Review

Tekst: WOJCIECH PACUŁA Zdjęcia: Wojciech Pacuła

"factory for the world".



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[PRIMALUNA is a Dutch company founded in 2003 by HERMAN VAN DEN DUNGEN. A year later, it made its debut in the USA, and Kevin Deal, its American distributor, became one of the most important people responsible for its development. The company specializes in tube devices.]

he FINAL RESOLUTION OF THE 5TH PLENUM OF THE COMMUNIST PARTY OF CHINA, which took place end of October, which included the determinants of the next "five-year plan", is perhaps a **turning point of relations between Western World and China**. This is the first time that the GDP to be achieved by the Chinese economy has not been set, and that they focus heavily on domestic market. These actions seem to be a response to the increasingly "toxic" relationship with Western countries, as well as to the changes in global trade brought about by the COVID-19 virus pandemic cutting through "supply chains". In a word - **China is betting on itself** in preparation that it will soon cease to be the



This is both good and bad news for consumers. The good side of these changes, i.e. limiting globalization in its most primitive dimension, is an opportunity for domestic companies. Already today, many manufacturers are considering bringing, at least partially, their production of sub-assemblies and components back to factories located as close as possible to the main factory. This is good news for all of us because it means **more local jobs** should be available and it also means, that much of the capital will remain where it has been earned.

The bad news, or just worse, is that **we will all pay for it** directly from our pockets - such products will have to be more expensive. It will require a lot of financial investment and a change in logistics and thinking, which not all producers will manage. But if someone could be successful in such a change and use it for ones benefit, it would be the Dutch company PRIMALUNA.

| PrimaLuna

This is a tube amplifier, no doubt about it, but slightly different than classic designs of this type. Because what **I noticed first was its dynamics**. This aspect of sound is considered the most important by the PRO industry and many musicians, and often "forgotten" by the audiophile industry. Not in this case. I started the listening session by comparing two versions of the superclassic of jazz music, one of the most important albums of this type, i.e. *Saxophone Collosus* by Sonny Rollins, namely the XRCD version from 1998 and the modern SACD version prepared by Analogue Productions in 2014.

| Our albums

SONNY ROLLINS Saxophone Colossus

XRCD | SACD/CD



SAXOPHONE COLOSSUS IS THE SIXTH album of the saxophonist SONNY ROLLINS, released by Prestige Records in 1956. It is widely regarded as a breakthrough album for this musician. The leader was accompanied by the pianist Tommy Flanagan, the double bass player Doug Watkins and the drummer Max Roach.

The album was recorded **overnight on June 22, 1956**. It was produced by Bob Weinstock, and the sound was recorded by Rudy Van Gelder in his studio in Hackensack, New Jersey. This is a monophonic album and one of the hits of JVC's XRCD series. For its needs, the material was sourced from the analog "master" tape in the A&M Mastering studio in Hollywood by Alan Yoshida, cocreator of the XRCD format. This is a version with a fairly high average signal level, strong, unambiguous and tangible. It offers great dynamics and good timbre.

In 2013, the album was remastered again, also from the "master" tape, this time by Kevin Gray at the Cohearent Audio studio. It was released on 200 g vinyl. A year later, the digital version was presented on a hybrid SACD disc and it was the second approach to the title - the first version was released in 2002. The SACD release sounds completely different than the XRCD one. It is more distant, more fluid, less selective. The XRCD sounds more "in the face", which makes it more "present" in the room. The SACD shows the events as in concert, with **less selectivity but a better resolution**.

The main area of interest for PrimaLuna company are tube amplifiers - both integrated and separates. The first device to be sold under this brand - and before that it was AH! Njoe Tjoeb brand, offering the CD4000 (Marantz) CD player upgraded with a tube output - was the amplifier called ONE, which used four EL34 power pentodes, two per channel. Initially products were designed by Herman van den Dungen and Kevin Deal, starting from the Model One all new devices were developed by Marcel Croese, former head of Goldmund's R&D department.

