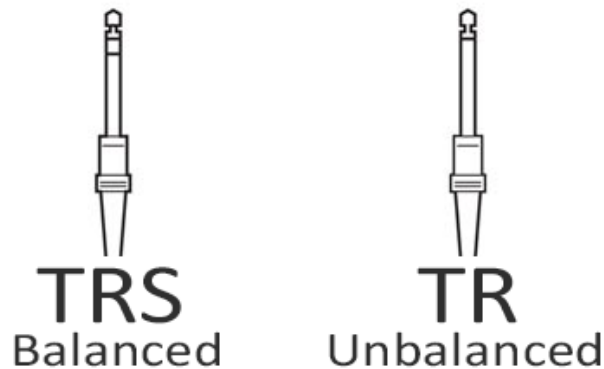
SETUP

MOUNTING MIMIC ON THE STAND

Carefully turn Mimic upside down, ensuring that Mimic Pro’s display and Data Wheel are protected. Once turned over, screw the mounting plate to Mimic Pro’s base. Do not overtighten, use gentle force only. If the screw is not threading properly, then there may be a problem with the screw (too long, or too big). Use **ONLY** the screws that come with the mount to prevent damage to internal components. Use only Pearl’s PEMM Module Mount. After the mount is attached to Mimic Pro you can attach the module to a stand using a suitable all-purpose clamp.

CONNECTING THE PADS

Mimic Pro supports all popular electronic drum pads and cymbals from different manufacturers. In most cases, pads must be connected to Mimic using 1/4” (6.3 mm) TRS (Tip Ring Sleeve), balanced/stereo cables. There are also unbalanced/mono cables which are the same size, called TR (Tip Ring), mono - these are **not recommended** for use with Mimic Pro. It is recommended to always use balanced/stereo connectors for pads that you are connecting to Mimic Pro.



Pic 11. Connector Types



Most drum pads and cymbals connect via a single TRS cable except Hi-Hat and many Ride cymbals (there are some ride cymbals on the market that use single cable connection). Hi-Hat uses two cables, because it has a pad jack and controller (device which reads Hi-Hat pedal movement) jack. Ride cymbals use two cables to send to Mimic Pro signals from Bow/Edge zone and from bell zone separately.

Connect pads to corresponding Mimic Pro input jacks. The names of each input is printed on the back panel. **MAKE SURE MIMIC PRO IS TURNED OFF BEFORE CONNECTING COMPONENTS.** After all components are connected, turn Mimic Pro ON. Make sure you have headphones plugged into the HP output, or a PA system plugged into outputs 1 and 2 to be able to hear sound when testing.

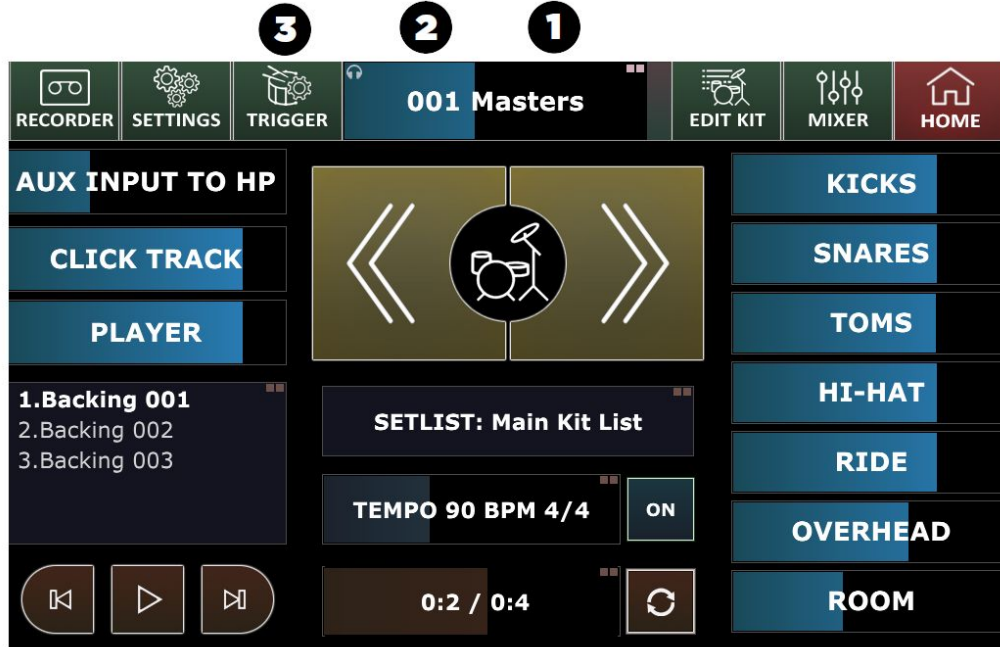
Since Mimic Pro is designed to work with many different brands of pads, it is recommended that when you first turn it on you should choose between pad presets and set the triggering sensitivity. This is the most important step in getting the best triggering and dynamic response.

Visit the next sections, “Example Setups” and “Getting Started” for Quick Start instructions.

Visit the “Detailed Instructions” section for more information on how to tweak the advanced triggering and mixing options featured inside Mimic Pro.

TRIGGERING

When you power up the Mimic Pro for the first time you will see the Home Screen, (Pic 12).



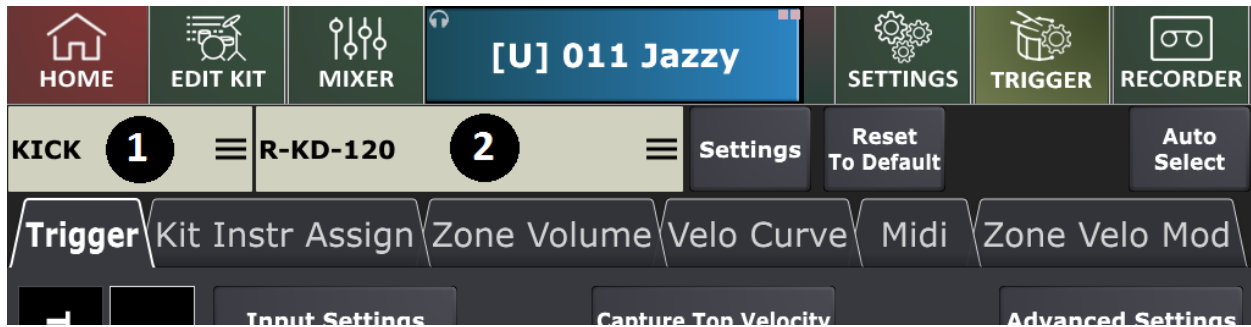
Pic 12. Triggering Button

To begin triggering, you will need to address 3 things on the Home Screen.

1. Make sure you turn the headphones fader down to protect your ears and headphones. You can do this on the touch screen with your finger, or simply by turning the Data Wheel.
2. Double tap on the headphones fader to open the Kit Loading menu and load the first Kit Preset in the list by selecting it and pressing the Load button.
3. Press the Trigger button to open the Trigger Settings menu.

Step 3 will take you to the Triggers Setting screen (Pic 13).

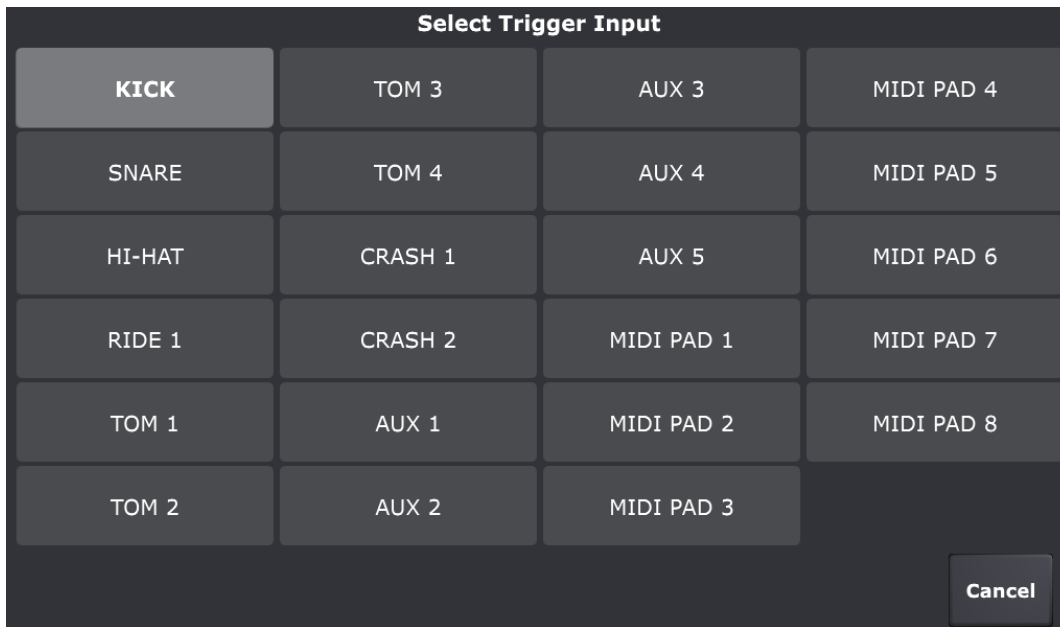
Note: Trigger lock screen can be disabled in Settings/User Interface.



Pic 13. Triggering Settings

Understanding this screen is the most important part of getting the Mimic Pro to trigger drums correctly with your playing style. On the picture, there are two menus (numbered 1 and 2 in Pic 13).

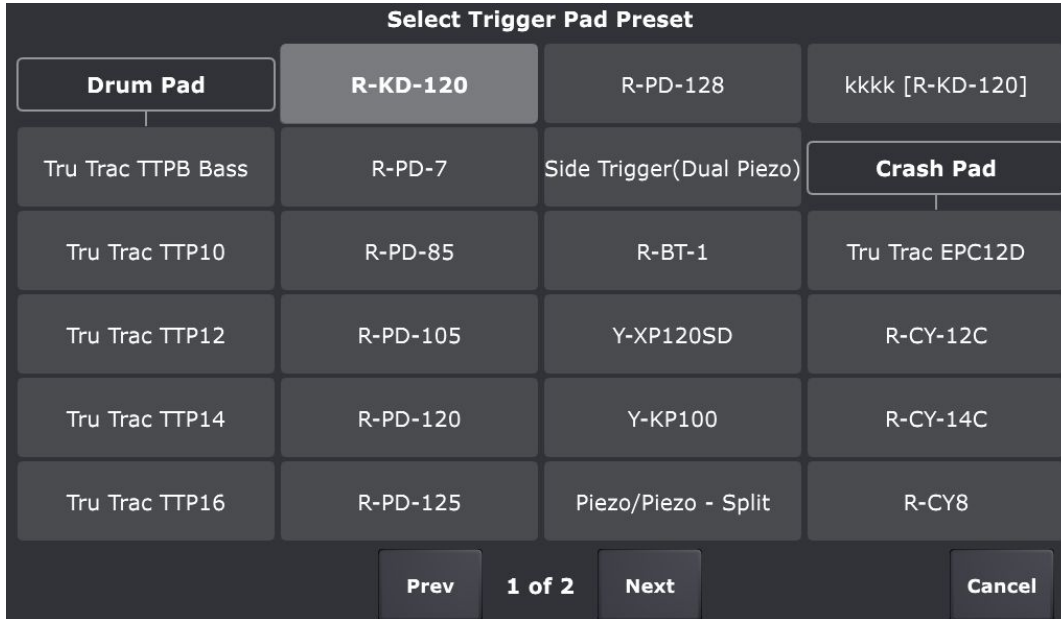
1. This is the Trigger Input Channel that is currently being adjusted. Tap on the menu and choose the desired input channel to adjust.



Pic 14. Input Channel

Note: MIDI PAD is a “virtual” midi pad. You can use it to extend the trigger inputs count of your Mimic Pro with some external midi gear like midi keyboard or another drum module connected with a MIDI cable. You can assign the desired midi notes for these “virtual pads” in trigger settings and thus make your Mimic Pro respond to an external midi event.

- This is the Trigger Pad Preset Selector for the selected Trigger Input Channel, which contains presets for most pad models by major manufacturers.

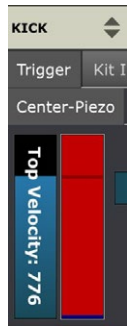


Pic 15. Pad Presets

To start setting up the triggering, choose your Trigger Input Channel and see if the pad connected to that trigger input is in the Trigger Pad Preset Selector list. If it's not in the preset list, select the closest pad to your pad (judging by the used technology and materials). If your pads are in the list and they are all in good condition, then you're almost set after selecting the right pad presets. The only things left to do after setting the pad presets are calibrating the Hi-Hat pad, and adjusting dynamics to your taste.

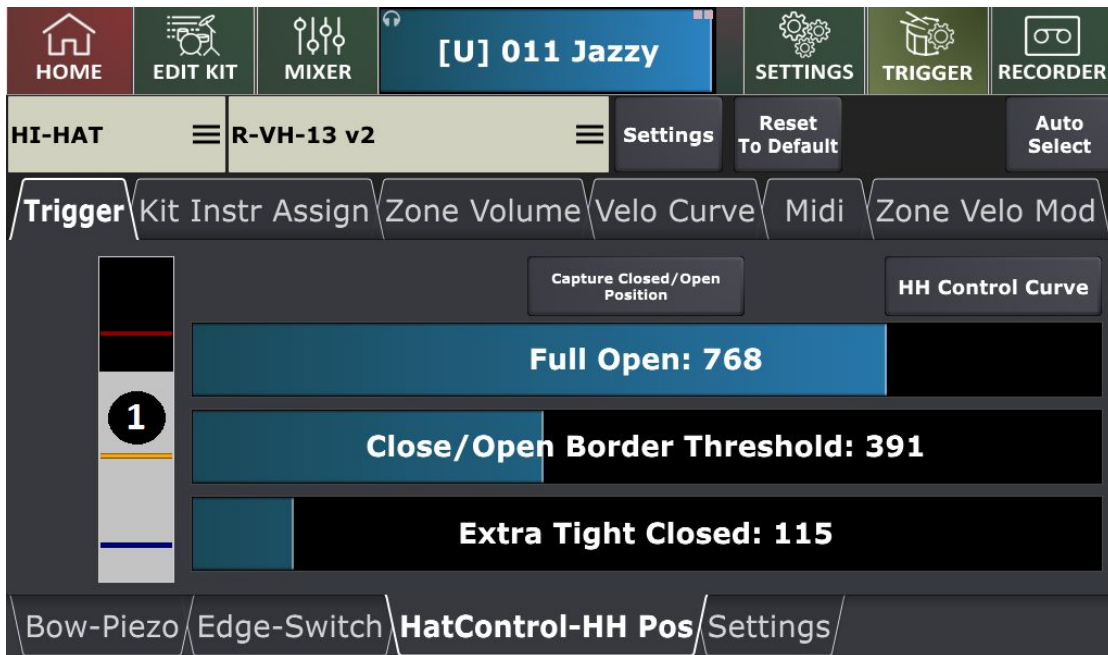
Note: If your pad is not in the preset list (or if your pad is in the preset list, but dynamic response is off and can't be adjusted with Top Velocity as described below) go to the section Advanced Triggering Settings.

Note: The trigger input meter should never go red as seen here (Pic 16). If it's going red during normal playing, then you need to lower the input gain setting. Read about that below in the section Advanced Triggering Settings.



Pic 16. Input Meter Overload

CALIBRATING THE HI-HAT



Pic 17. Hi-Hat Calibration

Install the Hi-Hat pad onto a stand according to your Hi-Hat pad's manual. Hi-Hats may be single zone or dual/multi zone and they always have a controller of some type. It can be a device inside the bottom, or top hat, or a pedal with a built-in controller. The controller reads the pedal movement and translates the data into Mimic Pro.

First of all, make sure that the correct controller output cable goes into the Hi-Hat controller input in Mimic Pro. Reminder - the cables must be 1/4" TRS and not a 1/4" mono connection.

Next select the Hi-Hat from your trigger instrument window shown in (Pic 14). Then select the correct Hi- Hat preset in the Mimic Pro's triggering settings window (Pic 15). Then proceed to TRIGGER-HH Control- HH Pos tab to calibrate your Hi-Hat (Pic 17).

Make sure that your Hi-Hat is in the fully open position. If a controller is built into the pedal, fully open means not applying any pressure on it. If the controller is on a Hi-Hat stand, the top hat must barely touch the controller's contact point without applying any pressure on it (Pic 18).

Contact Point



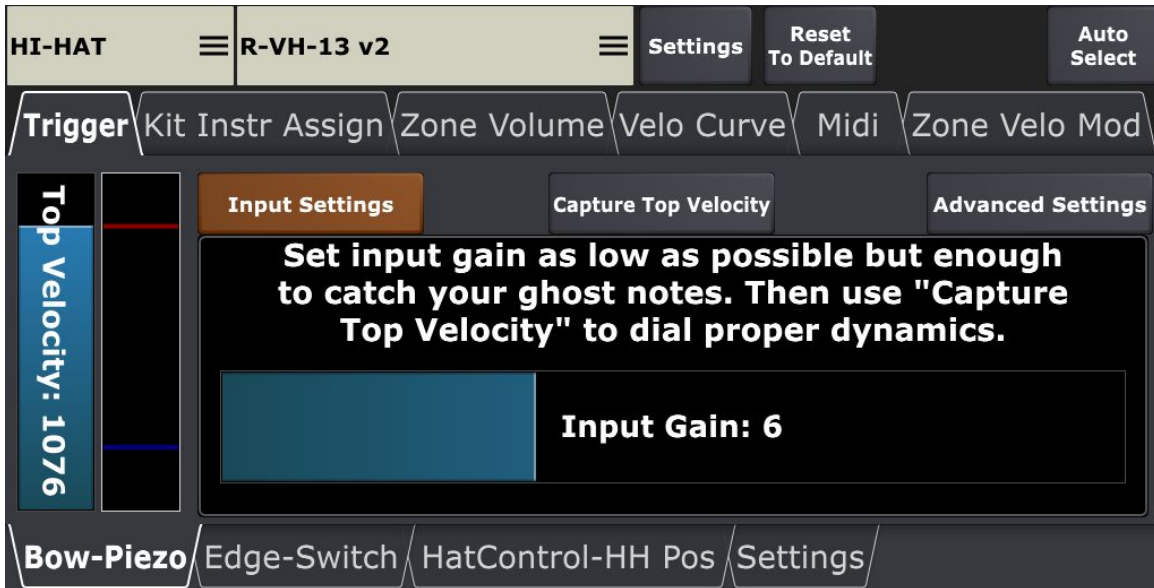
Pic 18. Hi-Hat Controller Contact Point

Note: Like all other cables for Mimic Pro, the Hi-Hat control cable must be a TRS cable. Do not assume an existing wiring harness from another e-kit uses a TRS cable for Hi-Hat control. Many do not! Without a TRS cable from the Mimic Pro to your controller, your Hi-Hat will not calibrate or function properly.

On the left side of the HH Control-HH Pos window there is a grey meter with three strips on it (number 1 on Pic 13). Strips are red, yellow and blue. Make sure that the Hi-Hat controller cable is connected to the correct input by applying pressure to the pedal. If the grey meter moves then the connections are correct.

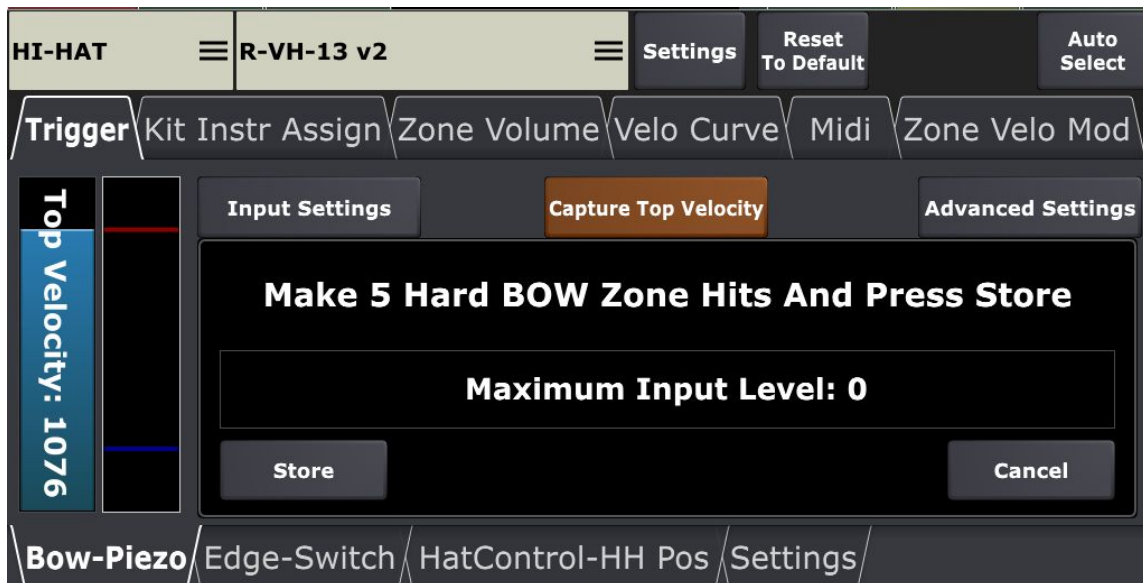
HERE ARE STEPS TO CALIBRATE THE HI-HAT:

1. Select proper preset for your hi-hat pad. The names of presets are pretty much self explanatory.
2. With the closed hi-hat dial the Input Gain according to the on-screen text, see (Pic 19).

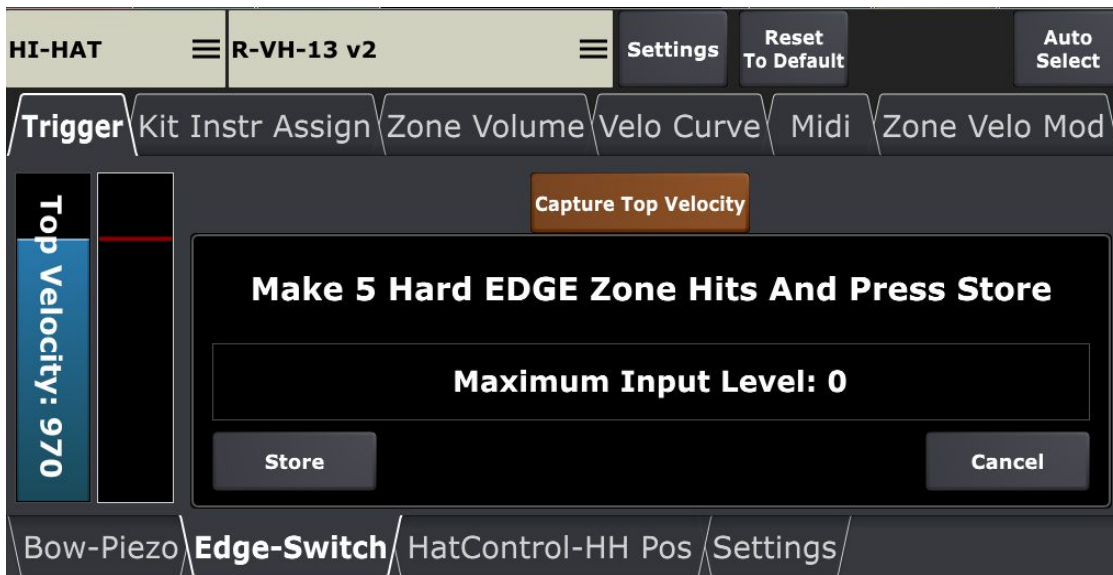


Pic 19. Hi-Hat Input Settings

3. With the closed hi-hat use the Capture Top Velocity function for Bow and Edge (if pad preset has edge zone) tabs, see (Pic 20) and (Pic 21).

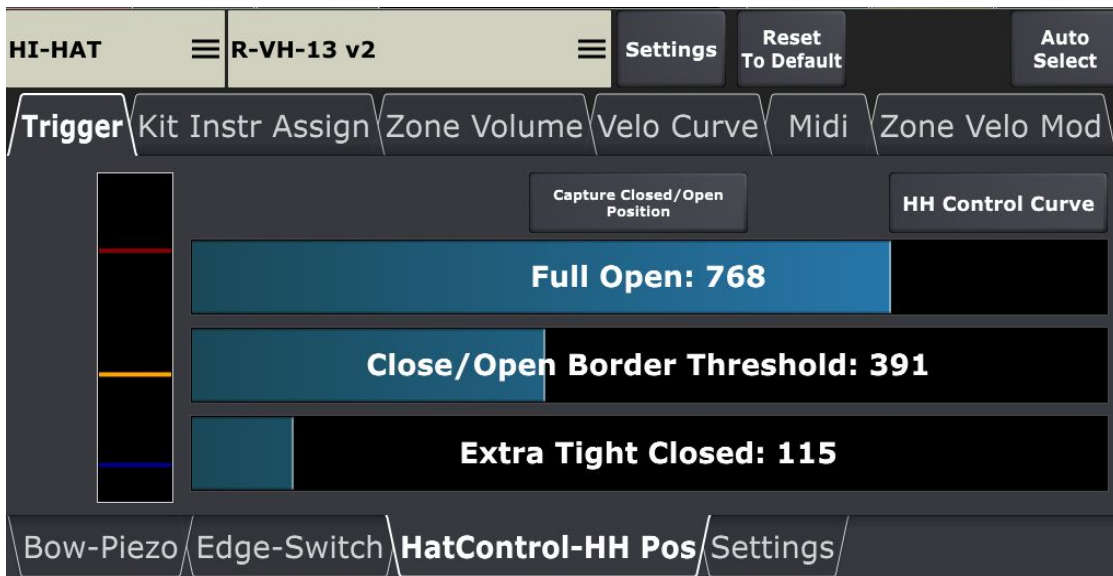


Pic 20. Hi-Hat Top Velocity Bow



Pic 21. Hi-Hat Top Velocity Bow

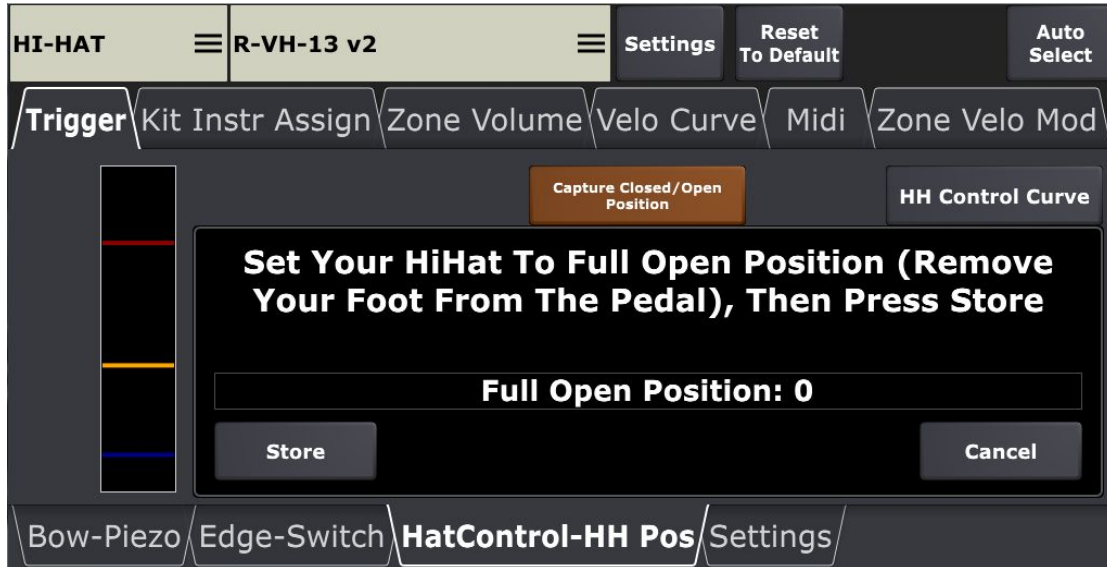
- On this step the controller calibrations starts. Go to “HatControl-HH Pos” tab, see (Pic 22).



