



## New Product Information

### Exclusive ESOTERIC magnesium diaphragm technology meets elegant British engineering. The world's first all magnesium diaphragm two way loudspeaker system! (\*)

ESOTERIC® is proud to introduce a new speaker line, incorporating a new technical application of magnesium alloy (96% Mg), diaphragms for individual driver components. The MG-10 (bookshelf system) and MG-20 (floor standing system) use a Mg alloy for both woofer (including center cap) and tweeter diaphragms. ESOTERIC's design is then produced in conjunction with NIPPON KINZOKU Co., Ltd. The Mg diaphragm features exceptionally high resolution with crystal-clear transparency, being free from metallic and paper coloration, thanks to magnesium's high internal energy dissipation.

This new Mg technology was designed by ESOTERIC's engineering department and manufactured jointly with NIPPON KINZOKU. Final assembly takes place under ESOTERIC supervision in the U.K. by world-renowned British manufacturer, TANNOY Ltd.

The Esoteric speaker line is an integration of proprietary diaphragm technology, newly developed sound engineering expertise and state of the art British assembly techniques.



**MG-10** shown with STD-MG10



**MG-20** shown with STD-MG20

### Mg Alloy Diaphragm Technology

Note: Both stands are optional and are special order items

The Mg diaphragm is a truly innovative technology, featuring extremely high sensitivity, exceptionally smooth transient response and crystal-clear acoustic transparency.

- Lightweight diaphragm implementation is essential for high fidelity reproduction. This design allows delicate information recorded in the source to be reproduced without coloration. Mg is an extremely lightweight industrial metal. The Mg diaphragms are highly sensitive and provide extremely fast acoustic response.
- Mg has the highest specific intensity and rigidity among industrial metals. The attack of instruments is very sharp and crystal-clear thanks to ultra fast sonic propagation, (which is about three times faster than conventional paper cones!). Mg cones reproduce precisely the subtlest of musical information, providing a deeper and wider sound stage.
- The highly rigid Mg woofer cone provides a precise piston motion and greatly reduces distortion.
- Mg has a superior vibration absorption quality (higher internal loss), as compared to other conventional metals. This provides outstanding resonance control capability. The use of Mg cones and caps has a very natural sound character, free from metallic or paper resonance. This proprietary application eliminates the coloration often associated with the use of other materials.
- The ESOTERIC Mg woofer cone is damped by an extra-thin two layer coating (organic membrane with ceramic coating) and resonance control corrugation providing higher anti-resonance capability. This coating and corrugation technology is truly essential to maximize Mg performance.

## ESOTERIC Proprietary Systems Component Design with British Sound Engineering and Manufacturing

Final acoustic engineering of the new ESOTERIC® speaker line is supervised by Mr. Alex Garner, the technical director of world-renowned British manufacturer, TANNOY Ltd.

The 6.5 inch driver unit is assembled on a substantial die cast chassis and driven by a large ferrite magnet, providing exceptional power handling capability and dynamic range. Large excursion of the Mg cone area, specially treated and corrugated to absorb internal resonance, has a precisely engineered shape providing optimum dispersion of audio frequencies (at both the high and low end of the spectrum). The Mg cone is controlled by the surround which provides optimum compliance and linearity at all volume levels.

The high frequency Mg driver allows a wide dynamic range providing superb transient performance with very smooth and uncolored response. Formed by a specially developed process for piston production, with a very high stiffness to mass ratio, the optimized ceramic coating of the high frequency driver's Mg alloy diaphragm provides exceptional durability. The driving force for the diaphragm is a low mass, precision layer copper coil, energized by a powerful neodymium magnet. The tweeter has a damped cavity rear chamber to improve low end tweeter response. The diaphragm is also able to 'breathe' into the cavity and the cavity is damped with absorbent acoustic foam.



ESOTERIC's total system architecture provides true to life performance with an open, coherent and utterly involving soundstage. Effortless bass dynamics, open midrange and meticulously detailed high frequency response is assured.

ESOTERIC's carefully designed crossover network exhibits true audiophile qualities. All components are high precision, low-loss and thermally stable. For high frequency feed a UK made ICW polypropylene audio grade 'ClarityCap' capacitor is used, providing leading edge sonic consistency; exceptional dynamics, focus, correct timbre and depth of field. Enlarged and laminated silicone steel core inductors are used to avoid acoustic saturation effects. The network component is hard wired and there is no PCB board to degrade sound quality. Top quality van den Hul silver coated wiring is used throughout for complete integrity of the signal path.

