



ATR series - 1/2" MUSIC MASTERING HEADS

for the **AMPEX ATR-100**

- *Extended Response*
- *Extended Life*
- *Ultra-low Distortion*



Engineered for Superior Performance

It is well known that the effects of design, materials, and construction have everything to do with the perceived and measured sonic performance of an inductive device. In this respect, magnetic heads and audio transformers are much alike. Given the option, most audio professionals wouldn't consider placing an inferior transformer in the signal path. The same consideration should apply to magnetic heads. If you are using an **Ampex ATR-102** for its great analog sound, you need to check out the **EMC** magnetic head option.

With over 20 years experience in the design and production of magnetic heads for all types of recorders, **EMC** is pleased to introduce a set of long life heads expressly designed for superb quality, half-inch music mastering. Designed & built by **Clay Whetstone** of **Electro Magnetic Components, Inc.**, in cooperation with **Jeff Gilman** of **MDI PrecisionMotorWorks**, EMC heads provide a superior sounding, longer lasting option for the widely used **Ampex ATR-100**. A unique, tape-friendly elliptical contour and a patented combination of materials, provides intimate tape-to-head contact, reduces friction and improves tracking. Gap placement is held to the very tightest tolerances to virtually eliminate "scatter" and maintain nearly perfect phase integrity. Long life is assured without the use of "questionable sounding" glass bonded ferrite. (see page 2) Complete erasure is achieved with a highly efficient metal head having its origins in the film industry. Depth of erasure measures at least -4 dB down from the closest competition!



Overall, **Electromag** heads exhibit lower distortion, better high frequency stability, lower crosstalk and essentially non-existent head "bumps". The wide, extended response head pushes the low end a full octave below 40 Hz at 30 ips (-3 dB @ 22 Hz). Comparative response and distortion curves (*on page 2*) clearly demonstrate the electrical excellence that **EMC** products are known for. **Electromag** can retrofit their heads electrically and mechanically to **most 1/2" recorders** and provide azimuth adjustment for models that use fixed base mounting.

Experience the lack of coloration and the transparency of first rate design and construction.

Experience the sound of EMC!

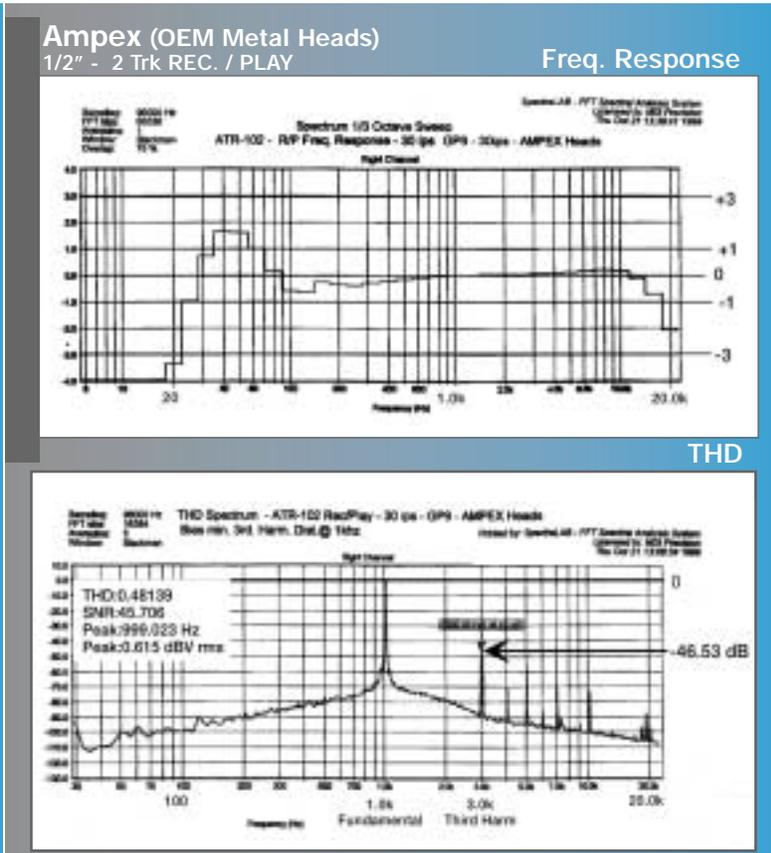
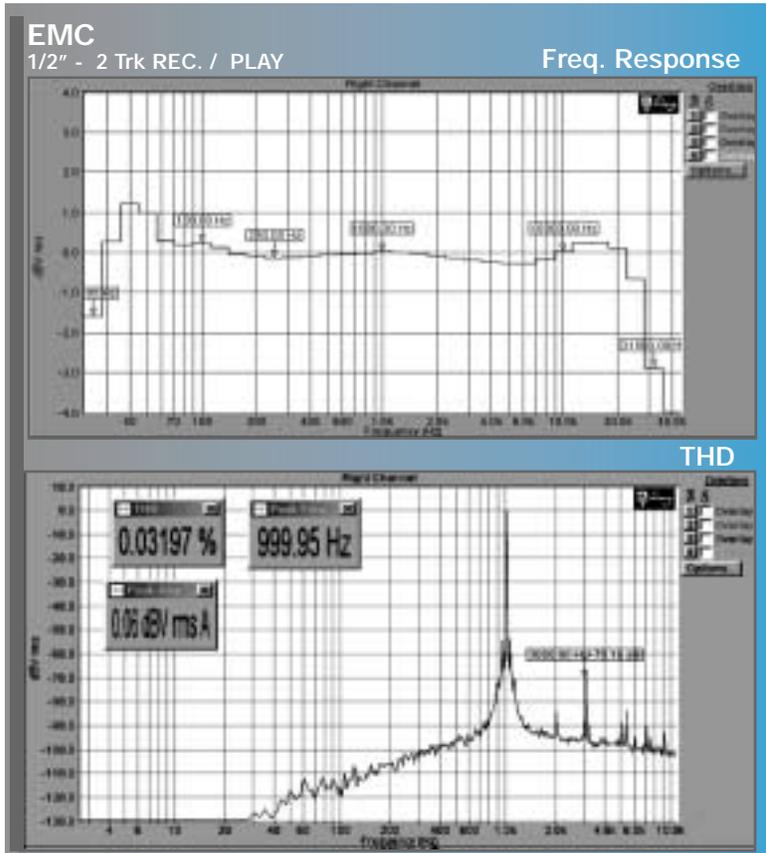
Retail Pricing:

