



# *La Voix du Luthier*

Give the sound of a luthier to your instrument



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## **Pyramid Class-A User Guide**



# Disclaimer

**Please be careful: the top of the Pyramid is very sharp and it can be hurtful if not handled with care.**

**Don't put anything on the top of the Pyramid, and take care of it as for any acoustical instrument.**

**La Voix du Luthier cannot be held responsible for injuries or damage caused by handling the Pyramid.**

**Please always use the provided protection ball, on the top of the Pyramid, when handling it.**





# Unboxing

Please check the unboxing tutorial video  
before opening the 2 boxes

[https://youtu.be/RdFnr8Z\\_sHw](https://youtu.be/RdFnr8Z_sHw)

Also note the box containing the Pyramid resonator (the higher one) **shall not be opened from the top but from the bottom**, as explained in the video

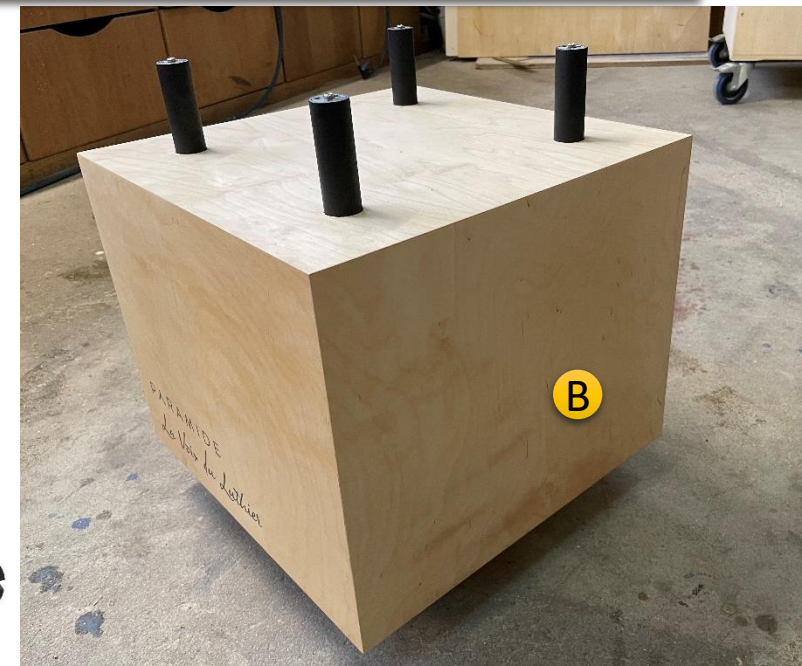




# In the box

A **Pyramid** and its base plus a power supply

- A** Pyramid resonator (one soundboard on the front and one on the back)
- B** Pyramid base containing the amplifier with, on its back, the big heater
  - power connection,
  - the 3 option drawers
  - the control panel ,
- C** Power cord





# Assembling the Pyramid

The **Pyramid** is very easy to attach to its base

Pyramids are provided in 2 separate boxes  
**(please check the unboxing tutorial video).**

The resonator is **A** and the base containing  
the amplifier is **B**

The 4 small pillars of the base just have to be  
inserted in the 4 holes of the resonator. There is  
only one side to do it (it is a keyed connection  
so you can't do it wrong): the front of the base  
(with the logo, opposite side of the control  
panel) has to be on the same side as the main  
soundboard with the triangular hole.

Hold the resonator in your hands as on the  
picture (one hand under and one on the tip)...  
avoid any strong pressure on the front  
soundboard.

Make sure the front edges are properly aligned.

Gently insert the resonator on the 4 pillars and  
press a little bit to make sure it is properly  
inserted and secured.

You are done, you can use the Pyramid.





# Resonators from La Voix du Luthier

Like any **handmade acoustic instrument**  
Each resonator is **signed and numbered**

The resonators from La Voix du Luthier are real **handmade instruments** built using the traditional **craftmanship of stringed instrument makers**, augmented with the expertise of **electronic instrument maker**.



