

LAMPIZATOR

The Vinyl Phono MM2 & MM1
Phono Stage



User Manual

WARNING: as every of our products comes with a 7 days testing period (please to confirm it - ask your dealer first), during this time it is not allowed to open the product. The screws are protected with a seal. You have to decide, if you like the sound and you want to keep it. After the 7 days period expire – your MM2 is a keeper, and you may open the hood. This does not invalidate the warranty, however – any modifications – no matter how small – invalidate the 5 years warranty. Changes, upgrades and mods must be pre-authorized in writing, even tube change. Products returned during the test period with the seal broken will not be refunded and will be sent back.

THE SHORT MANUAL

1. Plug in
2. Wait 30s for the tubes to warm up up
3. Enjoy

Short description

Vinyl Phono MM2 was built on the basis of our 20 years experience with tube technology.

The success of Lampizator DACs was mainly due to our approach to the analog stage with tubes, backed by the tube power supplies, etc. Consequently, creating a tube Phono was only a matter of time.

As a result you get a reference performance of world class, fabulous sound.

Some main characteristics are:

Elegant timeless chassis and front panel - a classic Lampizator no-nonsense design.

Update path for owners - new features and specs

Trade In path for bigger models, even after warranty

5 Years warranty

Highlights:

- Fully tubed, 50dB Moving Magnet Phono Stage
- Zero feedback, zero silicon in signal path design
- Phenomenally transparent and dynamic sound
- True analog sound from Lampizator - the tube expert
- All tube design of maximal purity
- Muting function
- 4-layer, fully shielded PCB

Basic Specifications:

Inputs: One stereo RCA input, with fixed 47K load

Outputs: One stereo RCA output with 2Kohm impedance

Amplification factor: Total of 300x, (50 dB)

Catridge compatibility: Moving Magnet MM only, from 2 mA.

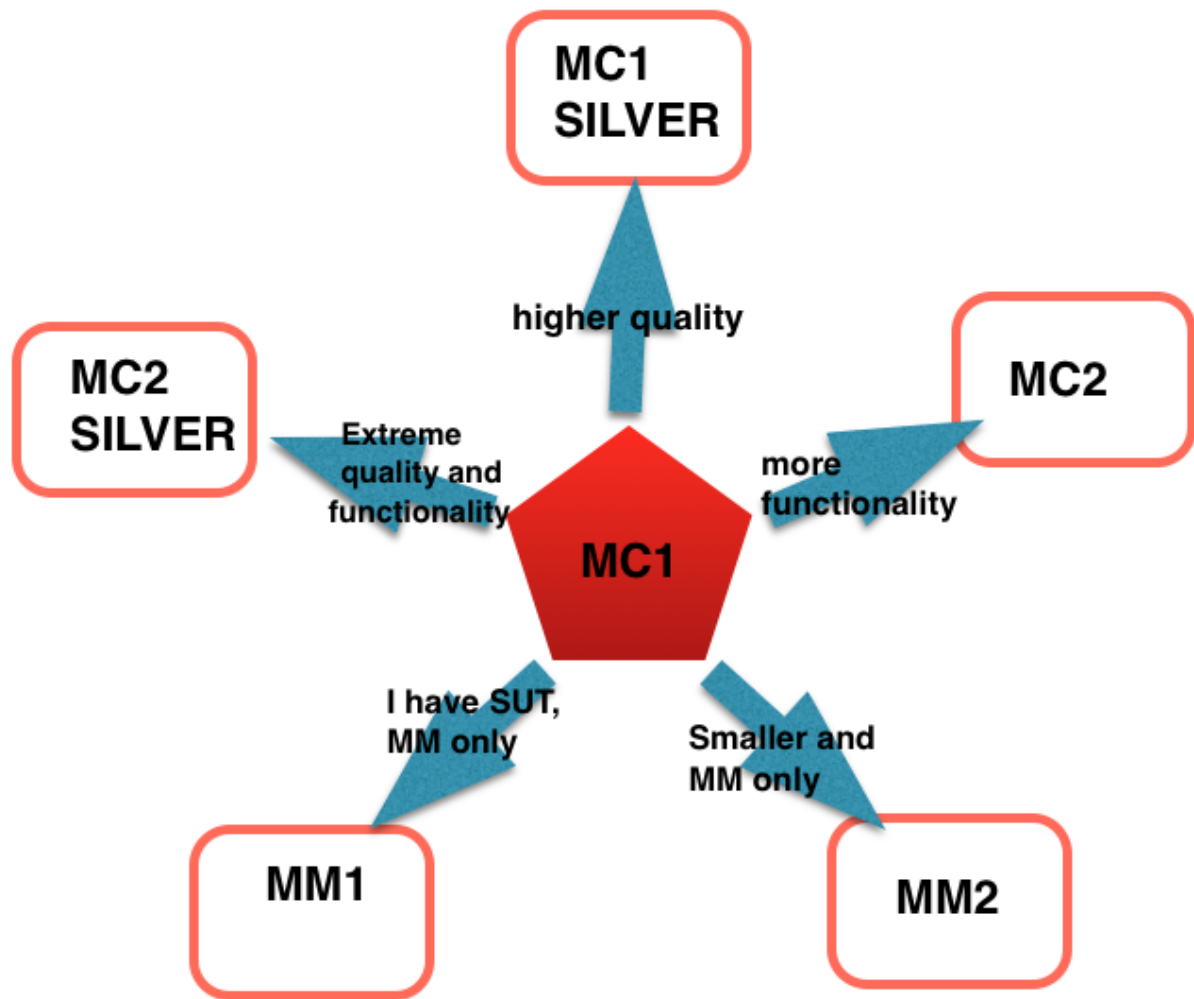
Output level on average music material: 2V pp

