

Hybrid Integrated Amplifier

EVO 300-1 Hybrid

Version 1.0 – October 15, 2021



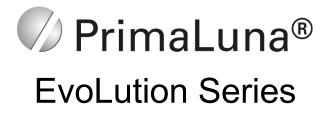


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PrimaLuna[®] EvoLution Series

Thank You!

We want to thank you for choosing our **first** PrimaLuna EVO **Hybrid** Integrated Amplifiers as the heart of your music system. The EVO Hybrid Integrated Amplifier is the first member of our new family of high-quality hybrid products. The designers and builders of the PrimaLuna equipment have a long history in high-end audio. In this new project, we have collaborated with **Floyd Design**, the solid-state design arm of our parent company Durob BV. We have shown with PrimaLuna that we can offer a range of affordable yet elegant audio instruments that can easily compete with today's most expensive brands. We assure you we will continue that way in the full-tube and hybrid amplifier designs. We firmly believe that our quality level will keep the bar at a difficult height for other products to match.

This PrimaLuna EVO Hybrid Integrated amplifier features:

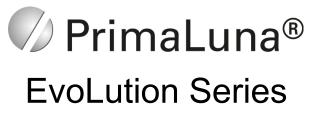
- Hand-made construction of a heavy-gauge, fully-vented steel chassis with a five coat finish, each coat hand-rubbed and polished, holding the finest point-to-point wiring, using workmanship that is usually only available at the highest price.
- Elegant style, heavy-metal remote controls.
- This Hybrid design features a perfect coupling of valve and solid-state amplification.
- The preamp stage comes with six 12AU7 tubes (2 x input, 4 x driver) and is a complete, properly engineered tube stage, using two power supplies with separate transformers.
- The solid-state power stages use a dedicated 500VA transformer and deliver (over) 2 x 100W into 8 ohms.
- All power supplies benefit from PrimaLuna's "AC Offset Killer" circuit.
- We use premium parts that include toroidal transformers for the power supplies; ceramic tube sockets; ALPS volume control; Nichicon, Rubycon, Kemet and DuRoch capacitors; superfast Philips-rectifier-circuitry; Linear Systems JFETs and specially manufactured MOSFETs; Takman resistors; gold-plated heavy-duty WBT style speaker terminals (all speaker connectors are solid shaft for better conductance, better sound, and higher reliability); gold-plated panel mounted RCA input jacks.
- Hardwiring is used extensively throughout the circuit design. Where PCBs are required, these are of the highest quality 2.4mm thick with 105um gold-plated copper tracks.
- Each EVO Hybrid Integrated Amplifier is as well a high-quality EVO Hybrid Headphone Amplifier!
- A 100% shielded Phono chassis for mounting our optional MM PhonoLogue circuit.
- A SoftStart™ circuit for extended life of sensitive components, plus a reduced chance of tube failure from thermal shock.
- All PrimaLuna power transformers include the PTP[™] (Power Transformer Protection) circuit. When the power transformer overheats due to environmental circumstances, overloading or some problem in the unit, an internal thermal switch breaks the primary, allowing the unit to cool down before harm is done. After it's cooled, contact is restored, and if nothing is broken, the amp will repower and function properly.
- LIVE side of the AC input connector indicated by aluminium colour screw.

We hope that our PrimaLuna EVO Hybrid Integrated amplifier will make you want to follow our next steps in expanding our range of products. If you have any questions or comments, don't hesitate to contact us. You can also share your thoughts with others at the **FaceBook PrimaLuna Amplifiers Owners Group** 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.

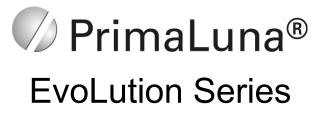
Thanks again for your support!

Herman van den Dungen DUROB BV



Specifications	Model EVO 300 Hybrid Integrated Amplifier
Power 8 Ohm Power 4 Ohm	>100 Watts per channel (typical 115 Watts) >150 Watts per channel (typical 170 Watts)
Frequency Response	10 Hz – 80 kHz +/- 3 dB
THD	< 0.2% 100W @ 8 Ohm
S/N Ratio	-105dB (A-Weighted)
Input Impedance	34 kOhm
Input Sensitivity	415 mV
Total Gain (Pre + Power Amp)	37.2 dB (7dB + 30.2dB)
Power Consumption	99 Watts (no signal in); 645W@4R
Weight	Net weight: 59.5 lbs / 29 kg Shipping Weight: 68.3 lbs / 25 kg
Dimensions	15.9" x 15.2" x 8.1" / 405 x 385 x 205 mm (L x W x H)
Shipping Dimensions	22.7" x 18.4" x 12.4" / 578 x 468 x 316 mm (L x W x H)
Inputs	5 pairs Stereo RCA, 1 pair Home Theater Input
Outputs	Speaker Taps, Tape, Stereo/Mono Sub, Headphone
Tube Complement	6 x 12AU7
Damping Factor	160 (1 kHz)

All PrimaLuna products come with PrimaLuna Silver Label tubes pre-selected by us, following our simple 60 out of 100 rule (PTS[™] - Premium Tube Selection) and are already "special" compared to other standard tubes on the market.



