

# **Tube Phono Preamplifier**

EVO 100-11

Version 1.2 - July 07, 2025



ALERT: Please read page 9 for V2 information and tube compatibility.



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The information in this manual is subject to change without further notice.



# **Welcome to All-Tube Analog**

Thank you for choosing the PrimaLuna EVO 100 Tube Phono Preamplifier as the heart of your analog music system. The EVO 100 phonostage stands out as an all-tube design, including vacuum tube rectification. PrimaLuna's designers and builders have a long history in high-end audio, and the starting point in designing this model was to keep things straightforward and simple: High sound quality, simple ease of operation.

#### **Features**

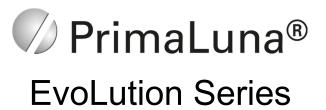
- True all-tube design. The EVO100 is one of the very few phonostages that eliminates chips, op-amps, FETs, and transformers from the signal path, utilizing a groundbreaking, cost-no-object design that incorporates dual 5AR4 and EL34 tubes in the power supply. The specially designed toroidal power transformer is remarkably quiet, but to ensure it remains that way in homes with poor electrical conditions, we have added our exclusive AC Offset Killer to reduce mechanical hum
- Like all PrimaLuna models, the entire signal path uses point-to-point wiring where possible, and in this case, we employ Swiss-made silver-plated oxygen-free copper with a Teflon dielectric
- Premium parts for a wide bandwidth for great bass and extended highs. These include ceramic tube sockets, Nichicon and DuRoch capacitors, and gold-plated panel-mounted RCA input and output jacks
- Handmade construction of a heavy-gauge, fully-vented steel chassis with a custom lacquer finish, each coat hand-rubbed and polished
- Anti-vibration rubber-mounted PCB and tube sockets
- SoftStart™ circuit for extended life of sensitive components, plus a reduced chance of tube failure from thermal shock
- PTP™ (Power Transformer Protection) circuit. When the power transformer overheats, an internal thermal switch turns power off, allowing the unit to cool down before harm is done. After it's cooled down, contact is restored, and if nothing is broken, the preamp will repower and function properly

We are confident that the PrimaLuna EVO Tube Phono Preamplifier will enhance your analog audio enjoyment and truly illuminate your music. If you have any questions or comments, don't hesitate to contact us. You can also share your thoughts with others, for example, at the <a href="FaceBook PrimaLuna Amplifiers Owners Group">FaceBook PrimaLuna Amplifiers Owners Group</a> or other review sites.

We keep our prices low by relying on word-of-mouth and customer feedback, and we would appreciate hearing what you have to say about our product. Finally, if you need service during or after the warranty period, please don't hesitate to contact us.

Thanks again for your support!

Herman van den Dungen DUROB BV



### Warning

To prevent serious injury, electrical shock, or fire:

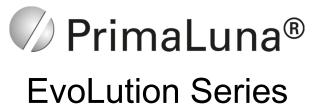
- Do not operate with the bottom plate removed. Keep away from rain and moisture.
- Disconnect the AC mains cable before changing fuses and/or tubes.
- Do not replace fuses with any fuse other than the same type and rating as used by the factory.
- Do not replace tubes without reading instructions.
- Do not replace fuses or tubes if you have any doubt about your ability to do so.
- We accept no responsibility for any personal or material damage due to incompetent use or users.