The EVO 200 amplifier is the heir to this first amp in a straight line, with the Prologue Premium model along the way, and - like the One - is being manufactured in China. It also features a design and appearance standardized for all models. As PrimaLuna people emphasize in interviews, the idea was to **offer music lovers/audiophiles "as much as possible for as little as possible"**, that is, the best product at the lowest possible price. It can be seen in advertisements published by this company in the American press, for example in the "Stereophile", where - for example - in an advertisement for the EVO 400 preamplifier it reads: "\$ 9k for a 15lb preamp ?!"

In all the company materials that I have come across, a special attention paid by the company's engineers to the **quality of components and the greatest possible functionality of its products** is constantly emphasized. And not by accident - looking at the list of what the tested EVO 200 amplifier can do and analyzing how it is made, an experienced audiophile will notice a certain regularity: elements that are usually pointed out in other designs, as those that could be upgraded later by users, here are mostly already "taken care of" by manufacturer.

I EVO 200

The EVO series was introduced in September 2019 - it included from the start as much as **thirteen new models in four lines**: EVO 100, EVO 200, EVO 300 and the most expensive EVO 400. They include a CD player, DAC, integrated amplifiers, preamplifiers and power amplifiers, both in stereo and monaural form.

CONCEPT The EVO 200 is an **analog**, **tube integrated amplifier** rich with features. It has a classic look, that is, the tubes are mounted on top of a flat chassis, and behind them there are transformers - power and output ones - all in a metal housing; all being a classic EI type. In the front there is a low front panel with manipulators. The inputs and outputs - except for the headphone one - can be found on the back. A bit unusually, there are additional switches on the sides of the chassis - I'll get back to them in a minute.

Taking the amplifier out of the box, you will surely notice its considerable weight and very good make and finish, manifested in structural integrity, as well as in **solid workmanship and precise connection of individual elements**. The chassis is made of thick steel sheets, and the front is made of anodized aluminum. The plates were painted with a dark gray metallic paint, but much more discret than those on cars.

FEATURES This is a classic amplifier, so there is no DAC and Bluetooth. User can adjust volume and select an active input using knobs on the front panel - there are four line inputs and one marked "HT", through which the signal is sent directly to the power section, bypassing the preamplifier; with its help one can integrate the amplifier with a home theater system. And there is also a recording output with fixed signal level.

PrimaLuna does not integrate D/A converters into their amplifiers. In the press materials, which can also be found on the website of the Polish distributor, the company points out that the D/A converters built into the amplifiers **lose their value very quickly** because they "get old". It is true. It is also often said that building in phono preamplifiers is not really the best idea..

Well, apparently the company has changed its mind, because looking at the EVO 200's rear panel **one will see a stereo phono input**. In company's defense, I have to mention that it is actually an external preamplifier, the enclosure of which is "suspended" under the integrated amplifier. It is a solid-state design and it has to be ordered separately - it was not included in the tested unit. You can find more about XRCD in <u>PRAISE OF A</u> (NON)FORMAT: XRCD

THE FIRST OF THE MENTIONED VERSIONS is much louder, which suggests stronger compression, and is also more "forward". The instruments are clearer with it, closer to us and have a stronger "slam". The AP version, on the other hand, places the stage further away, the instruments are situated deeper in the stage, it is also much quieter. The differences were shown smoothly and clearly, which **suggests a good resolution of the Dutch amplifier**. Most of all, however, in both cases you could hear great bass performance of the PrimaLuna and its ability to show dynamic shifts in tempo with the recording, without making the stronger impulses shallow.



Zdolność do bardzo dobrego różnicowania materiału potwierdziła się też przy odsłuchu dwóch, skrajnie różnie przygotowanych płyt - *Brooklyn Eye* Joachima Mencla oraz *Union* Laurence'a Hobgooda. Obydwie mają za lidera pianistę, ale zostały zrealizowane w zupełnie różny sposób. Płyta Mencla jest nagrana, zmiksowana i zmasterowana cyfrowo "in-the-box" w systemie Pro Tools, natomiast płyta Hogbooda to klasyczne wydawnictwo firmy Naim, to jest zarejestrowane analogowo na magnetofonie Nagra IV-S przez Kena Christiansona od razu na dwie ścieżki.

The ability to differentiate the material very well was also confirmed while listening to two extremely differently prepared albums - *Brooklyn Eye* by Joachim Mencel and *Union* by Laurence Hobgood. Both have a pianist as their leaders, but were produced in completely different ways. The Mencel album is recorded, mixed and digitally mastered "in-the-box" in the Pro Tools system, while the Hogbood album is a classic Naim release, it is an analog recording made using Nagra IV-S tape recorder by Ken Christianon, directly to two tracks.