Warning

To prevent serious injury, electrical shock or fire:

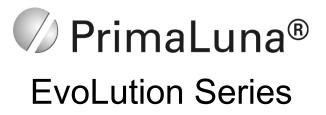
- Do not operate with the bottom plate removed. Keep away from rain and moisture.
- Disconnect the ac mains cable before changing fuses or tubes.
- Do not replace fuses with any fuse other than the same type and rating as used by the factory.
- Do not replace tubes without reading instructions.
- Do 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 Integrated Amplifier	1 piece
EVO Remote Control	1 piece
Power Cord	1 piece
This Owner's Manual (not in all countries)	1 piece
White Gloves	1 pair
Tube Complement	See specification page
Spare Mains Littelfuse Model 213 fuse	2 pieces
Spare Power Stage Littelfuse Model 215 fuse	2 pieces

Initial Setup

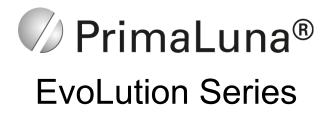
- Please don't wear a watch or rings and carefully remove the EVO Hybrid Integrated Amplifier from its packaging. Once the plastic bag has been removed, use the white gloves provided to prevent fingerprint smudges.
- Remove the tube cage by <u>carefully</u> pulling it up and away from the amplifier.
- Remove the protective foam surrounding the tubes.
- Tubes are already installed.
- Check that each tube is firmly and straightly seated in its socket. Use gloves provided.
- Reinstall the cage in its place if desired.
- Check to see the power switch is off (down).
- Connect each source to the corresponding plugs.
- Connect your speaker wires, positive to positive, negative to negative. This unit is non-inverting.
- Plug the power cord into the amplifier, then into the wall socket.
- Switch sources on and then switch the amplifier on.
- The tubes will be warmed up and ready to use in about 60 seconds.



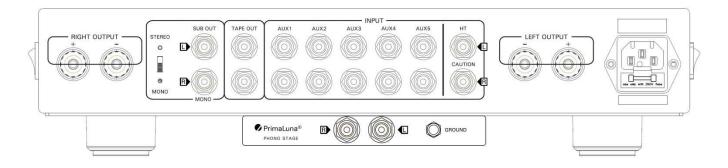
Front Panel Outputs, Controls & Remote Function



PrimaLuna front panels are made from machined aluminium, matching the black/blue metallic chassis. The volume is controlled with the knob on the left, and source selection is on the right. The remote control can also deal with both volume and source selection. Your sources are labelled AUX 1, AUX 2, etc. (no functional differences between these) and eventually HT. The headphone output is on the bottom right side. The heavy metal remote control that comes with your PrimaLuna EVO Hybrid Integrated Amplifier can be used for selecting sources and adjusting volume. It also can be used to control functions on all earlier PrimaLuna CD players. The power switch is located on the left side of the amp, behind the front plate, and the headphone/loudspeaker switch on the right side, also behind the front plate.



Back Panel Inputs, Outputs

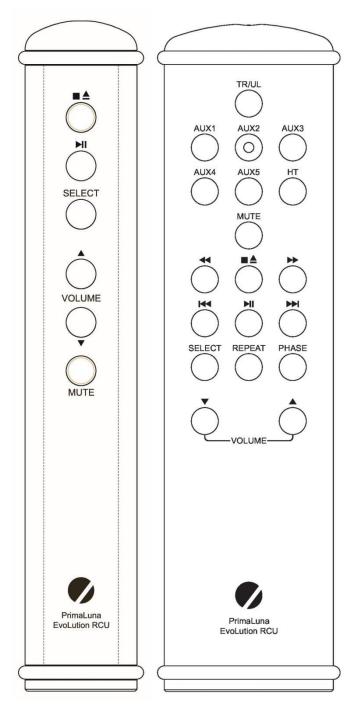


At the rear panel, you will find your inputs, eventually the HT Pass-Thru, the speaker terminals, Tape Out and Sub Out.