### **Package Contents**

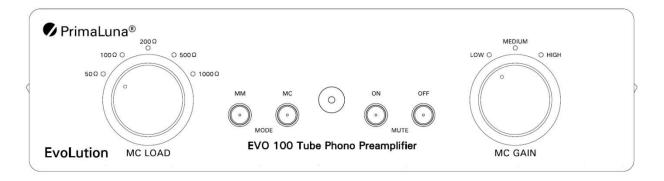
EVO Tube Phono Preamplifier Power Cord This Owner's Manual White Gloves Spare Mains Littelfuse Model 213 fuse

# **Initial Setup**

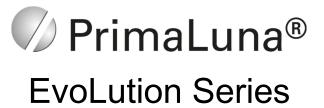
- Don't wear a watch or rings, and carefully remove the EVO Tube Phono Preamplifier from its
  packaging. Once the plastic bag has been removed, use the white gloves to prevent fingerprint
  smudges.
- Remove the tube cover by <u>carefully</u> pulling it straight up and away from the preamplifier.
- Remove the protective foam surrounding the tubes.
- Tubes are already installed.
- Check that each tube is firmly and straightly seated in its socket. Use the gloves provided.
- Replace the tube cover, if desired.
- Check to see if the power switch is off (down).
- Connect your source –turntable- to the corresponding plugs.
- Connect the output of the phono preamplifier with the input of the main preamplifier (volume down).
- Plug the power cord into the phono preamplifier, then into the wall socket.
- Switch on your source. Then switch the phono preamplifier on. The main outputs will be muted for 60 seconds while the tubes warm up.
- Select MM or MC. For further settings, see the related pages in this manual.
- Switch the main preamplifier on.
- Switch the power amplifier on when the mute of the preamplifier is released.



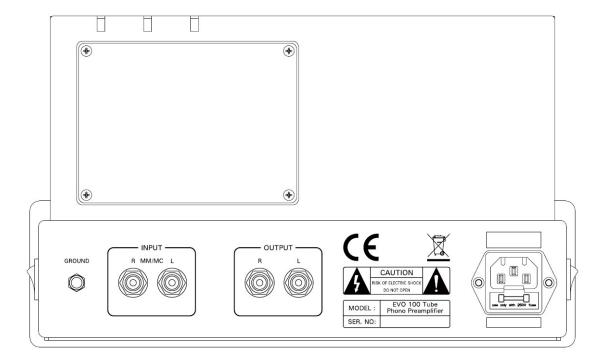
# **Front Panel Controls**



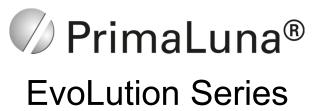
PrimaLuna front panels are made from machined aluminium, finished to match the metallic graphite lacquer finish chassis. The MC cartridge loading is controlled with the knob on the left, and gain selection is on the right. These are only functional when MC is selected. MM or MC is selected with the push buttons to the left of the status LED. Mute on / off is operated with the push buttons to the right of the status LED. The power switch is located on the left side, just behind the front plate. On the right side, you have switchable capacitive loading for MM cartridges.



# **Back Panel**



Inputs, outputs, and the ground terminal are located on the back panel. Also located on the back panel is the "service hatch" panel that covers the shielded MC section. When the 6922 (or 12AX7 if your unit is a V2) in the MC section needs to be replaced (or if you want to roll in an alternative pair), this panel can be opened by removing the four thumb screws.



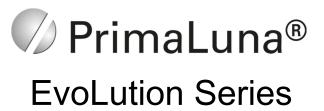
# **Moving Magnet Operation**

The MM section in the EVO 100 phonostage offers a standard amplification of 40 dB, which is typical and works well with most moving magnet cartridges as well as many high-output moving coil and moving iron cartridges.

### **MM Cartridge Loading**

Most MM cartridges require very little attention when it comes to settings. All they need is a 47 k $\Omega$  impedance load. Your EVO 100 is also equipped with capacitive loading. Capacitance can act as a high-pass filter, which is why the input capacitance of your phonostage and phono cable should ideally be as low as possible to prevent your setup from sounding too bright. That is why you should always start with the capacitance loading switch on the right side panel set to the 47 pF (down) position.

Depending on the rest of your system, you may find that the 47pF setting can make some MM cartridges sound a little dull to your taste. That is why we have given you the option to increase the capacitive loading of your MM cartridge to 100 pF. In most cases, that is just enough to add some extra "sparkle on top.