Pic 22. Hi-Hat Control Settings

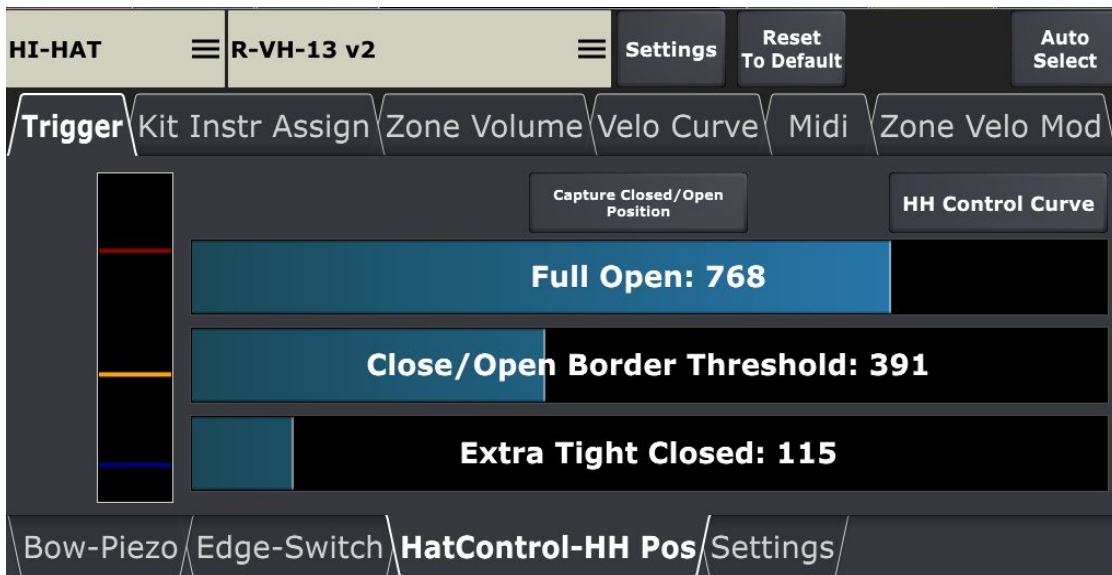
- Use “Capture Close/Open Position” function to dial your tight closed and full open settings, see (Pic 23). It is also possible to set these parameters manually using Full Open

and Extra Tight Closed faders, but using the “Capture Close/Open Position” function is strongly recommended.



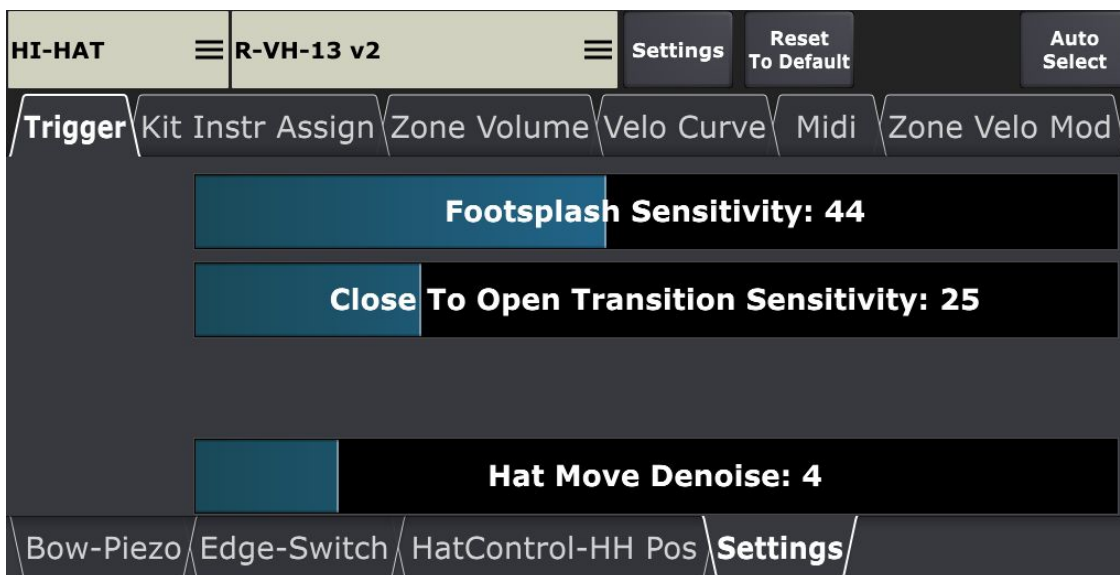
Pic 23. Hi-Hat Control Settings Capture

6. Dial the “Close/Open Border Threshold” fader manually, see (Pic 24). This fader is represented by yellow line on the bar on left from faders. Basically this parameter is the position of controller where chick sound is generated, so the hi-hat stops being open and begin being closed, but does not actually closed yet. There are few typical way to set it up. Most people prefer double-tap the fader and move the yellow line with the Data-Wheel from bottom to top direction while playing some chick patterns and some “hi-open-hat-then- close-it-with-pedal” patterns. You’ll find a position, where the hi-hat response is good for your playing style.



Pic 24. Hi-Hat Close/Open Border

- For further calibration, go to Setting tab for Hi-Hat pad, see (Pic 25). First parameter on this tab is Footsplash Sensitivity. Dial this fader to your playing style. Keep in mind that it always better to have right balance. High values will make hi-hat splashing all the time, so keep this parameter value as low as possible for comfortable footsplashing.



Pic 25. Hi-Hat Calibration Settings

- Close To Open Transition Sensitivity is the time that Mimic Pro waits for the hi-hat transition from closed to open after closed hat hit. For accurate and fast players it's ok

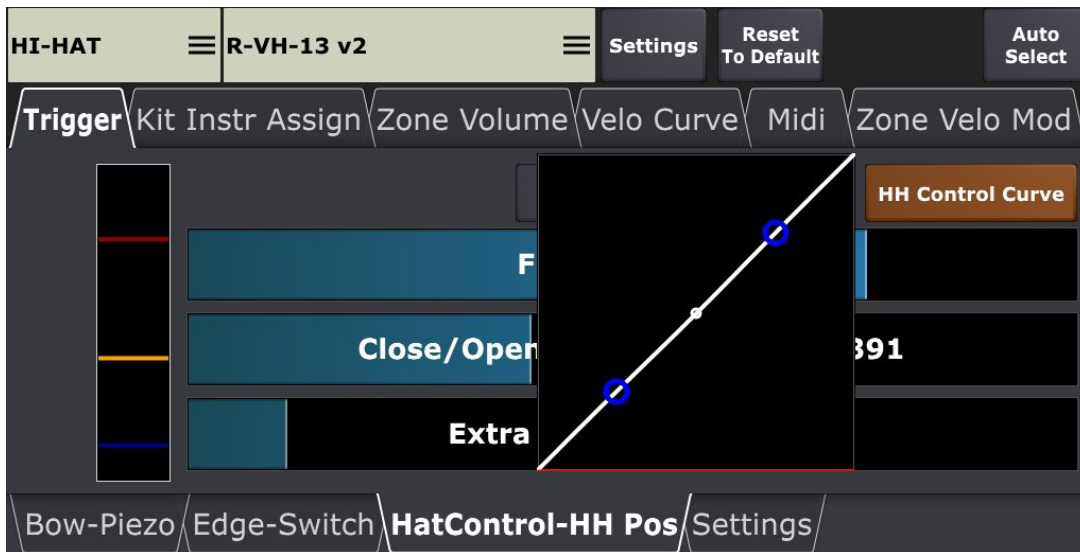
to have this parameter in 5-10 range. Slow or less accurate playing style works better with 20-40 values.

- Hat Move Denoise is a parameter that filters unwanted noise from the Hi-Hat stand or trigger pad. Higher values may affect the actual top hi-hat pad signal, so it is recommended to use values from 0 to 10. The lower value the better.

Note: After Hi-Hat setting up and calibration is done, it is recommended to save your custom Hi-Hat pad preset by pressing Settings button on the right side of preset name bar and using SAVE PAD SETTINGS AS A PRESET function. Read more on that below.

HI-HAT PEDAL CURVE

Mimic Pro has a tool to adjust the controller behavior to your taste even more. It's called Hi-Hat Control Curve, see (Pic 26). It has fixed points on Extra Tight Closed, Max Open and Close/Open Border levels, but it is possible to adjust controller behavior in-between these points. It is strongly recommended to use this feature after you consider yourself an advanced Mimic Pro user.



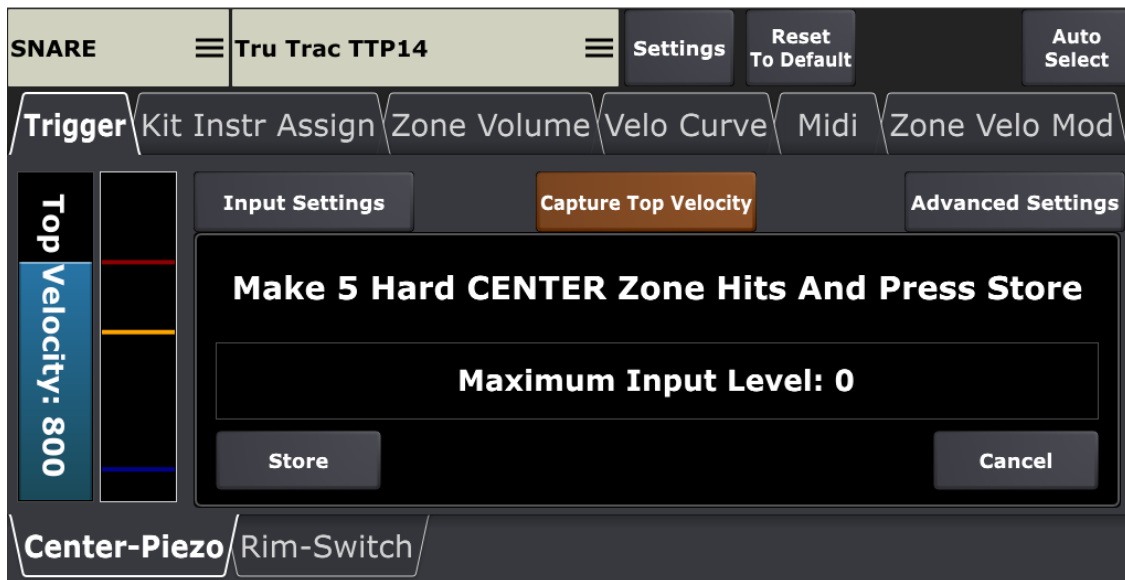
Pic 26. Hi-Hat Pedal Curve

Note: Some Hi-Hats, for instance, Pearl E-Pro EHH 2 may work better if you apply just a little bit of pressure on the controller contact point to pre-load the spring. To do that, loosen the clamp, put a small amount of pressure on the top hat, it will press down the spring a little, then tighten the clutch back. Make sure that grey meter moved down just a little bit. If it went down too much, then there is too much pressure.

ADJUSTING THE DYNAMICS WITH TOP VELOCITY FADER

Why adjust the dynamics? The answer is simple. Most pads are using piezo sensors to pick up an audio signal, which is going into the Mimic Pro trigger inputs. All piezo sensors have different characteristics. Even the same piezo model made in one batch in the same day could have different characteristics. The difference is not huge, but it may be enough to feel. In this case you can adjust the triggering dynamics and playability in a quick and convenient way.

To quickly adjust dynamic response from the pad, use Top Velocity function. You can adjust fader automatically by pressing “Capture Top Velocity” button, which is recommended, see (Pic 27). Also, you can adjust it manually by reading below and understanding how it works.



Pic 27. Top Velocity Adjustment

To manually adjust the Top Velocity fader, you need to understand how this parameter works. Basically, it makes it harder, or easier to reach top velocity on the loaded drum sample instruments. The higher you set the Top Velocity value, the harder it is to reach the top velocity, you have to hit really hard to get the top velocity. The lower Top Velocity, the easier it

is to reach the top velocity. You don't need to hit it hard at all and you reach the highest velocity. When are you adjusting the Top Velocity fader the red strip in the meter on the right side from that fader moves along with the top edge of Top Velocity fader.

Top Velocity adjustment is available for each zone of the connected drum pad. If you get a great response on the Center zone of your snare drum pad, but you have to hit the Rim zone really hard to get the needed dynamic response, try adjusting it for the Rim zone. Same will work vice versa – if you are not hitting really hard and getting the loudest velocity then setting the Top Velocity fader to a higher value should help.

It is helpful when you need to even out the dynamic response of different zones on big pads such as crash and ride cymbals. Usually they have one piezo in the Bow zone and switches in the Edge and Bell zones. These zones are usually played with different playing techniques like hitting with tip of the stick, or with shank of the stick. This makes the dynamic response very uneven. Use Top Velocity to adjust the dynamic response of different zones on your drum pad for an even playing feel.

Note: Why is the pad condition important? Old, worn pads tend to have different piezo sensor characteristics. Worn pads may have low output levels from the piezo sensors. If you are using some well-worn pads, you may need to make extensive changes to the existing preset (even if the preset in Mimic Pro matches your pad model) to play the pad with the correct triggering and dynamics.

Note: Setting Top Velocity even to low values does not affect dynamic range in any way. It just makes it easier for the drummer to play or makes a more natural dynamic response.

TRIGGER SETTINGS THRESHOLD

The Threshold parameter (see Pic 21) sets the border that controls the flow of audio being sent to the trigger. It's very important to understand how it works and how to use it.



Pic 28. Triggering Settings Threshold

When you adjust the Threshold there is a corresponding blue strip moving along with the fader in the Trigger input meter, see (Pic 27).

If the Mimic Pro is connected to a bad power source, it can cause a hum in Mimic Pro's trigger inputs. Also, if there is something vibrating, or very noisy located near your electronic drumkit, for instance, a loud bass guitar cabinet, this may create noise in your pad sensors. All this hum and noise may cause misfires. For instance, if you hear random ghost notes triggering on the snare, tom, or any other drum input, this means that there is some audio signal (hum, noise) going to that trigger input. You can filter this out by increasing the Threshold value.

Apart from noise described above, there is one more kind of noise that may cause false triggering. It occurs when you are hitting one of the pads on your drum kit and it triggers one of the other pads. This is called Crosstalk. You would have to have a separate stand for every drum to avoid this. But conditions are almost never perfect. Usually crosstalk happens when pads are mounted on the same stand, so when you hit one pad, the energy from the hit goes to the stand and reaches other pads causing false triggers. Mimic Pro has the Advanced Crosstalk Elimination System, you can read about this below in the Crosstalk Elimination section. Even though Mimic Pro has the Crosstalk Elimination System, in some cases, you can just use the Threshold fader instead. Especially if crosstalk is very minor and you don't have to increase 30-45 value.

Note: In some very rare conditions you may need to set Threshold parameter to very high values – 100, or even more. This may happen if, for instance, your drum kit is located on a big subwoofer. This seems extreme, but sometimes drummers have to work in these conditions.

Note: It's very important to understand that Threshold doesn't filter useless signals and only allows the actual signal from your drum pads. Threshold filters everything that comes into Mimic Pro's trigger input. So, the higher Threshold value the less soft hits can be triggered by Mimic Pro. If you set Threshold to 50 on your snare drum you probably won't be able to play ghost notes, because they will be filtered by Threshold. Always use Threshold carefully and increase it in small steps checking triggering with soft hits.

RIMSHOT THRESHOLD AND HEAD / RIM BALANCE

Unlike Threshold fader this parameter has nothing to do with filtering unwanted audio signal. Using Rimshot Threshold allows you to adjust how hard, or how easy it is to play a rimshot articulation. If your pad has a piezo in center and a switch on the rim like Pearl TruTrac pads, the Rimshot Threshold must be set on the Center zone tab only. If your pad has two piezo sensors (center and rim) like a typical mesh head electronic drum pad, it must be set on both - Center zone tab and rim zone tab.

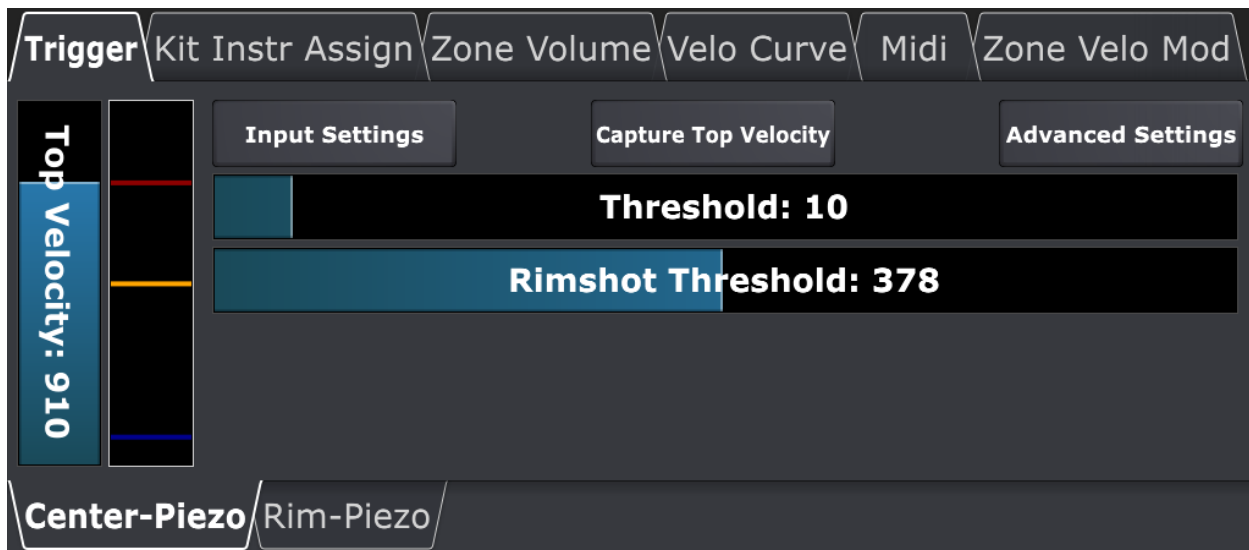
When you are adjusting the Rimshot Threshold the corresponding yellow strip on trigger input meter (see Pic 20) will move along with the fader.



Pic 29. Triggering Settings Rimshot Threshold

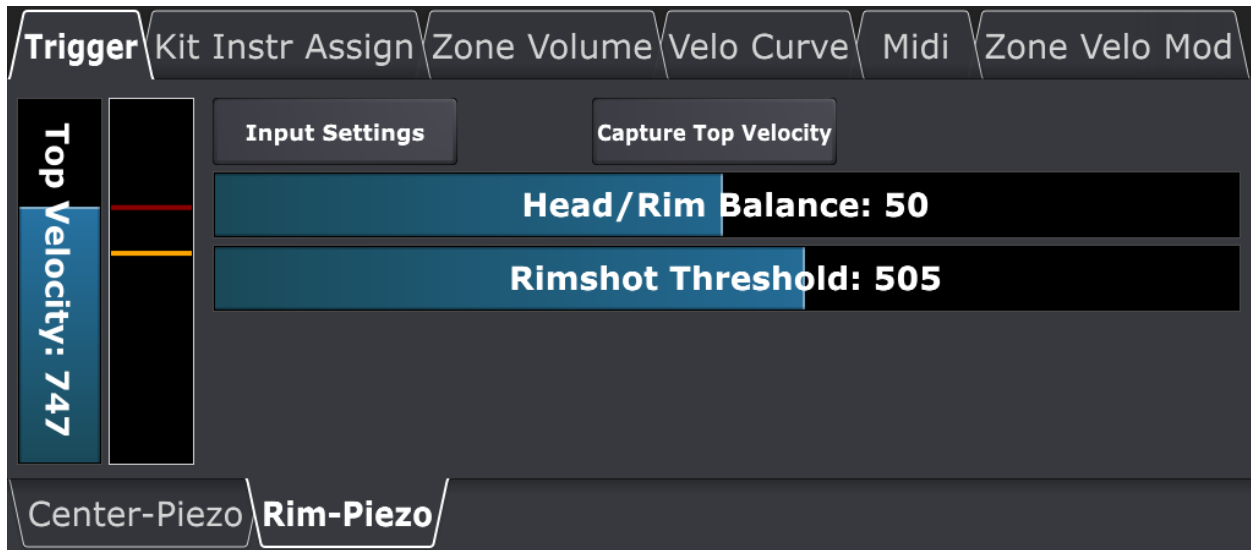
If you use a drum pad with two piezo sensors – one on the center and one on the rim, like typical mesh head pads then both zone tabs have a Rimshot Threshold fader – Center and Rim. This makes setting the Rimshot Threshold more complicated, but if set up correctly, you can have full dynamic range of rim articulation (rim click, or sidestick) with the ability to play rimshots. There are a few steps to setup the Rimshot Threshold on such drum pads:

1. While on the Center-Piezo tab, hit the rim zone with your typical hardest hit, but don't hit it harder than you would normally play the hardest hits. Set the Center Rimshot Threshold value (yellow line on meter) just above the meter grey bar, see (Pic 30).



Pic 30. Center Piezo Rimshot Setup

2. While on the Rim-Piezo tab, hit the center zone with your typical hardest hit, but don't hit it harder than you would normally play the hardest hits. Set the Rim Rimshot Threshold value (yellow line on meter) just above the meter grey bar, see (Pic 31).



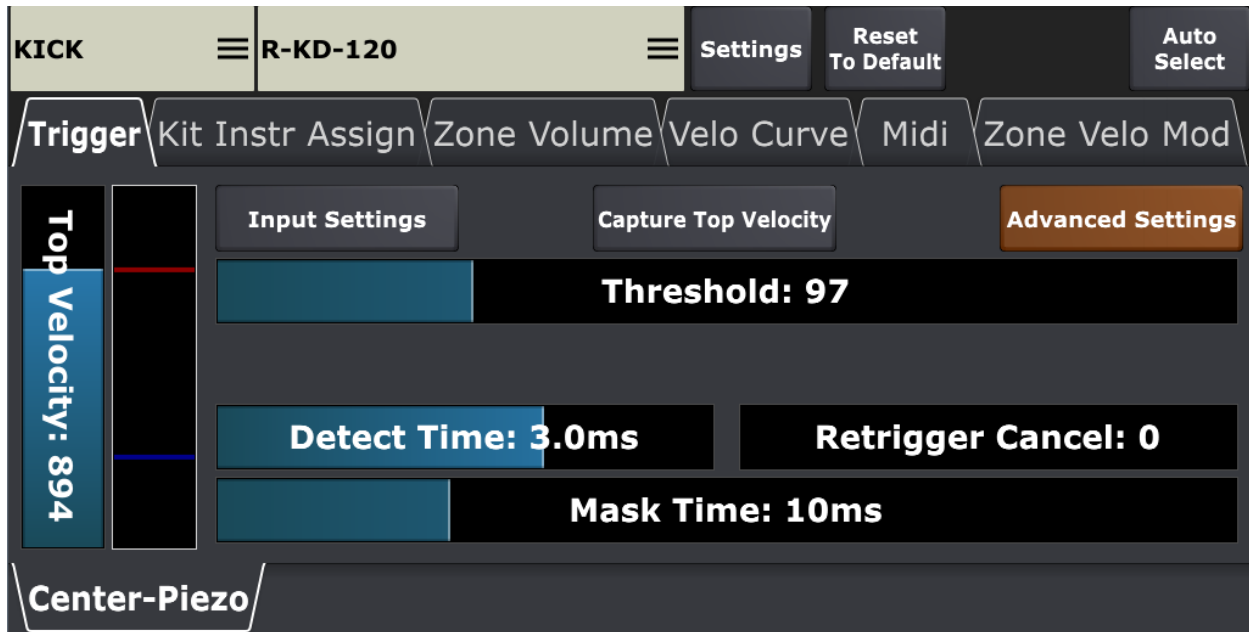
Pic 31. Rim Piezo Rimshot Setup

After these two steps are completed you should have full dynamic range of rim articulation available for playing as well as being able to play rimshots. If rimshots are very easy to play, you may need to increase Rimshot Threshold for Rim Piezo, or for both piezos. If rimshots are too hard to play, you may need to lower the Rimshot Threshold on some of the piezos, or both piezos.

If you are working with pad, which has two piezos, like typical mesh head pad, then you can see Head/Rim Balance fader. With this setting you can adjust the balance in triggering between the head and rim zones. In some cases, you can hit the rim and got center zone triggered and vice versa. Using this setting helps in such situations.

ADVANCED TRIGGERING SETTINGS

ADVANCED SETTINGS include parameters that allow the user to setup or adjust a pad, which is not currently in pad preset list. It is also possible that you might need to adjust these settings when a pad is worn or outdated. The characteristics of the piezo are changing with age and its performance could diminish.



Pic 32. Advanced Triggering Settings

When you press the Advanced Settings button, you will see more parameters than just Threshold. There is also an Input Settings button. By pressing it you can setup the actual trigger input amplification and sensitivity. Let's take a closer look at these parameters.

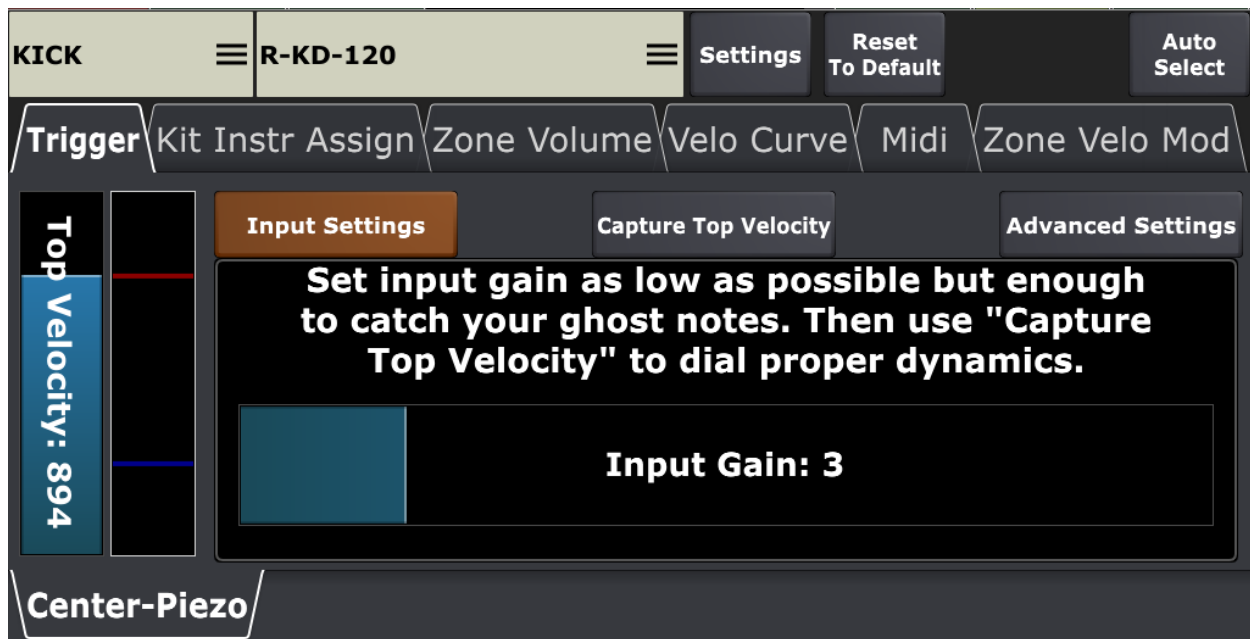
DETECT TIME fader sets the amount of time that the triggering engine may have to analyze the signal. By default it's 3 ms. By setting it lower on all pads you can make latency lower, but it actually won't be noticeable. While the quality of triggering may become worse if you set it really low, the triggering engine won't have enough time to analyze the signal. But all this doesn't mean that setting it to higher values it will produce better triggering. First of all, you will make latency higher by setting it to higher values. Rarely are any useful info is sent to the triggering engine after 3-4 ms. So, 3 ms works fine on most pads.

RETRIGGER CANCEL adjusts the triggering engine’s ability to avoid misleading parts of the signal and not trigger them. It usually happens on acoustic drum triggering when the drums have real heads. They may perform in an unpredictable manner producing spikes and other flaws in the soundwaves after you hit the drum. Experimenting with this parameter may help in this situation.

MASK TIME sets the minimum amount of time between two hits. By default, it’s 10 ms which is usually enough for fast rolls and swells. 10 ms means that if you make a hit and then after

15-20 ms, for example, your next hit - it will be triggered. But if you make the next hit in less than 10 ms (which is not typical) like 5-6 ms then this next hit won’t be triggered. If you set the mask time to really low values, you can get some false triggers because in some situations the triggering engine may think that one hit is actually multiple hits and may trigger multiple hits. So generally, it’s recommended in most cases to keep the Mask time around 6-10 ms and even more, up to 20 ms for instruments like kick drum.