Attach the (+) from your loudspeaker to the (+) terminal on the amplifier and the (-) from your loudspeaker to the (-) terminal.

PrimaLuna[®] EvoLution Series

Remote Control



Attention! Due to increasingly stringent safety measures, the remote control may arrive without batteries installed.

The functions of the EVO Hybrid Integrated Amplifier Remote Controls are self-explanatory. It controls source selection, volume & mute functions. The remote will also manage the essential functions of the PrimaLuna CD players.

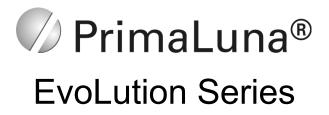
The EVO Hybrid Integrated Amplifier Remote Controls have two high-quality silicon rubber rings on each end to protect it from becoming damaged or damaging your furniture. These rings can be easily removed in case batteries have to be replaced.

In the event your remote control does not function, please first check the battery/batteries. To access the battery compartment, remove the rubber rings and unscrew the backplate.

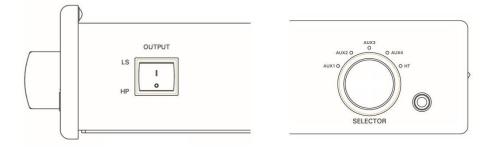
Use 2 x AAA for the BIG remote and 1 x CR2032 for the small size remotes. Do NOT use rechargeable batteries!

You can also check your remote here: https://primalunablog.com/?s=remote

If the remote still does not function, contact your dealer for further assistance.



Headphone Output Connection



Owners of a PrimaLuna EVO Hybrid Integrated Amplifier also own one of the best headphone amps available. At the flip of a switch!

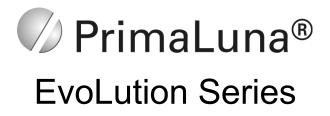
On the right side of the front panel, you find the output connector for your headphones, while just behind the front panel on the right side, you find the switch to select for loudspeakers (LS) or headphones (HP).

Headphones are simply small speakers that require less power. Most integrated amps and preamps use a solid-state op-amp chip for running headphones. Some tube amps will use smaller output tubes that groan about having enough dissipation to run power-hungry planar headphones.

And some tube brands, including those costing double or triple or more, will use larger output tubes, then use a voltage divider network to drop the power down to an acceptable level for headphones. This is how PrimaLuna designed the headphone circuit. We took advantage of the fact that we have the best tube integrated amplifiers on the market. We designed the same way with the Hybrid Integrated Amplifier. What is good enough for your living room speakers is also good for your "earspeakers".

Now there is no immediate need to pay for a separate state of the art headphone amp. Our Integrated (Headphone) Amplifiers are the favourite to owners who use everything from Audeze to Hifiman to Sennheiser!

- If you switch from Loudspeakers to Headphone, always first turn down your volume.
- Don't use the Headphone switch with no headphones connected.
- Listening at a high volume can damage your hearing.
- If you are in doubt if you own over-hungry headphones, like Abyss 1266 or HIFIMAN SUSVARA, please contact us for information/modification of the circuit.



Stereo Home Theater Pass-Thru

Your PrimaLuna Hybrid Integrated Amplifier is equipped with a home theatre pass-thru that allows you to enjoy your stereo source material and the two main channels of your separate home theatre processor. The home theatre pass-thru decreases the gain of the Preamplifier with 7dB to 0dB. The Hybrid Integrated Amplifier (Tube Preamplifier plus MOSFET Powerstages) will be used as Power Amplifier.

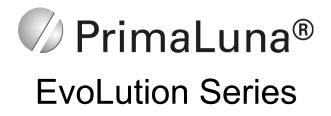
Connecting Your Surround Sound Component

To avoid damaging your equipment, always ensure everything is turned off and unplugged from the wall before connecting your components. Connect your stereo sources and speakers as usual.

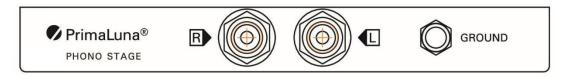
To integrate your PrimaLuna Hybrid Integrated Amplifier into your home theatre system, take the front left & right preamp outputs from your A/V processor or receiver and plug them into the "HT" input on the back of the PrimaLuna Hybrid Integrated Amplifier.

Attention: double-check if the volume of your home theatre processor is at the minimum position! When you want to watch a movie, simply turn the PrimaLuna Hybrid Integrated Amplifier on, and switch the input to "HT." Now control the volume via your home theatre processor as usual.