# **Moving Coil Operation**

MC cartridges are electro-acoustic transducers, which need to be damped to avoid ringing and excessive high frequencies. Many manufacturers will tell you what loading they suggest. Some will only state the internal impedance. The rule of thumb is that the load impedance setting on your phonostage should be at about 10 times the internal impedance of your MC cartridge. If the internal impedance is 50 ohms, then the loading would be set at 500 ohms.

While the '10x rule' is a starting point, it can pay off to experiment.

Just like trying different speaker taps on a tube amplifier, we encourage you to try different loading settings for your cartridge. It's critical to achieve that perfect tonal balance that suits your tastes!

MC cartridge loading is not an exact science, because just like loudspeakers, the impedance of the cartridge will change with frequency. Trust your ears! Too low can result in a darker, almost muted sound. The highs can sound dull or closed-in, and the dynamics may feel a bit compressed. Too high can result in a brighter and sometimes overly sharp sound. It gives you the impression of increased detail and air, but there is a risk of harshness or sibilance. Often, the sound is more analytical and in the end "fatiguing".

The "best" setting for your system gives you good detail and natural clarity. Tight bass and smooth midrange, a spacious soundstage, and a correct tonal balance. That is as much a matter of taste as it is system-dependent, so feel free to find your ideal setting.

We have given you five options to choose from: 50, 100, 200, 500, and 1000  $\Omega$ . Changing while you listen cannot cause damage.

### **MC Gain Settings**

When using 6922 tubes, the MC gain section gives you a choice of 52 dB, 56 dB, and 60 dB, marked as Low, Medium, and High above the rotary knob on the right. V2 models using 12AX7 tubes in the MC section will have 54 dB, 56 dB, and 62 dB of gain. (Warning: do not change from 6922 to 12AX7 tubes without reading the section below.)

This range of settings will offer enough gain for low-output MC cartridges with an output of approximately 0.3 mV and up. That does not mean that you can't use cartridges with an output below 0.3 mV, but the output of the EVO 100 could end up lower than that of your other source components, and you may also hear more noise. 0.3 mV is a very, very small signal. In certain cases, owners may consider a step-up transformer.



# **IMPORTANT!**

# Read This Before Changing Between 6922 and 12AX7 Tubes

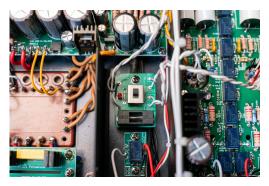
WARNING: Using the wrong tube can cause damage. You cannot change tube types unless you have a switchable V2 model.

Tube selection switch (if equipped). Originally, the EVO-100 phono was shipped with 6922 tubes in the moving coil section. If you are interested in adding the V2 option described below, please contact your local dealer or PrimaLuna directly.

The EVO-100 V2 phono is equipped with an internal switch, allowing the use of either 6.3-volt 6922-type tubes or 12.6-volt 12AX7 tubes. By using the 12AX7, the moving coil section will gain an additional 2 dB in each of the low, medium, and high settings. The 12AX7 setting will also allow the use of 12.6-volt 12AT7 or 5751, although the gain will be lower, similar to that of a 6922.

If your EVO100 has this option, it will have one of the two boards pictured below. To confirm, unplug the unit before removing the bottom plate, and look for the board. Carefully note the switch in the picture and check its orientation. In both of the pictures below, the switch is set to 12AX7. (Tip: When switched to 6922, a red LED will illuminate when the unit is powered on.)





Only switch-equipped phonostages can take 12AX7 tubes, and will have one of these layouts. The red LED next to the switch lights up in 6922 mode. In both photos, the switch is in 12AX7 mode.

Use only approved tube types listed below and ensure the correct switch position is selected.

### Approved tubes and variants:

6.3 V: 6922/E88CC, 7308/E188CC, 6DJ8/ECC88, 7DJ8/PCC88

**12.6 V:** 12AX7/ECC83,ECC803S, 7025. 5751 and 12AT7/ECC81 can also be used, but with slightly lower gain than a 12AX7. Similar to a 6922.



