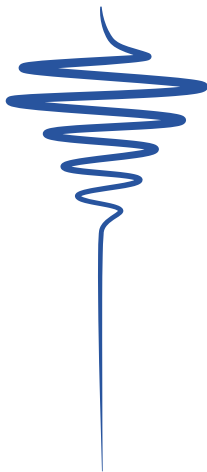


# LÂG/HYVIBE



User Manual

 HyVibe



Dr. Adrien Mamou-Mani serves as co-founder and CEO of HyVibe. Prior to creating [HyVibe](#), he was the lead researcher for the Ircam Instrumental Acoustics team. He holds a PhD in Acoustics and Mechanics from the University Pierre et Marie Curie (Paris) and has been a post-doctoral researcher at the Paris Philharmonic Museum (Paris) and at the Open University Acoustics Laboratory United Kingdom as Newton Fellow. Adrien is recognized as a world expert in vibration and control of musical instruments. He is also a cellist and has been known to play guitar and sing in rock clubs around Paris!

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## INTRODUCTION

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The **HyVibe System** is a sound amplifying device that uses a vibration control system composed of actuators, a high-speed processor, and a Bluetooth module to turn acoustic instruments into their own amplifiers, connected speakers, recorders, loopers, and multi-effect processors.

This user manual is for firmware version V1.1.10. To ensure you have the most recent user manual, please visit [www.hyvibe.audioor](http://www.hyvibe.audioor) or [www.lagguitars.com](http://www.lagguitars.com).

## FCC COMPLIANCE STATEMENT

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FCC COMPLIANCE NOTICE Model Numbers: **HyVibe System 1**

FCC ID: **2AR2L-H1**

Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in 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.

## CE DECLARATION

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Hereby, HyVibe declares that this product **HyVibe System**, model H1 is in compliance with the essential requirements and other relevant provisions of Directive 2014/53/EU.

Use the **HyVibe System** in the environment with the temperature between **0°C** and **45°C** (temperature),

Risk of explosion if battery is replaced by an incorrect type.  
Dispose of used batteries according to the instructions.

The product shall only be connected to a  
USB interface of version USB2.0

**SAR: The device complies with RF specifications when the device used at 5mm from your body. Adapter shall be installed near the equipment and shall be easily accessible. The plug considered as disconnect device of adapter**

Adapter Model: **MX15Z-0502500VX**

Input: **AC 100-240V 50/60Hz 0.4A**    Output: **DC 5.0V, 2.5A**

## SAFETY INSTRUCTIONS

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- 01 Read these instructions.
- 02 Keep these instructions.
- 03 Heed all warnings.
- 04 Follow all instructions.
- 05 Do not use this device near water.
- 06 Clean only with a dry cloth.
- 07 Only use attachments/accessories specified  
| and/or included by the manufacturer.
- 08 Refer all servicing and installations to qualified service  
| personnel. Servicing is required when the apparatus has been  
damaged in any way, such as power-supply cord or plug is  
damaged, liquid has been spilled or objects have fallen into  
the apparatus, the apparatus has been exposed to rain or  
moisture, does not operate normally, or has been dropped.

## WARNINGS

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- 01 To reduce the risk of fire or electric shock, do not  
| expose this product to rain or moisture.
- 02 Do not expose this apparatus to dripping or splashing, and  
| do not place objects filled with liquids, such as vases, on or  
| near the apparatus. As with any electronic products, use care  
| not to spill liquids into any part of the product. Exposure  
| to liquids may create a failure and/or fire hazard.
- 03 Do not place naked flame sources, such as  
| lighted candles, on or near the product.
- 04 Do not subject batteries to mechanical shock.
- 05 In the event of battery leaking, do not allow the liquid to come in  
| contact with the skin or eyes. If contact has been made, wash the  
| affected area with copious amounts of water and seek medical advice.
- 06 Do not use any charger other than that specifically  
| provided for use with the equipment.
- 07 Do not leave a battery on prolonged charge when not in use.
- 08 After extended periods of storage, it may be necessary  
| to charge and discharge the batteries several  
| times to obtain maximum performance.
- 09 Batteries give their best performance when they are operated  
| at normal room temperature 68°F (20°C) ± 9°F (5°C).
- 10 The battery provided with your system is not user serviceable.  
| Contact HyVibe for all battery related issues.
- 11 Lower the volume on the guitar when editing effects  
| with the Mobile App as loud sounds may occur.
- 12 Do not play the guitar or use it as a Bluetooth speaker at any  
| volume that causes discomfort. If you are experiencing ringing  
| in your ears, hearing muffled speech, or having any temporary  
| hearing difficulty, please discontinue use and consult a doctor.