We recommend you go into the setup menu of your processor to match the levels of the front Left & Right speakers to match the volume of your centre channel. Consult your processor's manual for more information.



PhonoLogue Chassis (standard)



Every EVO Hybrid Integrated Amplifier comes standard with an additional chassis mounted on the bottom plate. This chassis is meant for the installation of our MM PhonoLogue board. It provides extra space, which is in most PrimaLuna EVO models not available anymore. And it gives an optimally shielded environment for less hum and noise mounting of the sensitive phono stage. You might not realize how important this is, but ... it is!

PhonoLogue MM Board (optional)

Our PhonoLogue phono stage can be installed at any time by your dealer or any qualified person. Ask for the PhonoLogue installation bulletin.

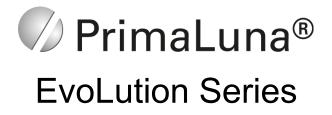
The PhonoLogue MM phono stage with RIAA equalization takes the place of the AUX2 input. It provides superior sound quality on a tiny footprint. We use Surface Mount Technology implementation for shortest signal paths as well as minimum parasitic capacitances and inductances. Excellent parts throughout, selected on sound quality as a priority: miniature film capacitors, minimelf resistors, low impedance electrolytics, super low-noise power supply, superior opamp for highest accuracy, lowest noise, highest speed and most robust drive capabilities into the RIAA correction stage, resulting in a very detailed, open and lifelike sound from any LP record. The dimensions are: **small as a big stamp!**

Don't be fooled by the size or the price. This MM phono stage has been designed **specially** by a former Goldmund engineer to excel while small and affordable.



Specifications:

Frequency Response: 10Hz - 50kHz Input Impedance: 50 kOhm Gain: 42dB (127x) RIAA accuracy: <0,5B 20Hz - 20kHz Overload Margin: >20dB rel 5mV Harmonic Distortion & noise: -83dB Size: 3.2 x 3.8 cm (1.26" x 1.5")

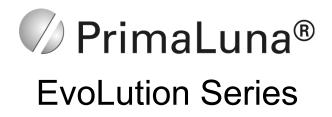


Tube Basics

The 12AU7 tubes will have a life of about 5,000 to 10,000 hours. However, the life span of tubes is always challenging to predict.

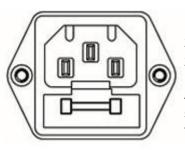
Here are some guidelines on using tubes:

- Do not use treatments on tube pins or in sockets.
- If you decide to experiment with other tube types, it's best not to repeatedly swap tubes in and out. Doing so requires you to turn your amplifier off and on. 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 re-tubed, 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 to use the same type or equivalent tubes for a replacement!
- Some tubes and tube sockets have a "centre key", which must line up! Other tubes have pin arrangements that make them fit only one way. If you misalign them and use brute force, you might damage essential and expensive parts of your amplifier!!



Fuse Protection

Warning! Fuses are safety valves. They should always be replaced with the same value and type. Never attempt to check or replace a fuse while the amp is plugged in. Please turn it off and unplug the AC cord before continuing. Wait 10 minutes to let tubes cool down, and the circuit fully discharge.



Mains Fuse: The Mains fuse is located on the amplifier's rear, just below the power cord socket (see picture on the left). The fuse rating is 1 x Littelfuse **213 Series 6,30A** Slow Blow 5 x 20mm fuse for 100-125VAC and Littelfuse **213 Series 3,15A** Slow Blow 5 x 20mm fuse for 200-250VAC.

Always replace with the same type and value fuse! Littelfuse 213 is a special time-delayed slow blow fuse! Not a standard slow blow fuse! The fuse holder can be opened using a small slotted flat blade screwdriver.

The Power Stage has two internal fuses per channel to protect the MOSFET's: Littelfuse 215 Series 10A. If broken, please, return the amplifier to your dealer.

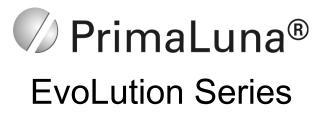
The IEC connector is mounted with two different colour screws. One silver, one black. The silver screw indicates the Live AC in the IEC connector. It helps with the "correct" connection to AC. Nevertheless, always check the AC cable by measuring as not every AC cable is constructed the same way.

Electronic Protection

The PrimaLuna EVO Hybrid Integrated Amplifier comes with Soft Start[™] and an extensive output stage protection circuitry with relay protection for your loudspeakers.