### **Tube Basics**

Tubes in the moving coil section amplify a very small signal; therefore, it's essential to purchase graded, low-noise tubes. Even then, it is not unusual to experience occasional pops. Some idle hiss before you drop the needle is typical of an all-tube phono stage. Once the needle is in the groove, you will understand why the EVO100 is used as a reference by expert reviewers.

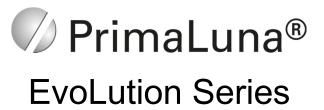
12AX7 and other small signal tubes have a lifespan of about 5,000-10,000 hours. Tubes in the moving coil section are under greater strain, and may require more care.

# Here are some guidelines on using tubes:

- Do not use treatments on tube pins or in sockets
- If you decide to experiment with other tube types, it's best not to swap tubes in and out repeatedly.
- To do so requires you to turn your amplifier off and on, and you never want to cycle amplifiers on and off rapidly.
  They should be left off for at least five minutes. Further, every time you insert a tube, you stand a chance of
  loosening the tube sockets. It's okay to have fun, and we support that, but don't go crazy and swap tubes in and
  out twenty times a day
- Do not leave the amplifier on 24 hours a day. Just a short warm-up is required for the PrimaLuna to
- get into its groove
- Break-in yields improvements. Every tube, when new, needs to be left alone for a little while. So, when your amplifier is new, or when you re-tube it, allow a little time to settle in. There is, however, no fixed "time rule" for break-in
- Tubes can vary electrically, and by plugging in the wrong type of tube, you can damage the amplifier and void
  your warranty
- Please note that the replacement tubes should be the exact same type or equivalent. Some tubes and tube sockets have a "center key" which must line up. If you misalign them and use brute force, you will damage important and expensive parts of your amplifier!

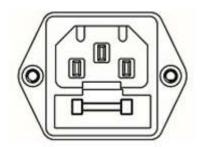


Some tubes and tube sockets have a "center key" which must line up! If you misalign them and use brute force, you will damage important and expensive parts of your amplifier!!



### **Fuse Protection**

**WARNING!** Fuses are like safety valves. They fail because there is a problem that needs to be corrected. This is usually a problem with a 5AR4, or possibly an EL34 tube. They should always be replaced with the same brand, type, and value. Never attempt to check or replace a fuse while the amp is plugged in. Turn it off and unplug the AC cord before continuing. Wait 10 minutes to let the tubes cool down and the circuit fully discharge.



**Mains Fuse:** The mains fuse is located on the rear of the preamplifier, just below the power cord socket. See the specifications page for the fuse rating for your country's mains voltage. Always replace with the same type and value of fuse! The fuse holder can be opened using a small slotted flat-blade screwdriver.

The IEC connector is mounted with two differently colored screws, one silver, one black. The silver screw indicates the live (hot) plug in the IEC connector, and helps ensure the "correct" connection to AC. Nevertheless, if you want to be 100% sure, always check the AC cable by measuring, as not every AC cable is constructed the same way!



# **Troubleshooting**

# No output

The power switch is on, but the power LED is off, and the tubes do not light up.

- The AC cable is loose. Make sure it is fully seated in IEC connector
- The Mains fuse is broken. Please check. This is usually due to a shorted 5AR4 tube. Inspect both 5AR4, and look for a burn mark inside the glass. Replace the 5AR4 and replace the fuse with the correct value.
- The PTP™ (Power Transformer Protection) protection may have switched off the power transformer. If so, the amplifier will switch on again after the internal temperature of the power transformer returns to normal. Overheating might be caused by a higher environmental temperature than normal or heavy use

### Noise from one channel

- If you are in the moving coil setting, some noise is to be expected, and you are adding upwards of 60 dB of glorious, pure tube gain. However, if the noise has increased or is so loud that it interferes with the music, the problem is likely one of the two tubes mounted in the rear behind the door. Swap the tubes left to right. If the problems moves, then you know which tube is causing the problem.
- If the noise does not move, then swap the moving magnet gain tubes V5 and V8 left to right. Then lastly, swap V6 and V7, though they have no gain and are unlikely to be the culprit.