**Feel the acoustical vibrations** while playing your electronic instrument due to direct acoustical coupling, bringing to electronic musician this **subtle yet significant playing experience** that naturally occurs in traditional acoustic instruments.

*If you have a question not answered in this manual, please send a mail to [contact@la-voix-du-luthier.com](mailto:contact@la-voix-du-luthier.com)*



## Resonators from La Voix du Luthier

They generate a 3D auditory space, just like a traditional acoustic instrument (as opposed to traditional speakers being very directional). They are not sonically «neutral», but are not meant to be: they offer a colored sound carefully tuned by the luthier.

They offer a highly dynamic sound: transients, like the attack of sounds, mechanical noises, etc. are of incredible quality (prefer dynamic sounds to feed the resonators, rather than highly compressed ones, and it will shine)

They enhance any electronic signal, imparting a carefully balanced acoustical environment into the source, immersive like an acoustic instrument.

They have two fine wooden soundboards with oppositional placement that are complementary sounding, further enhancing the 3D experience. Each soundboard has a separate volume control allowing for fine-tuning of the tonal balance.

They offer a high number of possible mounting options including DIY. Like acoustic instruments, they are deeply interacting with their environment, allowing to fully take advantage of the specific tonal characteristics of a venue.

They perfectly integrate with an acoustic ensemble.

They offer a very elegant wooden design (different finishing are available).



## The Pyramid Class A - Technical details

Resonator: 112 cm high, 44.2 x 44.2 cm base and, 5 kg weight.

Base: 36.3 cm high (+feet, 7 cm each) on 44.2 x 44.2 cm base, 11.5 kg weight

Hand made and custom design high end 2x40W Class A amplifier, built using carefully selected components, and driving 2 carefully selected wideband transducers.

Built following the traditional stringed instrument maker's know-how, integrating two sonically complementary soundboards.

Separated volume control for each soundboard.

Switchable inputs

- Stéréo input 2 x 6,35 mm mono jacks (line level)
- Stéréo input 2 x RCA (line level)

Path through output to able to send the audio input to any other device (other amplifier, Onde, etc.).

3 slots for possible options(Bluetooth, XLR symmetric input, Mic input including phantom power)



Front soundboard  
(spruce or red cedar)  
for higher frequencies



Back soundboard  
(Finnish birch)  
for lower frequencies





## Amplifier - Control and connections

- 1 ON indicator (green)
- 2 Fault indicator (red) : will light a few seconds at power-on and also shortly at power off. If it turns Red during operation, turn off the amplifier and wait le little bit before retrying (and disconnect or lower inputs that are most probably the origin of the issue)
- 3 Front and back soundboard independent volume control.
- 4 Input indicator (Jack, RCA or one of the 3 possible options)
- 5 Input selector
- 6 RCA stereo input
- 7 Jack stereo input (2 mono jack)
- 8 Signal path-through
- 9 Switch from single to Dual Pyramid (Dual, only if you have a second Pyramid)
- 10 Connection to the second Pyramid for Dual mode

The front soundboard is tuned to be more effective for high frequencies, while the back soundboard is tuned for low frequencies. Therefore, adjusting the relative volumes is a great way for defining your own sound color.