Switching the power back on too early isn't possible. A timing circuit for each power stage takes care of the delayed switch-on, controlled by the processor for optimal timing of the tube Pre-Amp and MOSFET Power Amp.

The MOSFETs are protected against DC-Offset, Oscillation and short circuits.



Checking out the internal Power Stage Fuses

No output. The power switch is on, but the power LED is red, and the tubes do not light up.

- A defect in the Power Stage(s) triggers the protection circuit. Please, check the onboard fuses.
- If the onboard fuse(s) is (are) broken, please replace it with the correct fuse (Littelfuse 215 10A).
- If the fuse(s) break(s) again, please, contact your dealer.
- The onboard fuse(s) can be broken while the Mains fuse isn't. For example, because of a short on the loudspeaker terminals.

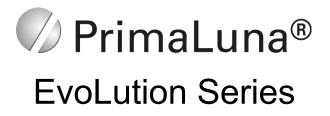
While the Mains fuse is accessible from the amplifier's back (see page 13), the fuses protecting the Power Mosfets are mounted internally on the Power Stage boards. Two fuses per channel.

For checking these fuses, you have to open up the amplifier. Sorry about that, but that's the spot to be for the best soundwise and safe solution.

Switch off the amplifier. Disconnect all cables. Leave the amplifier alone to discharge completely.

To have access to the Power Stage fuses, you have to remove the top cover. Turn the amplifier top side down on a soft surface to avoid getting scratched. Remove the bottom cover and locate and remove the four screws which hold the top cover. Lift the amplifier from the top cover and turn it back to its feet. Locate, remove and check the four fuses (Littelfuse 215 Series 10A). If any, replace the broken fuse(s) with the same brand, model, and value. Re-mount the top and bottom cover as original. Reconnect the amplifier and check the performance after switching it on.

If fuse(s) blow(s) again, please get in touch with your dealer.



Troubleshooting Tips

No output. The power switch is on, but the power LED is off, and the tubes do not light up.

- The AC cable makes a bad connection in the IEC connector. Please check.
- The Mains fuse is broken. Please check.
- 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 higher environmental temperature than regular or heavy use.

No output. The power switch is on, but the power LED is red, and the tubes do not light up.

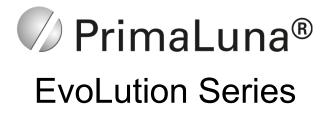
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- If the fuse(s) break(s) again, please, contact your dealer.
- The onboard fuse(s) can be broken while the Mains fuse isn't. For example, because of a short on the loudspeaker terminals.

Noise or hum is coming from one channel (eventually, when you change your volume setting).

- Noisy tube. At first, swap the two inner small tubes left to right. If noise follows the tube swap, then you have found the problem tube. If the noise does not follow, swap the next set of two small tubes left to right, eventually the next set.
- Noisy volume control.

Noise/distortion coming from both channels.

- Tubes may require replacement.
- The volume control may require replacement.



Warranty Information

Two-year limited warranty

Six-month warranty on stock vacuum tubes

Terms & Conditions

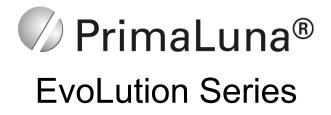
1. Limited to the original purchaser. This warranty is for the original purchaser of the covered product's sole benefit and may not be transferred to a subsequent owner.

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 the purchaser. The warranty is also void if the product has been tampered with, repaired, or modified by anyone other than Durob Audio BV or 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 Audio 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 Audio BV or the authorized representative via e-mail). Durob Audio BV or the authorized representative agrees to repair the product without charge for parts (except vacuum tubes if the unit is more than six months old) or labour upon receiving the defective product. The product will then be returned via prepaid, insured freight, with the carrier's sole determination of Durob Audio BV or the authorized representative. This constitutes the purchaser's exclusive remedy.

4. Design change. Durob Audio 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 identical or consequential costs or damages to the purchaser or third parties. Our liability will be no more than the amount you paid for the product subject to 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 unique name for her husband:* "**Maantje**", *which means* **Little Moon** (*which became our small dog's name*), **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 it was, of course, "Cor from Maontje van den Dungen" in the village. 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 the "Italian" origin of **Primaluna** name. I've read the "history" section of the **Primaluna** village website and found the following (literally translated):

One probable interpretation of the village's name comes from Latin "Primum Lumen", which means "First Light" of Christianism since the 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 get in touch with us for registering your **PrimaLuna EVO** Hybrid 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** Hybrid product, please do. If you want to send us a review of your experience with the amplifier, you are more than welcome. 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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