### Noise/hum from both channels

• If you have a low-frequency hum at about 60 Hz, that is almost always a matter of a bad ground wire or a cable that needs to be moved away from other cables. With the system volume set where you can hear the hum, but it is not too loud, try unhooking the ground wire from your turntable and note the changes. Try moving the ground wire from the EVO100 to another ground pin elsewhere in the system.

The hum could be a case of a "ground loop", which can happen when you have many components hooked together and each have a ground pin on their power cord. There are easy fixes available, one of which is the iFi GND Defender or Morley Hum Exterminator. Or it could be as simple as using a different outlet in your home.

- If you have a random noise (especially if it sounds like code coming through your speakers), that is almost always from your router. Routers produce a lot of noise, and the best way to find out if it's the problem is to unplug it. If the noise goes away, then move it to another location.
- Another noise commonly found in homes is from refrigerators and other appliances. Light dimmers and
  wall-wart switching power supplies all create noise that can pollute the electricity in your home. One way
  to help fight that is a good power conditioner. Every small detail like that helps.



# **Specifications**

**Output: 26.3 dBV/20.6 Vrms** 

RIAA-Curve Deviation (20 Hz-20 kHz): <0.5 dB

**Bandwidth (+0/-3 dB):** 0 Hz–20 kHz)

Phase Response Error: <1°

THD+N (A-Weighted): <0.40% @ 2V

S/N Ratio, A-Weighted (@23.8 dBV, @6.0dBV): >90 dB, >75 dB

Output Impedance: 100 Ω @ 1 kHz

MM Gain: 40dB

MC Gain(Low, Med, High): 52, 56, 60 dB

MM Input Impedance: 47kΩ

MC Input Impedance (Selectable): 50, 100, 200, 500, 1,000  $\Omega$ 

MM Input Capacitance (Selectable): 47, 100 pF
MM Input Sensitivity (200 mVrms @ 1kHz): 2.5 mV
MC Input Sensitivity (200 mVrms @ 1kHz): 0.104 mVrms
MM Max Permissible Input (@0.1%THD): 180 mVrms
MC Max Permissible Input (@0.1%THD): 14mVrms

MM Channel Separation (@ 1Khz): >75 dB MC Channel Separation (@ 1Khz): >60 dB

Power Consumption (115 VAC/50 Hz, 230VAC, 60 Hz): 77 W, 86 W

Inputs: 1 pair stereo RCA (MM/MC)

Outputs: 1 pair stereo RCA

Mains Fuse (100 V~120 V, 220 V~240 V): LittelFuse 02131.25MXP, LittelFuse 0213.630MXP

**Tube Position and Type** 

V1, V4 (Power supply rectifier): 5AR4 V2, V3 (Power supply stabilization): EL34

V5, V6, V7, V8 (Moving magnet stage): 12AX7 with tube shield

V9, V10 (Moving coil stage): 6922 with tube shield (V2 models can use 12AX7. See page 9)

**Dimensions (L x W x H):** 15.9" x 11" x 7.5" (405 x 280 x 190 mm)

**Shipping Dimensions (L x W x H):** 18.4" x 15.2" x 12.2" (468 x 385 x 315 mm)

**Weight:** 27.9 lb. (12.7 kg)

Shipping Weight: 34.7 lb. (15.8 kg)

All PrimaLuna products come with PrimaLuna Silver Label tubes which are pre-selected at the factory following the PTS™ - Premium Tube Selection process which automatically rejects the bottom 40% out of every batch. This means all PrimaLuna stock tubes are already at the premium or special level when compared with other tubes on the market.



