## DIY Loudspeakers:

## EAR-868L Replaced Feb 20 with -868PL

Update 2020: EAR-868PL and mods

Update 2021: More caps

The EAR-868L line stage is essentially the same as the -912, void a few options and not least without the phono stage. The 868 phono stage cannot be added later according to the EAR sales people at Munich 2018, so if a phono stage is needed, consider this before buying. I've never compared the -868PL and -912 phono stages and can't tell how good the 868PL is. What I needed for my workshop line stage was double balanced outputs, remote control and not least - superior sound. I found a mint condition 2nd hand version and yes, the 868L's got what I was looking for!

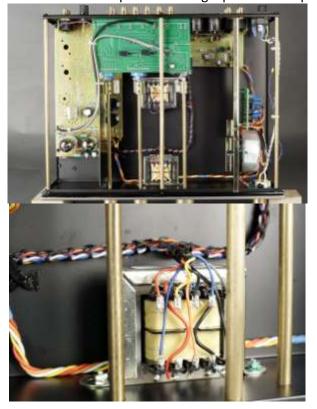
It really doesn't sound that much different from my WOT line stage, but the 912/868 line stage has a particular *engaging* sound. Dynamic, spacious, transparent, etc. I guess it has just a little bit more bass punch - or just simply level. Can't tell. As for my 912, it comes with ECC88 tubes, not PCC88. Whatever, they sound great. And by the way, the former plastic remote has been replaced by a nicer alu version.

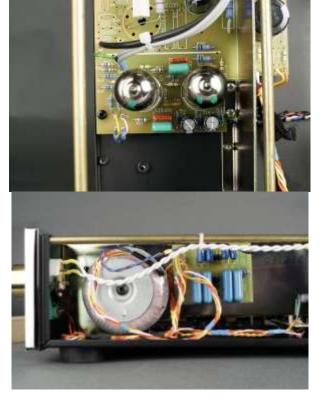
The -868 needs a power amp with a decent gain, like 24-26 dB. I tried the -868 with a First Watt J2 having 19 dB gain. Not a good match. The 868L specifications says 0.2V in for 1V out = 14 dB. A J2 requires a  $\sim$ 20 dB line stage. But with my EAR-861 power amp - works wonder!





Double XLR outputs and a single pair of XLR inputs. Phono sockets are for en extern phono stage.





EAR-868PL

The EAR-868PL is in many ways similar to my EAR-912 having an LCR tubed phono stage, albeit built around two PCC88 valves compared to three valves for the -912 and it has a capacitor coupling to the line stage, where the -912 uses transformers.

There are several reasons for replacing the EAR-868L with this EAR-868PL. First of all I wanted to explore the quality of the phono stage to see/hear if it is as good as the phono stage in my EAR-912 pre-amp and the difference - with the modded coupling caps - is miniscule.



Next I like the all-in-one solution for my workshop system and this unit has it all, from balanced in/out to a fully functional MC stage that will take my MSL cartridge.

Last, but not least, I like these EAR products - and what they do to my sound. I like it very, very much. The guy who bought my -868L for his DAC was equally thrilled for what a good line stage can do to the overall sound of a system.



I had to wait three months after ordering - and then the remote was missing. EAR folks, you can do better than that.

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The red dot on the volume knob is my addition as I need to see its position three meters away from my listening chair.

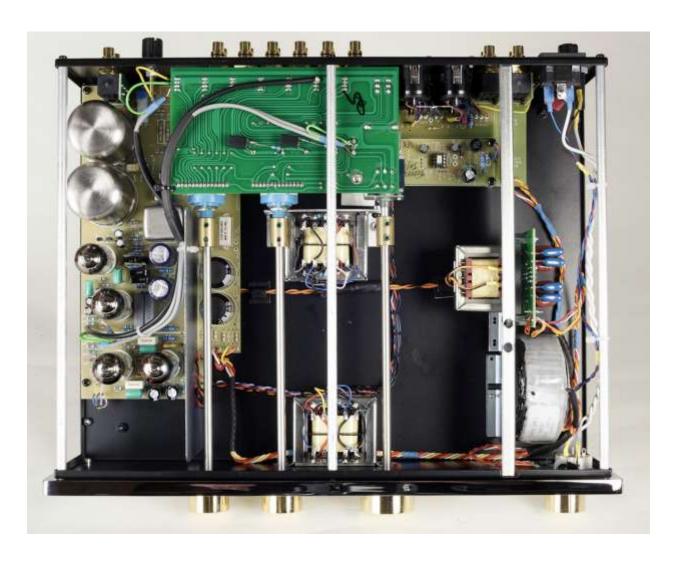


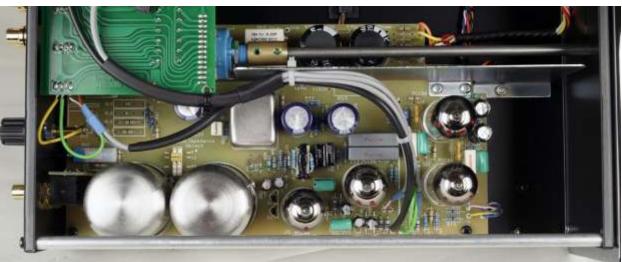
Rear panel with the extensive connections



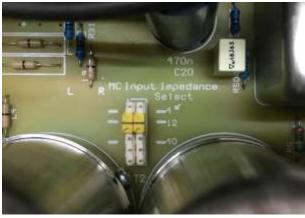
I wonder how many will actually use the tape mon option...

