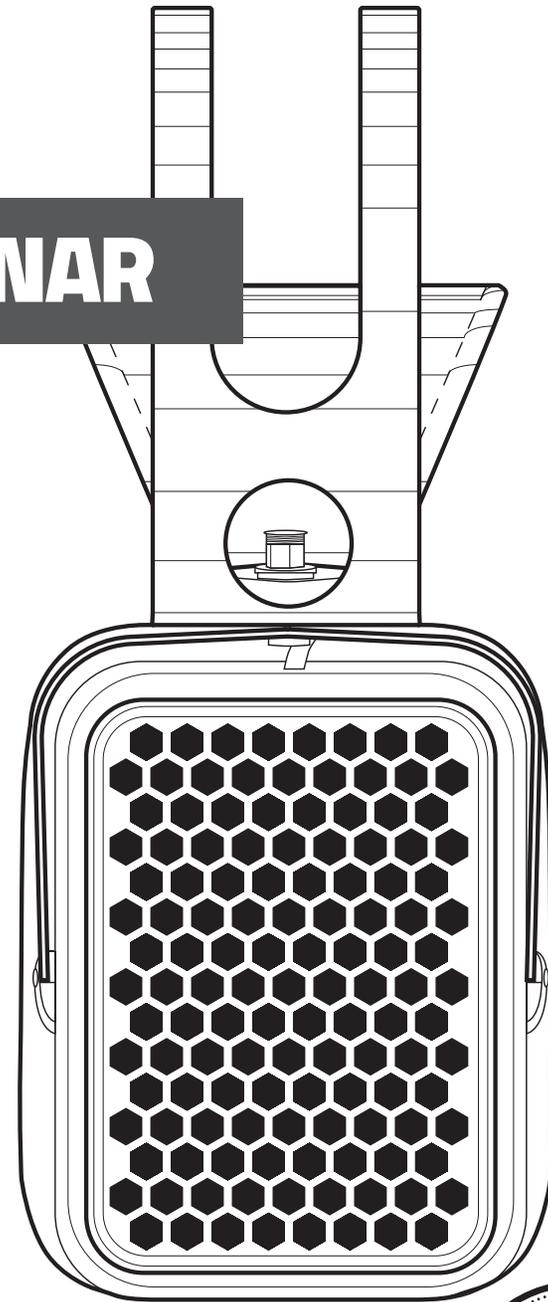


**PLANAR**



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## IMPORTANT SAFETY INSTRUCTIONS

Exposure to extremely high noise levels may cause permanent hearing loss. Individuals vary considerable in susceptibility to noise-induced hearing loss, but nearly everyone will lose some hearing if exposed to sufficiently intense noise for a period of time. The U.S. Government's Occupational Safety and Health Administration (OSHA) have specified the permissible noise level exposures shown in the following chart.

According to OSHA, any exposure in excess of these permissible limits could result in some hearing loss. To ensure against potentially dangerous exposure to high sound pressure levels, it is recommended that all persons exposed to equipment capable of producing high sound pressure levels use hearing protectors while the equipment is in operation. Ear plugs or protectors in the ear canals or over the ears must be worn when operating the equipment in order to prevent permanent hearing loss if exposure is in excess of the limits set forth here.

Duration, per day in hours	Sound Level dBA, slow response	Typical example
8	90	Duo in small club
6	92	
4	95	Subway train
3	97	
2	100	Very loud classical music
1.5	102	
1	105	That couple screaming at each other
0.5	110	
<0.25	115	Loudest parts at a rock concert



The AVANTONE PLANAR Headphones comply with all applicable / RoHS / WEEE European Union directives.

**Do not attempt to service this unit yourself, as it will void your warranty.** Please check your unit carefully upon receipt and return to place of purchase immediately if there are any problems with the product. After that, the standard AVANTONE 5 YEAR warranty will apply to defects in materials and workmanship.

## U.S.A.

Should your AVANTONE product require service, please contact the AVANTONE PRO Service Department. +1 845 642 3697 -or- e-mail info@avantonepro.com. **You must obtain an RA # (Return Authorization number) from us before shipping a unit back to us. This RA # must be clearly written on the outside of the box.**

**Please safely pack the units...It is best to use the original packing materials. AVANTONE PRO cannot be responsible for any damages incurred in shipping to us due to poor packaging. PLEASE PACK CAREFULLY and FULLY INSURE THE SHIPMENT.**

## INTERNATIONAL

For service or warranty assistance, please contact the AVANTONE PRO distributor in your country through the dealer from whom you purchased this product.

