With OCE technology, hearing and seeing are believing

Now a Proven Technology—and Available Through PBN Audio

OLYMPIA-OCE Optical Cartridge Equalizer

For those who embrace vinyl recordings as the most satisfying listening experience, the introduction of a new technology that delivers a **heightened, more lifelike soundscape** will quickly perk up ears. PBN Audio is the first U.S. audio component developer to tackle, and master, the potential of the **Optical Cartridge** developed by the Japanese company DS Audio—a breakthrough in turntable cartridges that uses an amazingly precise infrared light beam to read the analog recording embedded in a vinyl record's grooves.

PBN Olympia CPS/OCE *(back)*

PBN Olympia OCE *(back)*

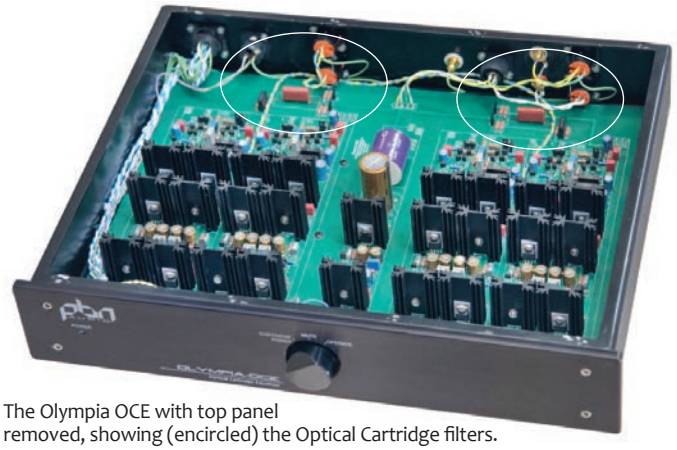
Optical cartridges detect music signals by capturing shadow changes (brightness modulation) using infrared LEDs and photo cells. The shading plate vibrates in front of the LED, and the photo cells behind it detect the change in brightness. There is virtually no magnetic resistance at the point of the needle—moving a light shading plate to a thickness of ***only 100 microns*** is all that's required. As the photo cells detect changes in brightness created by the record's groove movement, the output voltage changes accordingly. The movement of the shielding plate will be read as two separate stereo channels, by two photo detectors. The basic detection principle is exactly the same as the photoelectric cartridge of 40 years ago—***the output of the photo cell is pure, vivid analog sound***.

(far left) The Grand Master Optical Cartridge by DS Audio.

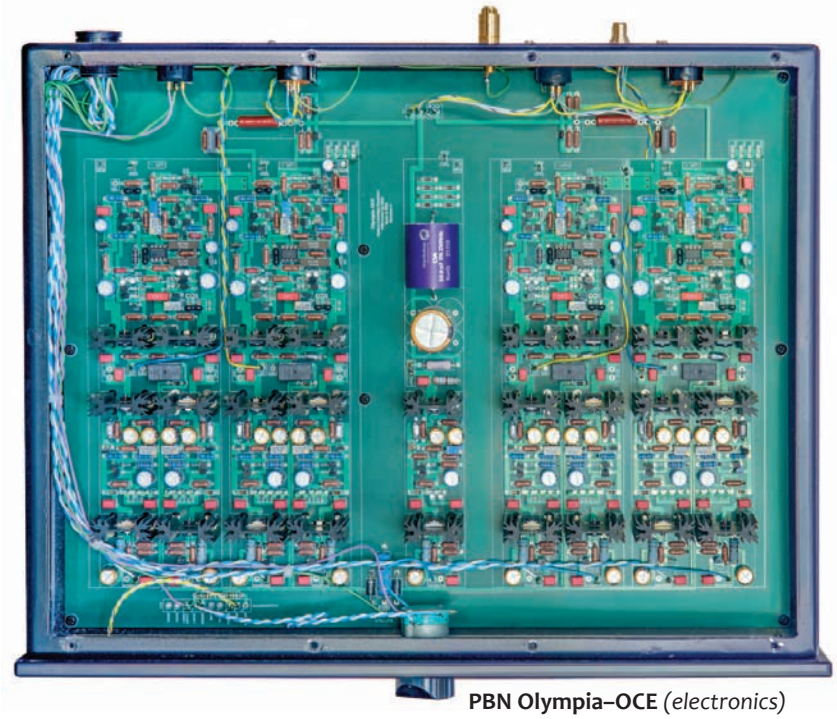
(left) the single knob on the Olympia-OCE is all you need to operate.

A key indicator: The Olympia–OCE registers a ***much higher output with just 26dB gain***—less than one-third what might be expected in a traditional phono pre-amp.