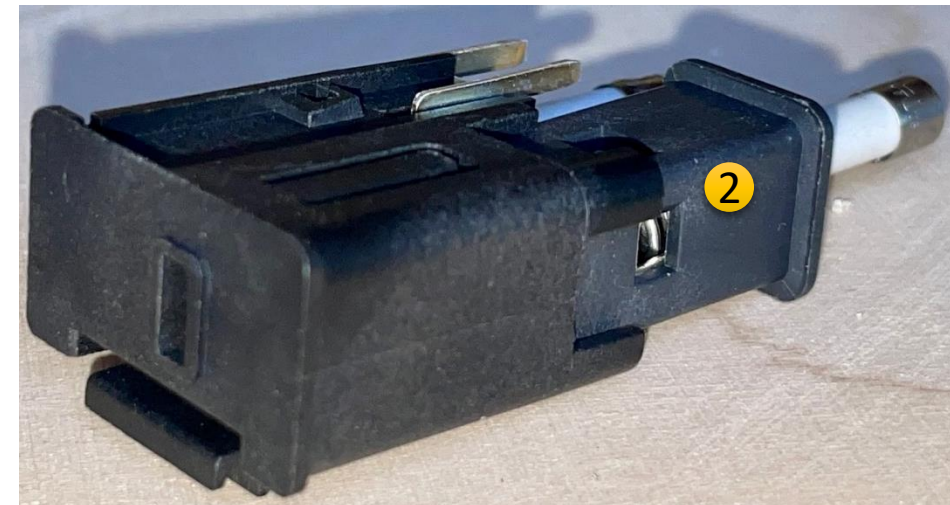
## Amplifier – Configuring 220 volts or 110volts

The Pyramid can operate at either 220 volts either 110 volts, but you need to switch it manually. **MAKE SURE TO SET UP THE PROPER POWER SUPPLY CONFIGURATION ACCORDING THE LOCAL SETTING: USING THE CLASS A AMPLIFIER WITH A WRONG POWER SUPPLY CONFIGURATION MAY DAMAGE IT.**

To set up the proper configuration, open the compartment **1** and turn the fuse holder **2** so the front view displays the expected value as shown in **3**

The Class A amplifier requires a 2 Ampere delayed fuse for 220 V and a 2,5 Ampere delayed fuse for 110 V.

Pyrmide are preconfigured and an shipped setup in the proper configuration according to there destination.





# Class A Amplifier – caution, it can get HOT !

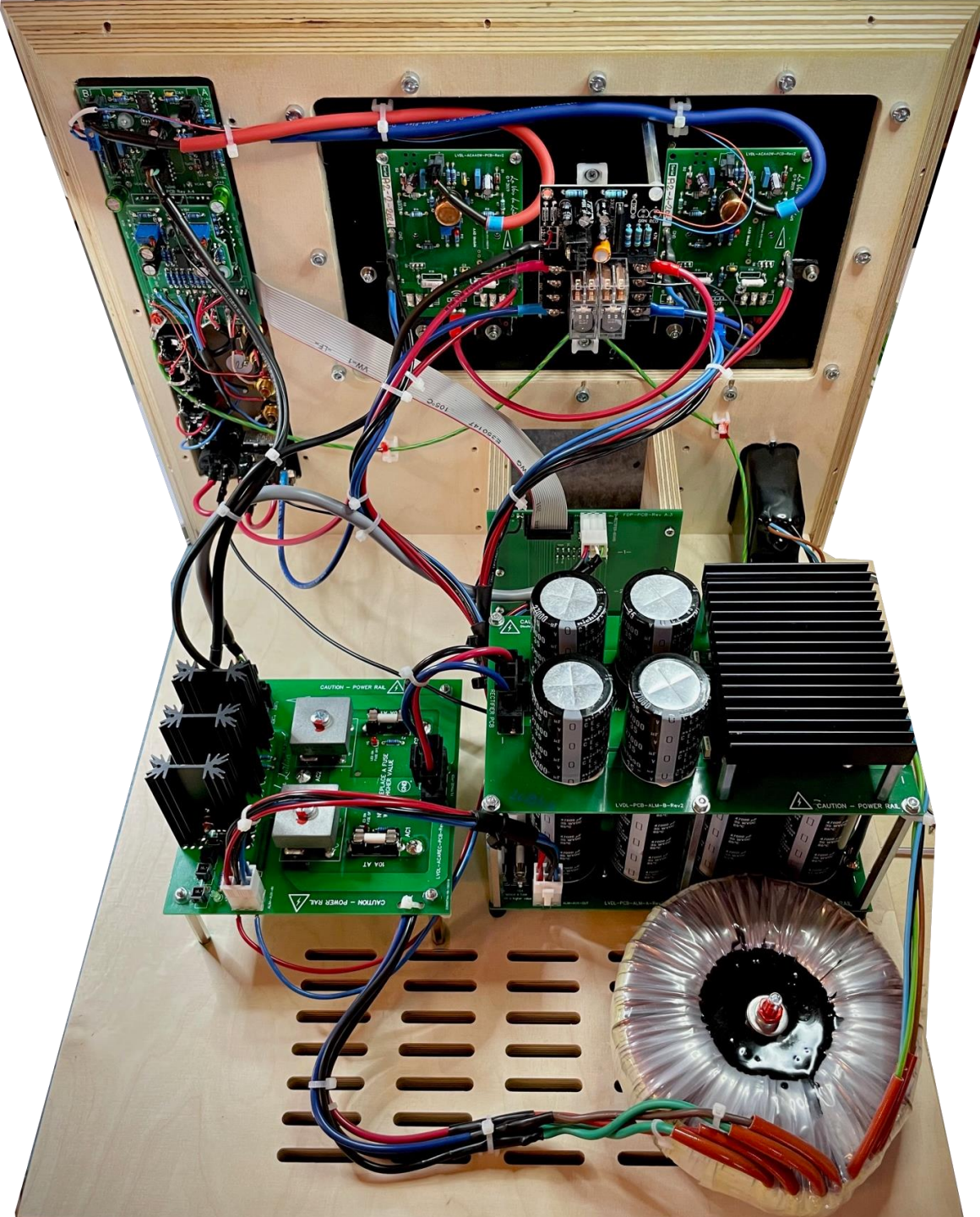
As all Class A amplifier, it can get quite hot and is equipped with a quite impressive and massive black heatsink ① : please don't touch each when operating (it can get close to 60 °C).