Output headroom: 10x

Power consumption: 10W

AC mains: 110/115/220/230V AC / 50 - 60Hz

Tube compliment: 2 x 6N2P-B, 2x ECC803-s-g



PARAMETERS

Shelf footprint: 43x33 cm (W x D)

Total height clearance: 13 cm

Weight (net / shipping gross): 9 kg / 12 kg

Power supply: fully linear, 100 Watt.

OPTIONAL MODELS:

MC only input, full tube PSU, Single ended outputs, one arm

MC only input, full solid state PSU, Single ended outputs, one arm

MM only input, full tube PSU, Single ended outputs, one arm

From the designer

The Lampizator Vinyl Phono is a result of long research that we took regarding the feasibility of creating the no compromise Phonostage that is worthy of our reputation in DACs.

There were some basic criteria which we thought are important, namely:

- No silicon
- MM input, (no MC at all in this particular model)
- Tube stages for input and output
- No negative feedback
- Premium parts
- Amber housing like the Amber3 DAC
- Finish Variants with different color front panels
- Concealed tubes
- Tube rolling possible

Why no MC input? Well, the user can use his own step up transformer and get a fabulous MC system.

A quick guide to a smooth start

VOLTAGE: All Vinyl Phono MM2 are shipped with the voltage of MAINS according to the country of destination. If you bought the MM2 second hand and you are in different voltage zone - the product can be converted by switching the special switch at the back.

It is not necessary, but advisable that the power cable used is a quality one, not simply a computer cable. It is also advisable to use some kind of AC filter – in many cases this brings nice results. Generally under-filtering is better than over-filtering.

Due to multitude of AC plugs around the world - we don't supply any AC cable at all.



Introduction

Thank you for choosing Lampizator Vinyl Phono MM2. We created it with huge research effort to deliver not only world class musical performance, rivalling the most expensive phonostages money can buy, but also to offer very long life of the product. Simply speaking – if you adhere to some basic precautions listed below – the product should last a lifetime and hopefully in this period – will never be outperformed by a competing product.

“Whose lifetime?” one might ask – well – let’s not go into details – enough to say it should work flawlessly for the foreseeable future.

The Vinyl Phono MM2 should be future-proof. Shall we ever launch a major upgrade to the electronic or mechanical part – you can get the upgrade at very reasonable cost. Shall you decide you need some added features – you can also get them at reasonable cost anytime in the future - any option you initially forgot.

We can’t be 100% sure, but it is extremely unlikely that the market and the industry in the future will embark any technology of music reproduction from Vinyl better than this. We already hit the human ear limits not to mention record groove limits.

Cartridge types

We created this product with high end in mind, hence the compatibility with MM cartridges and open possibility to integrate with input stage transformer (SUT) for MC connection. We are targetting the cartridges and systems where only top notch performance is expected, with adequately substantial dynamics, transparency, soundstage, tonality etc.