The bi wire terminals on the rear panel features an "earth," or grounding point. With the driver chassis grounded, this proven technology minimizes the effects of RF interference and results in a more transparent midrange.

Utilizing proven acoustic benefits of a trapezoidal cabinet design, ESOTERIC's new speaker line bears a hallmark of traditional craftsmanship combined with a more contemporary feel. Specially selected birch (front baffle: T25mm), with American cherry wood veneer is used for finishing the cabinet. The solid American cherry wood side rails provide strength and rigidity, joining the front baffle to the cabinet, creating a very high quality finish. The combination of heavily damped materials, comprehensive internal bracing and non-parallel side panels, all help to alleviate the problems associated with standing waves. This custom design helps the speaker to be free from unwanted resonance.

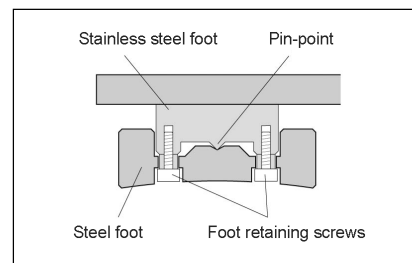
Each component of the ESOTERIC speaker line complements one another to deliver an audiophile loudspeaker that runs true to the highly respected reputation of ESOTERIC.

### Options for MG series [STD-MG10 stand / STD-MG20 base]

Option stands and bases are now available. These heavy duty stands and bases are designed exclusively for ESOTERIC's MG series and feature material composite resonance control. This technology improves the performance of the innovative MG series loudspeakers.

STD-MG10 and STD-MG20 uses extra-heavy 15mm solid aluminum base plates with ESOTERIC's proprietary 3 pin-point feet system. STD-MG10 uses precisely machined duralumin speaker base plates on top. Resonance control steel plates are added to these speaker bases for better resonance control ability. STD-MG10 uses 100 mm steel column, which is heavily damped with Teflon powdered polypropylene grain helping to reduce metallic resonance of the column.

STD-MG10: 621 (H) x 260 (W) x 310 (D) mm / 12.8 kg  
 STD-MG20: 36 (H) x 260 (W) x 310 (D) mm / 3.9 kg



| Main Specifications            | MG-10  | MG-20  |
|--------------------------------|--|--|
| CABINET DIMENSIONS (H x W x D) | 440 x 216 x 271 mm (17-5/16 x 8-1/2 x 10-11/16")                       | 1060 x 216 x 271 mm (41-3/4 x 8-1/2 x 10-11/16") |
| ENCLOSURE VOLUME               | 13 liter   | 21.5 liter                                       |
| ENCLOSURE TYPE                 | Reflex   |  |
| ENCLOSURE WEIGHT               | 7.5 kg (16-1/2 lbs)  | 15 kg (33 lbs)                                   |
| RECOMMENDED AMPLIFIER POWER    | 20 to 120 watt per channel   | 20 to 170 watt per channel                       |
| POWER RATING                   | 75 watt RMS  | 90 watt RMS                                      |
|                                | 300 watt peak  | 360 watt peak                                    |
| SENSITIVITY                    | 87.5 dB for 2.83 volt at 1 metre, half space                           | 89 dB for 2.83 volt at 1 metre, half space       |
| NOMINAL IMPEDANCE              | 6 ohm  |  |
| MINIMUM IMPEDANCE              | 3.8 ohm  | 3.7 ohm  |
| FREQUENCY RESPONSE (-6dB)      | 41 Hz - 44 kHz   | 38 Hz - 44 kHz                                   |
| CROSSOVER FREQUENCY            | 1.9 kHz  |  |
| CROSSOVER TYPE                 | 2nd order LF, 3rd order HF. Bi-Wired, Hard-Wired passive, low loss.    |  |
| DRIVER TYPE                    | 165mm (6-1/2 ") magnesium cone LF                                      | 2 x 165mm (6-1/2 ") magnesium cone LF            |
|                                | 25mm (1/2 ") magnesium dome HF   |  |
| CABINET CONSTRUCTION           | High density birch plywood. Internally cross braced and heavily damped |  |

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