The PBN Olympia–OCE pre-amp has been meticulously engineered to awaken the most nuanced performances in your vinyl collection. ***The future of the Optical Cartridge is now.***

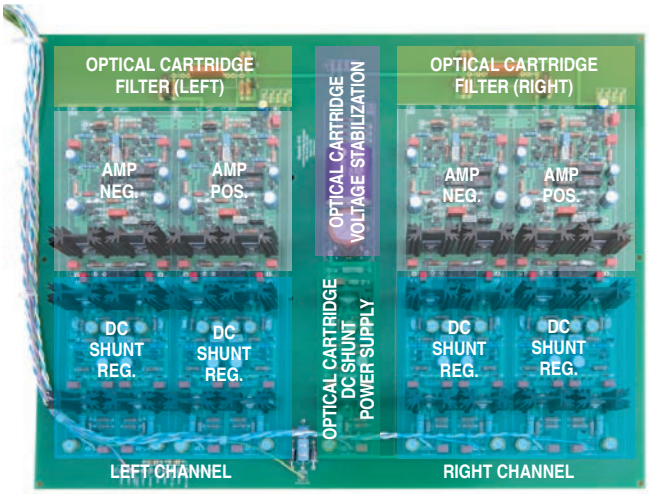


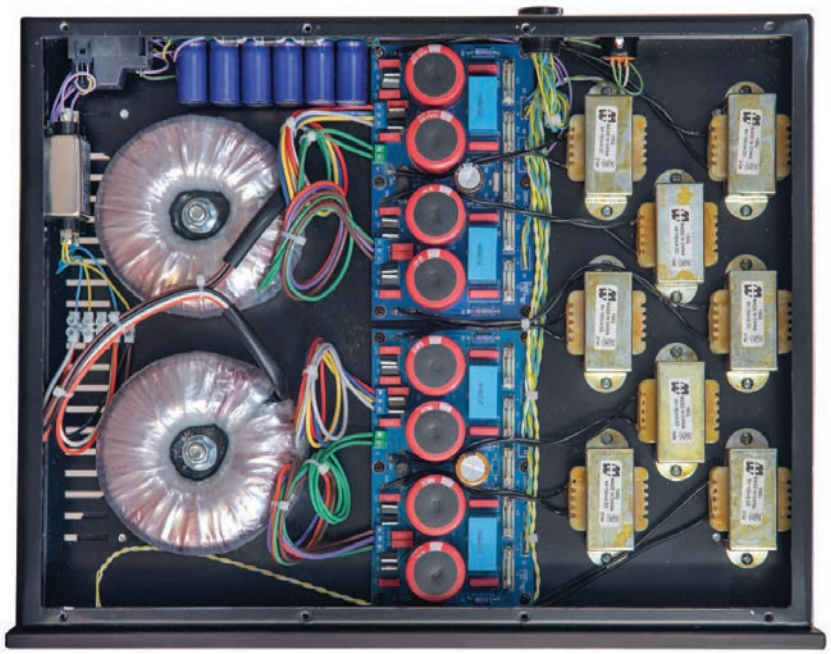
The Olympia OCE with top panel removed, showing (encircled) the Optical Cartridge filters.



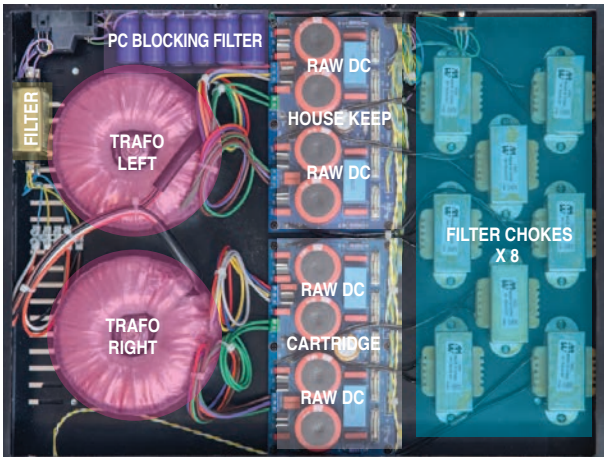
PBN Olympia–OCE *(electronics)*

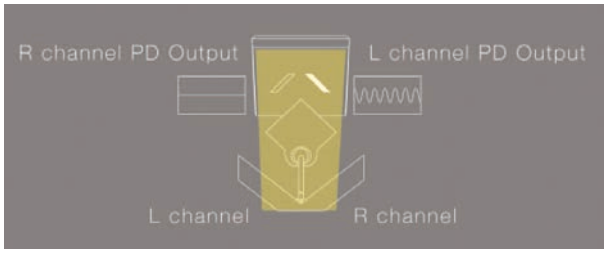
The Olympia–OCE (Optical Cartridge Equalizer) and the CPS/OCE Power Supply work in perfect tandem to provide maximal signal strength and stability through every phase of the two-channel system. There are no weak links.





PBN Olympia CPS/OCE High Current DC Power Supply *(electronics)*





Basic schematic of the DS Audio Optical Cartridge

SPECIFICATIONS

- Fully differential All-FET circuit design. The Olympia OCE is complete with a CPS/OCE power supply featuring two 375VA transformers, eight filtering chocks and 80,000 uF power supply capacitance
- Super low-noise onboard shunt voltage regulators
- RIAA accuracy better than +/– .5 percent
- Overall gain is 26dB
- Pre-Amp: 19″W x 4.5″H x 15″D
- Power Supply: 19.5″W x 4.5″H x 15″D

Ask about our full line of custom-designed GrooveMaster turntables, amplifiers and speakers. Whether a single component or a full audio system, PBN Audio delivers uncompromising excellence.

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