Having said that - at the moment of writing - we dont know of any cartridge type incompatible with our product.

Audio volume level and preamplifier

Tube technology allows us to set practically unlimited volume level at the output, up to 10 x higher than from a normal audio source. We have decided to adhere to one internally set standard: the test tone of 1 kHz at -20 dB produces an output of sine wave 300 mV AC under the amp load of 47K. That's equivalent of circa 3 V pp for 0dB of signal. Shall this be inconvenient for some reason – it is adjustable in the range of 0-6 V by just one resistor change. Generally - we prefer the sound of the source with high output levels, and most amps don't have any problem with that.

The Vinyl Phono MM2 is a **pre-preamplifier** and should be used with an integrated amp or active Line Stage Preamplifier. Lampizator Vinyl Phono MM2 **should not be** used with opamp based preamp, no matter how good. Not because something will happen, but because the op-amp feedback loops will remove the whole joy of music as delivered by the tubed Vinyl Phono MM2.

We recommend that the equipment that directly follows the Vinyl Phono MM2 in the chain (preamp, integrated amp) has input impedance of 47kOhms or higher. 20K seems like a healthy and sane minimum. In case of 10K it will still sound great, but not as great as in case of 47K.

The Vinyl Phono MM2 will not be damaged in any way, but at around 10K of load the dynamics of the phono will start to fade away.

Having said that - every properly designed amp or preamp keeps the load value above 40k. And if it doesn't - we simply don't choose such amp because it was not designed with audiophiles in mind.

The heat issue

Some people are concerned about the heat inside the Vinyl Phono MM2 player.

We want you to relax about it - that this is NOT an issue. The preamp operates well below half of its maximum allowed temperature. Tubes are DESIGNED to be hot, this is their very nature. That's why they have internal heaters and when they are not at optimal operating temperature – they sound bad.

The other components are guaranteed up to 105C and we are expecting no more than 40 degrees Celsius in the air inside the Vinyl Phono MM2.

Our only advice is do not heat the box additionally by placing it - for example - on top of a hot class A amplifier. Give it some space around to allow free air flow and adequate cooling. Do not cover it with blankets or mats.

Optimal placement

Apart from the heat issue as described above, the Vinyl Phono MM2 has no special placement requirements. Just remember to keep the RCA cable from the turntable not longer than 1,5 m (5 feet) and RCA preamp cables – not longer than that either. TT to phono cables MUST be shielded, the Phono to amplifier cables may not be shielded at all. Many extremely good IC cables are not shielded. Like Kimber or XLO or Nordost for example.

Since tubes are microphonic, they hate vibrations. Therefore it is forbidden to place the Vinyl Phono MM2 on top of the speakers or a sub. Choose least vibrating location, preferably at least one foot behind the plane of the speakers.

Power on-off cycle

The tube lifetime, almost like the life of a car engine in cold climate – is determined largely by the on-off cycle. The heat expansion coefficient of the glass is so much different than that of the metal, that the air-tight seal of the metal pins can leak oxygen inside the tube and eventually kill it. Even if it is just one molecule per day. So in other words it is better to keep the Vinyl Phono MM2 always on, than to switch it on and off **more than necessary**.

The lampizator Vinyl Phono MM2 has a slow start feature which brings the high voltage supply gradually up, at the rate of 10 volts per second and the heater voltage is current limited for circa 5 seconds from cold start. The PSU reaches 250 V DC after 10 seconds. This helps to extend tube life. The Vinyl Phono MM2 is also equipped with voltage down feature (bleeders) which reduce the power voltage drop upon switch-off at roughly the same rate.

The tubes are operated always around 25% of full nominal power, which greatly increases their life expectancy. Combining all the factors together, the tube lifetime should be anywhere between 10 and 40 years, assuming the player is switched off only once per day, for the night.

Additionally all our products have special heater circuits that slow down the inrush current by the factor of 10 and protect the heaters from developing spots and blemishes that cause metal erosion and eventually death (of the tube). Our circuit goes way beyond the tube datasheet recommended protection. It extends the tube life at least double versus the datasheet specs.

Frankly we expect all tubes except the rectifier to last a lifetime.