TRIGGERING INPUT SETTINGS



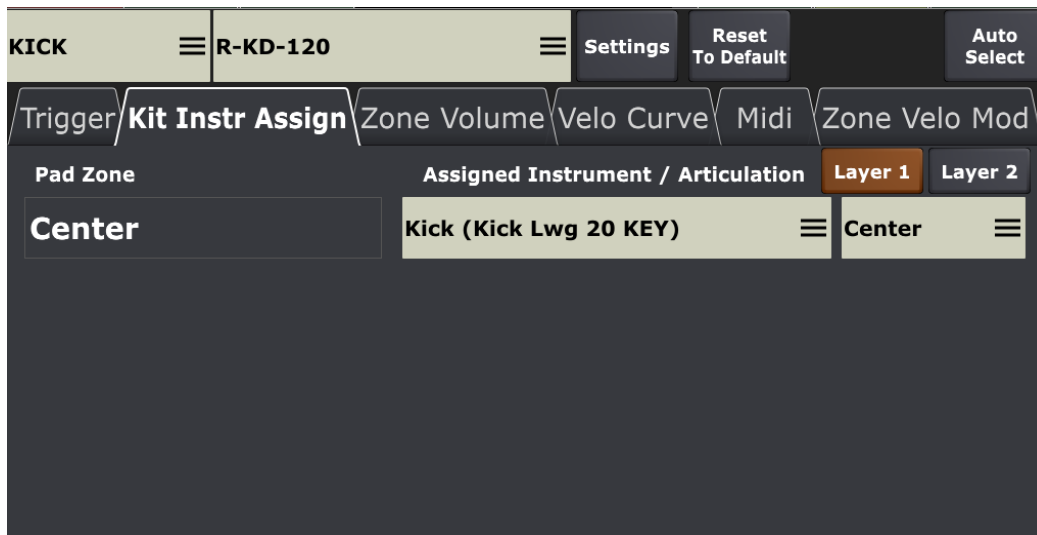
Pic 33. Triggering Input Settings

INPUT GAIN adjusts the sensitivity of the trigger input. It varies from 0 to 17. And it’s pretty easy to set it up. There are couple of nuances though. First - you need to avoid overload. If there is overload, the input meter on the right of Top Velocity fader will turn red. Second - you need to check Threshold value before setting up the Input Gain. Ideally Threshold must be set to 0, or at least 10, or lower.

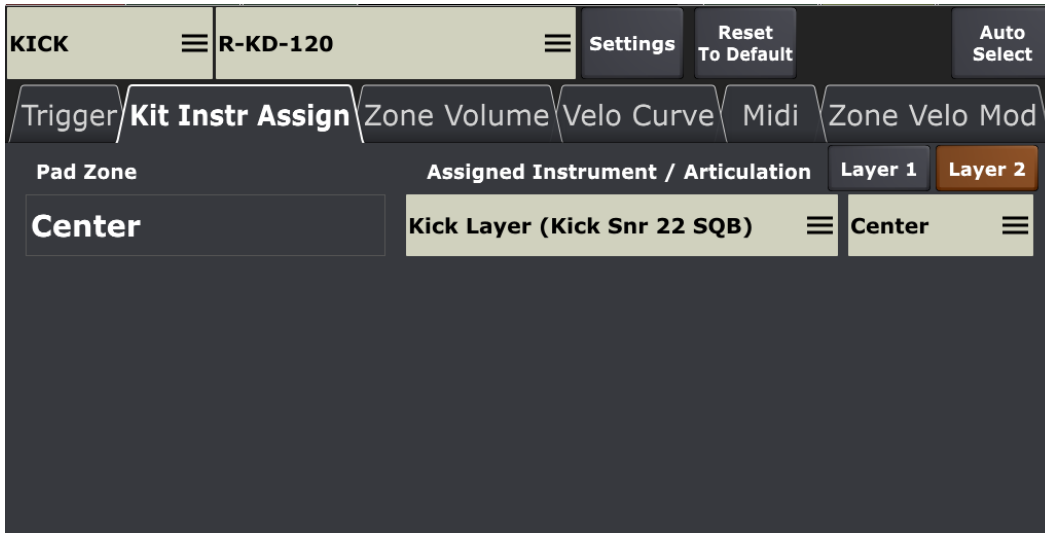
TRIGGERING SETTINGS - KIT INSTRUMENT ASSIGN

This part of the triggering settings is very important, because it is saved with the kit preset. So, it can be unique for every kit. Here you can assign different articulations for different zones on the drum pad. There are many brands of pads available and they all differ in the type and number of zones. Like bow, or bell on cymbals and head, or rim on shells.

On the kick and snare drum there are two layers to assign articulations to the zones. This feature gives you many possibilities. You can just mix two snare drums to get a unique sound, or you can turn off the sidestick on rim zone in Layer 1 and turn off all articulations except sidestick in Layer 2. This way you can get unique sidestick sounds just by switching drums in Snare Layer cell. You can do the same adjustment for any other articulation.



Pic 34. Triggering Settings Instruments Assign

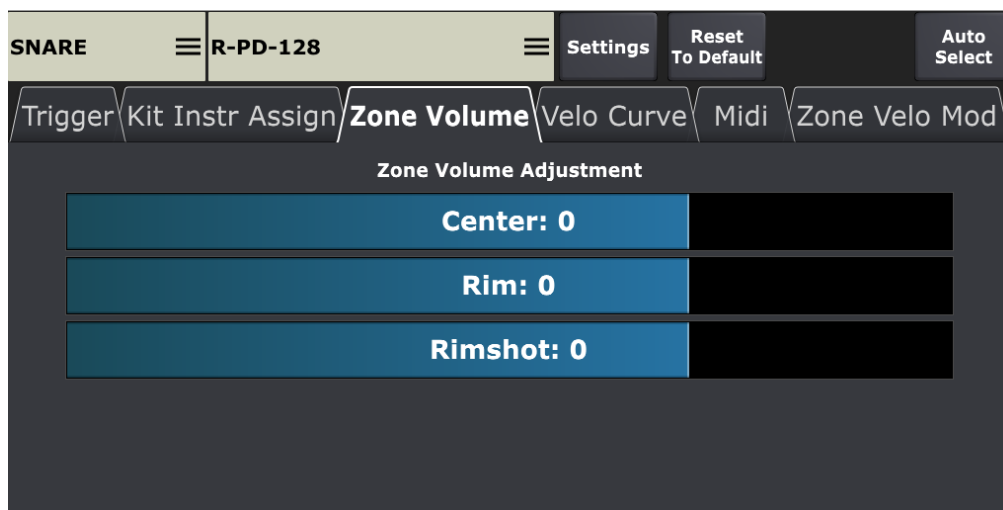


Pic 35. Triggering Settings - Layer Instrument Assign

On the remaining trigger inputs there are no layers, so there are many options for creating unique hybrid kits. For instance, you can put any sounds you want (clap, tambourine, cowbell) on tom rims. Since this setting saves with the kit preset, it can be different for each kit.

TRIGGERING SETTINGS - ZONE VOLUME

Under this tab you can further adjust dynamics of different zone/articulation by increasing or decreasing the volume of whole zone/articulation. It is recommended to make changes here after you're sure that the pad has been properly set up and you just need to adjust nuances to your taste.

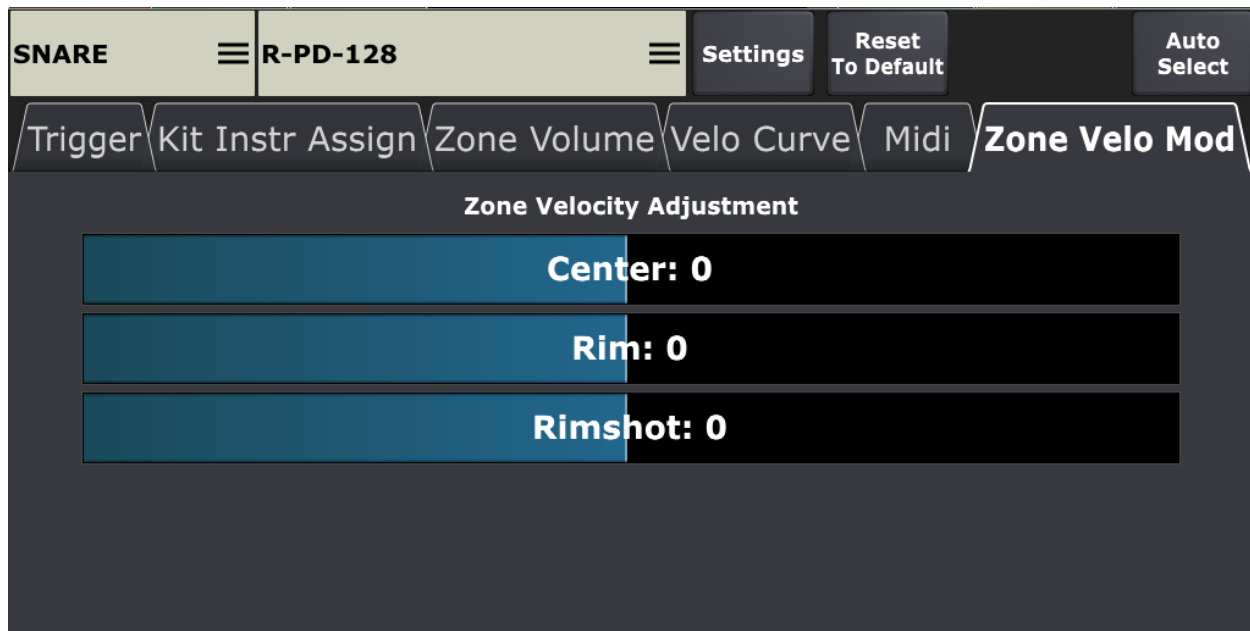


Pic 36. Triggering Settings - Zone Volume

ZONE VOLUME ADJUSTMENT is a volume adjustment for the zone/articulation. Typical example - you want the rimshot on the snare to be quieter or louder. Another example would be the chick on the Hi-Hat. This setting does not change trigger input sensitivity or dynamics. It just makes zone/articulation of instrument louder, or quieter.

TRIGGERING SETTINGS - ZONE VELO MOD

Under this tab you can further adjust dynamics of different zone/articulation by shifting all velocity values higher or lower.



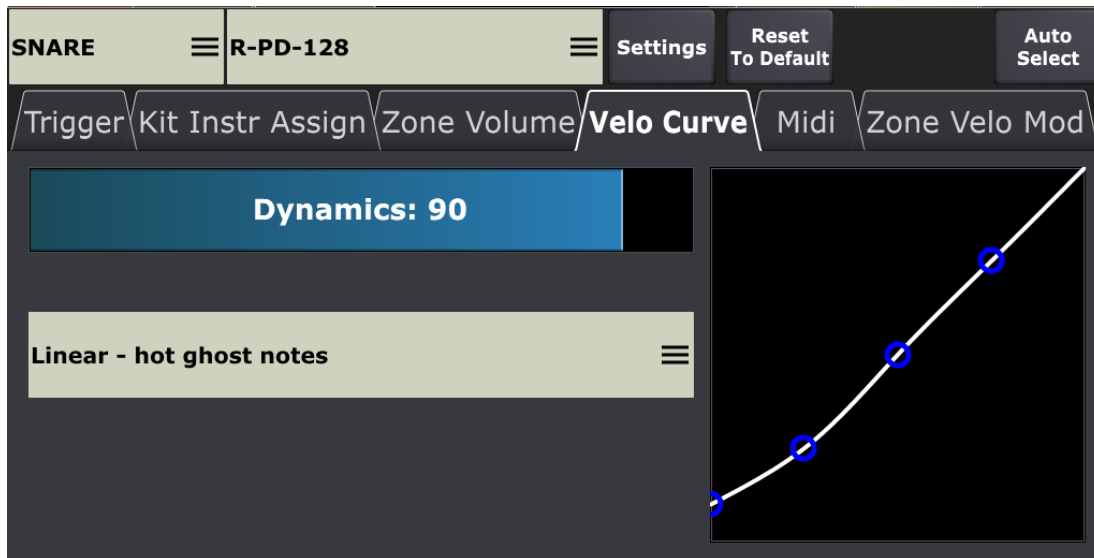
Pic 37. Triggering Settings - Zone Velocity Mod

ZONE VELOCITY ADJUSTMENT shifts velocity values for each zone higher or lower. It is strongly recommended **to not** use this setting in normal situations. There are few examples when this setting may be used. For instance, when the head of the pad has a piezo and the rim is a switch and the pad is very big in size. In this situation you can hit the rim zone and get very quiet hit. The solution is lowering the Top Velocity fader, but in that particular situation lowering the Top Velocity fader may not fully resolve the problem and that is where the Zone Velocity adjustments comes into play.

TRIGGERING SETTINGS - CURVES

This tab contains two amazing tools to adjust dynamics to your playing style. Make sure your pad has been properly set up and then go to this tab.

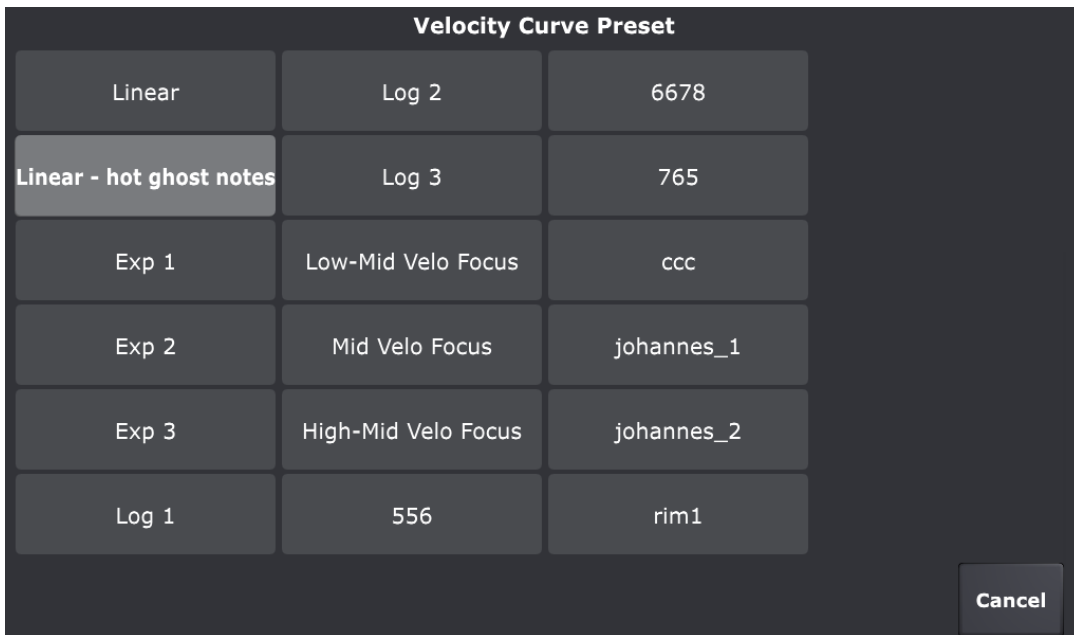
DYNAMICS fader adjusts the dynamics of samples, but unlike Volume Amp, which adjust the volume of the whole zone the Dynamics fader adjusts the volume of the different velocities. If you set this fader to low values, then you will have less dynamic range. This means that soft hits will still be soft hits in terms of velocity layer playing, but they will sound louder. If you set this fader to higher values, the soft hits will also be soft hits in terms of velocity layer, but they will sound quieter.



Pic 38. Triggering Settings - Curves

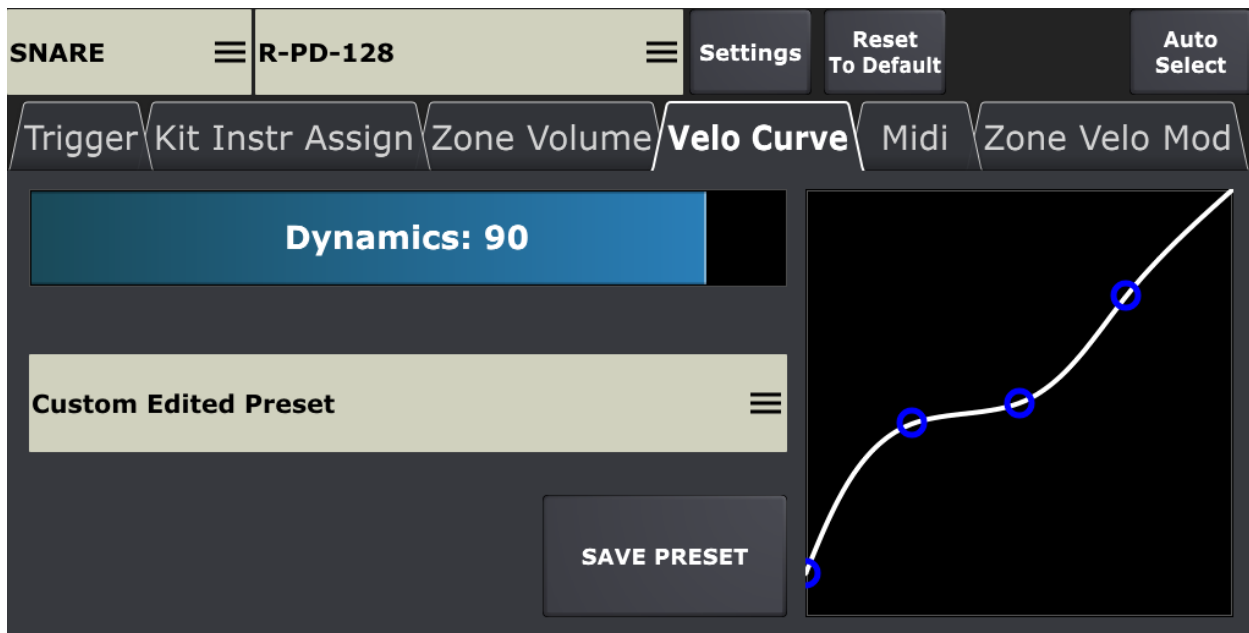
VELOCITY CURVE adjusts velocities (velocity layers) to your playing style. If you drag the dot in left bottom corner up, this will make soft hits on the pad trigger medium velocity layers in instrument. Unlike Dynamics faders this curve changes actual sample velocities according to curve that was drawn. And you basically can draw with your finger thousands of variations of the curve.

You can select a velocity curve from a list of factory presets. To reset Velocity Curve to default settings, choose "Linear" factory preset.



Pic 39. Triggering - Velocity Curve Presets

You can save/delete your own custom presets. Once you dial some custom curve - “save preset” button will appear. Press it and save your custom named preset.

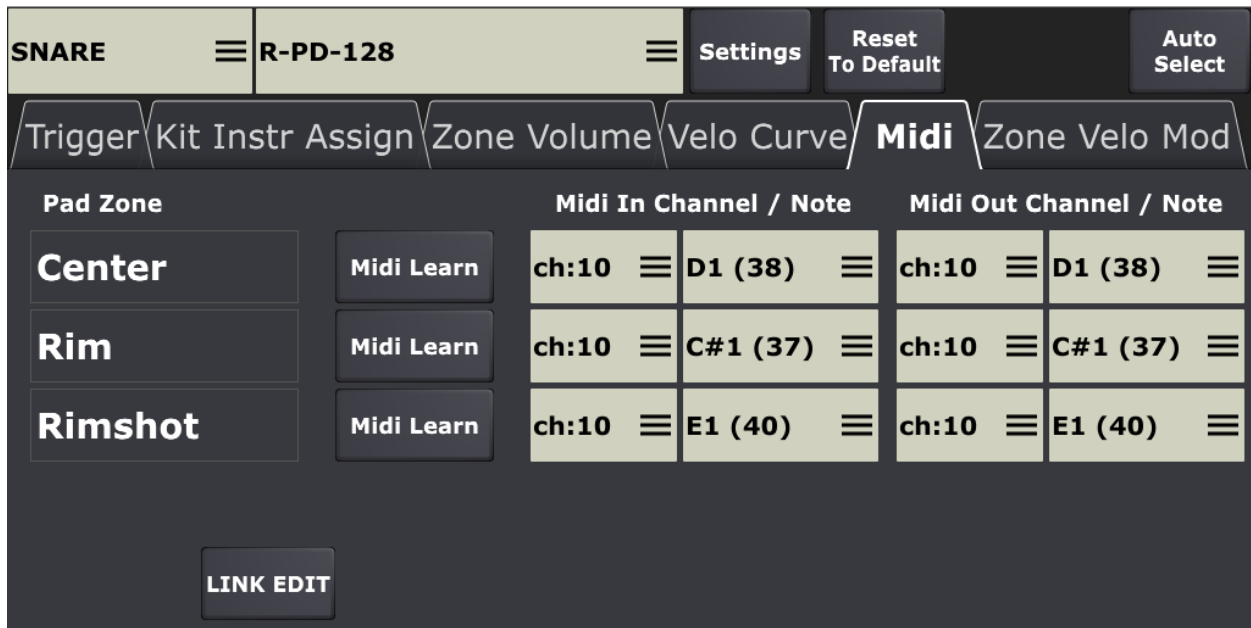


Pic 40. Triggering - Velocity Curve: Saving Preset

To delete your custom preset - select it from the presets list and press “Delete Preset”

MIDI

In this tab you can setup MIDI notes and channels for your pad zones. You can edit MIDI Input and MIDI Output notes and channels independently from each other, or together by pressing the Link Edit button in the bottom left corner of the screen.

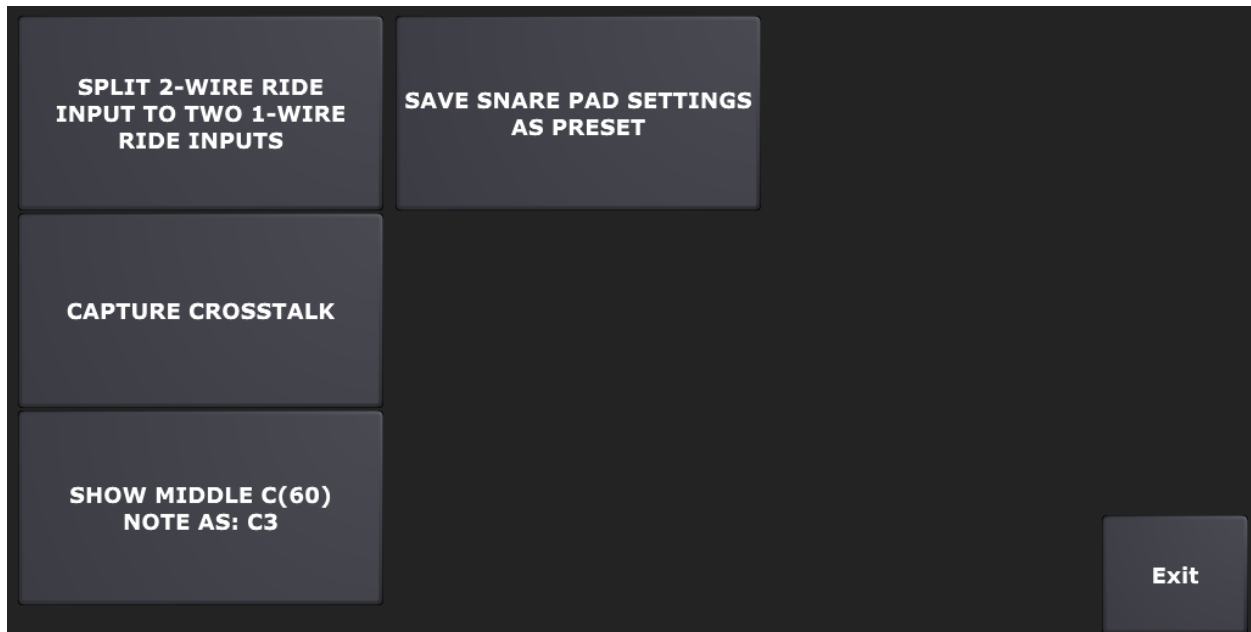


Pic 41. Triggering - Midi Settings

You can also use the Midi Learn function to speed up the process of setting up midi notes. Press the Midi Learn button for desired zone and hit the note on the device connected to Midi Input.

TRIGGERING SETTINGS - CROSSTALK SUPPRESSION

In Triggering Settings main screen there is a button near the Pad Preset menu called Settings. After you press it, you'll see the menu that offers Capture Crosstalk and some other settings.

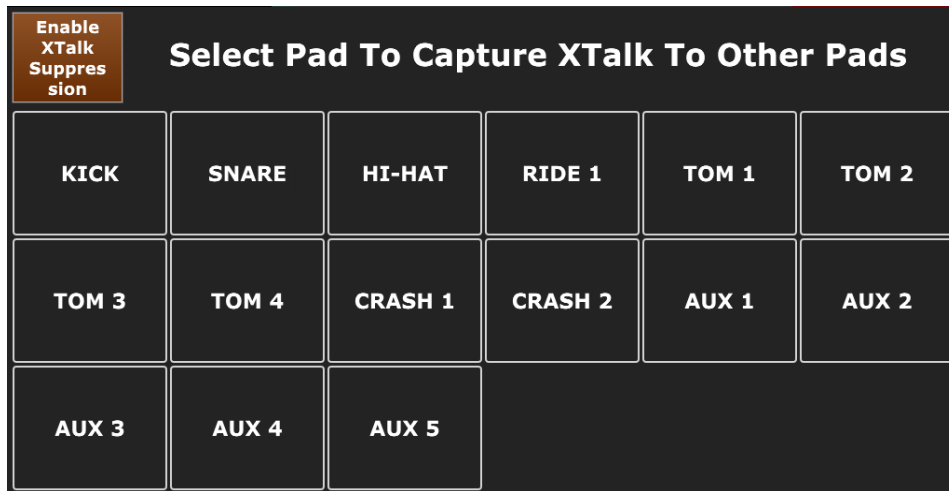


Pic 42. Triggering - More Settings

Crosstalk capture allows you to eliminate crosstalk that's happening inside the kit. For instance, if you use a drum rack that hosts the entire drum kit, there will be a lot of crosstalk. When you hit one pad the vibration and energy go through the whole drum rack to all the other pads. So, when you hit a tom pad you can get the crash cymbal triggering as well. It will be almost inaudible, because it will be triggered with fairly low velocity, but it will be triggered. All electronic drums have crosstalk inside the kit, and you may have some false triggers that make the playing experience far from perfect. For instance, you want to hit a tom and crash at the same time. You hit them at the same time, but the tom hit was 1 ms earlier than the crash hit and the tom hit triggered the cymbal (crosstalk), this means that your actual hit on cymbal may not be triggered. Remember, it just was triggered 1 ms before and even if it was triggered on a very low velocity it still was triggered. Considering that Mask Time is 10 ms, the two hits with less than 10 ms between them may not be triggered correctly. That's why crosstalk elimination is important.

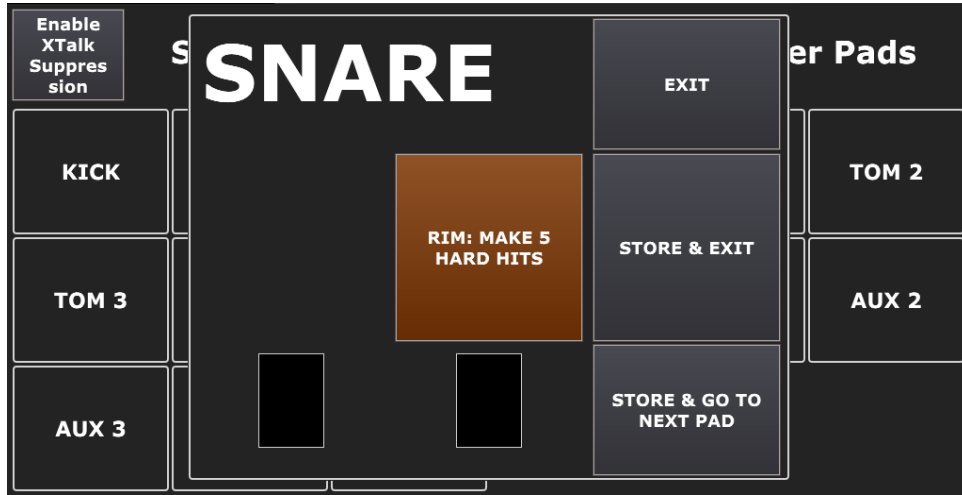
If you have to play in conditions when all your drums are on the same drum stand and you have a lot of crosstalk you can still rely on Mimic smart Crosstalk (XTalk) Suppression.

To use the XTalk Suppression function, press the Capture Crosstalk button in the Settings menu within the Triggering Settings screen and it will take you to the screen, which you can see on (Pic 43).