I've been more than pleased with the phono stage of the EAR-868PL and really did wonder whether any "upgrade" would pay off. But I took the plunge and changed the two coupling caps to some Rike copper foil caps, 0.68 uF - because that was what I had at hand and the difference in value doesn't matter here, it may even have a slightly lower cut-off, but nothing that matters. Now, these Rike caps are many, many times the size of the standard PP caps (PP, my guess) and they have to be placed outside the board. Follow images below and see how. It has to said, this tweak is not an easy one. We have to loosen both circuit boards to be able to swing out the phone/line stage and unsolder the two caps.





Here a close-up of the phono/line-stage





MC impedance can be set to 4, 12 and 40 Ohms. Great!

The 0.47 uF coupling caps are a possible bottleneck and will be replaced by copper foil asap.





Remove all nuts holding the phono sockets in place on rear panel and also remove the rods stabilising the cabinet.

Also remove the rods to the rotary switches and volume potentiometer.





Above the two Rike copper foil caps anchored in mahogany cradles, secured by Superfix. To the right the new wires from the circuit board, here multistrand silver plated cobber in PTFE sleeve.

Fortunately we have amble space in front of the circuit board for the new caps. These Rica caps are no longer available and I suggest the Miflex KPCU01-0.68u/600 or the

Jupiter copper foil/paper/wax I used.

The Miflex 0.68 uF are Ø40x70 mm and should fit when placed horizontally.

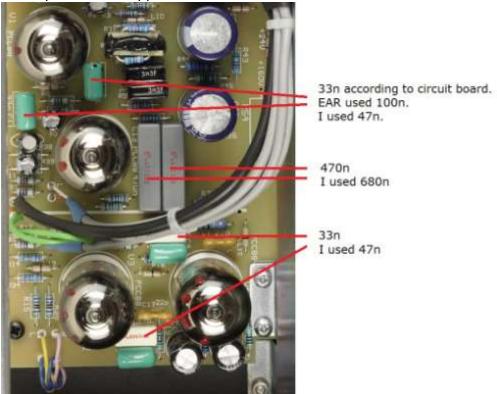


The caps glued with Superfix to the front panel of the basic chassis.

In short: These caps add to a better timbre and not least - improved far field ambience. Couldn't be happier.

## 2021:

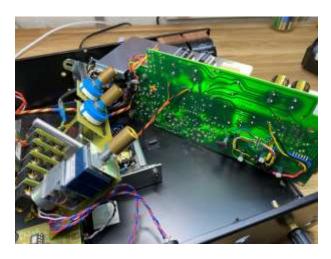
Actually I could be happier..

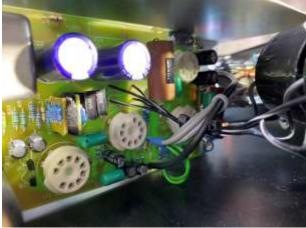


What I didn't realise until later was that there are two more caps to replace to gain full upgrade.

The two 33 nF caps in the line stage are as important as the riaa coupling caps. So, I had to dismantle the whole thing again....

47 nF Jupiter copper/paper/wax was ordered like I did for the -912. In this place 33-100 nF goes.





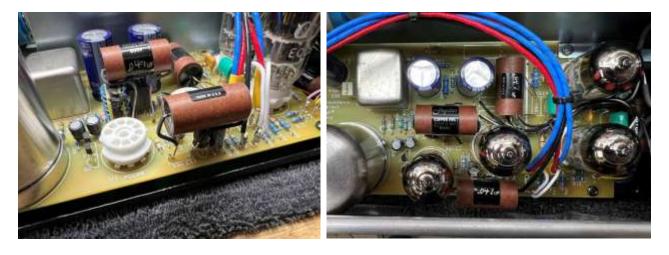
Replacing these caps was more trouble than anticipated. I didn't want to unsolder a lot of wires, so it took some twisting and turning to reach the solder spots of these two caps. But it turned out right and given the small size of the 47 nF caps, no problem in finding space.

I didn't think it would make any *major* change, but it certainly did. The ability to portray a 3-dimensional sound stage is significantly improved and from my OPUS3 Test record, which I've heard hundreds of times, I heard information I hadn't heard before, like a piano player faintly humming along - something I've never noticed before. This from my Discovery-3WC-mkII speakers. These copper caps, regardless of dielectric material, offers an astonishing improvement in passing spatial information and - as far as can know - improved tonal fidelity.





Replacing C5 and C15 with 47n copper foil caps.



Above replacing C1 and C11 with 47n copper foil caps.



While at it, I replaced the signal wires from the RIAA and line stage to the selector board with shielded silver plated copper in PTFE.

The EAR-868PL is now the key components in my workshop system.



The workshop setup, Kuzma StabiR/Jelko/MSL Eminent - EAR-868PL pre-amplifier - EAR-861 power amplifier.



2023: Jelco arm replaced by Kuzma 4Point9. The 4P9 + MSL cartridge: Magic combination!