**Notes** 

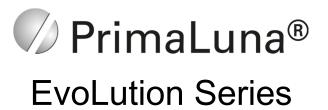


# **Warranty Information**

- Two-year limited warranty
- Six-month warranty on stock vacuum tubes

### **Terms & Conditions**

- **1. Limited to the original purchaser.** This warranty is for the sole benefit of the original purchaser of the covered product, and may not be transferred to a subsequent owner.
- **2. Conditions & Limitations.** This warranty is subject to conditions and limitations, as follows. This warranty is void and inapplicable if the product has not been used in accordance with the instructions found elsewhere in this manual, or if it has been misused, abused, damaged by accident or neglect, or in transport once in possession of purchaser. The warranty is also void if the product has been tampered with or has been repaired or modified by anyone other than Durob BV or its specifically authorized representatives.
- **3. Remedy.** If this product contains material, manufacturing, or workmanship defects, it must be packed in original packaging and returned to Durob BV or its authorized representative via insured freight, at the owner's expense. Returned products must be accompanied by a written description of the defect, and a return authorization number (available from Durob BV or the authorized representative via e-mail). Upon receipt of the defective product, Durob BV or the authorized representative agrees to repair the product without charge for parts (except vacuum tubes if the unit is more than 6 months old), or labor. The product will then returned via prepaid, insured freight, with the carrier at the sole determination of Durob BV or the authorized representative. This constitutes the purchaser's sole remedy.
- **4. Design change.** Durob BV and its partners reserve the right to modify their products or change specifications at any time without obligation or liability to previous purchasers.
- **5. Miscellaneous.** Any implied warranties relating to the above product shall be limited to the duration of this warranty. This warranty does not extend to any identical or consequential costs or damages to purchaser or third-parties. Our liability will be no more than the amount you paid for the product that is the subject of a claim. This is the maximum amount for which we are responsible. This warranty gives you specific legal rights. You may also have other rights which vary from country to country and state to state.



### PrimaLuna Illumination

Herman van den Dungen: PrimaLuna ▶ in the Italian language is "First Moon". My grandfather was the first "Herman". My grandmother, an aristocratic lady in a small Dutch village, had a special name for her husband: "Maantje", which means Little Moon (which became also the name of our small dog), van den Dungen. The people in the village adopted that name, and having a strong accent, they soon called him "Maontje" van den Dungen. My father's first name was Cor, but in the village, it was of course "Cor from Maontje van den Dungen". I was of course "Herman from Cor from Maontje van den Dungen" ...... etc. That's why I thought of First Moon as a brand name and that's why the logo is how it is ......◀

Loris Arrigucci: **PrimaLuna** ▶ believe it or not ... I discovered a small town located 50Km north of Milano called **Primaluna**!!! Please get yourself a map from Italy. You'll find **Primaluna** town near the upper-right corner. It is located 50Km north of Milano near the Lake of Como. This should eliminate every doubt regarding "Italian" origin of **Primaluna** name. I've read the "history" section of the **Primaluna** village web site and found the following (literally translated):

One probable interpretation of the name of the village comes from Latin "Primum Lumen", which means "First Light" of Christianism since the very first evidence of Christianism in this region dates 495 Annus Domini. "First Light" translates into "Prima Luce" in Italian and this seems very interesting to me: PrimaLuce (FirstLight) is the first light that we, hi-fi lovers with small budgets, can see in this world of darkness populated by way too expensive esoteric gears ......



Please contact us for registering your **PrimaLuna EVO** tube product. We will keep you updated on any upgrades or any other information related to your product. If you wish to comment on your **PrimaLuna EVO** tube product, please do. If you want to send us a review of your experience with the amplifier, you are more than welcome to. If you want to discuss with other **PrimaLuna** owners, join the completely independent **FaceBook PrimaLuna Amplifiers Owners Group**. If you have any technical questions, please don't hesitate to contact us. We thank you upfront for your time and attention.

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