Pic 43. XTalk Suppression

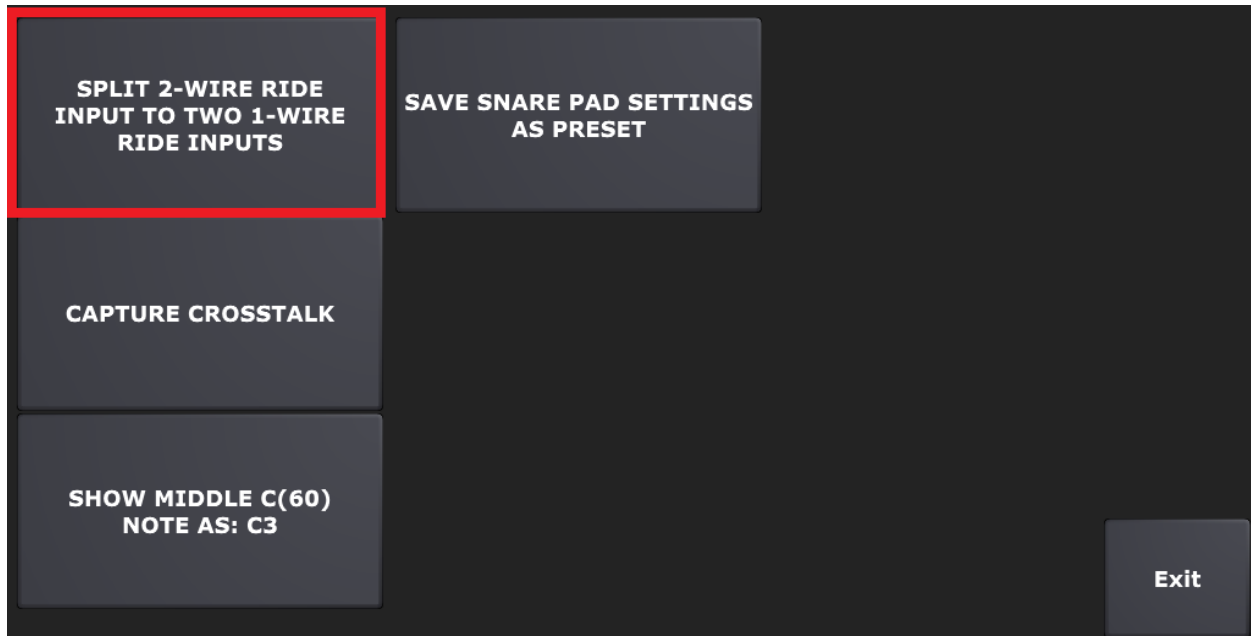
Once you're in the XTalk Suppression screen, press the Enable XTalk Suppression button so it will light orange color. Now you need to go through the XTalk Learn Procedure. Select a pad and press Start Capture button, then follow the instructions on the screen. For instance, you need to capture Head and Rim signal for the Snare drum. Press the Start Capture Head button, hit the snare head with 5 high velocity strokes, and then press the Store button. Repeat the process for the Snare Rim. After you've done this for Rim zone, you have two options. First - Store and Exit, which takes you back to XTalk screen. Second - Store and Go to Next Pad, which takes you to next pad, so you can capture the crosstalk for the remaining pads. Make it a habit to apply the XTalk Suppression function to all your pads before a performance.



Pic 44. Snare XTalk Suppression Setup

TRIGGERING SETTINGS - SPLIT RIDE

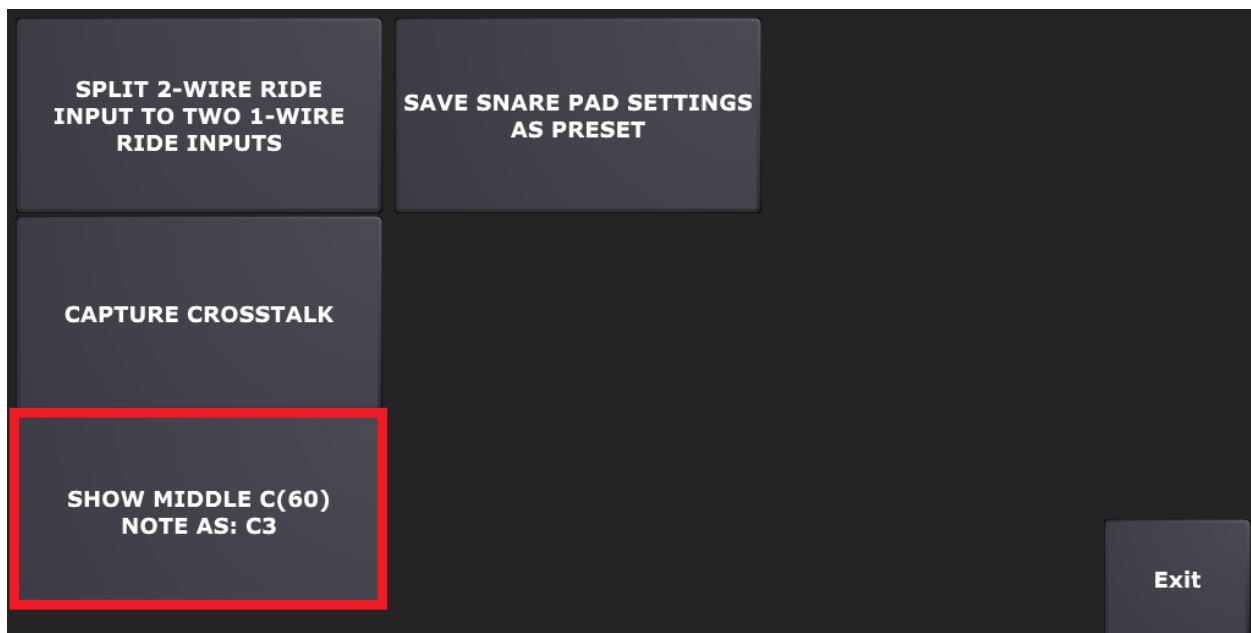
Since most ride cymbals use two inputs the Mimic Pro has two inputs for 3-zone ride cymbal pads, but there are also ride cymbals on the market that have 3 zones using only one input. If you turn on the Split mode for ride input you can connect two ride cymbals, which use one input per cymbal. To do this, press the Settings button on Triggering Settings screen, then press the SPLIT 2-WIRE RIDE INPUT TO TWO 1-WIRE RIDE INPUTS button, which you can see on (Pic 45).



Pic 45. Triggering - Split Ride Button

TRIGGERING SETTINGS - MIDI ROOT NOTE

Different audio hardware and DAWs from various developers often display dissimilar names for the same note numbers. For instance, Cubase shows C2 for note number 36, while Pro Tools displays C1 for the same note. To setup midi note root number in the Mimic Pro, press the Settings button on Triggering Settings screen. Then Press SHOW MIDDLE C (60) NOTE AS button, which you can see on Pic 46. This will open up the menu, where you can select C3, C4 or C5 as root note. If you select C3, the Mimic will show C1 as the note name for number 36.



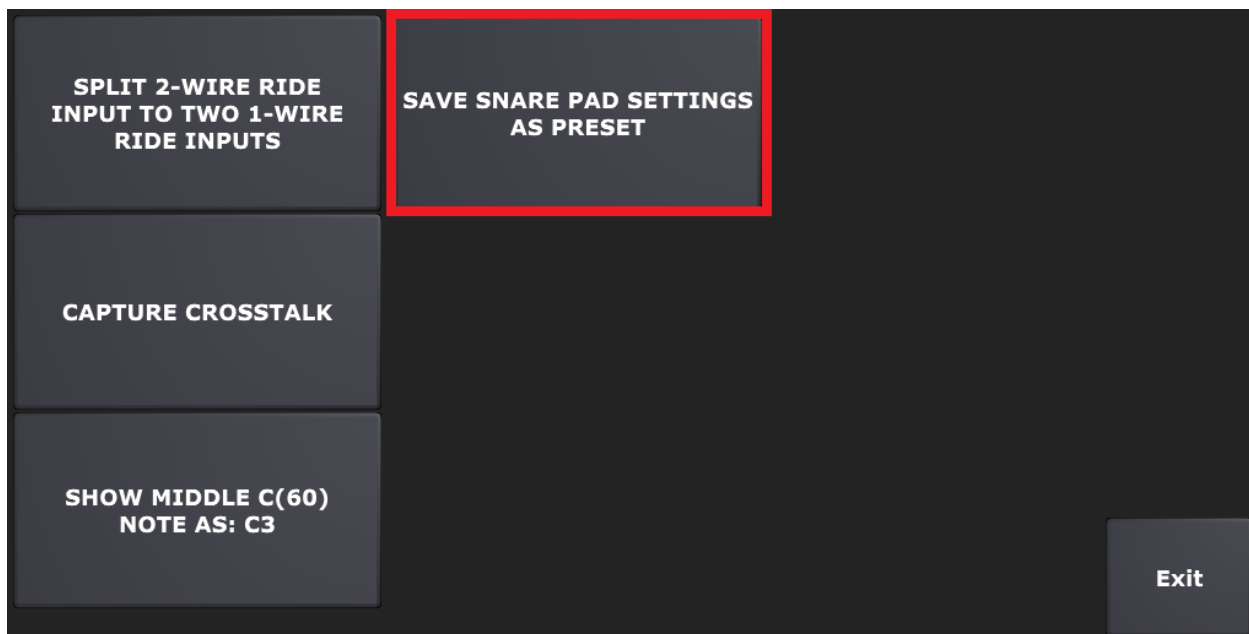
Pic 46. Triggering- Midi Root Note Button

TRIGGERING SETTINGS - SAVING PAD SETTINGS AS PRESET

Mimic Pro has the option to save User Pad Presets and manage them by exporting and importing them from a USB stick.

To save a pad preset, press the Settings button in the Triggering Settings screen. Then press SAVE [SELECTED INPUT] PAD SETTINGS AS PRESET button, which you can see on (Pic 47).

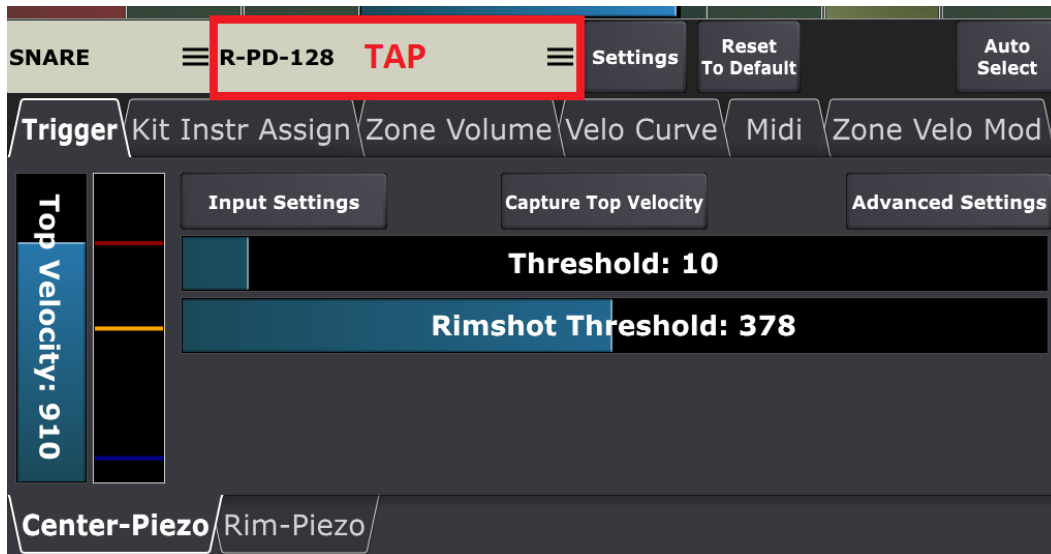
The [selected input] will indicate your selection when you are ready to save a pad preset. For instance, if it's Kick Input, it will display KICK.



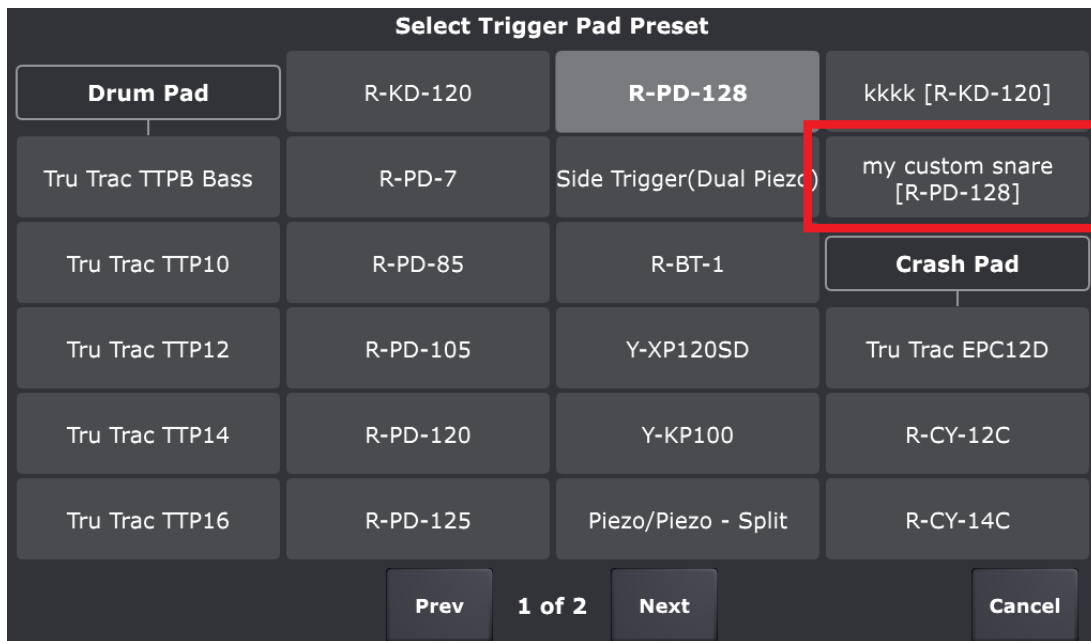
Pic 47. Triggering - Save Pad Settings Button

After you press this button, the menu will appear saying “Select Kit Preset Group.” There are four options: DRUM, CRASH, RIDE, HAT. Select the correct option for your pad. Then type the name for the preset and press Enter.

Now you can see you new custom-named preset in the list of factory pad presets - Pic 48, 49



Pic 48. Open Trigger Preset List



Pic 49. Pad Presets List: custom preset

Note: The preset will be saved in the Mimic Pro internal storage as *.mpp file. You can back up your custom trigger presets or export these to usb flash drive and send to other customers.

You can do that in Settings/Backup/" Manage User Presets"

SETTING UP A PAD WITH THE MIMIC PRO

1. Choose the pad from preset list. If it's not listed, then choose the one, which is closest to your pad in terms of technology used. For instance, if you have a mesh head pad with two piezos, then chose something like R-PD-125 as a starting point. You can learn about technology used in your pad in your pad manual, or online.
2. If it's two pianos pad, like a typical mesh head, then set Input Gain for Rim zone to 0 before settings up Center zone Input Gain. If the pad is a single piezo, like Pearl Tru-Trac then just set Center zone Input Gain. To access Input Gain setting press the Input Setting button. Input Gain has on-screen help. For one piezo pad after this step go to step 5.
3. For two piezos pad, after step 2 go to Rim zone Input Settings and set Input Gain for Rim zone.
4. For two piezos pad hit the side of the head near rim and hit rim for few times. If there is false zone triggering then adjust the Head/Rim Balance fader on Rim zone tab until zones start triggering in correct way.
5. Go to Center zone tab and use the Capture Top Velocity function to setup the Top Velocity for the zone.
6. Go to Rim zone tab and use the Capture Top Velocity function to setup the Top Velocity for the zone.
7. Set the Rimshot Threshold. Read chapter above about how to do this.
8. Adjust the Threshold. If you set it close to zero before, then set it to 5-20. Try playing the drum with occasional ghost notes and adjust Threshold to the value where the ghost notes are still there.



SETTING UP A PIEZO/PIEZO/SWITCH RIDE WITH THE MIMIC PRO

Most of the DIY or custom-made metal ride cymbal pads use a piezo/piezo/switch design. Mimic pro has a special trigger preset for such pads - "piezo/piezo/switch"

Please don't forget to uncheck the "split 2 wire ride input to two 1-wire ride inputs" if you are going to use that preset for your mimic pro ride1/ride2 inputs. This option is located in [TRIGGER] -> [Settings]

1. Choose a "piezo/piezo/switch" preset for your ride input.
2. Connect your ride bow cable to ride1 trigger input
3. Connect your ride bell cable to ride2 trigger input.
4. go to Bow Piezo tab, dial proper input gain (so that both bow and bell are detected - at this stage bell hit can trigger bow sound)
5. go to Bell-Piezo tab and set "bow/Bell balance" to 50 and dial input gain to get good separation between bow and bell hits
6. To fine tune the bow/bell separation - use "bow/bell balance" slider
7. use "capture top velocity" for every tab (bow, bell, crash) to dial proper dynamics

EDIT KIT

The Edit Kit screen has two pages with cells to load instruments in them. It is easy to load, modify, and create new kits.

Each cell represents a Mimic Pro trigger input (e.g. Kick, Snare, etc). There is also Extra type of cells (e.g. Extra 1). These cells can be used with an external MIDI controller, keyboard, multi-pad to trigger instruments from another device. Use Xtra cells to create unique hybrid kits by loading various instruments and assigning them to different pad zones. For instance, you can load claps, tambourines, or even small parts of your tracks and assign them to the tom's rims.

It is important to remember that any changes made to the User Kit preset will be automatically saved to the module. If you want to experiment with a User Kit preset that you love and you don't want to lose it by changing anything in the kit, don't make changes in that preset, because it will alter the kit. If you want to experiment with settings in the kit preset, clone it first (check New Kit section below).

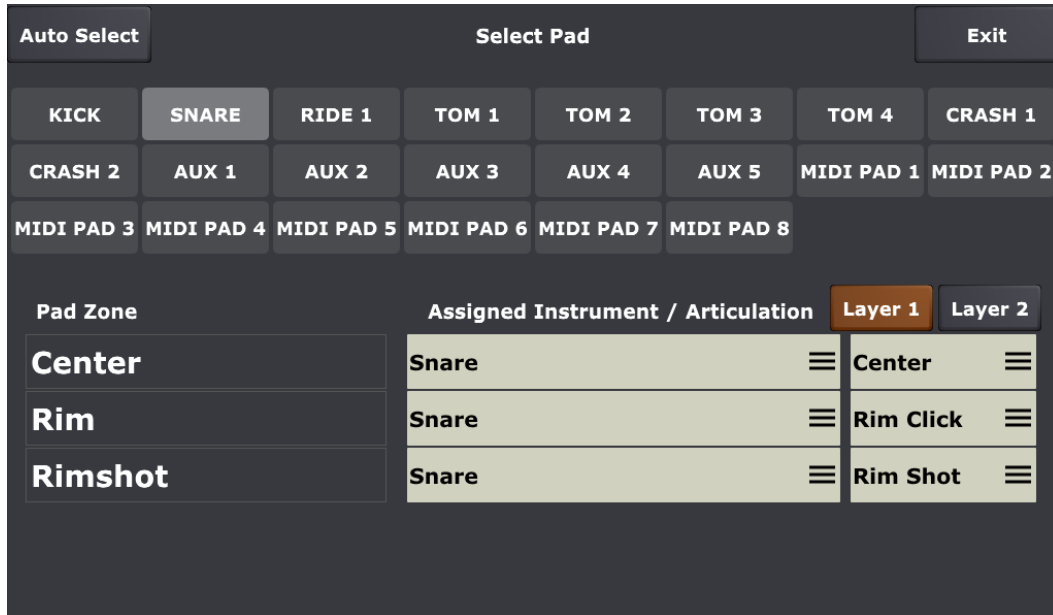
Edit Kit screen controls:



Pic 50. Edit Kit Screen

ASSIGN TO PAD

ASSIGN TO PAD button allows you to easily assign any articulation in the loaded instrument to any zone on any pad - Pic 51.

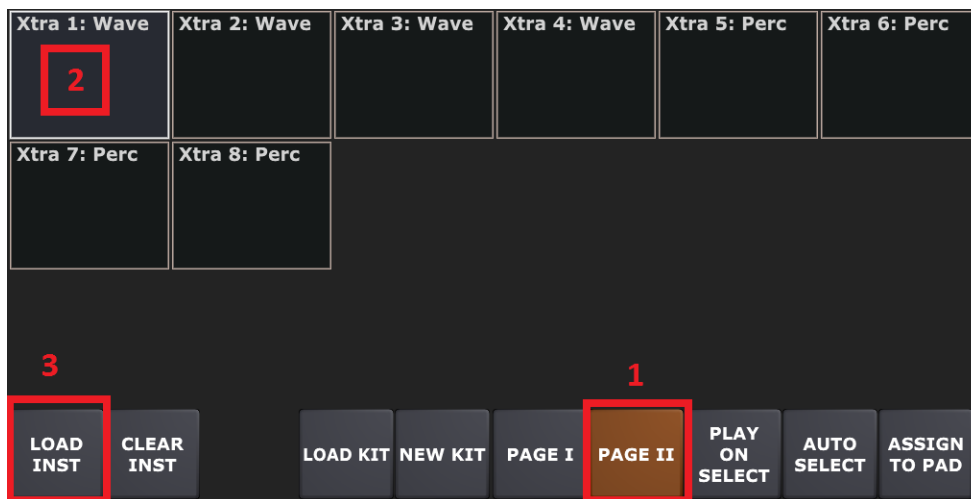


Pic 51. Assign to Pad Page

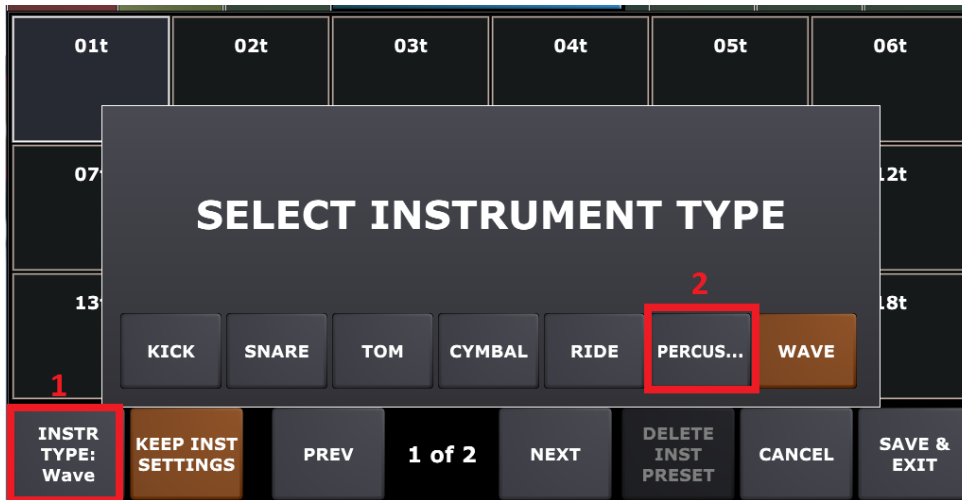
Example 1 - Assign a cowbell to Snare Rim

To assign an additional sound you need to load it first. Usually Xtra1 - Xtra8 instrument slots are used for this purpose.

- Tap on "Page II" to access Xtra1-Xtra8 instrument slots (1)
- Tap on Xtra 1 Slot (2)
- Tap on "Load Inst" (3)



- Then select the instrument type you want to load - tap on “Inst Type” (1)
- Select “Percussion” (2)



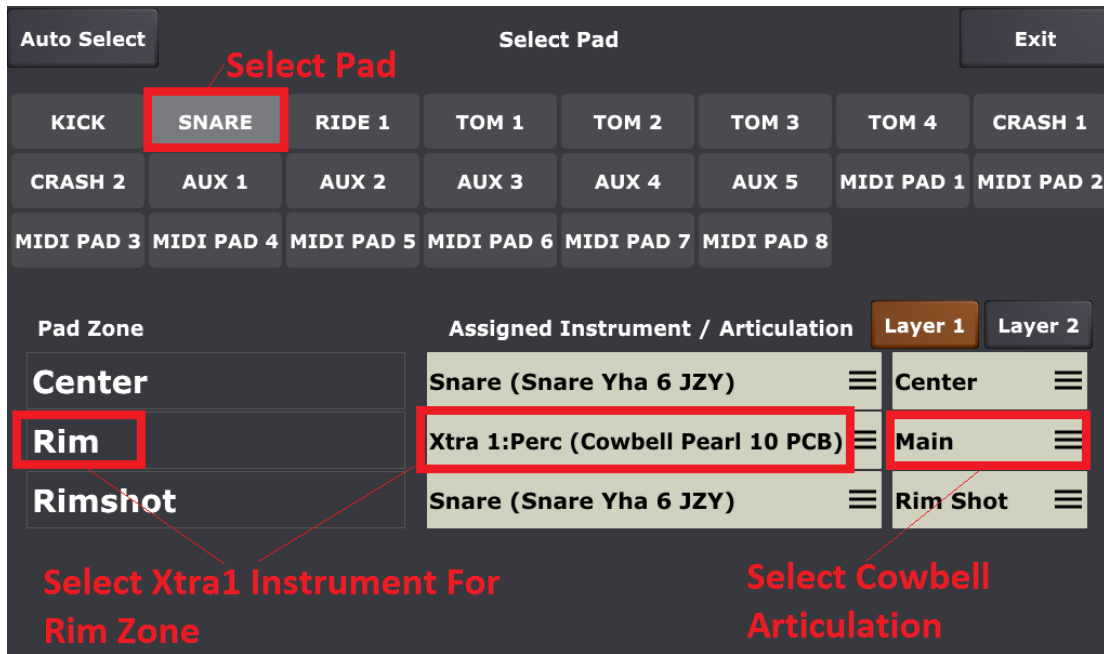
- Load cowbell (tap on cowbell picture)
- Select “Save & Exit”
- Now you have Cowbell loaded to Xtra1 instrument slot.



Now you can assign this cowbell to any zone of any pad.

Let's assign it to snare rim:

- Go to "Assign to Pad"
- Select Snare Pad on the top
- Select Xtra1 (Cowbell) for Snare - Rim under Pad Zone / Assigned Instrument list



Example 2 - Assign a wave file to Snare Rim

To assign a wave file, you need to import your wave file to your Mimic Pro first. You can do that in Settings/Sound Lib/" Import One Shot Wave Files" or in Settings/Backup/" Manage User Presets"

After that, you can assign wave files the very same way as described in Example 1, just select "WAVE" during instrument load to show your wave files.

AUTO SELECT

AUTO SELECT button is located in the right bottom corner. When it's turned on, you can select a cell by hitting the corresponding pad.

PLAY ON SELECT

PLAY ON SELECT button is located next to Auto Select. When it's turned on, you can audition already loaded instruments by tapping on the cell on the screen.

PAGE I and PAGE II

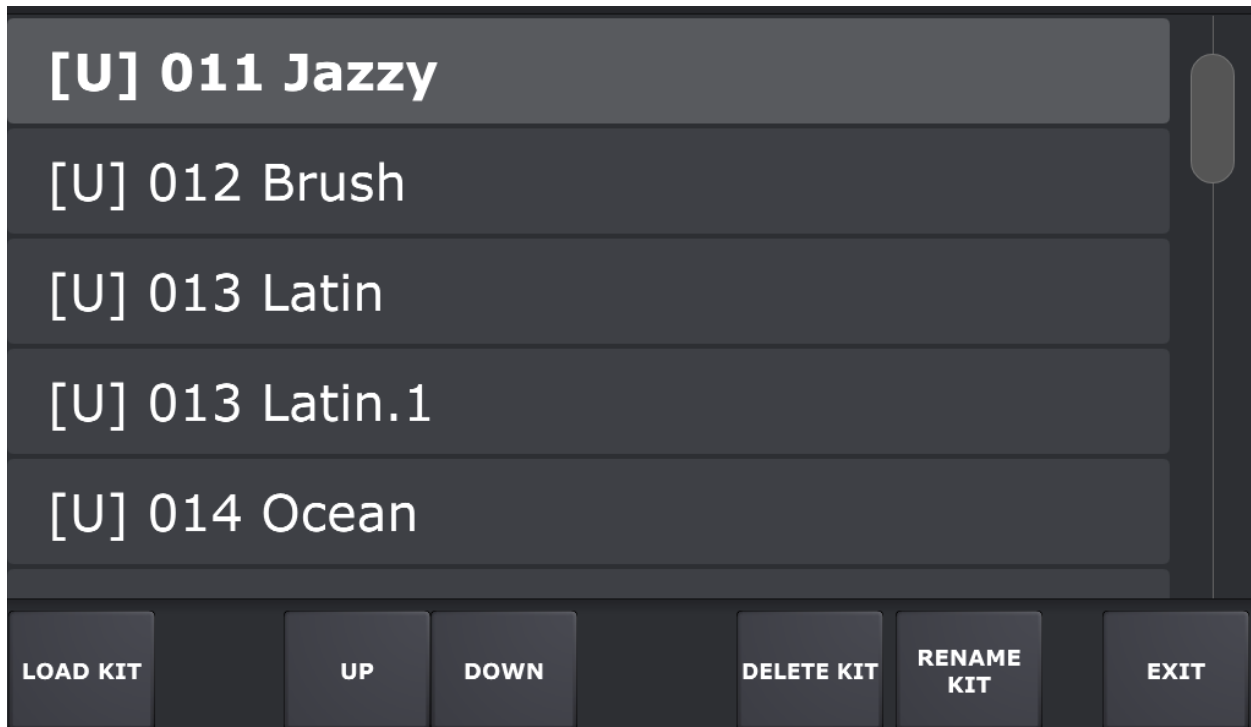
PAGE I and PAGE II button switch pages. There are two pages with cells.