Cabling and cable handling

Just to be sure that we know what we are doing:

- AC cable can be freely plugged and unplugged during operation. It is OK for the Vinyl Phono MM2.
- Signal cables can be plugged / unplugged with the amplifier volume turned fully down.

Please use a decent AC cable. We suggest spending around 100-200 Euro for a good AC cable, not much more but not much less. The free AC “computer grade” cables are not good enough for serious audio.

Please use a decent interconnect. Best results are obtained with silver cables. Let your ears decide, not specs of the cable.

Lampizators produces all types of cables for audio systems - you can order them from us with confidence of tremendous value for money.

Tube rolling and replacement

We sell the Vinyl Phono MM2 with the best tubes we can find in consistent sustainable supply. Therefore we feel **you should not be tempted to change them** for any reason.

If you feel that you **MUST** try other tubes – we need to pre-authorize it in writing. Otherwise you loose the warranty.

Here are some practical tips for tube rolling (geneeral note, not about MM2 tubes):

1. Tube compatibility- many people ask “is the tube X compatible with Y?” and the answer is of course - it depends. Tubes can have completely different bases but be compatible by parameters and can be swapped by means of an adaptor. A good example are ECC40, and 6SN7GT - different bases but very close parameters. Or ECC88 and 6DJ8. Or 6H8C and 6N1P.
2. Other scenario is when the tubes have same base (say - noval) but they have different pinouts. So we **CAN NOT** inter-change the two tube types but we **CAN** use an adaptor. Same base type and same pinout **DOES NOT MEAN** that the tubes are interchangeable - best example is cc81 and cc82 - same base, same exact pinout but completely different parameters. Or octal 6SN7 and VT99 - both octal, same parameters, different pinout.
3. Some tubes can have same base, same pinout and same parameters except the different heaters. Best example is ECC82 and 12BH7 - the former uses half heating of the latter. They can be used with a switch or within limited timing or with extra care, depending on the heater arrangement in our product. Another example are completely different tubes that miraculously are perfectly interchangeable - like E182CC with 5687.

We supply the tubes that are purchased new from reliable sources. They are tested and matched.

PLEASE VISIT OUR AFFILIATED SHOP FOR BEST TUBES: WWW.BEST300B.COM

DEFAULT	Identical	Acceptable	Lower amplification and lower volume level
ECC803	Ecc83, 12AX7	— —	Ecc81, 12AT7
6N2P	—-	— —	Ecc88, E88cc, 6922

Ageing problems

As already explained above, the Vinyl Phono MM2 should age very very slowly.

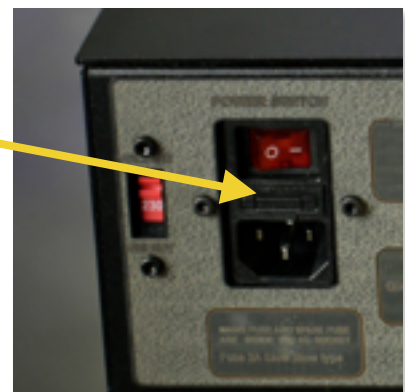
The PCB should last a lifetime. The transformer, the output caps, the cables, plugs, sockets – should last a lifetime. There are only 10 electrolyte caps which we selected from premium brands and they should last circa 25-30 years. Other than that we suggest to change tubes every 10 to 20 years.

So - short of a thunderstrike – we expect no failures or ageing problems before 20-30 years.

Fuse Change

The Vinyl Phono MM2 is equipped with a non-repairable 20 mm glass fuse circuit breaker inside the IEC-AC socket at the back. There is also one spare fuse provided in the little drawer removable when changing the fuse. The fuses are 1,6A (or 2A for USA/ Japan/Taiwan) they are slow blow, and overrated by the factor of 3. Therefore it is impossible for the fuse to blow without a specific reason - a failure inside the product. Consequently, if the fuse burns, it is a signal to send the Vinyl Phono MM2 for service and NOT change the fuse. Obviously the second fuse will burn as well.

WE ABSOLUTELY DO NOT ALLOW changing the fuses for any larger size than 2A or installing the “audiophile silver bolts” in place of the fuse. Fuses are there mainly to SAVE YOUR LIFE. And we mean that. You can experiment with audiophile grade fuses but not DEAD BOLTS please.



I PLUGGED EVERYTHING BUT I GET NO SOUND

Quick check list:

Is the voltage at the back switch selected to your country?