## BATTERY WARNINGS

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Only use the included **2200mAh / 7.4V Li-ion battery**.

Do not open or mutilate the batteries. Released electrolyte from the batteries is corrosive and may cause burns or injury to the eyes or skin. The electrolyte may be toxic if swallowed.

Exercise care when handling the batteries. Do not allow conductive materials such as rings, bracelets or keys to touch the batteries, otherwise a short circuit may cause the batteries and / or conductive material to overheat and cause burns.

Expected battery life: approximately **10 hours of full** and **'typical' use** on a full charge. Battery life depends on which features are used (listening to loud dynamic music in Bluetooth mode uses more battery than playing with effects).

## INSTALLATION

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Refer all installations to qualified service personnel.  
Contact HyVibe [info@hyvibe.audio](mailto:info@hyvibe.audio) for more information.

## QUICK START

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### 01 Update HyVibe System firmware

- ▶ On your PC/Mac, visit [www.hyvibe.audio/downloads](http://www.hyvibe.audio/downloads) and download the most recent version of the **HyVibe System** firmware. Unzip the firmware file after downloading
- ▶ Turn the **HyVibe System** on
- ▶ Plug the Lag HyVibe Smart Guitar into your PC/Mac with a USB C cable
- ▶ Go to **USB Mode** on the menu screen on the HyVibe Interface, and turn the USB mode on
- ▶ Drag/copy the unzipped firmware file to the **HyVibe System** Drive
- ▶ Safely eject the **HyVibe System** from your PC/Mac
- ▶ Restart the **HyVibe System**
- ▶ The **HyVibe System** will update automatically when you turn it back on
- ▶ Future update notifications will be sent on the HyVibe Mobile App

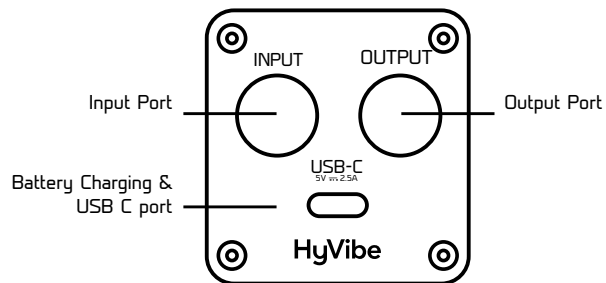
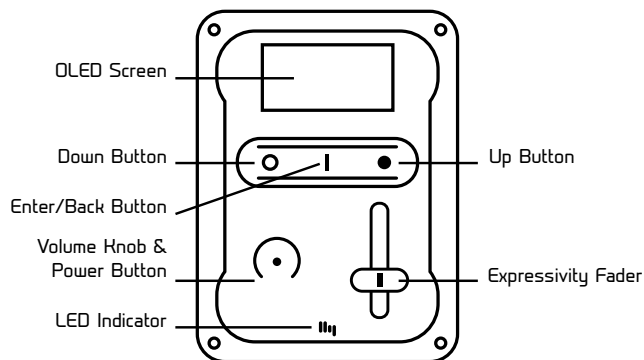
### 02 Download the HyVibe Mobile App

Search for the HyVibe Mobile App on the Apple App Store (iOS) and Google Play Store (Android). Create an account an account and connect the App to the HyVibe System connection (instructions on page page 23)

### 03 Calibrate

Calibrate the HyVibe System before playing for the first time (instructions on page page 26)

## CONTROL BUTTONS/KNOBS



## TURNING ON/OFF

To turn the **HyVibe System on**, quickly press the volume knob.

**Press Quick**



To turn the **HyVibe System off**, press the volume knob for 1 second.