It has be designed to work in normal temperature condition: **please avoid using it if the ambient air temperature is above 30°C, this may damage the amplifier.**

This amplifier also requires a pretty big power supply who is, as all power supply, generating a magnetic field: **please avoid using device sensible to magnetic fields (like a Theremin for example) to close to the Pyramid** (one meter away should be sufficient).







## Inside your Class A Amplifier

This amplifier is a true Class-A, with a custom designed to fully take advantage of the very specific characteristic of the tonewood soundboards. With its incredible rise time, it can reveal amazing transients that only the wood is capable of. A DC detection is protecting the output and can stop the amplifier if any problem occurs. Each active, or preponderant, component is individually tested, all transistors are paired and have similar operation curves. Furthermore this amplifier is hand made (soldering, cables and assembly of course), tested and tuned with a lot of care.

It's a 2x40W amplifier: please note that this is the maximum power the amplifier can provide but also the maximum for the wood of the resonator. **This maximum power level is available for short period of times and transients, but should not be used for a long time, especially with a high input level:** this will not damage the amplifier but may damage the soundboards (you will hear the mechanical distortion and event some kind of rattling noise when you get close to the limit).



## Pyramid: the magic of resonances



As any acoustic resonator of an acoustic instrument, the Pyramid has numerous resonances (frequencies that sounds a bit louder than other ones) that's part of what is giving it its unique sonic behaviour.

These resonances are managed and tuned by the stringed instrument maker mainly via

- the global shape and size of the resonator,
- the sound holes (surface and positions)
- the bracing of the soundboards (shape, thickness, etc.)
- the soundboards of course (wood type, thickness, etc.)

In the Pyramid, there is a set a structural resonances (related to the shape and size), the stronger being around 80 Hz, but with additional significant ones at about 37Hz, 160 Hz and 320 Hz (note each one is about 2 times the previous one, meaning that it is a set of natural harmonics). Since the one around 80 Hz is the stronger of the Pyramid, this means that by playing this frequency at quite a high level you may reach the mechanical limits of the resonator: this is not a problem in itself, but you will hear a sonic difference from that point... you may like it and play with it, or prefer to stay under that specific level.

Also note that in a resonator, there are a lot of interactions across different frequencies and associated resonances: therefore a high resonant peak when a single frequency is played, may become a much lower peak when multiple frequencies are played together (not the way around, a peak will never be increased when multiple frequencies are played). All this to say that, as for all acoustic instruments, the way you play your instrument is the key important point to get the sound you want to have.