Is AC power switch at the back thrown to ON and red lamp on the switch illuminated red?

Are analog RCA cables leading to the amp connected to OUTPUT sockets, and NOT the phono arm input sockets ?

Is the amplifier powered, connected, un-muted, with speakers connected ?

Do you see a tube glow inside the chassis ? (there are 4 tubes in total)

MUTING IS SELECTED BY PRESSING IN THE FRONT BUTTON (FOR EXAMPLE FOR HEADSHELL CHANGE OR NEEDLE CLEANING).

TO PLAY SIMPLY SWITCH THE BUTTON TO OUT POSITION

BURN IN PERIOD

The Vinyl Phono MM2 comes straight from our factory after around 48 Hours of testing so it is not exactly “new” but it is **not burned-in enough**. Our customers report back, that after 3 days of constant powering (playing or not) the Vinyl Phono MM2 opens up significantly. Further improvements are observed after up to 7 days when things stabilise on a plateau.

Additional one day burn in is needed after every time the Vinyl Phono MM2: travels somewhere (vibrations), or is disconnected for over a month or is subject to cold temperature - like in the car trunk, when left overnight.

When the MM2 is fully burned in and settled within the system, the sound quality is stable, and we only need to warm it after powering every day.

The Vinyl Phono MM2 starts to play after 10 seconds.

The tubes reach full technical parameters and stabilise after 90 s. but that does not mean that the Vinyl Phono MM2 sounds it's best yet.

The whole system reaches operating sound quality plateau after circa 20 minutes and it is ready for serious listening.

LISTENING TO THE MUSIC

some practical tips

Please use good shelf for the Vinyl Phono MM2. Do not place it on speakers, subs, or even on transports or amps. Again - tubes hate vibrations.

If you try the special devices for placement, we feel that: granite or marble is bad (ringing). Cones are just plain ridiculous and stupid. Cones are for uneducated people. Ceramic ball bearing feet are great. Good wood is great if thick. Others - please try.

The way stereo sound is created inside the Vinyl Phono MM2 can - under optimal condition - re-create the musical experience as it sounded live. It means that two speakers can cause us listeners to hear sounds everywhere around us, above, below, far in front, almost close to our face, and also behind us. This type of imaging is our goal. The sound must be able to get detached from the speakers (so called disappearing act) and the more our Vinyl Phono MM2 helps doing it - the higher we value it (and price accordingly). We voice our Vinyl Phono MM2 s to be as 3-D as possible with the beginning of that 3D as close to listener as possible.

From our experience speakers should be positioned following the basic rules of LampizatOr Nirvana Room:

1. Speakers and listener's head form unilateral triangle (3 x 60 degrees) with the distance between speakers being exactly equal to distance head-speaker.
2. Head must be in exactly middle of the speaker base and the speaker base must be exactly symmetrical versus side walls. We place speakers and measure the distance from side walls with 1 cm accuracy.
3. The distance of the speakers to the side walls and speakers to rear wall should not be equal. We recommend 1,4 times smaller or 1,4 times larger distance- but not equal. We measure that counting from the magnet of the bass driver.
4. Distance from rear wall of speaker and rear wall of the room should be no less than 0,5 m or 2 feet.
5. Ideally, the tweeter should be at the height of the ear or up to 10 cm higher, but NOT LOWER. Speakers with tweeters lower than 90 cm sound terribly wrong. In such event do everything you can to elevate the speaker by means of stands, bases or just cement block or at least lower the listening seat as much as possible.
6. The chair or sofa should not have the back support higher than the person's shoulders - in other words - should not be just behind the ears
7. Feet are the second ears of our body. They receive a lot of vibration stimulation and the brain combines this with the hearing. So we advise to have a piece of floor without any carpet directly where our feet are. Listening with feet (preferably bare) on the hard floor greatly enhances our perception of music. It is advisable to have rug or carper between listener and speakers but not under the feet.
8. It is advisable to put something soft directly on the wall behind the speakers
9. The so called toe-in - the degree by which the speakers face the listener and not alongside the walls straight - is very critical. The rule of thumb is to toe in half way between standing straight and aiming at the listeners ear. Or slightly more straight, but not more towards the head. Over- toe-in kills the soundstage.

ENJOY YOUR MUSIC LIKE NEVER BEFORE !