**Press 1 sec.**

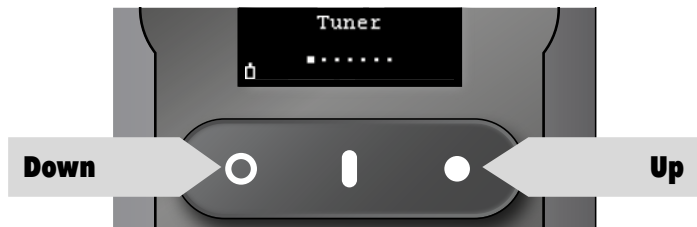


The **HyVibe System** will turn off automatically if the guitar is not played for 5 minutes.

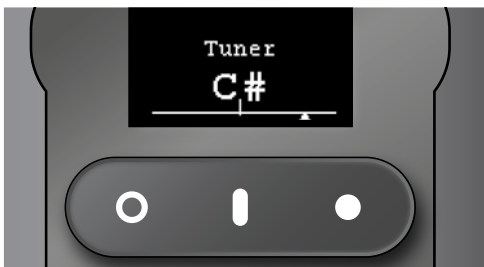
If the **HyVibe System** is frozen, push and hold the volume knob for 10 seconds, and the device will then turn off.

## TUNER

The **HyVibe System** contains a **tuner function**. To enter the Tuner mode, scroll the function menu with the '**up**' or '**down**' buttons until '**Tuner**' appears on the OLED screen. Click on the '**enter/back**' to enter '**Tuner**' mode.

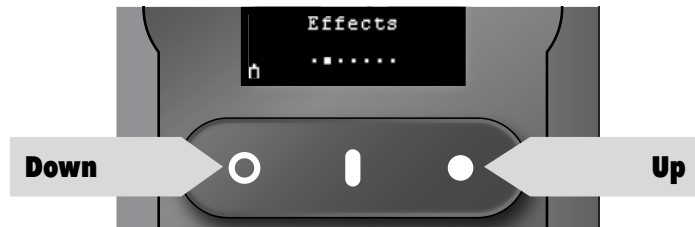


When a guitar string is played, the note that it is closest to will appear on the OLED screen. When the indicator is to the right/left of the note, this indicates that it is higher/lower than the note that is shown. See picture for reference.

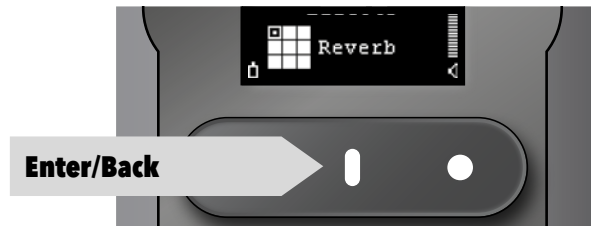


## EFFECTS MODE

The **HyVibe System** is equipped with preloaded guitar effects. To **enter Effects Mode**, scroll the function menu with the '**up**' or '**down**' buttons until '**Effects**' appears on the OLED screen.



Click on the '**enter/back**' to enter '**Effect**' mode. The OLED screen will then display the name of the effect that is activated.



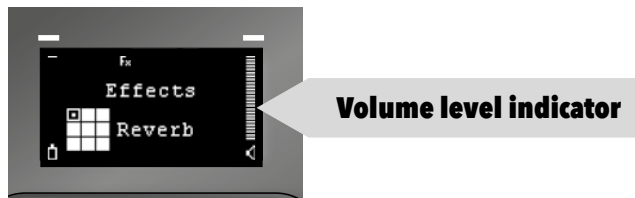
You may scroll through the **different effects** by pressing the '**up**' or '**down**' buttons or by pressing the effect on the HyVibe Mobile App.



**Effect parameters** can be altered by moving the **'continuous control'** lever. To choose which parameter is controlled by the lever, press and hold the parameter in the effect configurations, accessible from the **'Modify'** effect screen inside the HyVibe Mobile App.

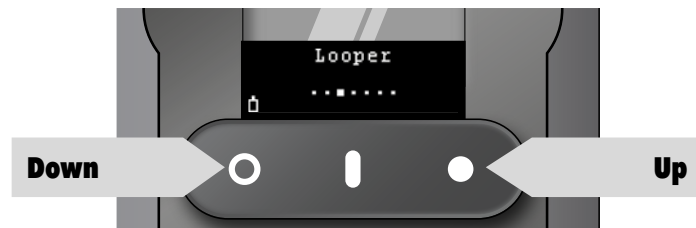


The **volume of the effect** can be raised or lowered with the volume knob.