NEW KIT

NEW KIT button lets you create new kit presets. When you press this button, you'll see a dialog asking, "Clone Current Kit?". If you press YES, then the currently loaded kit preset will be duplicated and you can save it under different name, experiment with settings, or change any instrument. If you press NO, then a new empty kit will be created. All cells will be empty, FXs and mix balance will be reset. This is the correct way to create kits from the beginning.

LOAD KIT

LOAD KIT button takes you to the Load Kit menu, see (Pic 51). You can select a kit by tapping on the name and load a kit by pressing the Load Kit button in that menu. To delete kit preset, press the Delete Kit button. You can also rename a user kit preset by pressing the Rename kit button. To exit from that menu to the Edit Kit screen, press the Exit button in the bottom right corner.



Pic 51. Load Kit Menu

SAVE INSTR PRESET

SAVE INSTR PRESET button allows you to save your custom named instrument presets. You can use that function to build your own instrument presets collection, or to copy your custom dialed instruments between kits.

After saving, you can find your custom instrument presets at the end of the instrument list under “LOAD INSTRUMENT” button.

In addition, you can share your instrument presets with other drummers via exporting/importing to the USB flash drive. You can find export/import function in Settings/Backup/” Manage User Presets”

CLEAR INSTRUMENT

CLEAR INST button lets you clear the selected cell. The loaded instrument will be removed, and the cell will be empty. Use this if you want to remove an instrument from the cell.

LOAD INSTRUMENT

Load Inst button lets you load instruments in a selected cell. When you press this button, it takes you to the Instrument Loading menu.

Depending on how many instruments you have, there may multiple pages. In the Instrument Loading menu, you can see cells with instrument pictures, names, and library names. Factory Instruments consist of two libraries; the Steven Slate SSD5 and SSD4. SSD4 was recorded earlier than SSD5 and may have more noise. Since both libraries were recorded on tape using vintage consoles, preamps and mics, some of the samples may have audible noise on softer velocities if you have Dynamics fader in Triggering Settings Curves tab set to low values. The noise is not considered a problem. It’s typical of samples recorded on tape because of the nature of the process. It’s part of the analog vibe and warmth in an instrument’s sound.

To load an instrument, you’ll need to tap on the instrument cell. An instrument will load when you tap the cell for the first time. Instruments that contain multiple samples like Hi-Hats may take 1-2 seconds to load. Tap the cell again to audition the loaded instrument. This makes it easy to decide which instrument to load in your kit preset. Make note that cells have to be



populated with corresponding types of instruments, like kicks in kick cell and snares in snare cell. There is also a AUX trigger input and Xtra cells. In these cells, choose the type of instrument you want to load and browse through the instruments before loading them. When the AUX or Xtra cells are selected, the INSTR TYPE button will appear in the bottom left corner. Press it to select the type of instrument you want to load in that cell.

The Mimic Pro supports one-shot (single sample) WAV files to use as instruments. You can import WAV files in the Mimic Pro (read about this in the Settings section) and load them into the AUX or Xtra Cell after choosing Wave as the INSTR TYPE for the cell. WAV files should be 16-bit or 24-bit and have 44100 Hz sample rate. The max length is 20 seconds but the end of a 20 second WAV will be shaped by the ASR's Release parameter (read about this in the Mod and Working on Kit Preset section).

To exit from the Instrument loading menu, press the Cancel button if you don't want to store your instrument selection to the current kit. Otherwise press Save & Exit button.

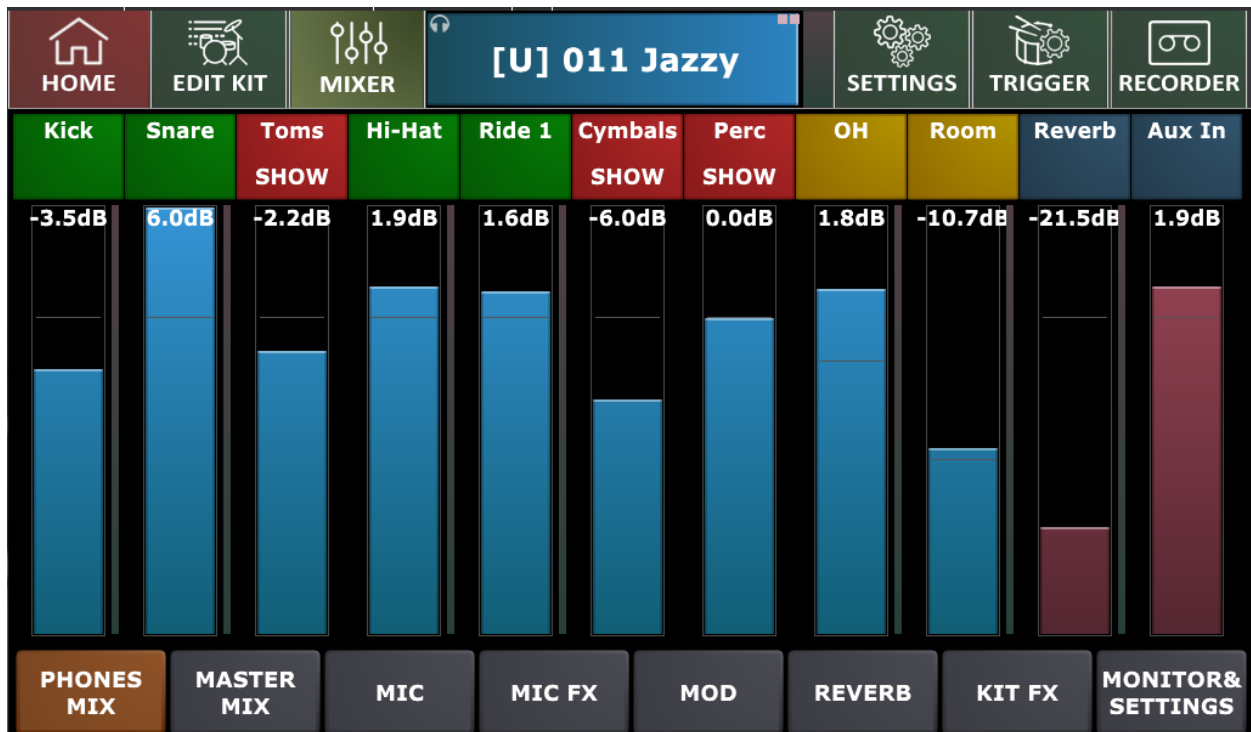
Note: if you want to load new instrument and retain your dialed custom settings like EQ, Tune, etc - be sure to have "Keep Inst Settings" button turned ON before loading any instrument.

If you want to load raw instrument without any custom editing applied, turn "Keep Instr Settings" off.

MIXER

The Mimic Pro Mixer is a key feature of the module and offers powerful sound editing capabilities. Regardless of the depth and complexity of the given parameters, it's simple to understand and easy to customize and create unique sounds.

To access the Mixer, start from the Home Screen then press on the button with mixer icon located at the bottom left of the touch screen.



Pic 52. Mixer Screen

Once at the Mixer there are eight subgroups of editing functions located at the bottom of the Mixer screen.

1. PHONES MIX (Headphone only mix)
2. MASTER MIX (Master outputs mix)
3. MIC (Specific microphone volume adjustments for instrument balance within kit presets)
4. MIC FX (Effects for kit presets)
5. MOD (Modification of instruments within the kit presets)
6. REVERB (Reverb settings for kit presets)
7. KIT FX (Effect applied on whole kit)
8. MONITOR & SETTINGS (Contains various settings related to mixing and sound)

To activate your choice, simply touch the desired tab to see the respective menu. Once the tab is activated it will light up. Example: PHONES MIX.

The Mimic Pro Mixer offers similar functionality and control to that found in the professional studio recording world. Unlike other electronic drum modules, Mimic Pro allows you to edit your sound by adjusting the actual microphones used during the recording session. You can independently adjust the volume of the direct, room and overhead mics used to record the drum kit.

To add to the realism of this feature, the crash and splash cymbal gains are controlled by the overhead and room microphone channels of the mixer in the same way they are in a professional recording/mixing session for acoustic drums. They are also channeled through the overhead and room outputs on the module and may be routed to the output of your choice.

EXCEPTION: The ride and Hi-Hat cymbals use direct microphones and may also be individually routed to the output of your choice. For more information on routing, check the routing section of the manual.

COLOR CODING

The Instrument name header strips on the mixer screen are color coded for easy reference.

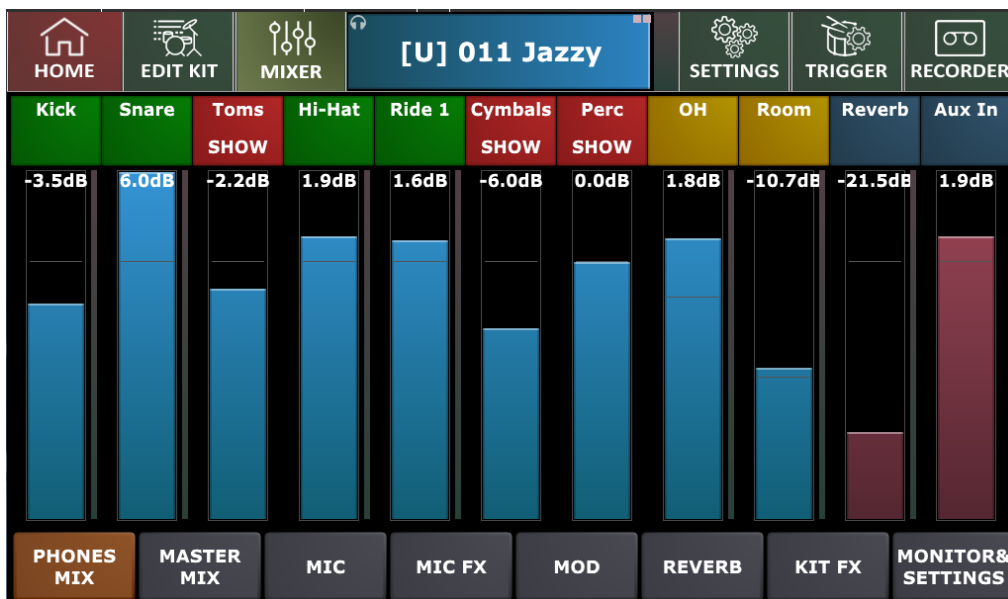
- Red indicates a subgroup of instruments with a “SHOW” or “HIDE” guide. Example: The red “Toms” group may contain four tom strips inside the group. Each strip represents an individual tom. To access the subgroup, you will notice the word “SHOW” under

“TOMS,” tap on the red header to expand the group. To retract, tap on the red header that now reads “TOMS HIDE.” You can adjust the fader (volume) of the whole group in addition to each instrument separately.

- Green indicates the direct microphone(s) on the instrument.
- Yellow indicates the ambient microphones used on the instruments. These are the Overheads (OH) and Room mics not located close to the instrument. Because of this they capture the sound of the room and are considered ambient mics. Most of the cymbal sounds are in the OH and Room mixer channels.
- Dark Blue indicates the Reverb and Master channels.

The vertical strip faders for Phones Mix and Master Mix are also color coded for easy identification.

Phones mix section has blue faders.



Pic 53. Phones Mixer

Master mix section has green faders.



Pic 54. Master Mix

Reverb and Master faders have dark rose color in both mixers.

PHONES MIX AND MASTER MIX

The Mimic Pro has two separate independent mixers: PHONES MIX and MASTER MIX. Their functions allow you to adjust the instrument volume for the respective outputs. This is a global setting and is not programmable for the individual kit presets. The PHONES MIX and MASTER MIX do not save to one unique kit preset VS another. Any changes made affect **ALL** kit presets and automatically save/remain. This provides consistent output levels regardless of the Kit Preset in use and is perfect for performances that require multiple kit changes.

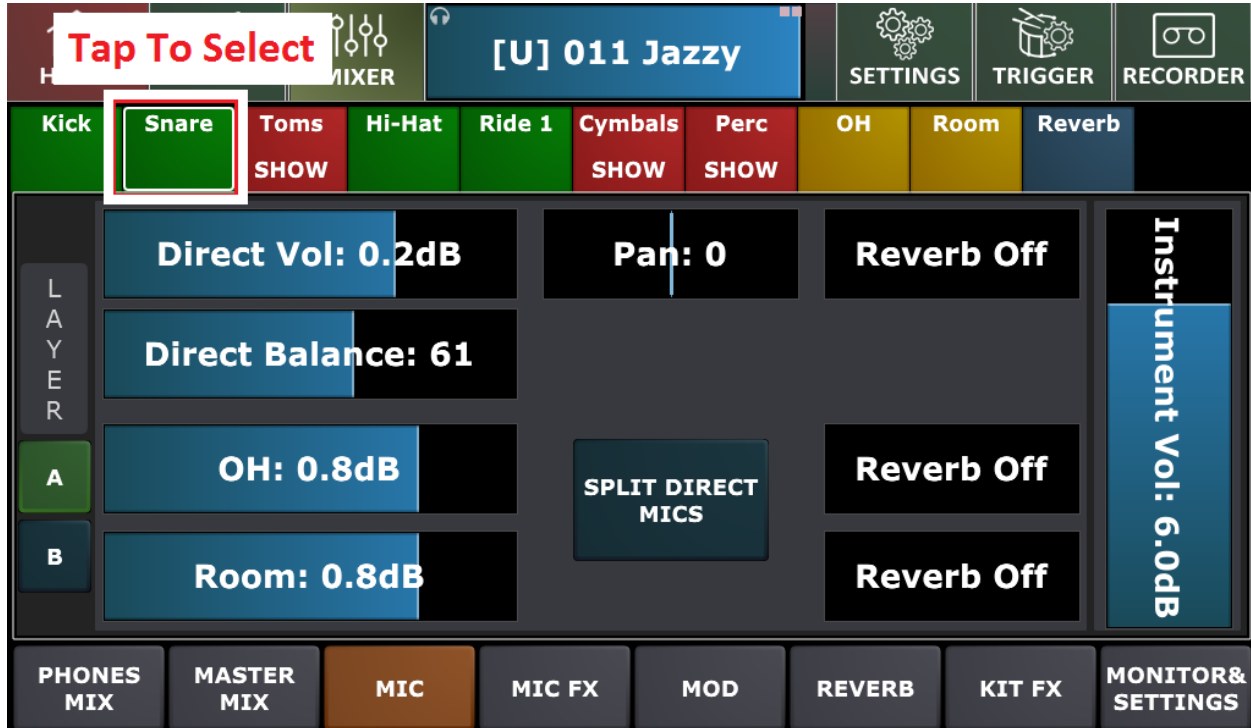
For example, during a live performance if the front house sound engineer needs your kick drum volume lower, you simply lower the “Kicks” fader, now regardless of the Kit preset used the level you send him is constant.

To adjust the volume fader of any channel simply use your finger to move the fader up or down. For finer incremental adjustments the Data Wheel works best. To use this method simply double tap on the fader column and it will go into edit mode with the fader column highlighted in red. Next adjust it with Data Wheel, turn clockwise to increase and counterclockwise to decrease, once set push the Data Wheel in (should click), or tap on any empty space on touch screen to exit edit mode and save changes.

MIC, MIC FX, MOD, REVERB IN KIT PRESETS

As noted, the PHONES MIX and MASTER MIX are global volume controls and do not affect the individual kit presets.

From the MIXER Screen individual Kit Presets can be adjusted from the four main menus below that allow you to tweak each Kit to make it unique.



Pic 55. Mixing Kit Presets

1. MIC
2. MIC FX
3. MOD
4. REVERB

In this section, we'll explain each of these tools and the options they provide.

MIC ADJUSTMENTS WITHIN KIT PRESETS

After you have assembled a virtual drum kit in the Edit Kit screen, the first thing to do is to create the right volume balance between different drum kit pieces and different channels (OH, Room, etc.) To do this you must access the MIC tools. From the Home screen tap on the MIXER menu, then tap on MIC to access the available options.

From the MIC menu, on the right side of the screen you can see the Instrument Volume fader. This fader adjusts the volume of the whole instrument after it was processed and mics inside that instrument were balanced in a desired way. If you only want to change the volume of the instrument this is the desired fader.

Note: Some mixer channels such as OH and Room have only this fader and nothing more. This is because their sounds are from a lot of different sources. Kicks, snares, cymbals - they all have overheads and room mics, so when you're playing drums, they all sound in these channels if they have corresponding mics. This means that you still can adjust OH and Room for each drum separately for the Kit Preset, but those changes must be done in that drum mic section.

Changes made to the OH, Room and Reverb volume from the PHONES or MIX menu affect the whole channel regardless of Kit Preset.

On the left side depending on instruments you may see different sets of parameters. Usually there are Direct mic faders, Overhead mic fader and Room mic fader.

If the instrument has two direct mics such as a Snare Top and Snare Bottom, or Kick In and Kick Out, then there are two methods of working with them:

1. **COMBINED MODE.** (recommended only for everyone) This mode is set by default. In this mode, you will see Volume fader and Balance fader. Volume adjusts the volume of combined direct mics. Balance adjusts balance between two direct mics before they are mixed together. The benefit of combined mode is to be able to process the direct mic with the effects (compressor, EQ) as one piece. This is an easy and effective method.
2. **SPLIT MODE.** (recommended only for advanced users) Press Split button in the middle of the screen to activate this mode. The direct mics are separated, and you will see faders for them respectively. For example, it may be Snare Top and Snare Bottom, or Kick in and Kick Out. In split mode each direct mic is processed separately with effects, so you can apply FX on, for instance, Snare Top and Snare Bottom mics individually.



Below the direct mic faders there are OH and Room faders. If the instruments show the direct mics, then OH and Room faders will be the only faders on the left side of the screen.

The Pan fader(s) allow you to change the pan of each mic to the left, or right side of a stereo field.

The Reverb Send faders (read more about Reverb effect in the Reverb section). Reverb is an additional ambient mic channel, but unlike the recorded OH and Room channels, it is a virtual mic. Your choice of mics in each instrument can be sent to the Reverb effect in any desired proportions. The sound of the Reverb effect can be modified REVERB section of the Mixer. This combination offers a lot of creative possibilities. In addition, the sound of Reverb will also vary depending on the mics it is applied to. For example, the snare drum has a Direct, OH and Room mics and each of these have their own unique sound when sent to reverb. You can then apply Reverb to one of these mics individually, or in various proportions to create literally thousands of variations.

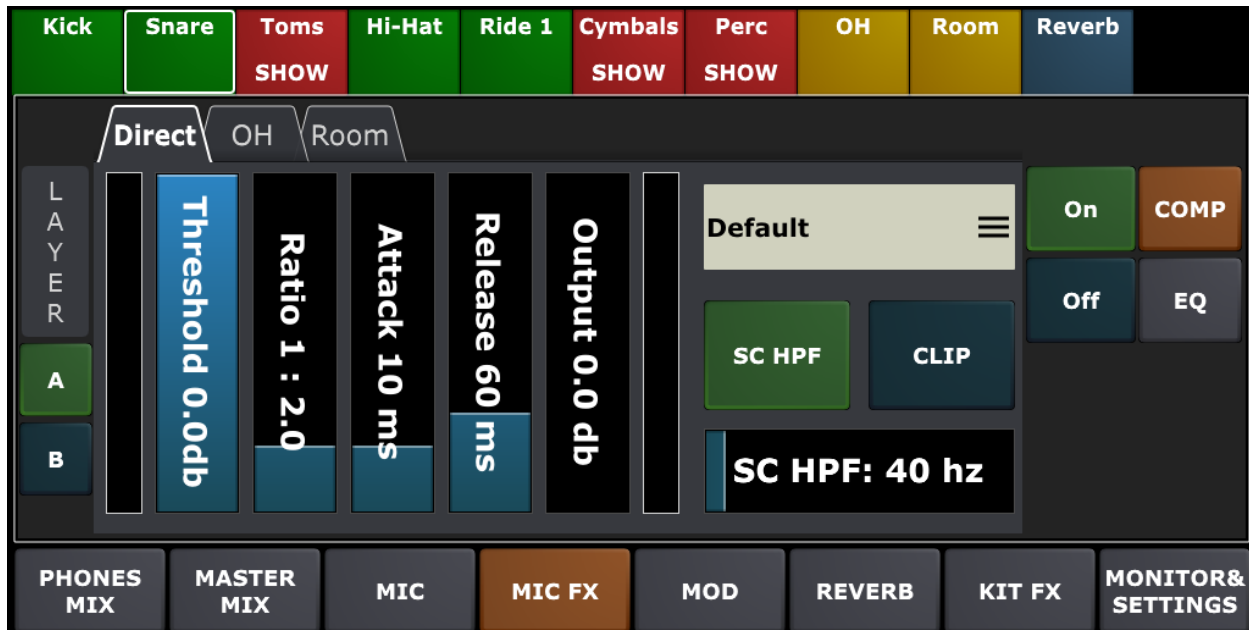
MIC FX ADJUSTMENTS WITHIN KIT PRESETS

The MIC FX tools of the Mimic Pro are very powerful and provide many sound possibilities and variations that allow you to create unique sounding drum kits. In this section, we will identify the MIC FX tools and explain how to use them.

The two FXs (effects) are:

1. COMPRESSOR
2. EQ (SOUND FREQUENCY EQUALIZER)

COMPRESSOR is an effect that typically reduces the volume of loud sounds or amplifies quiet sounds by narrowing or compressing an audio signal dynamic range.



Pic 56. Mic FX

Compression is commonly used in recording and for live sound. The effect the compression has on the sound of instruments varies greatly depending on the control settings used. It could range from being hardly noticeable, to drastically changing the tonal character. It's truly a powerful tool for sound shaping and design. The Compressor tool on Mimic Pro is referred to as "COMP" and is only available for the individual instruments (direct mics) and on the main OH and Room channels. In addition, the "COMP" feature is also available for the entire kit as a KIT FX. To properly setup the compressor or "COMP" we need to review the controls available and what they should offer:

Threshold controls how loud a signal must be before any compression is applied. The "COMP" reduces the level of an audio signal if its amplitude exceeds a certain threshold. It is commonly set in decibels dB, where a lower threshold, for instance -30 dB means a larger portion of the signal is treated compared to a higher threshold of, for instance -10 dB.

Ratio is the amount of gain reduction. For example, a ratio of 4:1 means that if the input level is 4 dB over the threshold, the output signal level is 1 dB over the threshold. The gain, or signal level has been reduced by 3 dB. It is important to understand, that when the compressor is lowering the signal to the desired ratio that it is lowering the entire signal, so that the compressor is still working even after the input signal has fallen below the threshold, for an amount of time determined by the release.

Attack is the period when the “COMP” is decreasing gain to reach the level that is determined by the ratio.

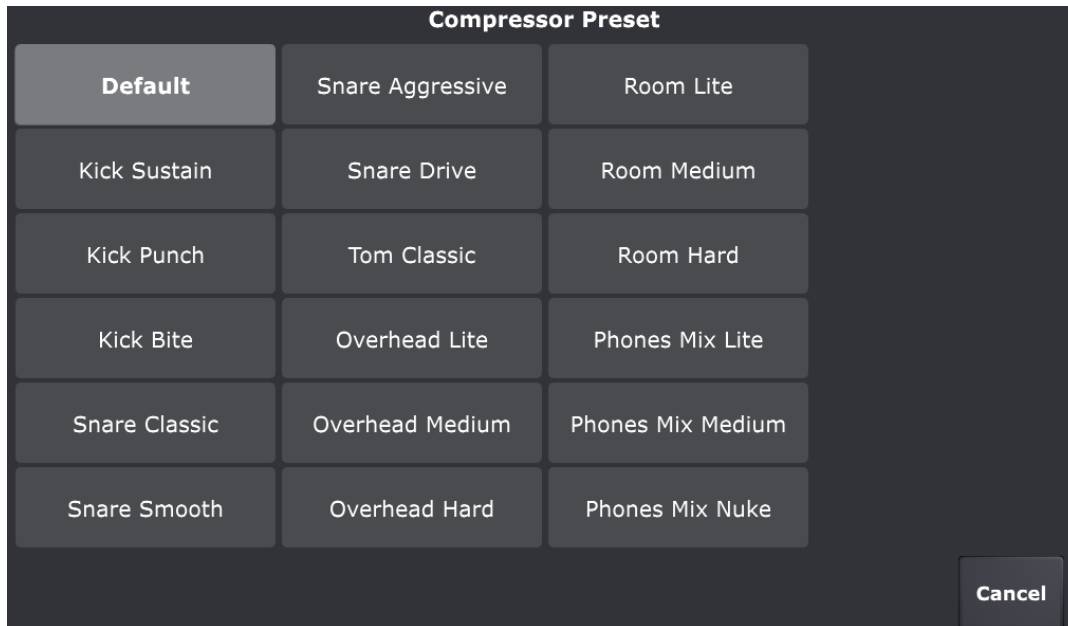
Release is the period when the “COMP” is increasing gain to the level determined by the ratio, or to zero dB once the level has fallen below the threshold.

Output is the volume of the whole signal after the compressor. Because the compressor is reducing the gain, or level of the signal, the ability to add a fixed amount of output gain is provided in Mimic Pro “COMP” so that an optimum volume level can be used.

SC HPF is a high pass filter. When you are compressing the signal the “COMP” reacts more to low frequencies, because they are usually louder. SC HPF lets you ignore some part of the low frequencies. It’s easy to hear this effect when the compression is applied to the whole mix. The kick drum there will have slightly more compression than the snare drum. To even things out try to set SC HPF to 40 Hz, or 60 Hz.

Clip is a clipper after the output gain. Usually when you compress the signal, it gets quieter, so you even it out with Output fader, but depending on Attack setting some of the peaks are not getting any gain reduction, so they also get louder by the amount of dB set on the Output fader. This may lead to clipping, or overload (the meter becomes red). To avoid the overload (clipping) use the Clip button. Clipper may distort the signal slightly or a lot depending on how much overloaded signal is going into it.

There are presets available for the “COMP” categorized by the type of signal they were created for. Presets are a good starting point to make changes.



Pic 57. Compressor Presets

Everything described above may be difficult to understand if you have never used a Compressor. To help with understanding below are some typical steps to setup “COMP”:

1. Turn ON the “COMP.”
2. Set Threshold to 0 dB, Ratio to 2:1, Attack to 8-15 ms, Release to 60-120 ms, Output to 0 dB, SC HPF to 40 Hz, turn on the Clip.
3. Start to decrease Threshold until you see the green meter on the left side (gain reduction meter, or GR meter) moving a little. When it’s moving the gain reduction, or GR is happening. The lower Threshold the higher Gain Reduction. You probably will hear the sound changing. The only way to setup effects is by using your ears. Try to experiment and listen to the sound.
4. After you confirm that Gain Reduction is happening try to experiment with Ratio, Attack, and Release values.
5. Usually the audio signal gets quieter after compression, so try to compensate for it by increasing the Output fader.

6. Experiment with SC HPF, if you think that the effect on the instrument(s) is not needed, then simply turn it off. Again, use your ears to shape the sound you like.
7. Try to turn Clip off and see if there is signal overload on hard hits. If there is no signal overload, then it's safe to leave the Clip turned off.