1/2"- 2 Track EMC Erase	\$595.00
1/2"- 2 Track EMC Record	\$675.00
1/2"- 2 Track EMC Play -Ext. Response	\$775.00
1/2"- 2 Track EMC Play -Std. (Optional)	\$675.00
• Replacement "face" for any of the above - 1/2 price.	



Engineered for Electrical Excellence

Electromag has engineered a unique design to minimize low frequency "bumps" and maintain flat response to 30 kHz (-3 dB). The FFT response curves below were produced using a stock ATR-102 with standard I/O modules. Recording was at 30ips using Quantegy GP9 at a flux level of 355nWb. In both cases, bias was set for min. 3rd Harmonic Distortion at 1 kHz. These curves show the flat frequency response and low THD of EMC heads.

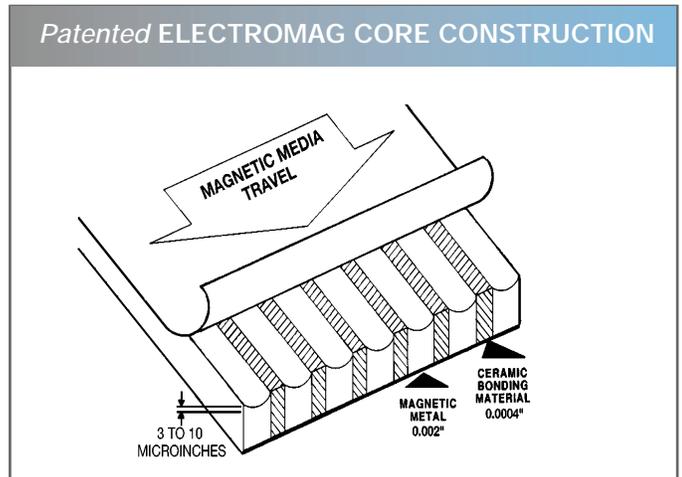


A comprehensive set of tests, and a free comparative demonstration CD is available. Contact MDI PrecisionMotorWorks.

Engineered for Extended Life

Electromag's patented manufacturing process uses ceramic materials as the bonding agent between layers of magnetic metal in place of the epoxy used in common soft faced heads. The long wearing ceramic produces a core that is stress free and displays the ideal magnetic properties of the virgin magnetic material used to design recording systems.

As shown in the illustration, the tape travels across the head parallel to the laminations and wears the softer magnetic metal down 3 to 10 microinches. This leaves the ceramic slightly elevated providing a long wearing surface to support the magnetic media throughout the life of the head. The 10 microinch separation loss is negligible at audio wavelengths.



EMC manufactures heads for most professional audio & film recorders in 1/4"-2" widths.
Custom heads and configurations are a specialty.

emc@electromag.com

ELECTRO MAGNETIC COMPONENTS, INC.

www.electromag.com

AMPEX ATR-100 Series ElectroMag Heads
are available exclusively from:

PrecisionMotorWorks

Motion Control Products & Services for Audio, Video and Film

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