And the differences were clear, not only due to the higher noise level on the Naim disc, but most of all due to the greater opening of its sound, as well as the kind of "dirt" that cannot be eliminated in such a recording. On the other hand, the Mencel disc sounded perfectly clean, dark, with high dynamics. And that's exactly - **the dynamics that in both cases has a "different color**" and this was shown by the reviewed amplifier in a very nice way.

Because it is an **amplifier offering an open sound, that shows music in a fresh, clear way**. At the same time, it does not sound bright. This is an interesting combination, because the opening of the sound I am talking about, results a bit from a slight hardening of the upper bass, which gives the whole proper pace, and thus also tightness, but also from a very good balance between sweetness and precision, openness and density.

That is why it is so difficult to classify this amplifier into any of the groups. It is not as warm as the <u>Leben Leben CS600X</u>, but it is warmer than the <u>CS-300F</u> from the same company, it is not as dense as the <u>Ayon Audio SPIRIT V</u>, but it is denser than the <u>Haiku-Audio HOMMAGE A WILLIAMSON</u>.

So you could say that it is **an amplifier with its own sound**. And even changing the operating mode does not affect its reception in any particular way. In the "High Current" mode, the sound is a bit stronger and clearer, and the whole thing is better focused, and I mentioned earlier the switches placed on the side of the amplifier - let me explain what they are for. One is used to turn on the amplifier, and the two, located on the other side, to **choose between the loudspeaker and headphone outputs and to change bias for output tubes**. There is a headphone output on the front panel and adding it was taken very seriously. It is powered from the output tubes through a voltage divider. The Japanese company Leben designs its amplifiers in a similar way. In this case, the description on the switch - 0 or 1 - is a bit confusing, but you will get used to it.

On the other hand, the change of the bias concerns the selection of the operating mode - the tubes in the EVO 200 can operate in triode or pentode, ultralinear mode. Or at least, I think so - on the manufacturer's website, in the table comparing amplifiers with the EVO 200, this option was not marked. The difference between the two positions is clearly audible, so you will be able to adjust the sound to your own requirements.

TUBES And so we finally got to the heart of the amplifier, i.e. the tubes. In the preamplifier section there are two 12AU7 (ECC82) double triodes, as well as in the phase inverting section which drives the output tubes. And these are a pair of EL34 pentodes per channel, in a classic push-pull configuration. All tubes appear to have been manufactured in China, but were selected for PrimaLuna, which was emphasized by the company's logo placed on them.

The Dutch manufacturer started its business from repairing and modifying tube amplifiers and knows very well what problems are associated with them and how they can be solved. Therefore, in addition to the audio circuit, the EVO 200 features also an extensive **"tube welfare circuit"**. After turning on the amplifier, the tubes life extension section starts. First, it turns on the heating, and then the anode voltage. The readiness of the amplifier to operate is indicated by the change of the diode color from red to green.

The second circuit ensures the best performance and safety of the whole circuit. There are red LEDs next to each output tube, indicating their failure. If this happens, we just take out the faulty one and put a new one in its place, and the system called ADAPTIVE AUTOBIAS **automatically adjusts the cathode current to a specific tube**. The company materials point out that this is a really advanced system, not an ordinary "Auto Bias" and it is even emphasized that it is "the only such solution in the world". I am sure that the idea is based on a proprietary development, but let's note that you can find equally advanced systems in devices from other companies, for example Ayon Audio (Auto-fixed-bias), VTL (auto-bias logic controlled) and others.

In any case, the circuit used in PrimaLuna amplifiers provides 50% lower distortion at high sound levels, ensuring that the tubes work with the optimal parameters, and also **allows easy replacement of tubes - both for new and other types**. This is ensured by both the aforementioned circuit and a large, oversized power supply with two large Nichicon capacitors and a choke. In the test I will assess the amplifier working with both, the standard EL34 and the Tung-Sol KT120 tubes.