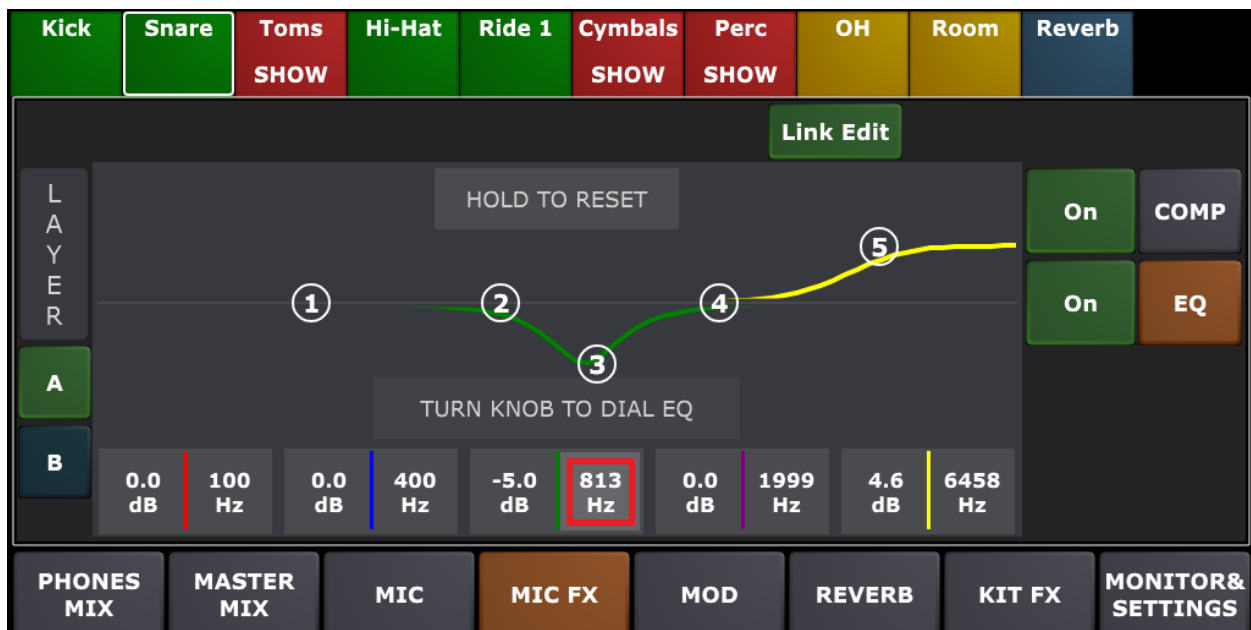
EQ (Equalization) is the process of adjusting the balance between frequency components within an electronic signal. EQ is a very useful tool in sound design. You can change the spectrum of audio signal by adjusting frequencies (boosting or cutting them). This gives you thousands of sound variations of the same instrument. The EQ in Mimic Pro has five bands. This means that you have five EQ filters that can work at the same time.

You can adjust the band in two different ways:

1. Tap on the band point and drag it on the EQ display.
2. Tap on the frequency or dB text at the bottom - the selected item should become highlighted, and you can use data wheel to dial the value.

To reset the bands, tap and hold on the Hold to Reset button on the top of EQ display.

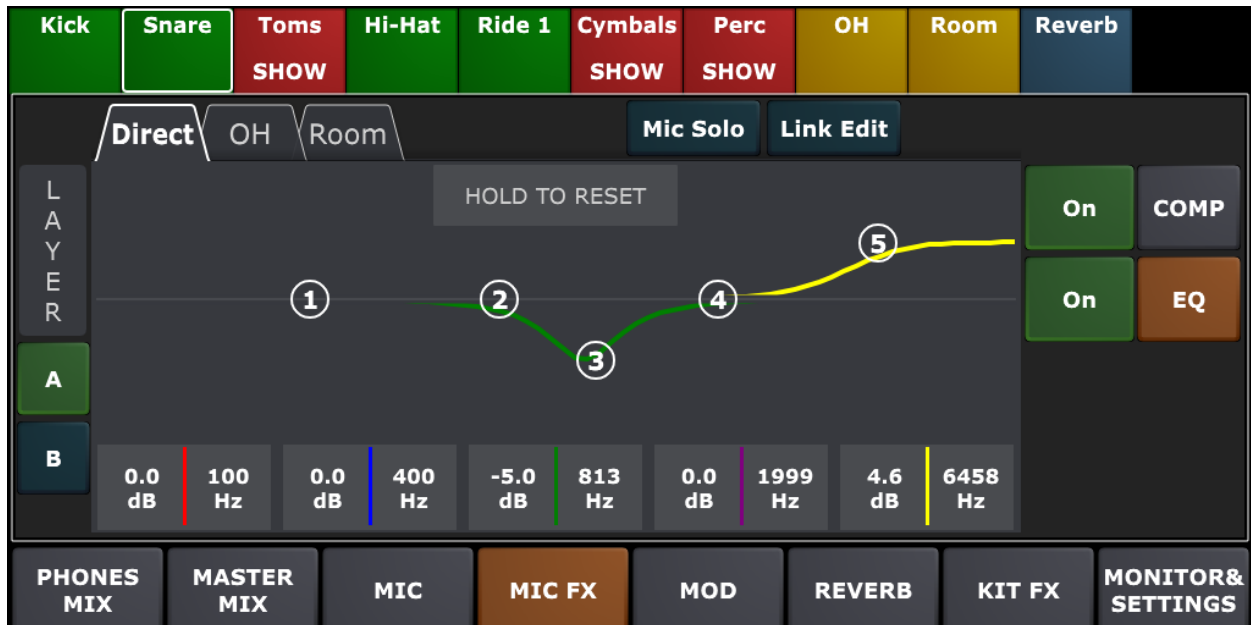
There is a special **Link Edit** button that enables the simultaneous editing of all the microphones.



Pic 58a. EQ - Link Edit Mode On

In case if you need per-microphone EQ, turn off the **Link Edit** function - Pic 58b.

In that mode you can use **Mic Solo** function to listen to individual microphones while dialing the EQ.



Pic 58b. EQ - Link Edit Mode Off

Bands 1 and 5 are shelf filter types. This means that it can be used to reduce or increase signal above or below a set frequency.

Other bands are bells, each with a bit different Q (bandwidth). Bell means that it can be used to reduce or increase the signal around a set frequency.

Steps to setup EQ:

1. Turn it ON.
2. Adjust the bands.

The only way to setup EQ is to use your ears. Sculpt the sound until you get your desired result. Have fun and experiment!

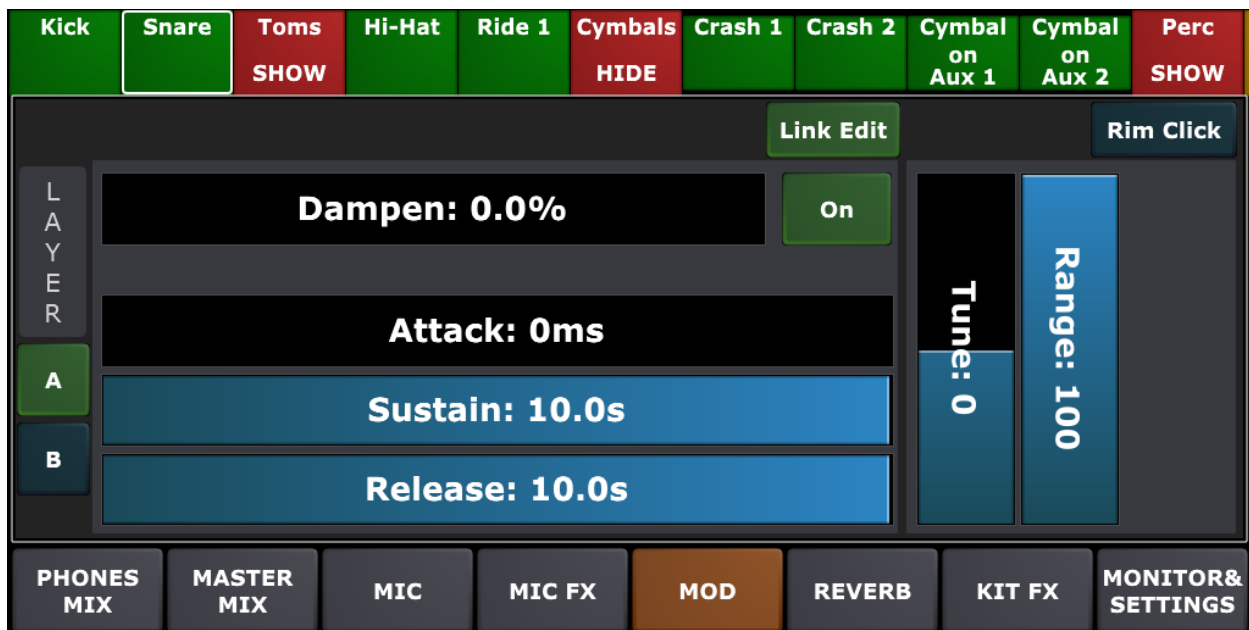
MOD ADJUSTMENTS WITHIN KIT PRESETS

MOD section in the Mimic Pro Mixer screen is another important part of working on a kit preset. It gives user the possibility to tune and shape instruments as well as take some velocity layers out of the instrument.

On the left side of the MOD section you can see:

- Dampen fader. Use it to shorten the ring of the tom or snare or reduce the tail of any other instrument.
- ASR curve faders.

ASR stands for Attack, Sustain, Release. Pay attention that ASR is presented for each mic for the respective instrument.



Pic 59. Mod

Attack is the initial part of the sample. Basically, it's a fade-in for the sample. When you increase attack, it smooths out the beginning (transient) end of the sample and provides

options for sound design purposes. For example, adding attack to the ride cymbal provides smoothness to the sound, this is applicable to many other instruments.

Sustain is the middle part of the sample. The phase of sustain starts right after the Attack. The amount of sustain defines how much time the sample will sound unchanged.

Release is the end of the sample. Basically, it's a fade-out for the sample. The longer release the longer the fadeout will be. It works great for taming the tails of samples. If you want to make a short pop, or funk snare, you can shorten the Sustain to 150-200 ms, and set release to a range of 150-200. You'll get a short snare drum, which most likely will sound different from the original instrument because of the shaping.

Use **LINK EDIT** button to edit all the microphones simultaneously.

In case if you don't need any Dampen/ASR shaping applied, turn you can turn that section Off.

Tune and Range parameters are located on the right side of the MOD section.

Tune allows you to pitch the instrument higher or lower. Please note increasing and decreasing tune to extreme values may produce some artifacts in the sound. That is the nature of tuning an audio signal.

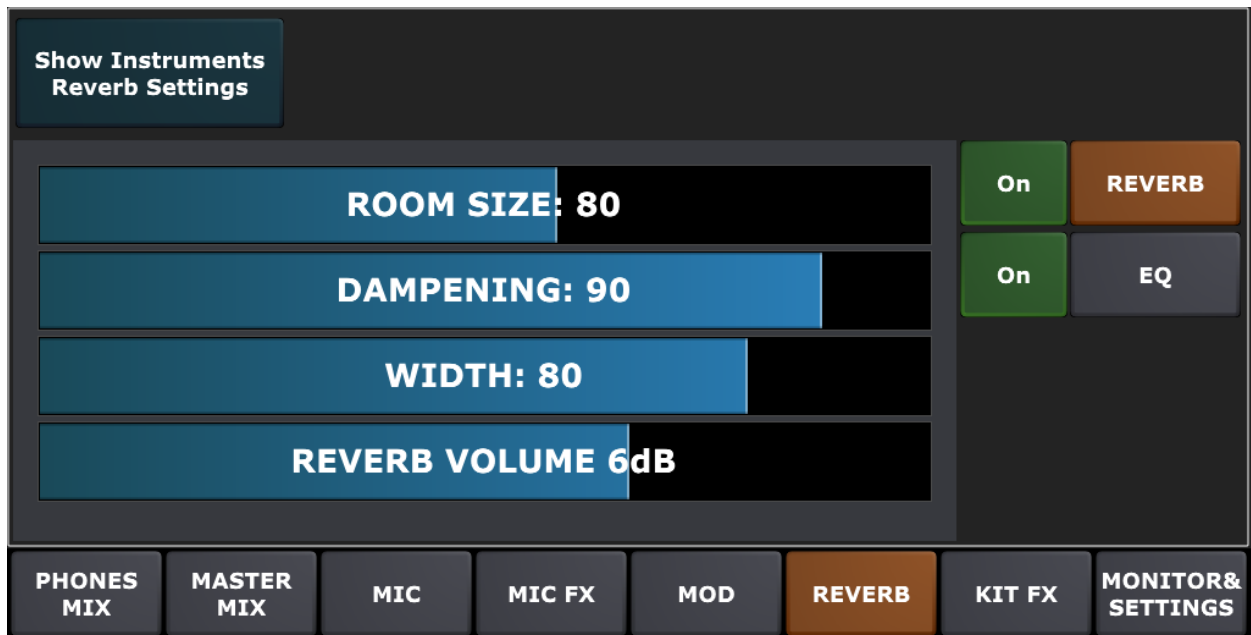
Range allows you to remove some of the velocity layers. If the user wants to create a soft sounding kit, then using the Range parameter may help. When decreasing the Range, it virtually removes the high velocity layers (those punchy hard hits) making the instrument sound softer and more mellow. However, decreasing the Range doesn't affect the dynamic range. You still have full dynamic range. When top velocities are taken out by decreasing the Range fader, the other velocities are getting virtually remapped across the entire dynamic range.

Swell allows you to dial in the needed amount of dynamic swell modelling for your cymbals. Mimic pro has a sophisticated swell modelling engine that dynamically alternates spectral content of the instrument, preserving the cymbal attack definition and gleaming the sound into a lush soundscape.

For the instruments like Snare, Toms, Rides, the **Rim Click (Bell)** button will appear on the top right of the page. This way you can dial your MOD parameters independently for Snare Head and Rim (or Ride Bell and Bow). For example, sometimes it is reasonable to apply tune only to the center of the snare, etc.

REVERB

REVERB emulates how musical instruments sound when played in a specific place/room/location. For example, a medium sized Room, Concert Hall, Chamber, Church, Cave, literally any place that comes to mind. In Mimic Pro REVERB is a virtual mic in a third ambiance channel. The sound produced in this channel is a result of sending a signal from different mics of different instruments into the Reverb effect. Reverb is also a powerful tool for sound design and offer countless variations of sound.



Pic 60. Reverb

To access Reverb when on the Mixer screen, tap on REVERB button and you'll see a Reverb effect and EQ after the Reverb. EQ may also be used to further sculpt the Reverb sound if needed.

Reverb has four variable controls/faders and is very easy to setup. You only need to listen and experiment:

1. ROOM SIZE
2. DAMPENING
3. WIDTH
4. REVERB VOLUME

Room Size is the size of a virtual room.

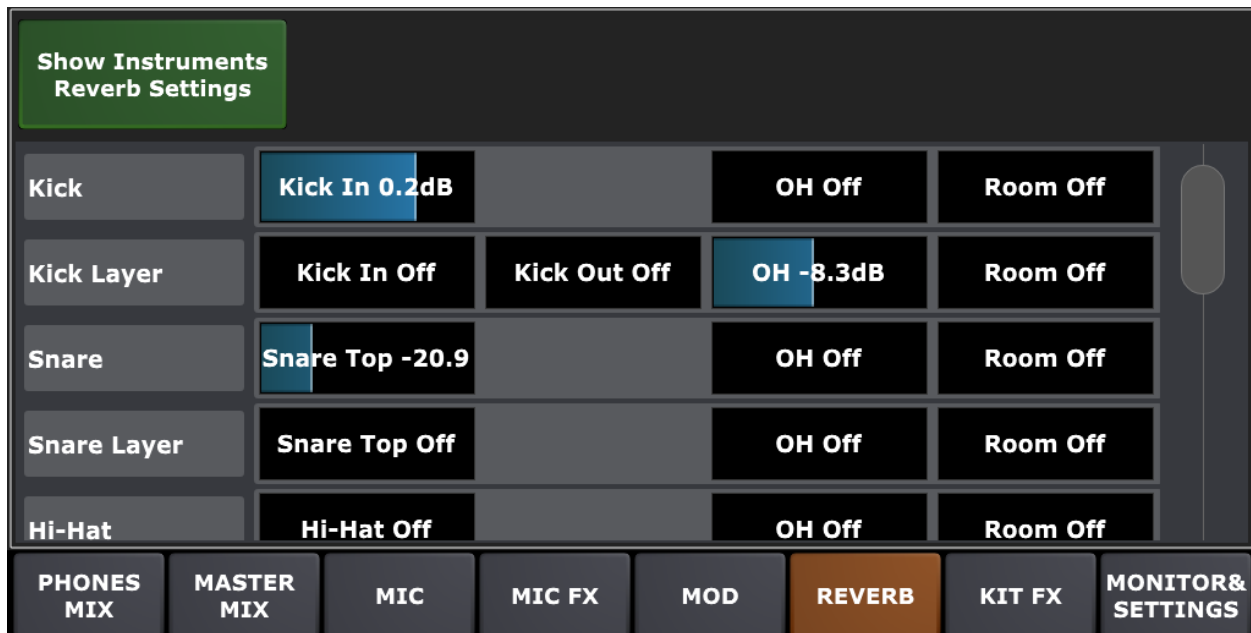
Dampening is how fast high frequencies fade out. Simply put, lowering the Dampening values means that the room has nothing inside and it's only a room with bare stone walls and the sound is ringing, resonant and harsh. Higher Dampening values means that room is not empty. The higher the Dampening the more things in that virtual room that absorb the sound making it softer and more mellow.

Width is how far apart the virtual mics are located/placed in that virtual room in relation to the instrument placement in that virtual room.

Reverb Volume is simply a volume of reverb effect.

How to setup Reverb:

1. In the Mixer tap the REVERB button. Then turn the Reverb on by tapping the "On" button (you have the option to turn on/off).
2. Next go to "Show Instruments Reverb Settings". Here you can adjust reverb settings for all instruments / microphones.

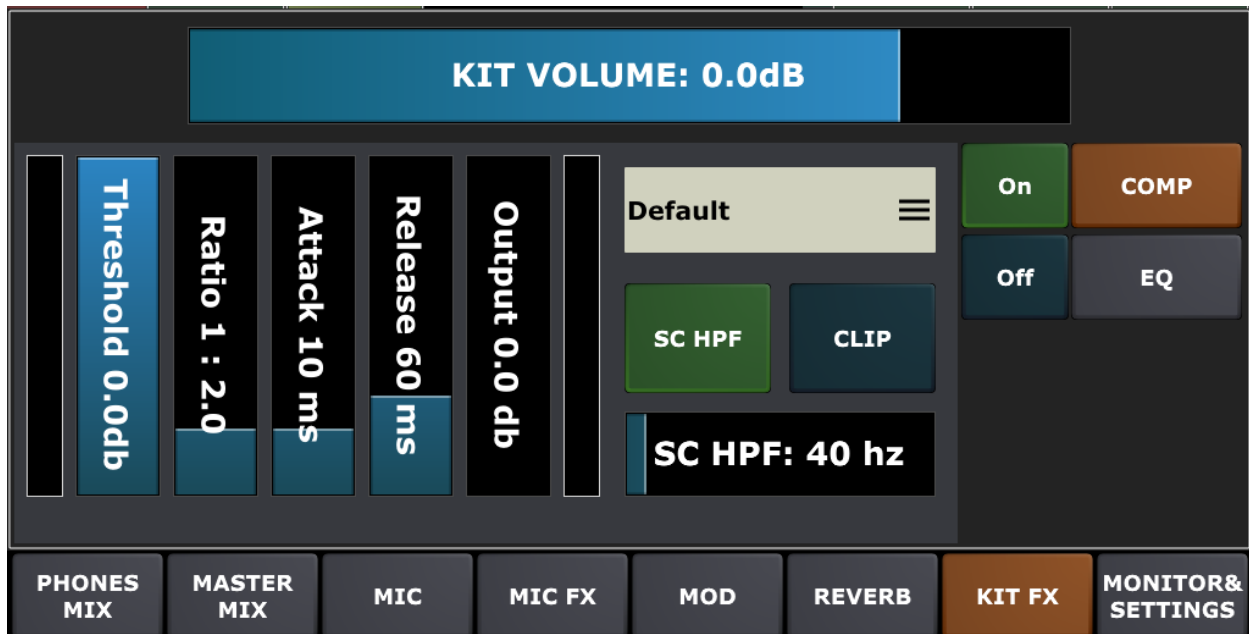


Pic 61. Instruments Reverb Settings

3. Now you should have instruments sent to Reverb. Play them to ensure you can hear reverb applied. Be sure to also check that the Reverb fader of the Mixer is up and not turned off or set very low.
4. If needed go back to the REVERB section and try to adjust the Reverb settings.
5. Apply and adjust the EQ after the Reverb if needed.
6. Try to experiment with how much signal you send from different instruments to the Reverb channel. Different combinations of mics sent into Reverb with different levels will greatly vary the sound of the instrument. When used in just this way it will produce countless sound variations without even changing the Reverb effect settings such as room size, etc.

KIT FX

Mimic Pro also has the ability to apply effects on the whole kit and save these settings with the kit preset. Carefully applying effects such as compressor to a whole kit may add a lot of character to the sound of a kit. It may sound like it's breathing and moving with a lot of vibe and energy.



Pic 62. Kit FX

KIT VOLUME allows you to make fast adjustment of the whole kit volume to balance out different kits in a set for example.

There are two effects available in KIT FX section:

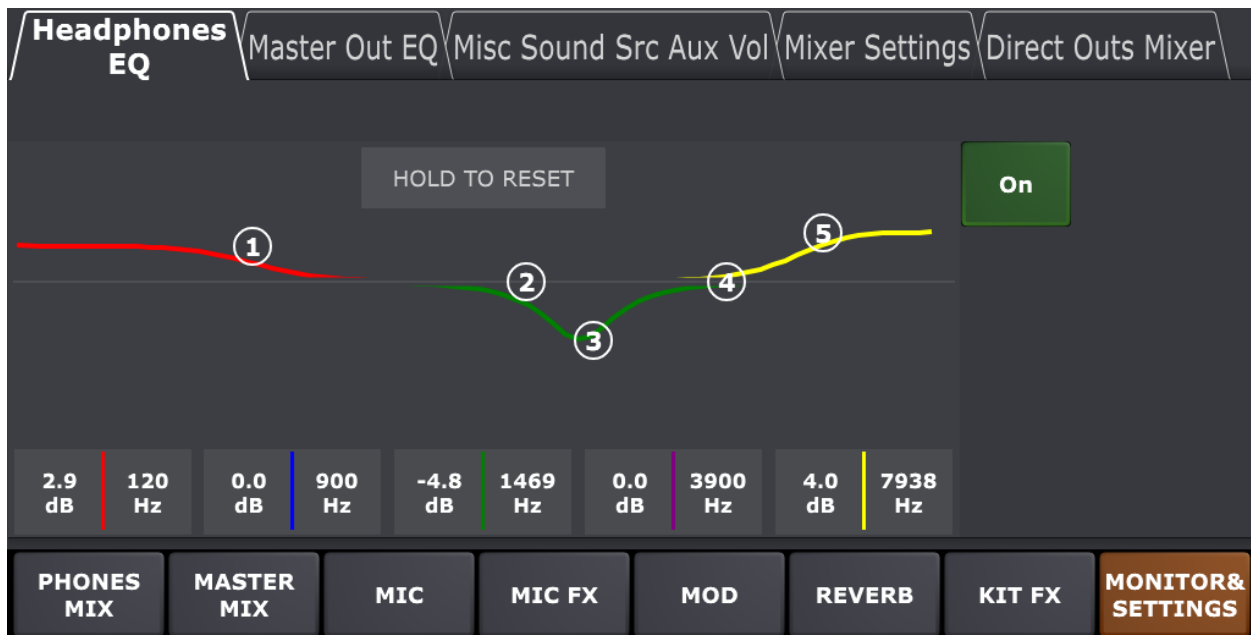
1. Compressor
2. EQ

Read above about how to setup these effects. The only advice for setting up KIT FX effects is going with mellow soft settings. Extreme settings may distort the sound of the kit and make dynamics worse while soft and careful setting may improve the sound of the kit a lot.

MONITOR & SETTINGS

The MONITOR & SETTINGS section of Mimic Pro Mixer allows you to setup various parts of Mimic’s sound system. This section has Headphones EQ tab, Master Out EQ tab, Misc. Sound Src Aux Vol tab, Mixer Settings tab and Directs Out Mixer tab.

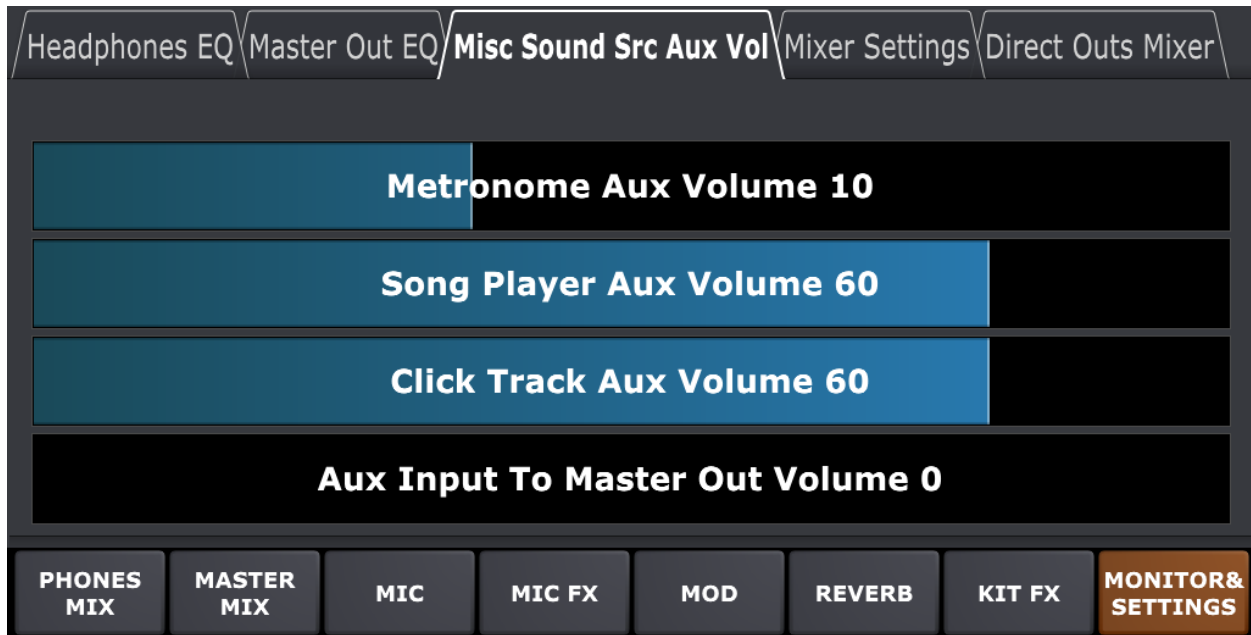
Headphones EQ tab has the EQ effect, which is global for the headphones output. EQ is useful for headphones frequency correction as some headphones have harsh high frequencies and hyped low frequencies.



Pic 63. Mixer Monitor and Settings

Master Out EQ tab is pretty much the same to headphones one. It has the EQ effect, which is global for the master outputs. EQ on Master Out is useful for making frequency correction, for instance, in some particular situations like live show with very harsh speakers, or speakers with too much low frequencies.

Misc. Sound Src Aux Vol tab allows to adjust various things. With Mimic Pro, in addition to headphones, you can route your metronome, song player, click track to any output. By default, these sources are routed to master output (line outs 1/2).