## LIMITED 5 YEAR WARRANTY

AVANTONE PLANAR's are warranted by Avantone Pro to be free from defects in materials and workmanship for the period of 5 YEARS to the original purchaser. In the event of such defects, the Avantone Pro product will be repaired without charge or, at our option, replaced with a new one if delivered to Avantone Pro prepaid, together with a copy of the sales slip or other proof of purchase date. The warranty excludes problems due to normal wear, abuse, shipping damage or failure to use the product in accordance with the specifications.

All speaker systems are vulnerable to damage from sustained amplifier clipping. This can be described as a distortion of the signal caused by the amplifier running out of headroom. Heat will then be generated in the voice coil of the driver beyond the heat handling capabilities of wire and glue. At some point the voice coil will burn, causing the speaker to sound very distorted; eventually the driver will stop working.

All parts and labor are covered under this Limited Warranty. However, if it is determined by AVANTONE PRO that the voice coil was burned due to sustained amplifier clipping, we reserve the right to charge the customer for the cost of the repair, since this is considered abuse.

Avantone Pro shall not be liable for damages based upon inconvenience, loss of use of the product, loss of time, interrupted operation or commercial loss or any other damages, whether incidental, consequential, or otherwise. This warranty gives you specific legal rights, and you may have other rights, which will vary from state to state.

**This warranty is not transferable.**



## INTRODUCTION

Planar magnetic audio drivers have been around for decades. In audiophile hifi loudspeakers and in headphones. Loudspeakers, although praised for midrange and high frequency performance, never got a lot of traction in hifi due to the lack of bass coming from these systems. However, in an enclosed listening space like a headphone this is not an issue.

The advantage of a planar system over a traditional voice coil and cone is simply mass. The planar membrane is much lower mass than a traditional cone system. Even in modern headphones, using light-weight materials, there is still a voice coil attached to the moving cone.

The difference in the mounting system also yields a significant improvement in distortion and transient response. Even though both are edge suspended, the behavior of a circular surround is much different than a planar membrane. The front and back magnets provide an equal and opposite push/pull instead of relying on the mechanical spring of the surround to assist in the return to neutral position.

The attach point of a voice coil also can affect the distortion artifacts present in a moving coil type speaker. If there is any imbalance in positioning in the gap, it will induce unwanted behavior. Any imbalance in mass caused by alignment, glue, or other considerations can also cause problems. Planar speakers by their nature are immune to these and other issues.

Combining modern materials – neodymium magnets and super thin membrane materials, we are now able to build cost-effective systems that have phenomenal frequency and transient response. Super low mass and reasonable excursion allow for one of the most precise playback systems known.

The Avantone Pro PLANAR is the culmination of years of research and audiophile experience in the design team. A passion for accurate, yet musical tonality, exquisite response to attack times, and a large format membrane gives a full range experience like no other.

We have combined our passion for sonic excellence and affordability with a beautiful vintage look, made of robust materials to provide both a beautifully crafted headset and a truly impressive sonic experience.

The Avantone Pro PLANAR is the ultimate in playback and audiophile listening. You have never heard anything with the clarity, accuracy, range and response in a headphone before.

Thank you for purchasing the Avantone Pro PLANAR.

## ENGINEERING OBJECTIVES

The Avantone Pro PLANAR Studio Reference Headphones are designed to be dynamic, high SPL, high resolution, full-range playback monitors. We included custom engineered, large area diaphragm, precise, no-compromise drivers in a beautiful, comfortable format that complements modern production environments.

These are an open back design, allowing for the clearest transient response, phenomenal mids and highs, and a listening experience like no other.

## QUICK START GUIDE

- > Attach the adapter if needed to plug into your source
- > Turn on all upstream equipment; run outputs at minimum
- > Adjust volume to appropriate level
- > Enjoy

## SPECIFICATIONS

- > **STYLE:** Over ear, open back
- > **TRANSDUCER TYPE:** Planar magnetic
- > **MAGNET TYPE:** Neodymium N50SH
- > **FREQUENCY RESPONSE:** 30Hz-30kHz
- > **THD:** <0.1% @ 100dB
- > **MAXIMUM POWER:** 5 WRMS
- > **MINIMUM POWER:** >100mW
- > **RECOMMENDED POWER:** >250mW
- > **MAXIMUM SPL:** >130dB IEC-318
- > **SENSITIVITY:** 104.5dB/10mW in sealed test
- > **SPEAKER DIAPHRAGM:** 95mmx70mm, 21 micron PET
- > **IMPEDANCE:** 32 ohms
- > **WEIGHT:** 480g