COMPONENTS As I mentioned, this company designers' focus are components used in their devices. Therefore, the EVO 200 features **very good high-power resistors and polypropylene coupling capacitors**. The latter are manufactured to order under the DuRoch brand. The assembly was carried out using a mixed point-to-point technique and PCBs. The former is used for the components in the preamplifier section, the latter one had to be chosen for the output tubes, because that's where the Adaptive AutoBias circuit is.

To sum up - this is **an excellent example of intelligent design**, that is, one in which money has been used in an optimal way within the available resources. There is a solid, aesthetic, though utilitarian chassis, nice components and high-class transformers. The circuit is protected by a safety system that regulates the operation of the output tubes. There is also a remote control that allows user to adjust volume, "mute" the input, and if we have a CD player that works with the RC-5 code, we can turn CD playback on and off. It is a good or even very design.

therefore a bit more contoured. In the "Low Current" mode, the sound is warmer and slightly softer. It was in this mode that the albums sounded better and more pleasant in my system. However, it may be the other way around for you in your system, it depends on the components used around the amplifier. But it's important that we have a choice.



The same goes for tubes. It seems to me that thanks to them we have even more room for maneuver. Replacing the EL34 tubes with the KT120 showed that the amplifier has its "basic" sound, because **it kept high dynamics, contour and transparency**. Its character, however, changed significantly. With the KT120 the midrange was more open and it was audible that it had been slightly dimmed before. The lead vocal on the Caravan album *In The Land Of Gray And Pink* with the KT120 was placed a bit further away and it was not as big as with the EL34, but it was also softer and the elements related to the breath and phrasing were audible more clearly.

In both cases, i.e. with the EL34 and KT120, **the sound was strong and the bass extended very low**. This is one of the most important advantages of this device. The amplifier drove the large Harbeth M40 speakers effortlessly, or at least without any noticeable effort. With the KT120, the sound opened up even more and relaxed a bit thanks to the higher output. But with the EL34 there was nothing to worry about. Interestingly, with the headphones I got a slightly different picture of the whole.

| HEADPHONES

THE INTERESTING DEVICES ARE NOT BORING - an oxymoron, but a clear message. The PrimaLuna amplifier driving headphones is generally similar to what you hear with the speakers. So you get a rich, full sound. It is a bit warm, a bit boosted up in the lower midrange, it also has a slightly muted upper treble. It is all done in such a way that when we listen to numerous albums, we sink into them, on the one hand - because this is ultimately this type of presentation - but on the other, we don't fall asleep.

The amplifier driving headphones **perfectly transmits the tonality of the recordings**. Listening to the recorded very warm, not fully resolving, but very emotionally arranged album of Marc Copland and John Abercombi entitled *Speak To Me*, I was immediately sure it was the right way. With the music carefully mixed and mastered by Mateusz Sołtysik, that is Joachim Mencel's *Brooklyn Eye*, and Piotr Wyleżoł's *Human Things*, which I got on Master CD-R discs, I could hear it clearly, that they have their internal dynamics, but also that in general they are a bit muffled. The most important, however, on both of them was music which turned out to be cool and surprising.

It was clear with the EVO 200 as a headphone amplifier. It's not like it sounds like a headphone amplifier "for the money". The Ayon Audio HE-3 headphone amplifier, which costs the same as the EVO200, is much more resolving and differentiating, it also shows the treble better. Nevertheless, I had no problems with spending a few evenings with PrimaLuna, and not to test it, but to listen to new albums and read the press with headphones on. I didn't have the impression that the headphone output was just an "extra" feature for show.

I SOUND

HOW WE LISTENED The amplifier was placed on the top shelf of the Finite Elemente Master Reference Pagode Edition rack, on its own feet. It was powered using the Harmonix X-DC350M2R IMPROVED-VERSION cable, the signal from the Ayon Audio CD-35 HF Edition SACD player was sent via the Crystal Cable Ultimate Dream interconnect, and to the Harbeth M40.1 loudspeakers with the Western Electric NOS cable.



L One may use various tubes in the EVO 200 – photo shows Tung-Sol KT120 beam tetrodes

The test was conducted with two sets of tubes - the EL34, which were included, and a set of KT120s, which can be purchased separately. However, the option to choose between speaker and headphone output turned out to be more significant. In the latter case, I used the HiFiMAN HE-1000 V2, HD800 Sennheiser and DT990 Pro (600 Ω) Beyerdynamic.