Pic 64. Misc. Sound Src Aux Vol

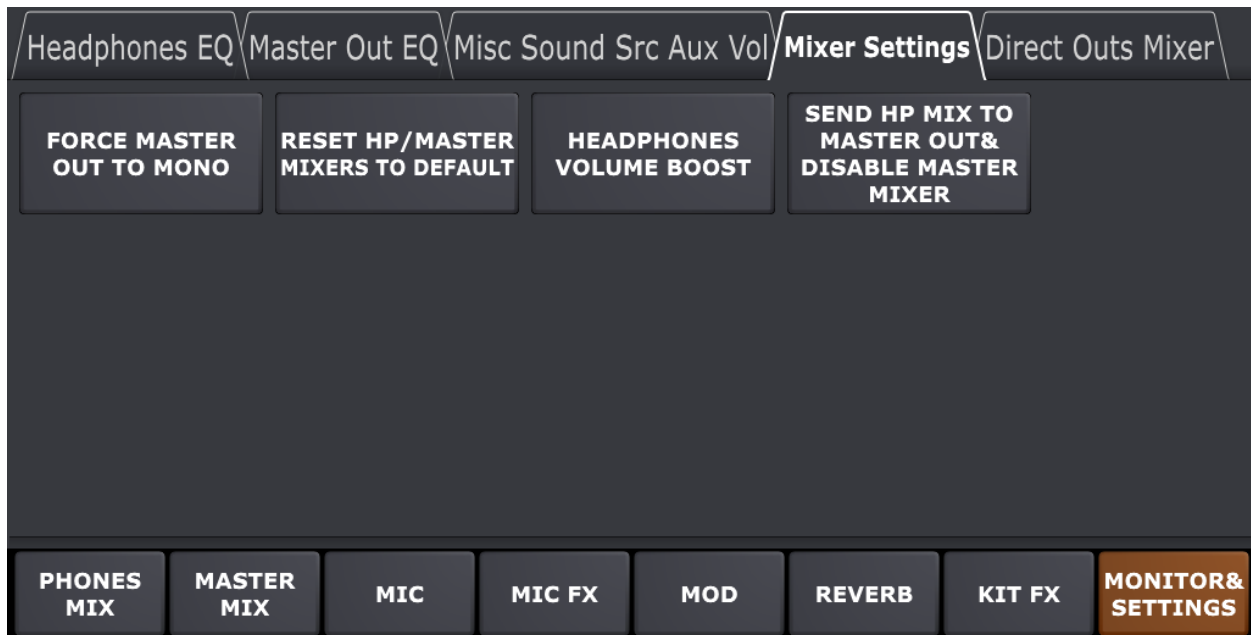
Use Metronome Aux, Song Player Aux, and Click Track Aux volumes to dial desired volume levels.

Aux Input to Master Out Volume controls the amount of aux input signal (from your external audio player etc) routed to mimic pro master out.

Note: You can adjust the routing in *SETTINGS / Routing* tab

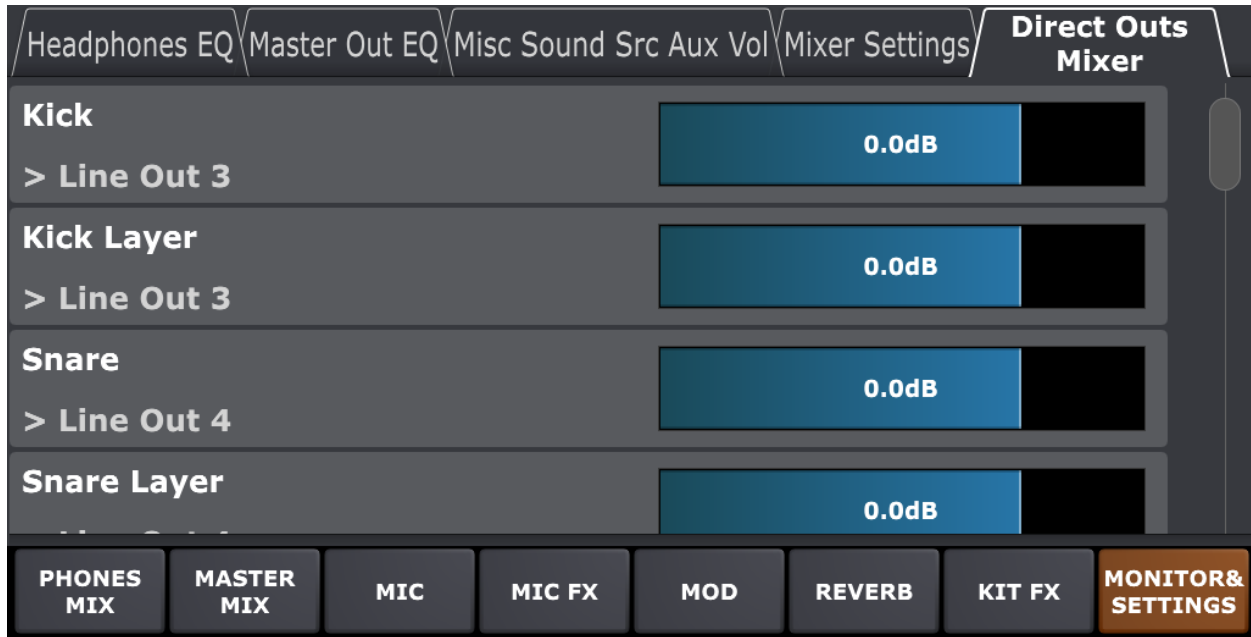
Mixer Settings tab allows you to control the following functions:

1. **Force Master Out to Mono** - converts your mimic pro master out (line out 1/2) to MONO,
2. **Reset HP/Master Mixer to Default** - resets your mimic pro hp. master mixer volumes to a default values. This function is very useful if you want to hear factory or custom kit presets in a default state.
3. **Headphones Volume Boost** - boosts your mimic pro headphones output volume. Note: excessive volume levels may lead to distortion or hearing damage.



Pic 65. Mixer Settings

4. **Send HP Mix To Master Out & Disable Master Mixer** - this function makes your mimic pro master out to be a full clone of your headphones out (including all the volume controls like aux input, song player etc) That is useful if you prefer to use your PA connected to master out instead of headphones. With this function enabled you can control your PA volume with data wheel knob and use all other home page controls.



Direct Outs Mixer tab allows you to control the instrument levels sent by your Mimic Pro direct outs. This setting is per-kit, so you can adjust your direct outputs levels for every kit individually.

METRONOME

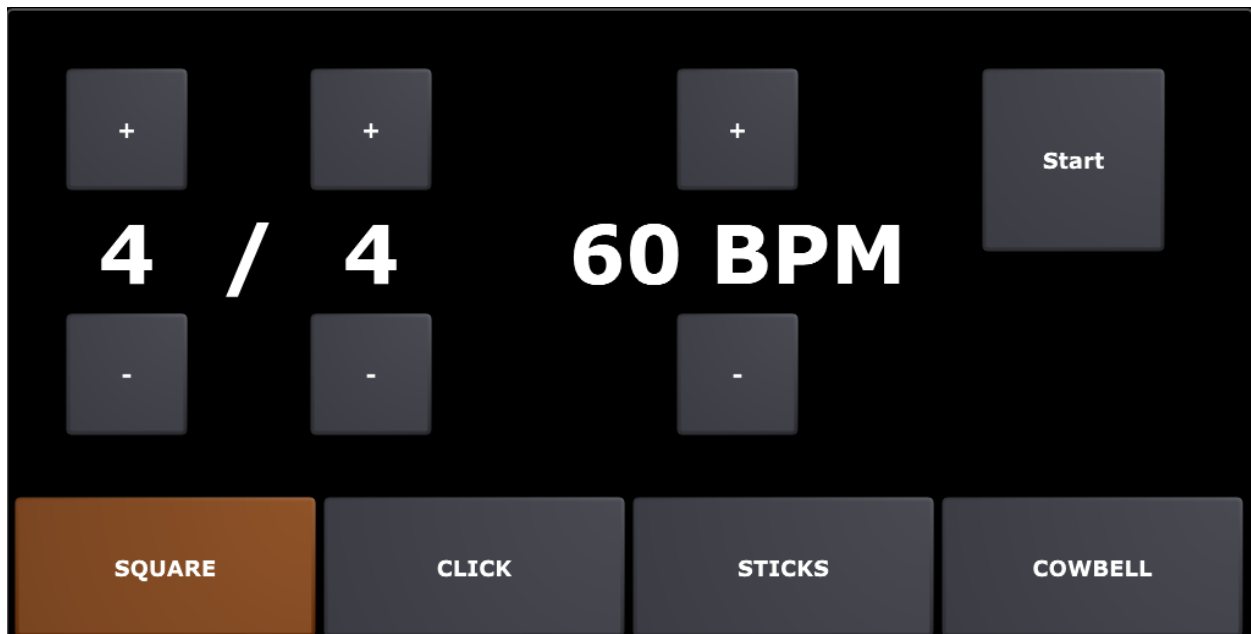
The Metronome settings are controlled through the Tempo menu.

- On the Home Screen double tap the Tempo fader to access the menu.
- To change metronome volume - drag your finger left/right on the TEMPO screen.



Pic 66. Tempo Fader

Press Start to begin and again to end the click track. The Metronome ON button on the Home Screen will also perform this function.



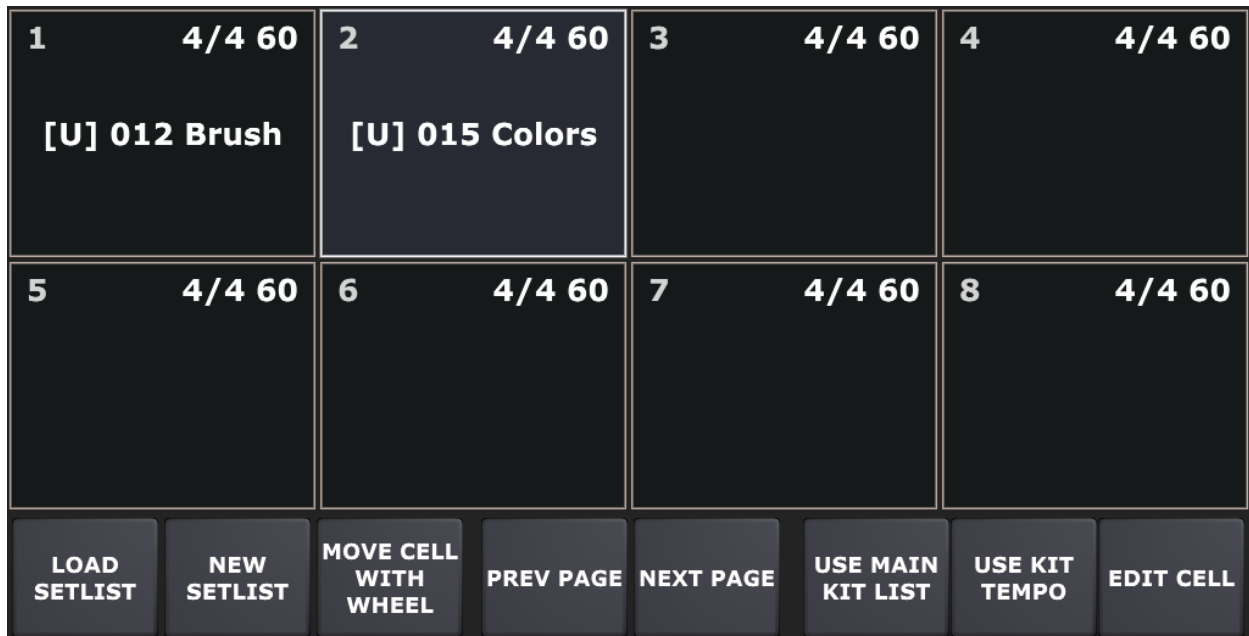
Pic 67. Metronome Tempo Menu

To change the tempo/BPM, press or press and hold the +/- to increase or decrease the beats per minute. To change the time signature, press or press and hold the +/- to increase or decrease the top and bottom numbers in the time signature.

At the bottom of the Metronome menu you can choose from four sound effects; Square, Click, Sticks, or Cowbell. Tap the window to choose the desired sound.

SETLIST

The Setlist functionality in Mimic Pro is an amazing new feature. The Setlist is like a playlist of kits and you can assign a specific tempo to each kit. A Setlist can be created for any performance situation, for example, if you have a show where you are supposed to play 12 songs using only one kit, but in 12 different tempos, you can build this in the Setlist.



Pic 68. Setlist

The Setlist menu contains 8 windows per screen where you load the kit and tempo. Each Setlist can contain up to 128 kits.

1. Begin by selecting the New Setlist box.
2. You will be given an option to Clone Current Setlist, select Yes or No.
3. Select No to create a new Setlist then name and enter your list.
4. Choose your new Setlist from the Load Setlist menu then Exit.
5. You are ready to load kits. Select window #1 which will take you to the Tempo screen, then choose Select Kit.
6. Choose from the library of kits then select Load Kit.
7. Next you will set the time signature and BPM then choose Exit.
8. The name of the kit chosen, and the tempo will appear in window #1.

9. Repeat this process for all the kits in your Setlist.
10. Use the Prev Page and Next Page buttons to navigate through long Setlists.

The Use Kit Tempo button will activate or deactivate the tempo.

Note: you can switch kits from a set list with Mimic Pro Midi Input. For this you should have an active set list. Then use standard program change midi message to select a particular kit from your set list.

PLAYER

The player in Mimic Pro allows you to play audio backing tracks, create playlists with the tracks and assign a custom click track to each of your backing tracks.



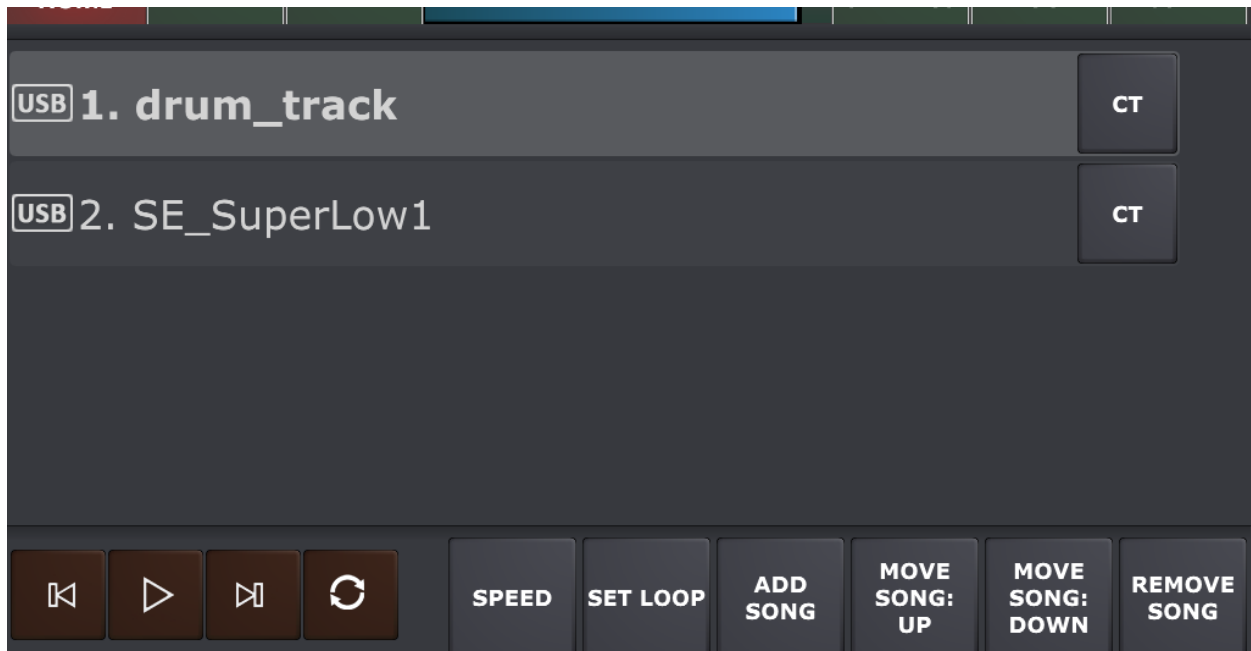
Pic 69. Player

The format of your audio files should be mono or stereo 16 bit, or 24-bit WAVs or MP3 files with 44100 Hz sample rate. All files must be on a USB flash drive or SD card.

To begin working with your tracks, turn Mimic Pro OFF. Insert a USB stick or SD card with WAV/MP3 files and turn Mimic ON. On the Home Screen double tap the Playlist window to open the Playlist menu.

The Playlist menu features the Play/pause, Previous and Next controls for your tracks.

1. Press Add Song to add a song to the Playlist. Note: this does not copy the song to the Mimic Pro, the playback is performed directly from the USB Stick/SD card, so please keep your media connected.
2. Use the Move the Song Up or Move the Song Down buttons to change the location of a song in the Playlist.
3. Use the Remove Song button to delete a song from the Playlist.
4. Use Speed button to change playback speed.
5. Use Set Loop button to set A/B loop points to the current song.



Pic 70. Player Playlist Menu

After songs have been added to the Playlist, select CT button to assign a custom click track to any of your songs.

The Click Track (CT) is a wave or mp3 track that would be played simultaneously and in sync with your song. The volume of Click Track can be changed from home screen.

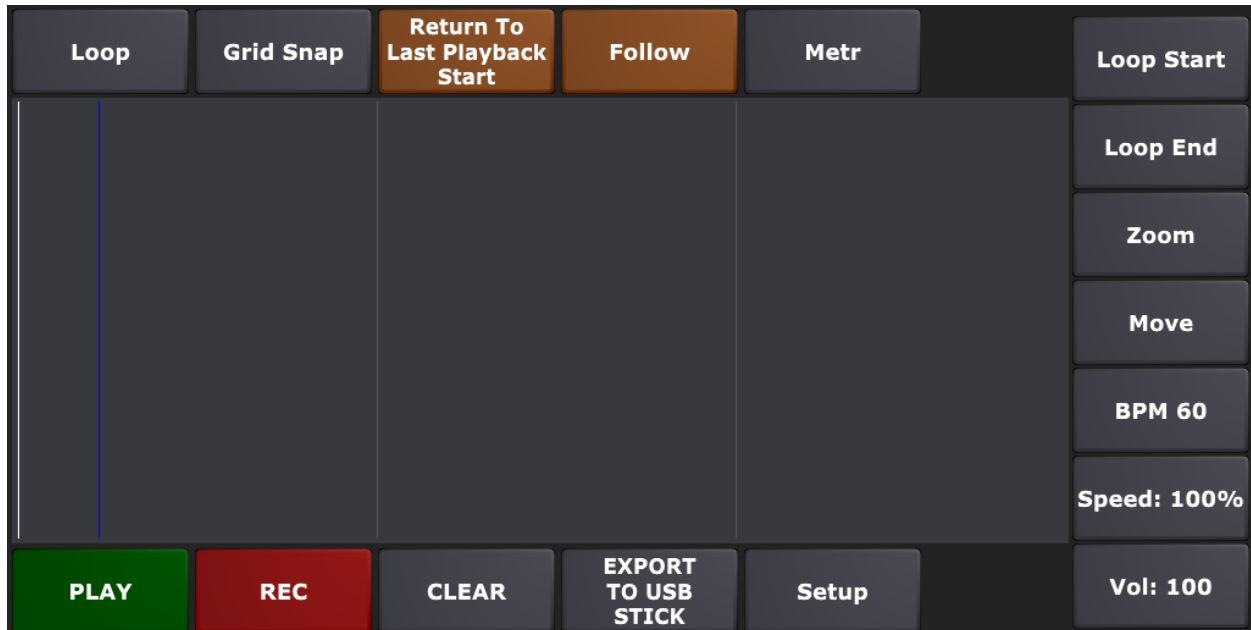
This may be useful for backing tracks with changing tempos, or you can load a guide track as a song and a bass track as Click track and dial the balance between these tracks on the fly.

Note: in addition to headphones, click track can be routed to any Mimic Pro line outputs in Settings/Routing/ Click Track aux bus.

You can change Click Track Aux Bus volume in Mixer/Monitor Settings/Misc. Sound Src Aux Vol tab

RECORDER

The Recorder in Mimic Pro allows to record your performance along with other audio sources and play it back looped and in different speeds.



Pic 71. Recorder

RECORD SOURCE is selected in Setup. It is possible to:

- Record some music from external source (using Mimic Pro AUX IN) and jam with it.



- Record drums only.
- Record external source plus Mimic Pro Drums.
- Record external source plus Mimic Pro Drums and onboard song player.

Maximum length of the recording in the current version of Mimic Pro software is 10 minutes.

RECORDER CONTROL BUTTONS:

- LOOP enables the loop mode.
- GRID SNAP enables the snap to grid mode (for play position cursor movement, left and right loop locator movements).
- RETURN TO START makes the play position cursor return to the playback start position after stopping.
- FOLLOW makes the wave follow the play position cursor movement.
- METR turns on the Metronome.

Other controls include Record, Play, Clear, and Setup.

BUTTONS ON THE RIGHT SIDE ARE A BIT DIFFERENT FROM OTHERS. Their functions are enabled by holding the button down and turning the data wheel while holding:

- LOOP START sets the position of the loop start locator (red vertical line).
- LOOP END same for the loop end locator (blue vertical line).
- ZOOM zooms the wave in/out.
- MOVE moves the wave start position. Use it for aligning the wave to the tempo grid.
- BPM is current metronome tempo value adjustment.
- SPEED is playback speed adjustment, which is great for practice (slowing down the records).
- VOL is playback volume.

You can save your recording to a USB flash drive.

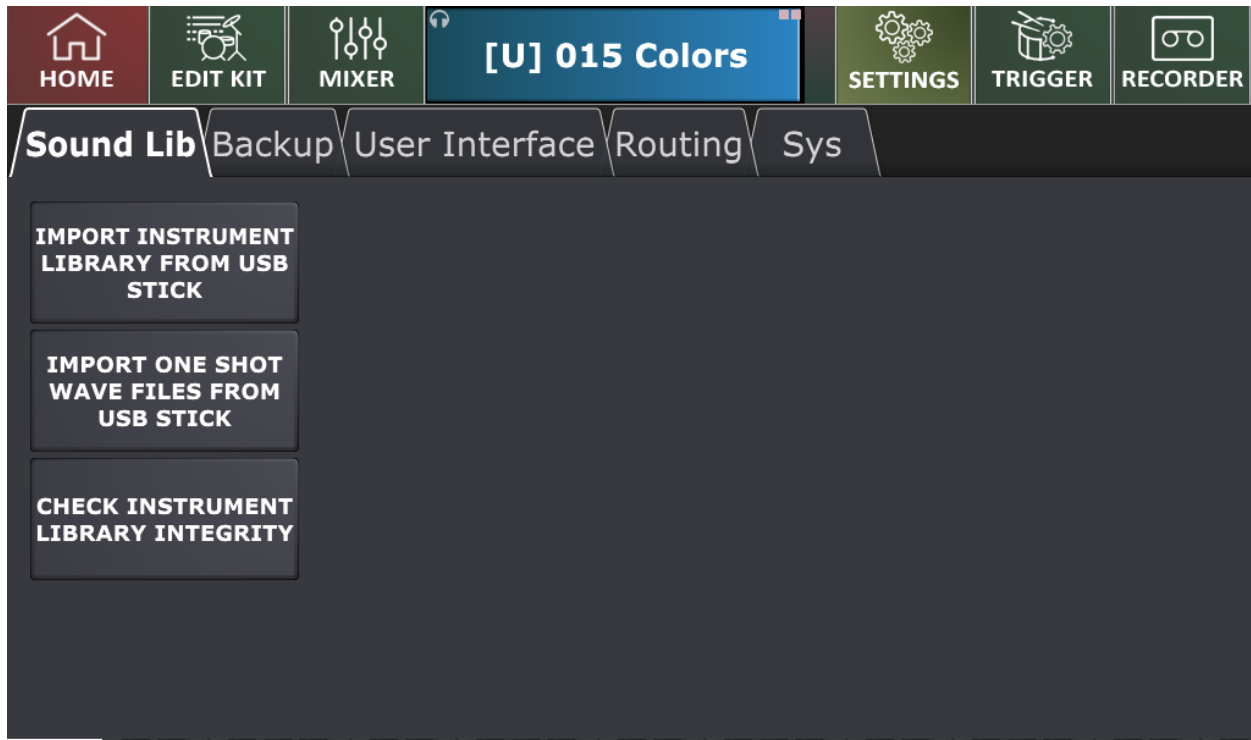
To start a new recording first save your current one, then go to the start of the playback and record over the existing recording.

SETTINGS

Settings screen in the Mimic Pro has many tabs, buttons, and functions. See the descriptions below.

Sound Lib

This tab contains functions to work with Mimic Pro Sound Library.

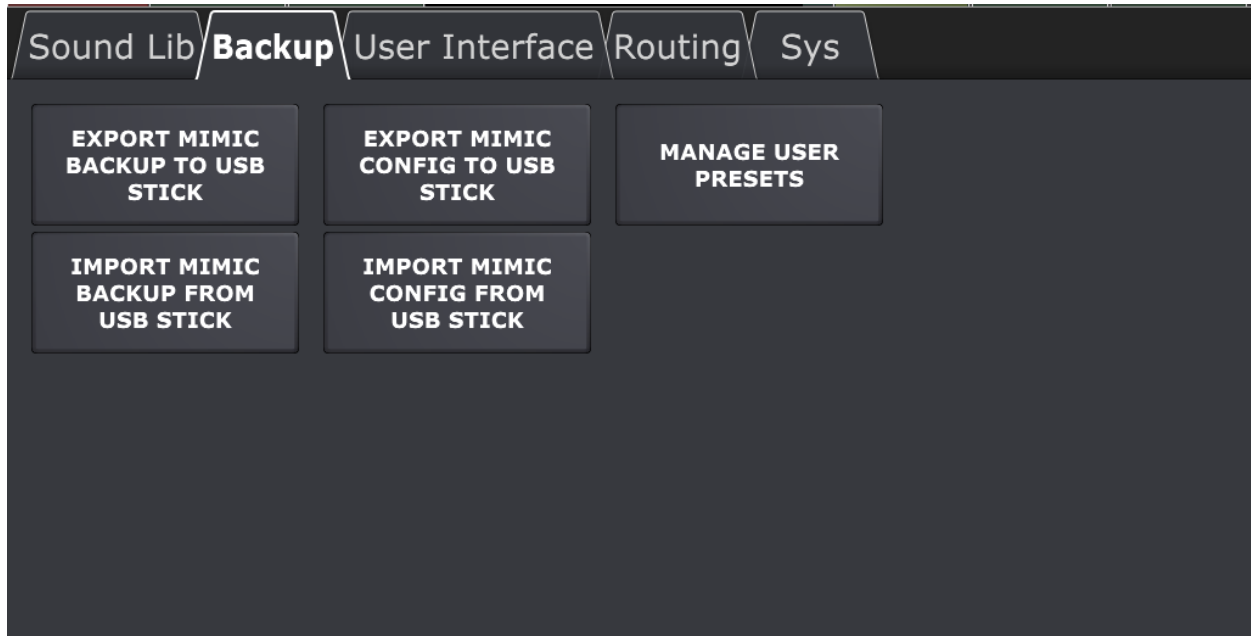


Pic 72. Settings Files

- IMPORT INSTRUMENTS FROM USB STICK lets you import instruments from a USB stick into Mimic Pro. They are supposed to come in folders ending with “.lib” Inside the folder should be two folders named “instruments” and “kits.”
- IMPORT ONE SHOT WAVE FILES FROM USB STICK lets you import your WAV files and use them as instruments. WAVs must be 16 bit, or 24 bit and have 44100 Hz sample rate.
- CHECK INSTRUMENT LIBRARY INTEGRITY checks if the Mimic Pro’s factory library is OK.

Backup

This tab contains functions for Mimic Pro backup.



- EXPORT MIMIC BACKUP TO USB STICK saves the Mimic Pro’s backup to USB stick.

Backup contains: mixer settings, trigger settings, all other user settings, user kits, instrument presets, imported one shot wave files. Basically, backup contains everything but the Factory Instrument Library (due to the fact that library size is big, it’s not part of backup). Use this function to store all mimic settings in one archive for a fast-simple setting restore in case of any issues. In addition, you can send the backup archive to other customers if you want to transfer 100% of your Mimic Pro settings.

This will create a custom named *.mba directory that contains all your mimic pro settings.