Also note that filtering the input signal may be interesting if it stays in a reasonable level, but the wood having its own behaviour (for example, raising low frequency may also lower some high frequency) any such filtering will have to be tuned by carefully listening the result on the whole sonic range of the resonator.



## Some recommendations and Q&A

The typical usage environment of a Pyramid shall be the same as any acoustic instrument: avoid too dry or too wet environment the most dangerous being too dry, which may result in cracks on the soundboard. Also be aware that different humidity environment will result in different sonic behavior, that's normal. If you feel comfortable your Onde will feel comfortable,

Don't let your Pyramid under the direct light of the sun (in the back of a car for example or near to a window), or close a to very hot object (wood-burner, radiator, etc.)

As for any acoustic instrument the sound of your Pyramid will evolve over the time, usually in a good direction, and the more you play it, the better it will become !

You can carry your Pyramid like you would carry an acoustic instrument. The most fragile area is the front soundboard: don't put any weight or pressure on it, don't put water, café, soda are anything on it, it's not a cooking surface (furthermore: any object, even very light, touching one of the soundboards, will invariable be the source of unpleasant and noisy vibrations).

Please, only use your Pyramid as a resonator and in secured conditions (securely attached, sufficiently away from any fireplace and any source of water, etc.) any other use will be under your own responsibility.

It's not really fragile (not more than a guitar), but it's an acoustic musical instrument: please take care of it !





## Pyramid: some recommendations and Q&A



How to take care of it ? Clean it with a dry cloth, avoid any household product. The finish of the Pyramid is a clean finish based on oil: if really necessary you can apply a care emulsion (we recommend Auro care emulsion No. 431, but other similar product may be suitable)

About vibrations: as any acoustic instrument, the Pyramid has a set of resonance frequencies (that's part of what makes its own color). Playing these resonance frequencies at high level may result in some annoying vibration noises. If this happens, lower the volume or try to put less input power on these frequencies. In a general way, don't play it too loud: that does not make the sound better.

Input levels: the 3,5 mm audio in is expecting to receive a Line-In input, but most input will work. However, some synthesizers may provide a very high level on their output: therefore we advise, when connecting a new instrument, to start with the 2 volume knobs at the minimum and then raise them progressively to a reasonable level.

3,5 mm audio input can be used simultaneously to the Bluetooth input. Also note that you will manage to get higher volume level with the 3,5 mm jack input (so be careful). Also note that, as all Bluetooth audio, wireless transmission result in an additional playback latency: therefore the 3,5 mm jack input is much more suitable to connect live instruments.

The audio input IS STEREO, and left/right will be distributed to the front and back soundboard, resulting in a very nice spatialized sound (but different from traditional left/right). To use the Pyramid with a monophonic instrument, use the provided mono to stereo adaptor cable.



## Pyramid: some recommendations and Q&A



In some rare circumstances, you may get some buzz noise. If this happens try to:

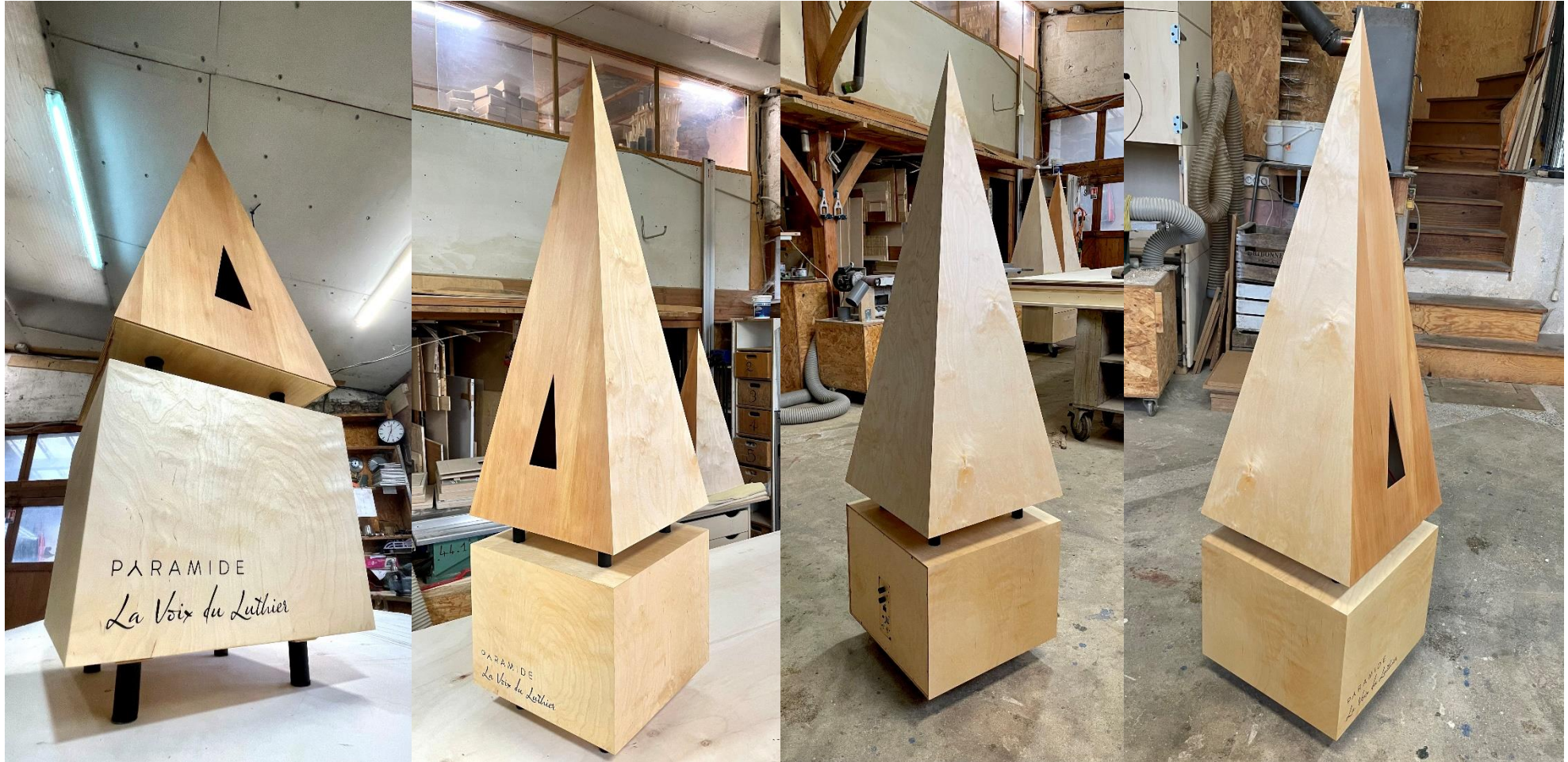
- If you are using a 3,5 mm jack input, first check your cable !
- Insert a ground loop isolator on the 3,5 mm jack input (it's cheap and easy to find)
- Lower the volume on the Pyramid
- Unplug the DC adaptor (only if you are using batteries of course)
- If you are using batteries: turn off the Pyramid and connect it to the DC adaptor (when the battery is low, you will progressively get distortion when requesting more output level)
- Move the Pyramid away from any electro magnetic radiation source
- Connect a Bluetooth device (if not already done)
- If none of the above works, fire a mail at [contact@la-voix-du-luthier.com](mailto:contact@la-voix-du-luthier.com)

Check <https://www.la-voix-du-luthier.com/faq> for additional Frequently asked questions. The site also provides a lot of demonstration videos,

Make sure to check our terms and conditions on <http://www.la-voix-du-luthier.com/cgv>



# Have fun with your Pyramid !



*Please note that none of the pictures in the document are contractual: the Pyramid is hand made and we are always improving our production process ! Therefore there may be slight differences from one Onde to another*