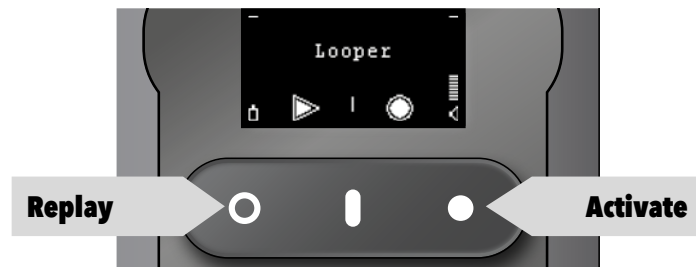
## RECORD AND LOOP

The **HyVibe System** is equipped with a recorder and loop. To **enter Record and Loop Mode**, scroll the function menu with the **'up'** or **'down'** buttons until **'Looper'** appears on the OLED screen.

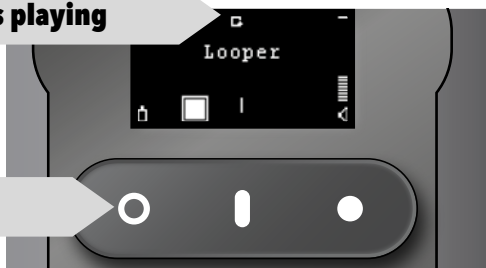


Click on the **'enter/back'** to enter **'Looper'** mode.

Click the **'up'** button to **activate the recorder and loop**. After pressing the **'up'** button you will hear a one measure click countdown. This click will continue when then loop is recording. The sound level of the click in the looper is determined by the sound level of the click in the Metronome. To control the sound level of the click in the Metronome, enter the Metronome menu and turn the volume knob.



## Loop is playing



## Stop

After the countdown, the recording begins and will record by default 4 bars (you can configure this in the HyVibe Mobile App) of playing from the guitar. The recording will automatically stop and replay. To stop the playback, press the 'down' button. To replay the playback, press the 'down' button. You can replay the recording until a new recording is made.

The recording will be saved on the HyVibe System's memory.

To retrieve your recordings, connect the guitar to a computer via the USB port and use the computer's file manager to access the recordings stored on the HyVibe System.

The time signature and tempo of the recording can be adjusted in the Metronome mode. These parameters, as well as the number of bars recorded in the loop can be adjusted in the HyVibe Mobile App.

## METRONOME

The HyVibe System contains a metronome function. To enter the Metronome mode, scroll the function menu with the 'up' or 'down' buttons until 'Metronome' appears on the OLED screen. Click on the 'enter/back' to enter 'Metronome' mode.



## Down

## Up

Start or stop the metronome with the 'Up' and 'Down' buttons,

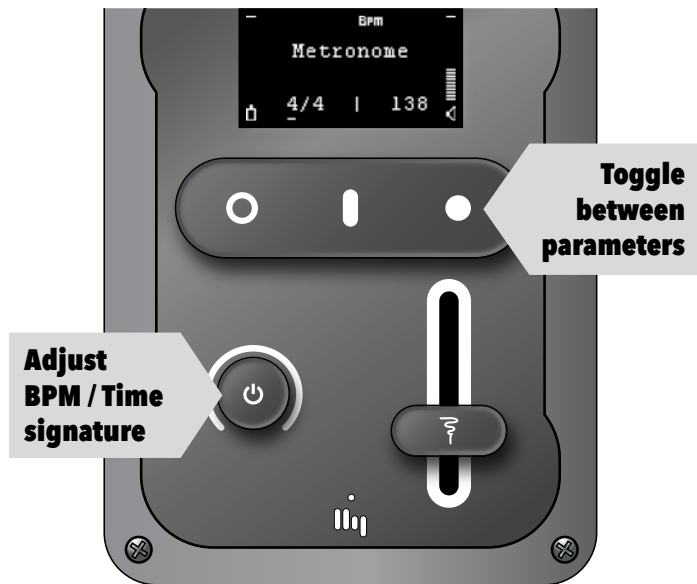


## Off

## On

Once in **'Metronome'** mode, you may **adjust the beats** per minute (BPM) and the time signature of the metronome.