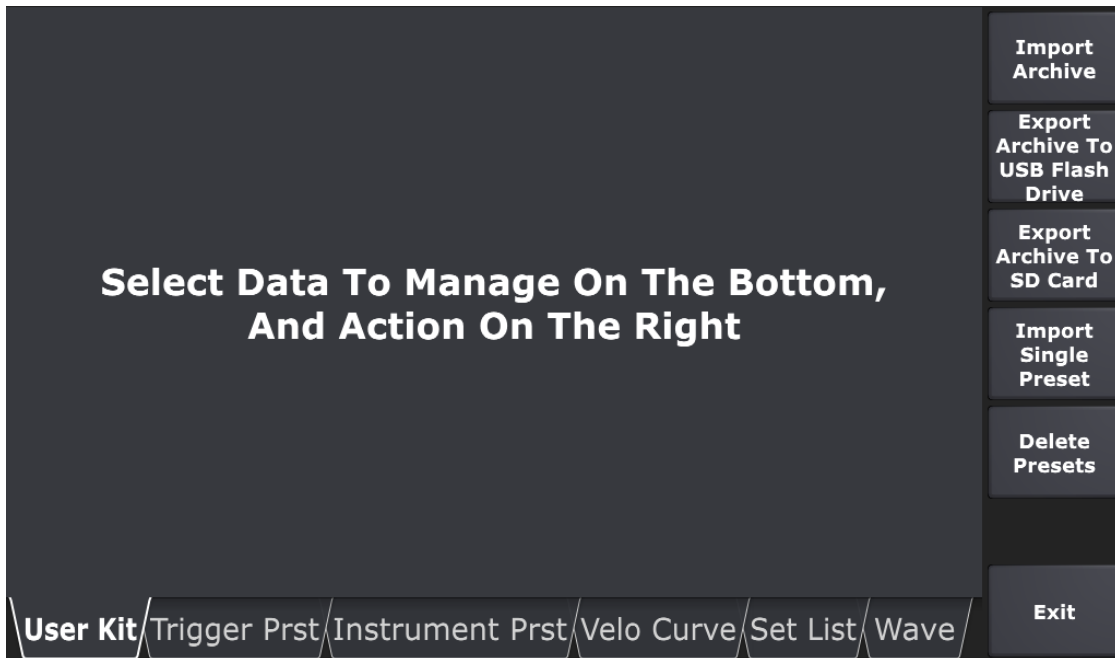
- IMPORT MIMIC BACKUP FROM USB STICK imports previously saved Mimic Pro’s config from a USB stick. Please select a desired *.mba mimic backup directory for import and press “Select Mimic Backup”

- EXPORT MIMIC CONFIG TO USB STICK saves the Mimic Pro’s settings to USB stick.

This function will export only the parameters dialed by user: Mixer trigger settings, headphones/master mixer faders, song player playlist etc.

This function is useful if you want to perform fast switch between two trigger pad configurations (if you use your mimic with several different eDrum kits)

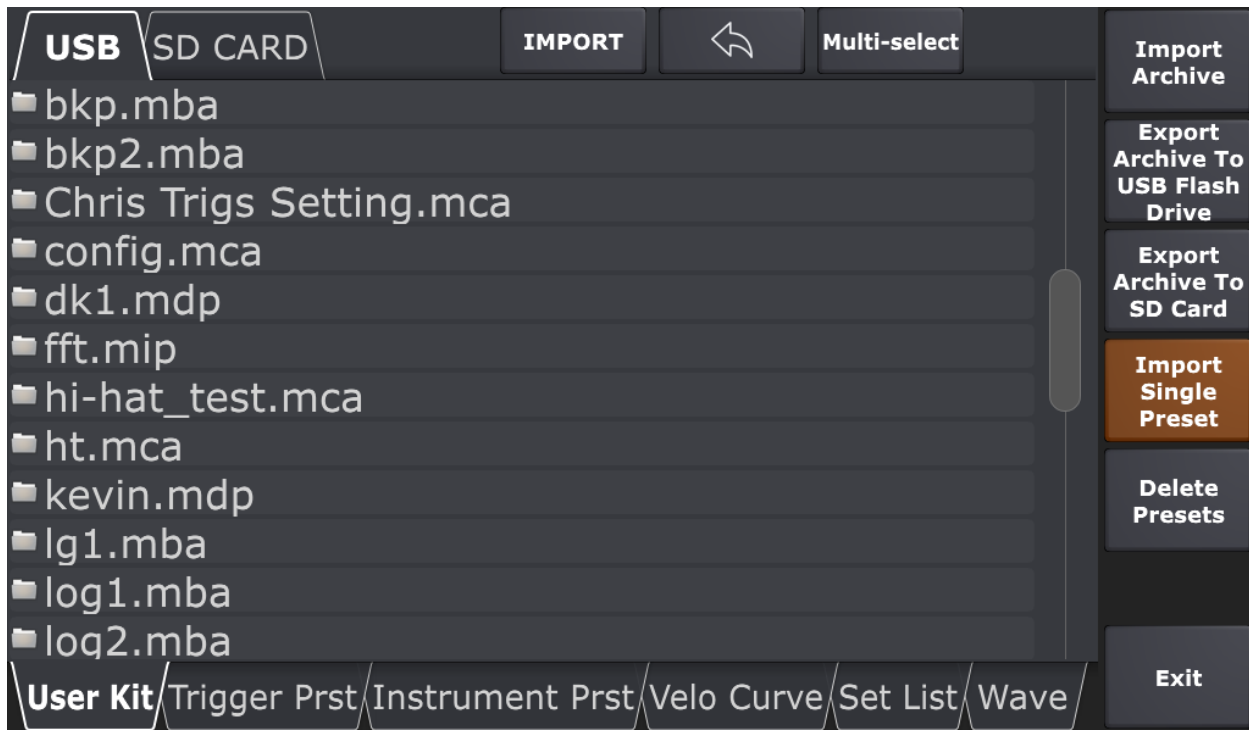
This will create a custom named *.mca directory that contains your mimic pro settings.
- IMPORT MIMIC CONFIG FROM USB STICK imports previously saved Mimic Pro’s config from a USB stick. Please select a desired *.mca mimic config directory for import and press “Select Mimic Config”
- MANAGE USER PRESETS lets you import/export all the presets you created on your mimic pro. It is useful for preset backup and for sharing your presets with other customers.



To export or import any preset, select the data you want to manage on the bottom:

- **User kits:** the custom user drum kits you created.
- **Trigger Prst:** custom named trigger presets you created with Trigger/Settings/" Save Pad Settings as Preset" function. It is very useful to share your custom pad settings with other customers.
- **Instrument Prst:** custom dialed instrument presets saved with Edit Kit/" Save Instr Preset" function. You can share your custom dialed individual drums with other customers.
- **Velo Curve:** custom dialed velocity curves saved in Trigger/Velo Curve tab.
- **Set List:** your set lists.
- **Wave:** your one-shot wave files.

For example, to import some individual user kit presets, select "User Kit" on the bottom, and then press "Import Single Preset"



The you can navigate the contents of your USB flash drive or SD card tapping on the folders, select single or multiple presets with Mutli-select function, and press Import once you found the presets you want to import.

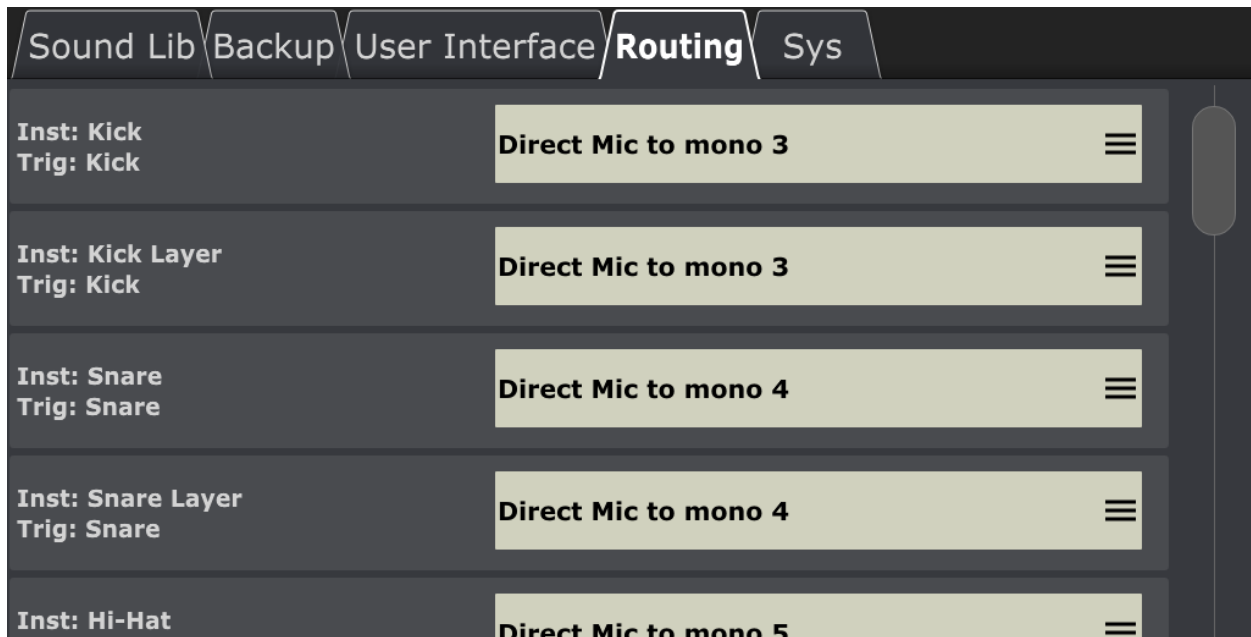
Alternatively, you can import the whole preset archive of selected type with Import Archive button.

Delete preset allows you to clean up your Mimic Pro from presets that you don't need anymore.

Note: it is reasonable to perform full mimic pro backup before managing the presets, thus you can restore any deleted data in case of occasional unwanted deletions.

ROUTING

On this tab you can change the audio routing in Mimic Pro. Routing is the path of an audio signal. If you want your kick drum to go out through Output 6, you can do this as well as change it to any other output. Mimic Pro is the only electronic drum module that has this capability.



Pic 73. Settings Routing

On the left side of the Routing tab you will see Instruments Type and Trigger Input name. Instrument Type is there because, for instance AUX can be kick, tom, or cymbals, so you don't have to memorize it when you are setting up routing.

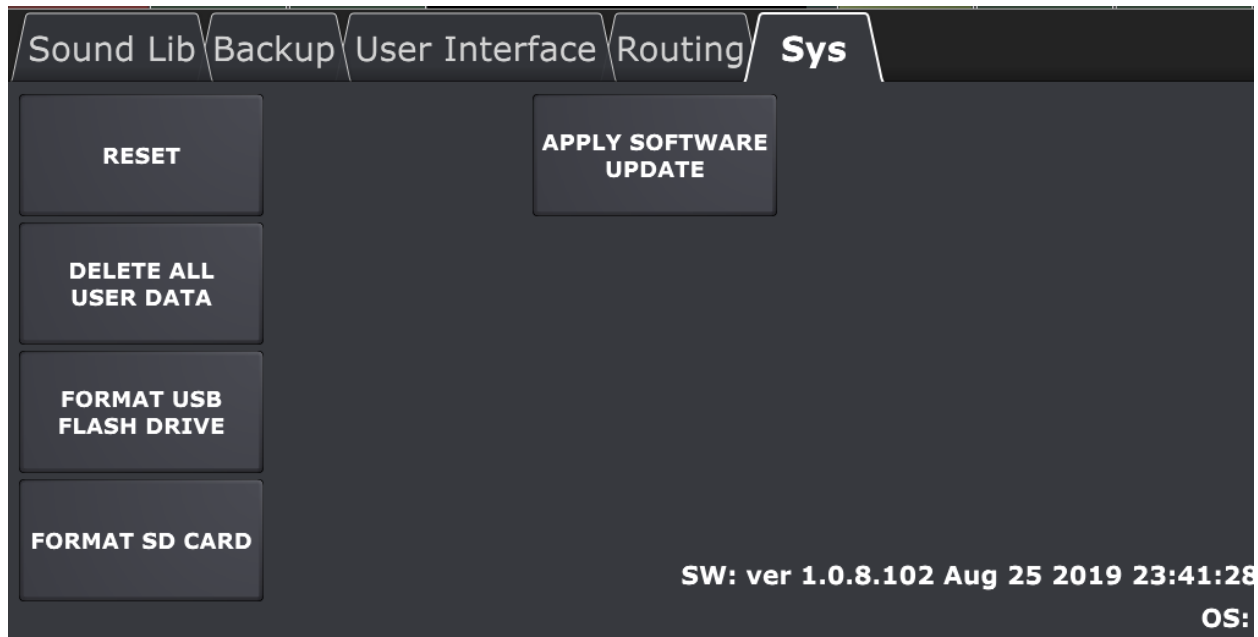
On the right side you can select the Output. It can be mono, or stereo. If you are routing a signal, that is panned, like toms, or ride, you will lose the pan if you route the instrument to the mono out (it's obvious, because the signal before mono can't be panned to the right and keep sounding on the right, because mono is a single channel). So, if you choose, for instance, 4 toms to keep their panning then route all of them into stereo out.

To see live view of the Routing Screen, click the link below

<https://youtu.be/mkV3nD8dEVY>

SYS

On this tab you can reset Mimic Pro to the factory settings, apply software updates, delete user kit presets and format SD cards and USB drives.



Pic 74. Settings Sys

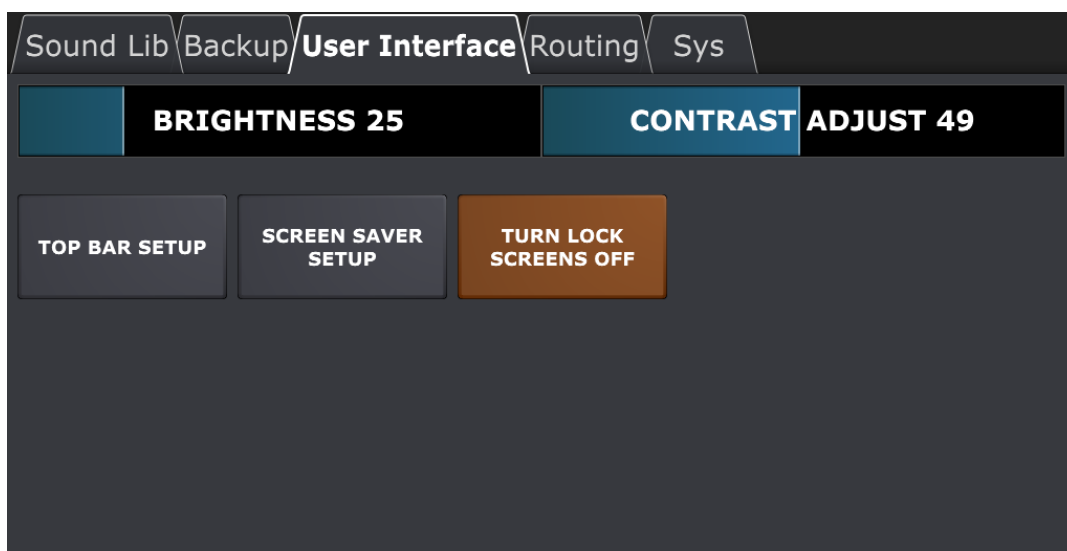
The button labeled Apply Software Update lets you update Mimic Pro’s software. Detailed instructions about how to apply software update will come with every software update individually.

If you press the Reset button it will reset Mimic Pro. You will need to reboot Mimic Pro after resetting.

Delete All User Data performs 100% cleanup of your Mimic Pro. This deletes all user kits, all user presets, imported wave files etc.

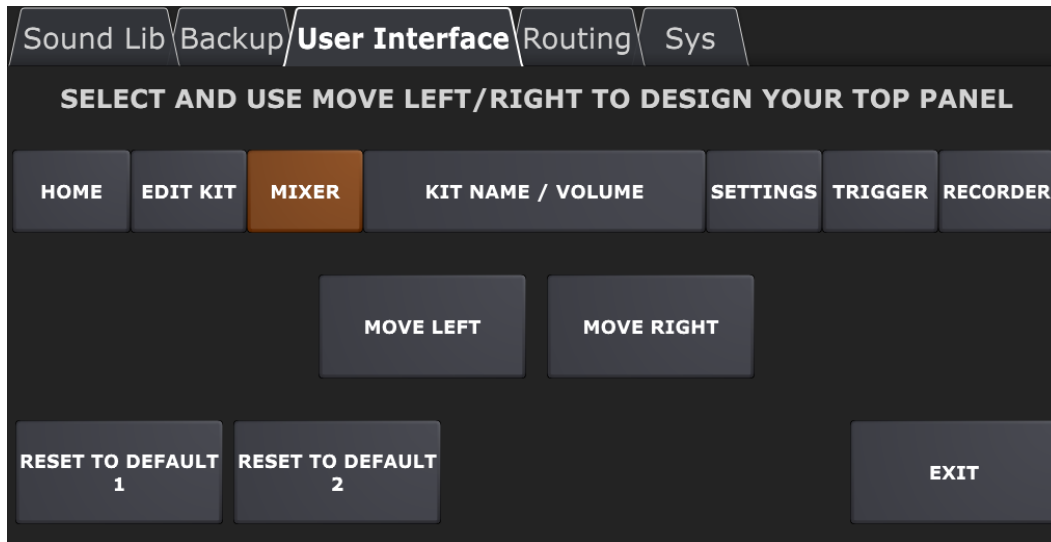
USER INTERFACE

On this tab you can dial your mimic pro user interface parameters.



Pic 75. Settings User Interface

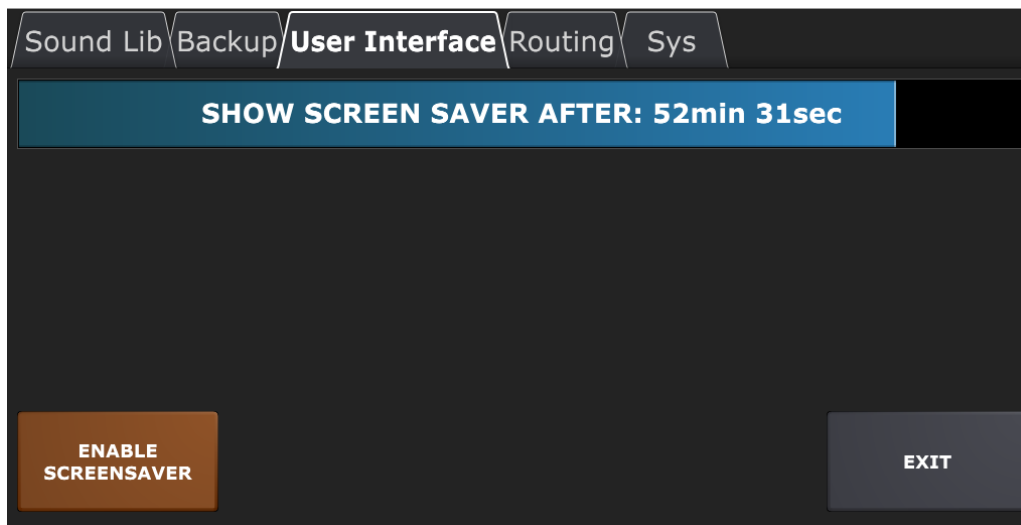
1. Brightness/Contrast controls allows to adjust your LCD brightness and contrast values.
2. Top Bar Setup allows you to dial your preferred top bar configuration.



Pic 76. User Interface Top Bar Setup

You can select predefined Default 1 / Default 2 layout presets or make your own layout. For that select the button name at the top and use Move Left/Move Right functions to reposition selected button.

3. Screen Saver Setup enables Mimic Pro screensaver and set the desired screensaver time out.



Pic 77. User Interface Screensaver Setup

4. Turn Lock Screens Off - disables lock screen function in Trigger / Settings screens.



INSTRUMENTS LIST

With future updates, additional instruments will be provided.

China R Sbn 19 AXT	Crash L Slit 20 CST	Crash R Slit 20 CST
China R Slit 22 CST	Crash L Slit 20 VTG	Crash R Slit 20 VTG
China R Slit 22 VTG	Crash L Zld 18 ACU	Crash R Zld 18 ACU
Cowbell Pearl 10 PCB	Crash L Zld 19 ACU	Crash R Zld 19 ACU
Crash L Pst 18 PWC	Crash R Pst 18 PWC	Crash R Zld 20 ACU
Crash L Pst 19 PWC	Crash R Pst 19 PWC	Crash X Zld 19 ACU
Crash L Slit 16 EXR	Crash R Slit 16 EXR	Crash X Zld 20 ACU
Crash L Slit 17 EXR	Crash R Slit 17 EXR	Hi-Hat Sbn 14 AAM
Crash L Slit 17 VTG	Crash R Slit 17 VTG	Hi-Hat Sbn 14 HHV
Crash L Slit 18 EXR	Crash R Slit 18 EXR	Hi-Hat Slit 14 VOS
Crash L Slit 18 VTG	Crash R Slit 18 VTG	Hi-Hat Slit 14 VTG



Hi-Hat Zld 13 KCU	Kick Tma 24 SCM	Snare Pearl 6.5 MHX
Hi-Hat Zld 14 KCU	Kick Yha 22 HRD	Snare Pearl 6.5 RBD
Kick Drw 22 CLH	Kick Yha 22 SFT	Snare Pearl 6.5 RBR
Kick Drw 22 CLS	Ride Pst 22 PWR	Snare Pearl 6.5 SEN
Kick Drw 22 MPL	Ride Sbn 20 AAE	Snare Pmr 6 VTG
Kick Gth 18 CAT	Ride Sbn 21 PTR	Snare Pmr 6 VTT
Kick Gth 18 JZY	Ride Slit 21 CST	Snare Snr 6 ART
Kick Gth 20 BYN	Ride Slit 22 VTG	Snare Snr 6 PLS
Kick Lwg 20 KEY	Ride Zld 21 SWR	Snare Tma 6 BBD
Kick Lwg 22 VSL	Snare Brd 6.5 SLK	Snare Tma 6 BBR
Kick Lwg 24 HRD	Snare Brush 6 JZY	Snare Tma 6.5 SCM
Kick Lwg 24 SFT	Snare Dnt 6.5 STL	Snare Yha 6 JZY
Kick Lwg 26 LGC	Snare Dnt 6.5 STT	Splash L Sbn 09 AXM
Kick Pearl 22 BRH	Snare Gth 5 GSS	Splash L Slit 08 CST
Kick Pearl 22 BRS	Snare Hur 7 CSL	Splash L Slit 10 CST
Kick Pearl 22 HRD	Snare Hur 7 CST	Splash L Zld 12 ACU
Kick Pearl 22 MHX	Snare Lwg 5 BLA	Splash X Sbn 09 AXM
Kick Pearl 22 RFP	Snare Lwg 5 LBR	Splash X Zld 12 ACU
Kick Pearl 22 SFT	Snare Lwg 6.5 BLB	Tom Brush JZY 08
Kick Pearl 22 WRH	Snare Lwg 6.5 BLD	Tom Brush JZY 10
Kick Pearl 22 WRS	Snare Nac 6 ALD	Tom Brush JZY 14
Kick Snr 22 PLS	Snare Nac 6 ALO	Tom Drw CLT 08
Kick Snr 22 SQB	Snare Pearl 5 CSM	Tom Drw CLT 10



Tom Drw CLT 12

Tom Drw CLT 14

Tom Drw CLT 16

Tom Drw MPL 10

Tom Drw MPL 12

Tom Drw MPL 14

Tom Drw MPL 16

Tom Gth JZY 08

Tom Gth JZY 10

Tom Gth JZY 14

Tom Lwg MAP 13

Tom Lwg MAP 16

Tom Lwg VSL 10

Tom Lwg VSL 12

Tom Lwg VSL 14

Tom Lwg VSL 16

Tom Pearl BRC 10

Tom Pearl BRC 12

Tom Pearl BRC 16

Tom Pearl MHX 10

Tom Pearl MHX 12

Tom Pearl MHX 16

Tom Pearl MHX 18

Tom Pearl MPE 10

Tom Pearl MPE 12

Tom Pearl MPE 14

Tom Pearl MPE 16

Tom Pearl REF 08

Tom Pearl REF 10

Tom Pearl REF 14

Tom Pearl REF 16



SPECS

- System

1. 14 Balanced Analog Outputs:

1a. 6 ¼" TRS Balanced Line Level Outputs

1b. 8 Balanced Line Level through DB25

2. ¼" TRS Stereo headphone out

3. ¼" TRS Stereo Aux Line Input

4. 16 ¼" TRS Trigger Pad Inputs, Designed to use with Dual-Zone and Triple Zone Pads

5. SD Card Slot

6. USB 2.0 Slot

7. RJ45 Extension Port

8. MIDI I/O - Standard 5-pin DIN MIDI connectors

9. Power - DC Input Voltage 12 VDC / 3A , 2.1mm Center-Positive Coaxial DC plug

- Mechanical Dimensions & Weight

1. Width 12.5"

2. Height 6.5"

3. Depth, Chassis Only 2.75"

4. Depth, Including Knob & Jack Protrusions 3.0"

5. Shipping Box (Width x Depth x Height) 19" x 10.25" x 4.125"

6. Shipping Weight (with box & accessories) 8.55 lbs

7. Weight (bare unit) 5.5 lbs



CREDITS

Andrey Shetov - System Software Engineer

Alex Arbuzov - System Software Engineer

Alex Semichev - GUI / Sound Engineer

Sergey Danilov - DSP Code / Software Engineer

Oleg Pikhotskiy - Electronic Designer

Bob Sabellico - Pearl Product Manager Electronic Percussion

Erika Earl - Hardware Manager

Jesse Honig - Hardware Manager

Rich Spindel - Industrial Designer



DECLARATIONS OF CONFORMITY

FCC Compliance Federal Communications Commission United States Class B Manual Statement
This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 Section 15.107 & 15.109 of the FCC Rules.

These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

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

European Commission Compliance

We hereby declare under our sole responsibility that the product herein identified, to which this declaration relates, is in conformity with the essential requirements and other relevant requirements of the European Parliament, European Council, and meets all requirements of the Canadian Interference-Causing Equipment Regulations. (Cet appareil numérique de la classe B respecte toutes les exigences du Règlement sur le matériel brouilleur du Canada), : EN 55032(2012)+AC1, EN 61000-3-2 (2014), EN 61000-3-3 (2013) and EN 55103-2 (2009) KN 32 (2015) and KN 35 (2015) In accordance with RRA Notice 2016-24(2016. 12. 07) RRA Notice 2016-26(2016. 12. 19) RRA Notice 2016-79(2016. 12. 19) VCCI CISPR 32 (2016)



KC & PSE certifications are pending

Trade Name: PEARL Corporation

Model: Mimic Pro

Description: Electronic Drum Module

Information is contained in a report by: CKC Laboratories, Inc

Dated: May 3, 2017

Change Log

Ver 1.0.9

- The “Kit load” time has been improved.
- “Seamless kit load” feature has been added with no sound dropout.
- ATV Hi Hat false triggering of bow sound while playing a Chick has been eliminated.
- Trigger Engine has been upgraded for increased accuracy.
- Spurious encoder increment at startup has been eliminated. The erroneous volume changes have been repaired.
- The metronome tempo is restored after power off.
- Setlist “edit dialog” cell includes "clear kit" button
- Delete and Rename buttons are removed from Kit load dialog in setlist cell edit.
- Audio player loops correctly when B point is set at the very end of the song.
- Aux Input noise has been fixed.
- One-shot waves time has been extended.
- Numerous User Interface updates.
- Trigger engine update:
 - Kick and snare hits triggered with the wrong velocity have been repaired.
 - Ride/Crash random sound choke repaired.
 - Kick drum false triggering repaired.
 - Occasional click sound glitch removed on fast tom rolls.
 - Mixer/Mod now has a dedicated rim-bell settings page.
 - Mixer/Mod pane addition - Dampen parameter now included.
 - Mixer/Mod pane addition - Solo mic added.
 - Data storage is stable. Corrupt file issues have been addressed.
 - Solo Mic implemented.
 - Link edit for EQ included.
 - Recorder Changes.
 - Home page mixer. Ride input split mode has been repaired.
 - Vastly improved one-shot wave dynamics.
 - The onboard song player is now routed to the recorder.
 - Song Player updated.
 - Song player playback speed function is added.

- User brightness settings are loaded on startup.
- Mixer additions: overhead/room strip solo added.
- Sd card support is added for the song player.
- Lock screen disable function is added to the user interface settings.
- Settings menu update, "Files" tabs are divided into "Sound Lib" and "Backup".
- Backup Export/Import function added, and it saves all settings, presets, kits and waves.
- Delete user kits has been changed to Delete all user data and is a complete module cleanup.
- Manage user presets function added.
- It's a new feature that helps to import/export and delete all types of internal user data in a single interface.
- This includes the multiple file selection for importing and deletion.
- Setlist editing has been optimized.
- Random ASR envelope clicks repaired.
- R-BT1 trigger preset crosstalk suppression updated.
- "Manage trigger pad presets" has been removed.
- Manage User Presets function is a new function.
- The Screensaver automatically turns off when you start to play.
- USB flash drive/Sd card format function has been repaired.
- New import/export error splash screens have been added.
- New Edit Kit / Assign to Pad dialog has been implemented.
- No need to use the Trigger tab to make custom instrument assignments.
- "New kit" button now creates an empty kit. (Deletes fx settings from the old kit)
- "Contact Pearl Support To Replace SSD" is now displayed on the Settings/Sys tab in case of a failing SSD.
- A/B layers are now synchronized across mic/fx and mod tabs in the mixer.