Recordings used for the test | a selection

L BECK, *Sea Change*, Geffin Records/Mobile Fidelity, UDCD 780, "Special Limited Edition | No. 01837", Gold-CD & DSD64 (2002/2009)

L CARAVAN, *In The Land Of Grey And Pink*, Deram/Universal Music Company (Japan) UIGY 9620, SHM-SACD (1971/2014) JOACHIM MENCEL, *Brooklyn Eye*, Origin Records 82806, Master CD-R (2020);

LAURENCE HOBGOOD, BRIAN TORFF, PAUL WERTICO, Union, Naim Label naimcd015, CD (?)

L MADELEINE PEYROUX, *Careless Love*, Rounder Records 9836601, CD (2004)

L MARC COPLAND & JOHN ABERCOMBIE, Speak To Me, Pirouet Records PIT3058, CD (2011)

L PIOTR WYLEŻOŁ, *Human Things*, Polskie Nagrania | Warner Music Polska 9029570037, "Polish Jazz vol. 79", Master CD-R (2018)

L QOPE, Nocturnal, trptk live TTK 0024, CD (2018);

L SONNY ROLLINS, Saxophone Colossus, Prestige/Analogue Productions CPRJ 7079 SA, SACD/CD (1956/2014)

L SONNY ROLLINS, Saxophone Colossus, Prestige/Victor VICJ-60158, XRDC (1956/1998)

|LOUDSPEAKERS

A TUBE AMPLIFIER SHOULD SOON WARM - and PrimaLuna does. A tube amplifier should sound clean, after all that's what linearity is about - and PrimaLuna sounds clean. And, finally, a tube amplifier should offer a "tangible" sound and PrimaLuna shows the events on stage in this way. Yet, the "recipe" for a tube amplifier outlined in this way describes the sound of the tested amplifier quite poorly, even though all these points could be "checked off".

It is an engaging amplifier, also in this role. It does what it wants with the headphones, in the sense that its output is so high that there is no situation where there is a mismatch, lack of control or even overdrive. It is a good power, so to speak, because it is forgiving, not accusing, so to speak - hence the feeling of "warmth" in this sound. The bass is soft, dense and low, but hits very fast and hard when needed.

The EVO 200 imaging is really good. I am not talking about the "stereo imaging" known from listening through loudspeakers, that's clear. But arranging events in space is interesting, good. The amplifier prefers the foreground and the sphere around it, and when it comes to playing instruments located extremely in the channels, it narrows the stage a bit. This is a clear modification. But also a good compromise between its capabilities in terms of resolution, selectivity and stereo.



This is a good, very nice sounding headphone amplifier. Even having an additional PLN 5,000 to spend, I would never reach for an external device, but I would buy as many music releases as possible. Or I would spend them on the best possible headphones - Sennheiser HD800 and <u>HiFiMAN HE-1000 v2</u> this is a goal worth pursuing with the EVO 200.

| Summary

The PrimaLuna EVO 200 is **an extremely versatile device**, even though it is "only" an integrated amplifier. We can tune its performance by selecting the operating mode or tube rolling - not only ones from a different manufacturer, but also of a completely different type. We can choose between L6G, 6L6GC, 7581A, EL34, EL37, 6550, KT66, KT77, KT88, KT90, KT120 and KT150. The EVO 200 is also a great tube amplifier that will drive any headphones in a great way.

The sound of this device is open, dynamic, there is a lot of low bass in it, and the presentation has a lot of momentum. But there is also warmth and intimacy, there is also tangibility. It is a tube amplifier that offers all the attributes that devices of this type are loved for. But it is also not a "retro" amplifier, but **an example of a modern use of this technology carried out in a really very good way.**

Technical specifications (according to the manufacturer)

Frequency range: 10 Hz-65 kHz +/- 1 dB | 7 Hz-95 kHz +/- 3 dB Nominal output (Ω , 1% THD): 2 x 44 W S/N: 92 dB Input impedance: 870mV Input impedance: 100 k Ω THD: <0.1%/1 W | <2%/max output Dimensions (W x H x D): 405 x 365 x 205 mm Weight: 25 kg