When the **'Metronome'** is on, press the **'up'** button to enter the settings. Then use the **'up'** and **'down'** buttons to toggle between parameters and use the volume knob to adjust the parameters.



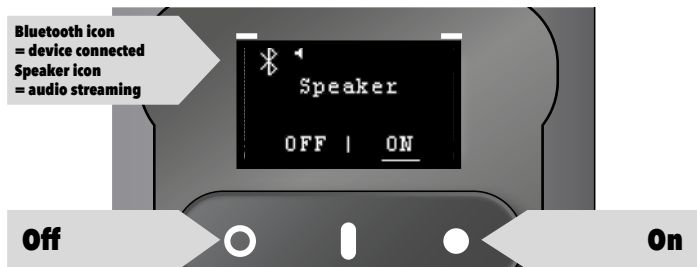
## SPEAKER MODE

The **HyVibe System** can function as a Bluetooth Speaker. To use the guitar as a Bluetooth speaker, connect your phone to the **HyVibe System** through the Bluetooth settings of the phone. The guitar will not work as a Bluetooth speaker if it is only connected through the HyVibe Mobile App.

Then, enter Speaker mode on the **HyVibe System**. To enter **Speaker mode**, scroll the function menu with the **'up'** or **'down'** buttons until **'Speaker'** appears on the OLED screen. Click on the **'enter/back'** to enter **'Speaker'** mode.

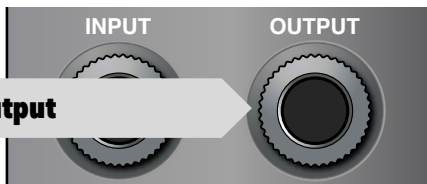


To **activate/deactivate** the speaker scroll with the up/down button to turn on/off.



## AUX OUT

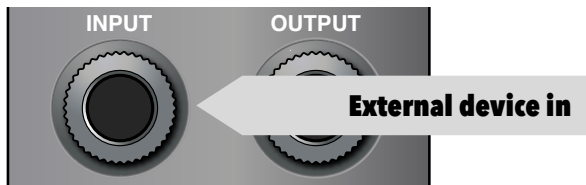
The **HyVibe System** can be connected to an amplifier or external device by connecting a 1/4" guitar cable from the external device to the output jack on the guitar.



When plugged into an external device, the volume knob is used to control the volume of the direct output, loop playback, volume of the metronome, and Bluetooth stream. The continuous control lever is used to control the effect parameters when the effects are active. If no sound comes out of the output device, restart the **HyVibe System**.

## AUX IN

External pedals, etc. can be plugged into the **HyVibe System**. To access '**auxiliary in**' mode, connect a 1/4" guitar cable from the external device to the input jack. If the input device is not recognized, restart the **HyVibe System**. The input and output jacks can be used together to run external devices such as fx pedals, sound cards, and PC's through the guitar.



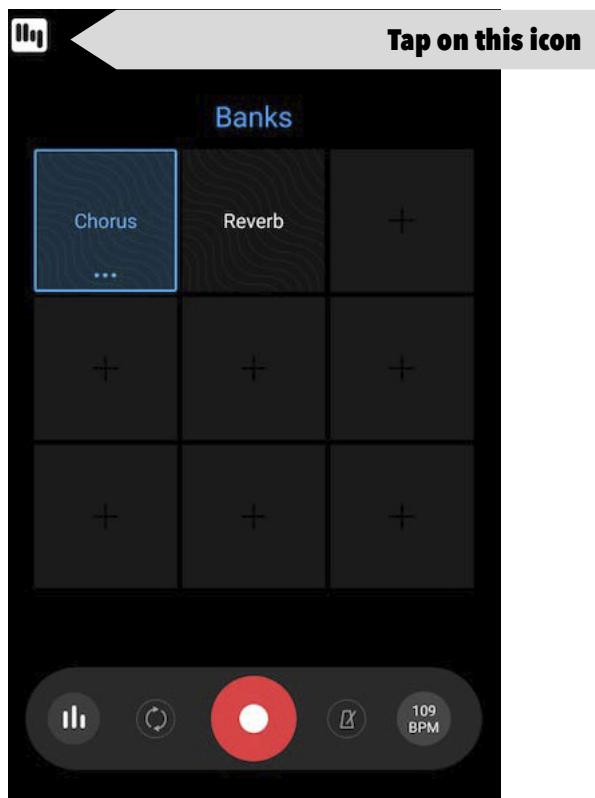
## MOBILE APP CONNECTION

The HyVibe Mobile App lets you take the **HyVibe System** to the next level. It is available as a free download from the Apple™ App Store™ (iOS) and Google Play Store™ (Android™). The HyVibe Mobile App can be used to:

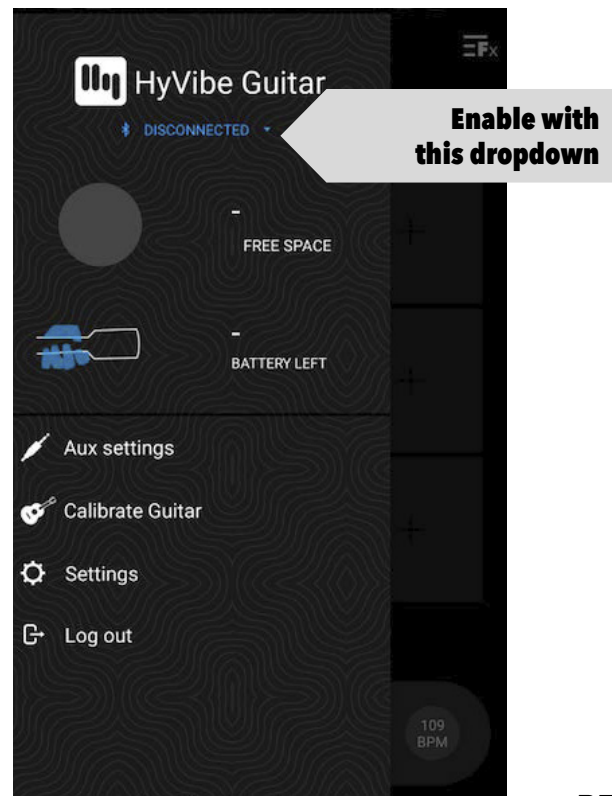
- ▶ Modify effects
- ▶ Configure the looper settings
- ▶ Record your playing
- ▶ Create custom effect banks
- ▶ Configure the sequence of effects on your Effect menu screen
- ▶ Calibrate your guitar



To use the HyVibe Mobile App, open the application click on the HyVibe icon in the upper left corner.



Under the top row, the app will display if the app is connected or disconnected to the guitar. Press the drop down button under the status setting, and enable the connection. If the guitar does not appear, press 'START SCAN' to search for your guitar.



## FEEDBACK CONTROL

Be cautious when creating custom banks and effects (especially when increasing the gain), as you might create loud feedback. If you are experiencing unwanted feedback from the guitar while using the Effects, try these solutions:

### CALIBRATION

If there is feedback or unwanted noise when the strings are muffled/muted (sounds coming from inside the body of the guitar), recalibrate the HyVibe System.

First, make sure your guitar is in tune.

Next, enter the calibration menu on the device or the connected HyVibe Mobile App. Muffle the strings (to neutralize feedback from the body and inside the body of the guitar) and simultaneously press 'calibrate'.

### CREATE NOTCH FILTER

Using the HyVibe Mobile App, you can add a Notch Filter to the effect bank. A notch filter is used to cut a very narrow frequency out of the spectrum.

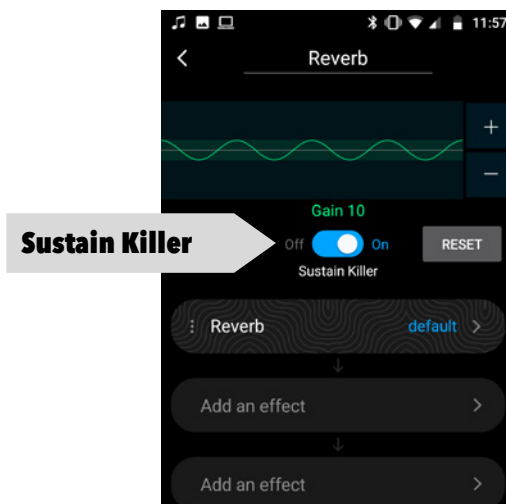
### REDUCE GAIN

In the HyVibe Mobile, press the **three dots** at the bottom of the Effect Bank, then click Modify. Lower the Gain of the bank.

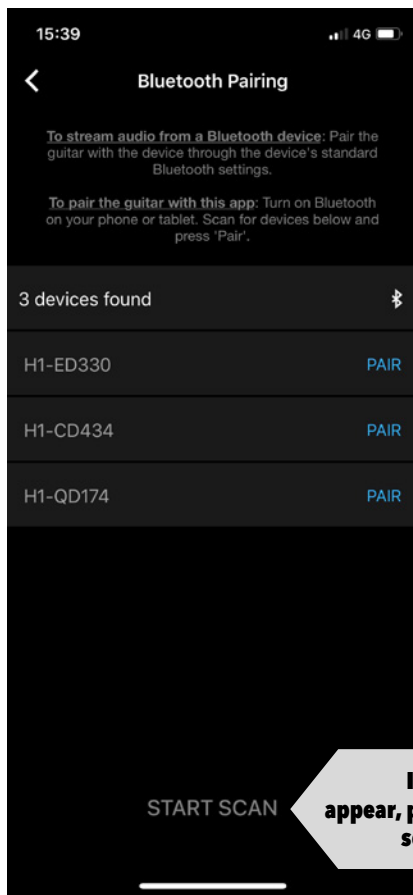
## SUSTAIN KILLER

If there is unwanted sustain on the strings (auto vibration of the strings), enable the Sustain Killer. To do this, enter the HyVibe Mobile App, press the three dots at the bottom of the Effect Bank, and click Modify.

Turn on the Sustain Killer. The **HyVibe System** will scan and find up to 10 frequencies (in under 2 sec) that cause feedback and filter them out.



If you turn the Sustain Killer off, the filter will be inactive. But if you turn it back on, the previous frequency filter will be active again. If you press the Reset button, the **HyVibe System** will clear the filter and restart the scan.



## CHARGING INSTRUCTIONS

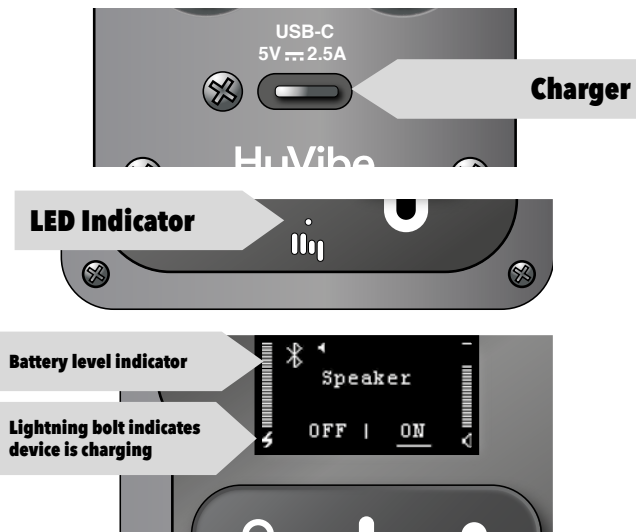
There is a battery level indicator on the OLED screen.

**To charge the HyVibe System**, connect the provided USB-C connector to the Charging Port. **Only use the provided charger (5 volt, 2.5 A).**

Refer to the LED on the **HyVibe System** - the LED will blink when charging is taking place and will be solid when the **HyVibe System** is fully charged.

Disconnect the charger when device is fully charged.

Contact dealer for replacement charger.



## WARRANTY

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The **HyVibe System** is covered under the warranty of the guitar.

Please register the product at [www.lagguitars.com](http://www.lagguitars.com).

## NOTES

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Please refer to [www.hyvibe.audio/usermanuals](http://www.hyvibe.audio/usermanuals) for updates to this manual.

For any product questions or safety issues, contact us by email at [info@hyvibe.audio](mailto:info@hyvibe.audio).

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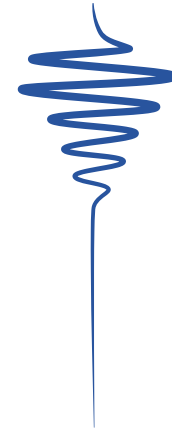
If you have any questions regarding HyVibe products or services, please contact us at: [info@hyvibe.audio](mailto:info@hyvibe.audio)

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